

Sandra Diehl

Matthias Karmasin *Editors*

Media and Convergence Management

 Springer

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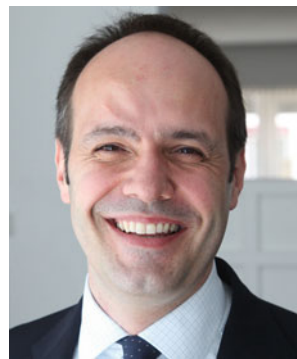
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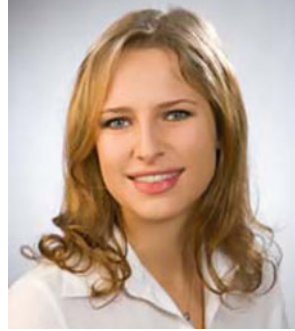
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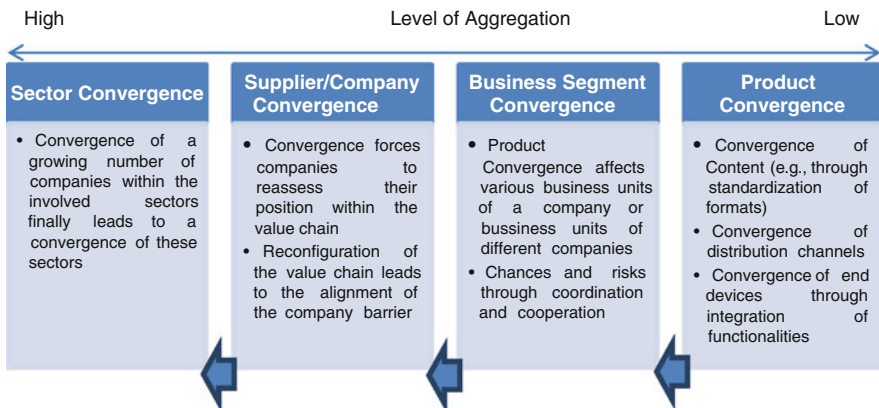
His publications also include more than 50 journal articles and book chapters.

His main interests are strategic media, culture and communication, convergence, mediaeconomics, mediaculture, and, in particular, media development.



Sandra Diehl and Matthias Karmasin

Convergence, derived from the Latin word *convergere*, is a word that has gained an enormous amount of attention within the last years. It is used to describe the merging of formerly distinct functions, markets and fields of application, further changing the way companies operate as well as how consumers perceive and process (media) content. Four aggregation levels of convergence can be distinguished (Wirtz 2011: 52).



As a consequence, these transformations have led all kinds of business practices to change—at times even dramatically—requiring companies to adapt to new structures and parameters. This trend has had a lasting impact in the past not only on companies but also on the academic sector.

The main purpose of this reader lies in shedding some light on the most common and crucial phenomena of media and convergence management in general, while

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also revealing some more specific issues brought about by innovations of all kind, may they be technical, technological, and so forth. Universities have started to develop new degree programs in which the most important challenges are addressed. In the course of their education, students are communicated those tasks that will matter most in a future environment that will converge even further.

The book is meant to be a useful reference guide for students and practitioners alike, as they are all affected by convergence processes. It follows a strong interdisciplinary approach and gathers insights from renowned academic researchers, who are experts in their fields. Convergence is a phenomenon which concerns numerous areas, such as media, technologies, industries, business models, consumer behavior, and content management.

Hence, the current text book will be subdivided into different sections, each focusing on different yet not least important aspects of convergence and reflecting the variety of related topics. Since the topics' approaches are multifold, contributions are grouped accordingly and attempt to discuss the central issue from a variety of angles, such as:

- Strategic management
- Advertising and marketing
- Consumer behavior
- Technology
- Journalism

The reader's first section is concerned with **strategic management**, covering the areas of a firm's long-term mission achievement in general, as well as strategy development and resource allocation in particular. Thereby, decisions primarily concern a company's goal formulation as well as strategy development and implementation in the end.

Erich Schwarz and *Veronika Gustafsson* attend to the topic of how business modeling is affected by trends of convergence. The authors establish similarities to earlier trends and, furthermore, link it to different forms of convergence by evaluating both advantages and disadvantages to the specific field. They conclude by presenting the reader with appropriate and suitable means for creating a successful business model, taking current trends of convergence into account.

Fredrik Hacklin, *David Klang*, and *Pius Baschera* approach the topic from a similar angle by taking a closer look at how industries (and industrial sectors) are doomed to transform due to convergence. In this context, they claim that business models need to present a firm's focus and are required to be adapted accordingly to fit both changing environments and market conditions.

In their article, *Thomas Hess* and *Christian Matt* set out to illustrate convergence's impact on businesses' value chains and creation processes. Further, they discuss how the advancement of communication has led to considerable and significant changes in business model perceptions, affecting diverse players throughout the industry.

Christian Scholz and *Stefanie Müller* cope with the topic from a different point of view, paying attention to convergence in the area of Human Resource Management. They inquire how companies treat this important area in the time of convergence and

suggest the CUBE model as an ideal concept to respond to the trends of our times. They also look at its impact on employees and media management practices, while concluding with some potential strategies that might be of use to the topic.

Friederike Wall and *Gernot Mödritscher* address convergence's influence on controlling, paying tribute to how changing conditions have led to the development of new innovative products and new dynamic markets alike. Hence, these are of concern to both strategic and operative controlling and essential for management and business decisions, influencing a firm's effectiveness and success in the long run.

The second section is composed of articles investigating how the fields of **marketing and advertising** communications are concerned with trends of convergence.

Barbara Mueller and *Charles Ray Taylor's* contribution centers on convergence's influence on both global industries in general and consumer segments in the global marketplace in particular. Thereby, they evaluate the suitability of (culturally) localized and standardized strategies in international marketing and advertising strategies/communications, concluding to which extent (and if at all) any approach is specifically recommended in times of cultural convergence.

In his chapter, *Edward C. Malthouse* deals with how marketing practices have changed and splintered into numerous separate subdisciplines, such as advertising and direct marketing, which are now starting to re-converge. His approach suggests a reciprocal exchange and influence, advising businesses to draw strength from each individual subfield.

Hilde Voorveld, *Edith Smit*, and *Peter Neijens* shed some light on the execution of cross-media advertising and promotional activities in the era of convergence. Thereby, they differentiate between four forms, namely target group extension, complementary effects, repetition, and synergy. The authors also examine to which extent and with what effect/outcome respectively different media platforms are utilized by firms to communicate their advertising messages to their (prospective) consumers, regarding media synergy as the concept's main advantage.

Tobias Langner, *Philipp Brune*, and *Alexander Fischer*, for instance, talk about the challenge of managing brands in an environment characterized by constantly blurring boundaries. As the media (and advertising) clutter increases, companies are forced to design their messages in an especially appealing way to reach (prospective) consumers. Moreover, they refer to customers' emerging roles as *prosumers*, a term considering the audience's dual position as both producers and consumers of content.

Consumer Behavior is elaborated in more detail in the third section.

Consumer behavior and convergence are highly dependent upon each other and are debated by *Ralf Terlutter* and *Martina Moick*. The researchers discuss how transformations in the TIME (telecommunications, information, media, and entertainment) sectors have led to changes that require companies to rethink their supply and value chain processes. In this context, both lifestyle attributes and the technology acceptance model must not be left out of sight.

The issue of media-multitasking is elaborated on by *Verolien Cauberghe* and *Snezhanka Kazakova* from the standpoint of cognitive psychology. The authors assume a current shift in consumer usage behavior to occur, conditioned by convergence, both technological and medial. They also draw some conclusions with regard to media content's cognitive processing and identify implications for both managers and practitioners likewise.

The contribution by *Uwe Hasebrink* and *Sascha Hölig* deals with audiences' conceptualizations in convergent media settings. Taking an established audience research model as a starting point, the authors illustrate how people's media repertoires have changed due to convergence. They introduce the term "communication mode" in order to describe contemporary usage behavior, further elaborating on simultaneous media use and content detachment from original devices.

Convergence and its relation to **technical, technological, and industry-specific developments** are treated thoroughly in the reader's fourth section.

Hermann Hellwagner examines the interconnection between media convergence and technological developments, using the key terms of *technology push* and *application pull*. He concludes by alluding to how immersive communication and mixed-reality systems are predicted to serve as examples of communication's future developments.

In his contribution, *John Gathegi* discusses how convergent technologies have influenced human interaction and socialization. He thereby refers to the *Internet of Things* and does not neglect the potential and threats this new convergent technology holds.

Shintaro Okazaki and *Felipe Mendez* dedicate their article to another specialized topic, namely mobile marketing. In particular, this specific field has gained prominence due to its ubiquitous presence, allowing advertisers to benefit from its many advantages, such as immediacy, reachability, and continuity. According to the authors, the concept is said to have a promising future and is expected to become even more essential.

Paschal Preston and *Jim Rogers* put their chapter's specific focus on the digital music industry, alluding to the changes brought about by convergence in general and technological innovations in particular. They talk about a crisis, called forth by current trends of digitalization and piracy and introduce some suggestions of how to overcome these threats.

In a similar manner, *Carsten Winter* exemplifies in his chapter how recent developments have had an impact on today's music industry. He describes how the value chain creation has been altered because of consumers' evolving roles: they utter a demand (pull-strategy) for music instead of solely waiting for music offers (push-strategy) on behalf of industry executives. Thus, they have started to act as partners and coauthors in the (digital) music production process, changing the industry at its very core.

The fifth section investigates convergence's impact on present-day **journalistic practices and society**.

Andy Kaltenbrunner and *Klaus Meier* debate media convergence's implications on present-day journalism practices. In detail, the authors inquire how newsroom

working routines are influenced by the transformation of the media's formerly separate realms (online and offline journalism), illustrated through the example of cross-media storytelling. Thereby, they do not miss to also integrate convergence's consequences to the profession itself.

Birgit Stark tackles the topic of interactivity that is typical of present-day convergent media settings, explaining how the role of both producers and consumers has changed as well as evolved. She observes the specific example of online journalism practices and how they are affected by technological developments as a result of convergence. Further, she does not miss to come up with some recommendations for businesses as to how to evaluate the patterns that have an impact on both businesses and consumers.

The relationship between convergence and corporate social responsibility (CSR) is looked upon by *Anke Trommershausen*, who sets out to develop a (complex) stakeholder management concept that is meant to live up to today's convergence trends. She turns to two new concepts: a network theory and a Communication Power concept, which are regarded as appropriate to the subject at hand.

In their contribution, *Katharine Sarikakis* and *Joan Ramon Rodriguez-Amat* look at how processes of media convergence affect regulatory practices in the media industry and well-established notions of democracy and citizenship respectively. They discuss the impact of globalization and related concepts, such as cultural change and policy making, in order to illustrate the relevance of public policy and governance to manage multiple and complex present-day challenges.

In the book's last chapter **future outlook**, *Sandra Diehl*, *Matthias Karmasin*, *Andrea Leopold*, and *Isabell Koinig* elaborate on future trends and how convergence has led to significant changes in managers' professional profiles. Classical and traditional management competencies prove to be insufficient when it comes to dealing with new and technologically advanced workplace situations. As a consequence, those skills need to be adapted or even overcome—meaning they are substituted with new competencies that fit the present and future requirements of a mediatised and converged work environment.

The editors wish to thank all authors for their willingness to contribute to this textbook. We also want to express our gratitude to *Isabell Koinig* for her multiple help in organizing the revisions and the textbook. It is our hope that academics, students, and practitioners alike find the book both enjoyable and stimulating. If the material presented in this textbook generates new insights, constructive debates, and subsequent investigations, then we have accomplished our goal.

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Part I

Convergence and Strategic Management

Veronika Gustafsson and Erich J. Schwarz

The man who will use his skill and constructive imagination to see how much he can give for a dollar, instead of how little he can give for a dollar, is bound to succeed.
Henry Ford

Chapter Objectives

1. To understand the development of convergence as a concept and its interconnection with earlier business activities
2. To understand the complexity of business model concept
3. To understand that business models in modern businesses presume convergence of technology, stakeholders and value creation
4. To be able to create an appropriate business model for a convergence-based company

2.1 Introduction: A Morning with Convergence

On a fine spring morning a runner is preparing for a work-out. He still munches his energy bar as he steps out of the door; the sky is almost cloudless and his running path brings him high up to the hills. Now and then he is checking his progress on his watch. It's a fairly complex device, which shows altitude, a runner's position, speed, heart rate and what not; oh, and it looks stylish enough.

Now it's time for a rest and early morning news, so our runner stops and switches his smartphone from playing music on his Spotify playlist to FM-radio mode. In the wide world everything is as it used to be, but here, high above the small city the

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scenery is so beautiful and serene that our runner cannot help taking a picture. With his smartphone, of course. Then a squirrel's antics catch his eye, so for a minute or two the phone's camera is switched to video mode.

His morning tour complete, refreshed and energised, the runner is on the way home.

Suddenly he recalls that he has run out of orange juice. Luckily, a small petrol station is just behind the corner; our hero steps in and quickly picks up a carton of fortified juice. The small shop is full of people, majority of them buying fresh rolls and pastry for breakfast; to kill time while waiting in line the runner plays with his smartphone again. This time he is in the mind for newspapers. . .

Now, let us for a moment forget about the runner and discuss the previous paragraph. It demonstrated several examples of convergence, including convergence of industries and convergence of devices/products. Moreover, in our examples we could see convergence of both media and non-media related issues.

2.1.1 Convergence of Device or Product

Examples of convergence products (or convergence devices) are quite numerous; you can easily identify them in the description above: it is, of course, a smartphone which combines the functions of mobile telephone with the possibility to take photo and video pictures, listen to FM-radio and access the Internet. If proper apps are installed, it becomes possible to use Spotify or read newspapers online. In other words, a convergence product, as a smartphone, is "a digital-platform product bundle that physically integrates two or more digital-platform technologies into a common product form." (Han et al. 2009, p. 97)

Quite often convergence products also involve convergence of media. For example, an online newspaper can be quite different from its paper counterpart. First and foremost, it is often interactive. One click will bring you from the text of an article (which is quite similar to a paper version) to the comments, where you can interact with other readers (something which is quite impossible for the "old media"). Majority of online newspapers and magazines now incorporate video and audio clips, blogs and multimedia charts; most of them also provide apps to be accessed from smartphones and tablet PCs. Here we can also see convergence of content, as well as of media: news, sports, weather forecast, book reviews etc., and everything is (or can be) interactive.

However, convergence products do not necessarily presume convergence of media. Let us take as an example the sport watch from the runner's story above. This is a digital device which incorporates a watch, a stop-watch, a GPS, a calorie-counter, a transmitter and receiver (e.g. for exchanging data with the heart-rate measuring device), a USB port, etc. Usually such watches are controlled by special software which should be downloaded to your PC and which provides an array of extra opportunities: from devising your favourite running tours to creating a work-out programme (which is an example of content convergence).

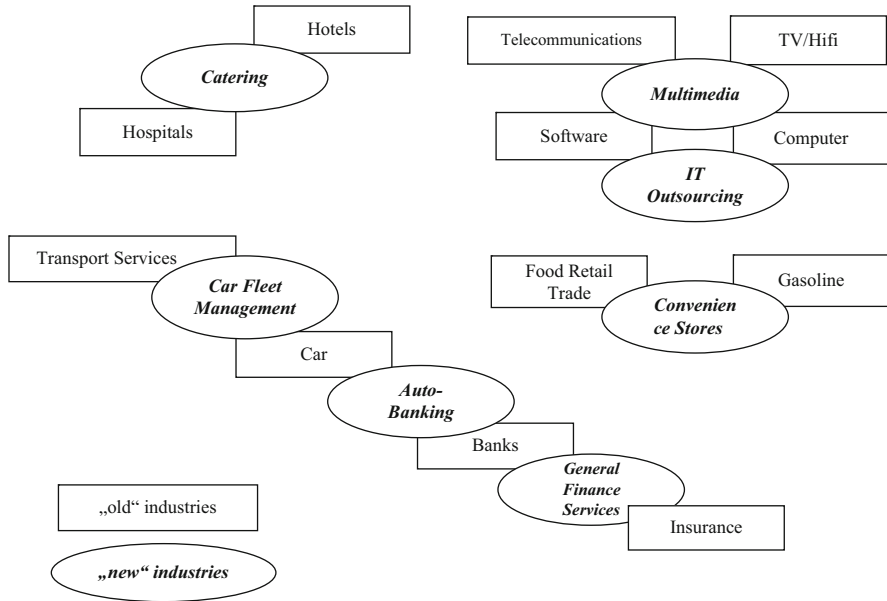


Fig. 2.1 Examples of industry convergence. Adapted from Lechner (2003, p. 309)

2.1.2 Convergence of Industry

So, the characteristic feature of convergence products like those described above is incorporating several devices in one. Often enough all these constituent devices are products of the same (digital) industry; yet at times they come from industries as different as TV production, software engineering and newspaper printing, as in case of online newspapers, and then we can speak of industry convergence. According to Bröring et al. (2006, p. 487), “industry convergence, defined as a ‘blurring’ of boundaries between industries, induced by converging value propositions, technologies and markets. . .lead to the emergence of inter-industry segments.” Although industry convergence has been mostly studied in the fields of computing, communication and consumer electronics (Wirtz 2001; Chon et al. 2003), convergent industries and products they produce are much more numerous. Prahalad (1998) mentioned the emergence of personal care products, such as body lotions, and the so-called “cosmeceuticals”. These products appeared as results of convergence with the pharmaceutical industry, when manufactures of personal care products emulated technologies and industry norms of pharmaceutical industry.

Also a new segment, the so-called nutraceuticals and functional foods are results of convergence between the food industry and pharmaceuticals. Manufacturers in the emergent convergence sector would apply similar (or the same) technologies, similar regulatory requirements and even pharmaceutical-style clinical trials.

Figure 2.1 can provide more examples of industry convergence.

2.2 Convergence: Back to the Future

Convergence is a fairly modern idea; however, its underlying principles may be 1,000 years old. Modern examples, such as nutraceuticals and functional food (energy bars and fortified orange juice), which provide additional nutrition and health benefits, are sophisticated products of convergence in two industries: pharmaceutical and food industry.

Still, foods do not necessarily have to undergo complicated technological process to become especially nutritious or to obtain medical properties. A carrot becomes rich of vitamin A and a lemon is rich of vitamin C without any additives and, as such, both are particularly beneficial for health.

Chinese diet therapy (which is at least 3,000 years old) has always considered nutritious and medical property of all food stuff; therefore Chinese nutritionists would recommend appropriate foods depending on the age (childhood, middle age or advanced age) and time of the year (as each season had its specific characteristics, foods were to offset their potential negative influence and bring a person in harmony with the nature) (Kastner 2009).

Convergence products, even though they are a fairly recent phenomenon, have a clear predecessor in business strategy called product bundling. According to Bakos and Brynjolfsson (1999, 2000), bundling is especially efficient for digital “information goods,” like software, which also have close to zero marginal cost. When you buy Microsoft Office software package, you buy a product bundle of a word processor, a spreadsheet, a database, a presentation software, etc. Similarly, Windows operative system is a bundle of an operative system proper and a web browser.

Yet product bundling occurs not only in software industry. This strategy is common whenever manufacturer can exploit economies of scale and scope, with low marginal costs of bundling and high costs of production set-up. Here come more examples familiar to everybody: cable TV providers, which bundle different channels into a package or travel agencies, such as ClubMed, with all-inclusive holiday packages which bundle travel, airport transfer, accommodation, food, drinks and entertainment.

Since we have already mentioned industry convergence, let us point out that it is not entirely novel either. Although not as old as Chinese philosophy and diet therapy, business activities similar to industry convergence were in use since about a century ago. Henry Ford’s strategy would provide a striking example.

Henry Ford is by right considered one of the fathers of modern automobile industry. According to King (2008), in October 1908 Ford announced his intention to “build a car for the great multitude.” At the same time the Ford Motor Company started manufacturing its first mass-produced automobile called the Model T, which revolutionised transportation and much of the American industry.

Fifty years prior to Ingvar Kamprad and IKEA, Henry Ford had shipped his cars disassembled, in kits, to be assembled on regional sites in large cities. Later on Ford had innovated the manufacturing and started shipping complete cars; yet

convergent thinking stayed on his mind and in his business philosophy (or became part of his business model, as we would say today).

Ford sold his cars through an extensive franchise system, and a dealership existed all over North America and in major cities all over the world. Customers who could not afford the price of the car could take a loan from the business's financial division, which Ford had created to cater for such needs (King 2008).

2.3 Convergence Today: New Technologies, New Thinking, New Business Models

And yet, even if processes similar to convergence, like product bundling, are not especially novel (or, sometimes, are really ancient practices), it would be rash to assume that modern convergence is entirely similar to the predecessors. In fact, it is quite different. Convergence products are more complex and sophisticated than product bundles. Compare, for example, a sport watch described in the Introduction section with a Microsoft Office package, even though both are, in a way, digital products. In a similar way, we cannot really compare a bundle of TV channels from a cable TV provider with such a complex product as an online newspaper, which is a result of sophisticated technology (e.g. software engineering and computer TV) and complex interactive content.

In other words, what makes industry or product convergence so different from previously existing phenomena is entirely new thinking. Convergence industries and convergence products are not mere results of radically novel technologies; most importantly, they support innovative business models. 3D printing would be an ultimate convergence example, because it does not just bring together several industries (i.e. design and manufacturing, while radically transforming the latter), but it also incorporates consumers into the very process of manufacturing, turning them into “prosumers.”

Product bundling offers another example. As we already mentioned, bundling is most beneficial for high volume and high margin products, especially when demand is heterogeneous. In this case, the manufacturer does not have to be especially customer-oriented; in fact, a bundle of products with inferior quality can drive off the market a bundle of superior quality products (Bakos and Brynjolfsson 1999, 2000). In oligopolistic and monopolistic markets, where bargaining power is shifted towards manufacturer, bundling can become an abuse of market power, due to the limited choices available to consumers.

On the contrary, convergence products are often customer-centric and presume integration of several technologies. As such, they are products of entirely different business models, which are based on value creation not only for the focal firm, but for all its stakeholders (i.e. suppliers, partners and customers). Such business models often incorporate innovative technologies, but for them technological innovation is no longer the core; rather, all business model components can become innovative (Amit and Zott 2001).

2.4 Business Models: Convergence of Technology, Stakeholders and Value Creation

So, to begin from the beginning—what is a business model? According to Henry Chesbrough and Richard Rosenbloom, a business model performs the following functions:

- “Articulates the value proposition (i.e. the value created for users by an offering base on technology)
- Identifies a market segment and specifies the revenue generation mechanism (i.e. users to whom technology is useful and for what purpose)
- Defines the structure of value chain required to create and distribute the offering and complementary assets, needed to support position in the chain
- Details the revenue mechanism(s) by which the firm will be paid for the offering
- Estimates the cost structure and profit potential (given value proposition and value chain structure)
- Describes the position of the firm within the value network linking suppliers and customers (incl. identifying potential complementors and competitors)
- Formulates the competitive strategy by which the innovating firm will gain and hold advantage over rivals.” (Chesbrough and Rosenbloom 2002, p. 529)

So far, so good; yet other research of business model would provide quite different definitions. This is unfortunate, because business model is a concept highly relevant for practitioners; let us now find out what is going on in the research field of business model and why this concept seems to a certain extent under-researched.

2.4.1 Business Model: Research Overview

The most comprehensive literature review on business models has been very recently published by Zott et al. (2011). The authors arrived to the conclusion that the study field, despite being in existence for about 20 years is still quite dispersed. The number of research papers in peer-reviewed (especially high-ranking) journals is still insufficient to create an ample body of research and enable theoretical integration and conceptualisation of the field, although practitioner-oriented publications target a broad array of sectors, technological innovation and management taking a prominent place.

Another factor which makes theoretical conceptualisation of the field more difficult is disjointed empirical contexts of studies. Indeed, the biggest part of the extant literature on business models examines the field of e-commerce, other industries and business sectors being somewhat neglected.

The third factor which categorises business models as a research field still in emergence is the absence of a clear, universally accepted definition. According to Zott et al. (2011), more than one-third of the articles the authors surveyed did not provide any explicit definition of the concept and quite often, while referring to business model, different authors actually mean different concepts. In other words,

“the business model has been referred to as a *statement* (Steward and Zhao 2000), a *description* (Applegate 2000; Weill and Vitale 2001), a *representation* (Morris et al. 2005; Shafer et al. 2005), an *architecture* (Dubosson-Torbay et al. 2002; Timmers 1998), a *conceptual tool* or *model* (George and Bock 2011; Osterwalder 2004), a *structural template* (Amit and Zott 2001), a *method* (Afuah and Tucci 2001), a *framework* (Afuah 2004), a *pattern* (Brousseau and Penard 2006) and a *set* (Seelos and Mair 2007)” (in Zott et al. 2011, p. 1022).

All these issues point out that the field requires (a) growing body of research which would investigate the concept of business model across a variety of empirical contexts (and not only within e-business) filling in multiple research gaps; (b) conceptual consolidation and theory-building growing from the cumulative body of research and (c) methodological rigour, including operationalization of the concept.

2.4.2 Business Model Research: Conceptualising the Field

Business model studies can benefit from collaboration with other disciplines. Indeed, business model is a complex phenomenon, a dynamic combination of activities and agents, which is systemic by nature (Zott et al. 2011; Afuah and Tucci 2001). As it concerns not just the focal firm, but its boundary-spanning activities and numerous stakeholders, theoretical conceptualisation of the field might benefit from the following contributions, to name just a few (a) stakeholder theory, institutional theory and network theory, which would highlight the relationship component of the business model phenomenon; (b) transaction costs theory and Michael Porter’s concept of Five Forces, which shed light on the strategy aspects of business model concept and, finally, an overall paradigm of grounded theory could be successfully employed to investigate this complex, holistic and emergent phenomenon. Morris et al. (2005) provide similar arguments, as they conceptualise business models’ study through contributions from strategy [e.g. the value chain, value systems and strategic positioning concepts (Porter 1985, 1996)]; resource-based theory and competitive advantage (Barney et al. 2001), strategic network theory (Jarillo 1995), etc.

Another interesting example is found in the literature on business planning and entrepreneurship (cf. Ardichvili et al. 2003; Brush et al. 2001; Shane and Delmar 2004). Studies within the business planning literature treat the concept of business model in different way, even though they acknowledge (implicitly or explicitly) the interrelation between business planning and creation of business models. For example, Shane and Delmar (2004) pose that a business plan outlines the new venture’s business model; a business model which “makes sense” is an antecedent to successful business planning. Sahlman (1997) implicitly regards business model as a revenue model and a possibility for an entrepreneur to introduce key financial milestones for a business plan. Schwarz et al. (2007) also provide a practitioner-oriented discussion of business model as a part of a venture creation process. Finally, Ardichvili et al. (2003) introduce an all-encompassing approach to business

planning and business modelling; according to these authors, business model development is an antecedent to development of a business plan. Most importantly, the researchers view a business model as a holistic concept, which includes a financial model, and, most importantly, which estimates how the value will be created and distributed among a firm's stakeholders. In turn, a business plan emerges when a business model is supplemented by more elaborate and formal means of analysis and forecast, such as, e.g. formal cash flows and marketing plans.

It is possible to conclude that although business planning and creation of business models are two closely interrelated and partially overlapping processes within new venture creation, they are, nonetheless, distinct from each other.

2.4.3 Business Model Components

Although empirically oriented papers describe components of business models, majority of papers still lack theoretical conceptualisation and analysis of these components. Papers remain to a large extent almost purely descriptive, especially as far as e-business is concerned. Moreover, analysis of business models' components in other sectors is to a large extent lacking.

Unfortunately, business model studies also demonstrate little agreement as far as the number (and nature) of the business model components is concerned. According to a literature review provided by Morris et al. (2005), the number of business model components in different studies varies from four to eight; among the most frequently cited elements are the firm's value offering, economic model, customer interface/relationship, partner network/roles, internal infrastructure/connected activities and target markets (Morris et al. 2005, p. 727). Surprisingly, sustainability as a business model component is only mentioned once, by Afuah and Tucci (2001). Yet a number of practitioner-oriented papers (cf. Nidumolu et al. 2009) regard sustainability as a key driver of innovation, both when innovative technologies and innovative business models are concerned. Table 2.1 provides an overview of business model components, compiled by Morris et al. (2005).

One of the best known and most widely used operationalizations of business models is provided by Amit and Zott in their paper of 2001. The researchers regard business model as an important locus of innovation and a crucial source of value creation not only for the focal firm but also for all its stakeholders, i.e. customers, suppliers and partners. The authors suggest that a business model incorporates four major sources of value creation: efficiency, complementarities, lock-in and novelty.

Efficiency implies that the cost of each transaction (broadly defined) decreases, i.e. the higher the efficiency of a business, the lower its costs and the greater its value. Efficiency includes: search costs, selection range, symmetric information, simplicity, speed, economies of scale, etc. (Amit and Zott 2001, p. 504).

Complementarities mean that goods (or services) bundled together provide additional value compared to the total value of each of goods taken separately. Examples of complementarities would include after-sales services or one-stop shopping or cameras in mobile phones; in other words, these are also examples of

Table 2.1 Perspectives on business model components (excerpts from Morris et al. 2005, p. 728)

Source	Specific components	Number	E-commerce/ general	Empirical support Y/N	Nature of data
Horowitz (1996)	Price, product, distribution, organisational characteristics and technology	5	G	N	
Timmers (1998)	Product/service/information flow architecture, business actors and roles, actor benefits, revenue sources and marketing strategy	5	E	Y	Detailed case studies
Markides (1999)	Product innovation, customer relationship, infrastructure management, financial aspects	4	G	N	
Donath (1999)	Customer understanding, marketing tactics, corporate governance, intranet/extranet capabilities	5	E	N	
Linder and Cantrell (2001)	Pricing model, revenue model, channel model, commerce process model, Internet-enabled commerce relationship, organisational form and value proposition	8	G	Y	70 interviews with CEOs
	Market offering, competencies, core technology investments and bottom line	4	E	N	Consulting clients
Afuah and Tucci (2001)	Customer value, scope, price, revenue, connected activities, implementation, capabilities and sustainability	8	E	N	
Alt and Zimmerman (2001)	Mission, structure, processes, revenues, legalities and technology	6	E	N	Literature synthesis

product or industry convergence. Complementarities are found: between products and services for customers; between on-line and off-line assets; between technologies; between activities, etc. (Amit and Zott 2001, p. 504).

Lock-in is a way to enhance a business's value-creating potential by attracting customers to repeated transactions and by motivating partners to maintain and improve their co-operation. By increasing switching costs lock-in prevents customers and partners from migrating to competitors. Examples of lock-in activities are loyalty programmes, use of dominant design, trust, customisation, use of positive network externalities, etc. (Amit and Zott 2001, p. 504).

Finally, innovation is understood as Schumpeterian innovation, i.e. introduction of new products, services, methods of production, creation of new markets as well as innovative ways to conduct business; in other words, by pursuing innovative methods of transactions or creating innovative business models. Figure 2.2

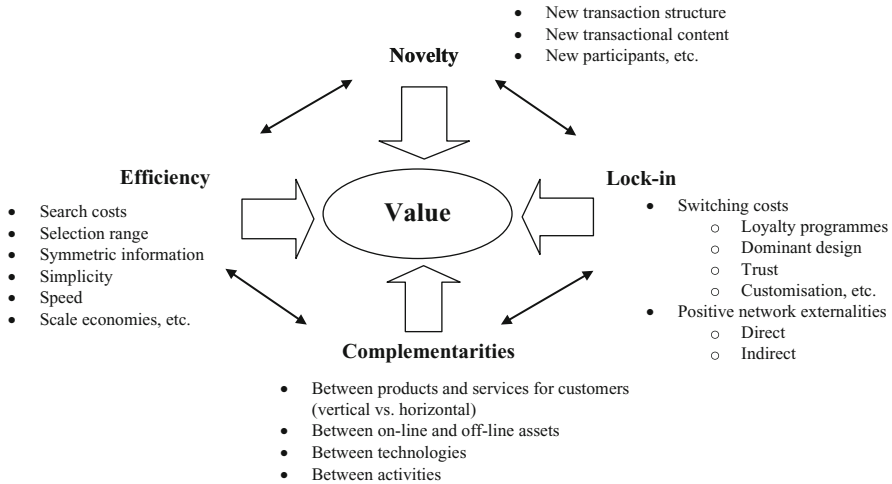


Fig. 2.2 Sources of value creation in e-business (Amit and Zott 2001, p. 504)

demonstrates the interconnection between the four sources of value creation in a business model and also describes the ways by which each of them can be achieved.

2.5 Convergence: Which Business Model?

So, how can a convergence firm willing to implement an innovative business model find its way in the jungle of business model research? Which definition to follow? Which issues to consider? The present section will provide at least tentative answers.

2.5.1 The Tale of Two Models: Complementarity vs. Lock-in

Is Apple's business model viable? Since the company is considered an innovation paragon, the first intuitive answer is very likely to be affirmative, yet let us consider a segment traditionally regarded as Apple's core competence, namely, personal computers.

The company's margin is about 30 %, which bodes well for performance; however, if we consider a market share, another important criterion for performance evaluation, the picture all of a sudden turns to the reverse. In 1999 Apple's worldwide market share in personal computers was about 4 %; in 2006 it dropped down to 2 % and by the end of 2010 it rose again to slightly above 5 %.

However, there is a market where Apple performance just falls short of fantastic. This is a digital music market, where Apple in 2003 introduced a new product—iPod, a radically new service—iTunes . . . and a ground-breaking business model,

which combined the hardware, the software and service, making digital music downloads simple, easy . . . and legal. This kind of innovation yielded immediate and striking results: in just 3 years since its launch the combination came to account for about 50 % of Apple's revenue; in early 2011 iPod accounted for more than 70 % of the market share within digital music player segment.

So, where lays the difference between immense success in one case and years of fruitless struggle—in the other? To make the matter even more complicated, let us bear in mind the fact that in both cases the company has employed an innovative, state-of-the-art technology. The answer is, however, quite unambiguous and spells out business model. Let us consider personal computers first. Even though Apple keeps pursuing technological innovation, which makes a component of the company's business model, in general, the business model can be considered quite outdated. By linking hardware and software together, it narrows down consumers' choice and requires them to keep paying Apple for the annual software updates, otherwise computer performance will suffer. Such a model was en vogue in the very beginning of personal computers' era; nowadays no other software developer or hardware manufacturer uses it any longer. This model provides relatively high profit margins but discourages consumers and severely decreases sales volumes (and hence, market share). However, the model is well in line with the niche market strategy; yet it can be hardly recommended for mass market.

In the case of digital music players, the situation is exactly the opposite. Apple was able to unite innovative technology, as a component of its business model with innovative service, which provided added value for several important stakeholders. First, by creating a large and growing digital music archive and corresponding software (iTunes) Apple gave consumers a one-click possibility to download digital music, films, podcasts and Apps immediately transferrable to their iPods and iPhones as well as to other smartphones, mp3-players or PCs. Second, Apple created a new market segment for the artists and film-makers; as a result, this ground-breaking business model quickly became immensely successful and high market share and revenues followed suit.

So, what conclusions can we derive from the example above? First, that Apple, apparently, employs several business models, with different leading components, and that the same company treats convergence differently in different segments of its product range.

In its core segment—personal computers—Apple apparently leans on lock-in as the leading component of its business model. As was mentioned, such a business model would yield high profit margin, yet it is detrimental if a company strives for increased market share.

As far as the digital music player segment is concerned, Apple employs a radically different business model, with complementarity as the leading principle and a host of convergence products as a result.

Convergence in media would provide similar examples. Let us consider Huffington Post, an online newspaper with the headquarters in the USA and global aspirations, its story being vividly related by *The Economist*. The newspaper demonstrates convergence of media as well as convergence of concept: it

incorporates several different thematic sites (from the environment to weddings) and plans to add an online TV station, with possibilities to continuous studio chat. The newspaper's business model evidently has complementarity as the leading principle, as it prompts the readers to contribute with blog posts (and viewer contributions). Convergence/complementarity principle can be clearly seen, when the newspaper collaborates with the French *Le Monde*, two Italian newspapers—*La Repubblica* and *L'Espresso* and a Spanish one—*El Pais*. Huffington Post contributes with the social media know-how and other newspapers provide access to their readers. And what are the results of the implementation of this business model? Explosive growth and profitability which are quite unlike the newspaper's three main rivals online: the Mail, the Guardian and the New York Times.

2.5.2 Conclusion: A Word of Advice

So, a word of advice for a company engaged in any kind of convergence: mind your business model. Moreover, as we have seen from the examples, complementarity as the leading business model component paves the road to growth and profitability; complementarity here is understood quite broadly, as involvement of customers and other stakeholders.

In Amit and Zott's (2001) model complementarity goes hand-in-hand with novelty or innovation. This would mean not only new technologies and new products, but most importantly, new transaction structures, new transaction contents and new participants (customers and other stakeholders). This is a revolutionary approach, as it permits firms to innovate regardless of their technology status; for example, it opens a road to innovation to service companies, and not necessarily to e-businesses only.

Complementarity and convergence eventually bring strange bedfellows to a firm, yet in the long run this experimentation may turn quite profitable. For example, Choi and Perez (2007) would suggest none the less than teaming up with online pirates. Although quite unorthodox, this advice makes good sense: first, online pirates are usually pioneers of new technology, such as file-sharing/file-transfer. Second, pirate communities, which mostly consist of early adopters, can become a valuable source of emergent market trends and other market insights. Third, online pirates are, in fact, active market creators, as they migrate from illegal use of copyrighted material to legitimate business (e.g. becoming users of legal Napster or iTunes). And, finally, the online piracy has motivated incumbent firms (albeit quite unwillingly) to creation of new business models. For example, online piracy spurred record labels to adopt Internet technology, create richer websites and engage in electronic distribution modes.

Now, a final word of advice comes from Henry Chesbrough, one of the most prominent business model researchers. According to him (Chesbrough 2010), companies should not be shy of experimenting with their business models. A necessary thing in this process is to differentiate “failures” from “mistakes”;

whereas “failures” are natural outcomes of experimentation which provide valuable learning insights, “mistakes” are poorly designed experiments which provide no learning.

Self-assessment Questions

1. What is a smartphone described in the Introduction section: a bundle of products or a convergence device?
2. Please provide own example(s) of functional foods and cosmeceuticals.
3. What makes 3D printing an ultimate convergence example?
4. Are convergence products manufacturer-centric or customer-centric?
5. What is the relationship (if any) between a business model and the revenue mechanism by which a company is paid for its offering?
6. Why are there so many different definitions of a business model concept?
7. What does efficiency mean in Amit and Zott’s (2001) model?
8. Would you see lock-in as an appropriate source of revenue for a convergence company? Why/why not?
9. How can legitimate firms learn from online pirates?

Food for Thought

1. How do you interpret Henry Ford’s words in the beginning of this chapter?
2. Why do some practitioners believe that technological innovation is no longer the core of innovative business models? In which industry (or industries) is this situation possible? Does his reasoning hold for a high-tech company in a convergence industry?
3. Why does Apple hold 5 % of the world’s PC market and 70 % of the digital music player market?
4. Does Spotify have a future? Can you foresee potential development of its business model?

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Managing the Convergence of Industries: Archetypes for Successful Business Models

3

Fredrik Hacklin, David Klang, and Pius Baschera

Chapter Objectives

- To illustrate the challenges of blurring industry boundaries due to convergence
- To emphasize the importance of the business model being at the center of innovation activities, instead of industry affiliation
- To suggest a framework for assessing and adapting existing business models with respect to industry convergence

3.1 Introduction

Although the iPod was not the first MP3 player, the iPhone the first cellphone (by a long way), and the iPad the first tablet PC on the market, the launch of all three was highly successful—despite the fact that none of them, technically speaking, consisted of radical, new-to-the-world product innovations (see e.g., Fontevicchia 2012; van Buskirk 2005). Apple had apparently made the right decisions upfront, and was able to cause a significant amount of disruption on the market. In launching these products, it put the industry sectors involved into unpredicted and surprising situations. Sectors that had previously had little to do with each other suddenly found themselves acting in a shared environment. In the case of the iPod, it was the personal computing and music industry; in the case of the iPhone, the personal computing and telecommunications industry; and in the case of the iPad, traditional print and online media.

The growing together of industry sectors, and entire industries, due to technological convergence can be increasingly observed, often as a consequence of new

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technological advances.¹ What we have recently witnessed in today's modern information and communication technology (ICT) industry (Messerschmitt 1996; OECD 1992, 1996) can be observed in other areas as well. Prominent examples are technological overlaps between biotechnology and nanotechnology, the strong interactions between electronic and print media, or the ongoing fusion between diagnostic and therapeutic products and processes within the realm of personalized medicine, which promises a novel breed of therapeutic approaches. Similar changes will probably become inevitable in other fields as well.

As a result of such upheaval in the environment, firms increasingly find themselves confronted with situations where the decision to enter a new industry needs to be considered seriously. When previously distinct industries converge, and de facto grow together, traditionally established entry barriers become dramatically reduced, practically overnight (Lei 2000; Hacklin 2008; Hacklin et al. 2010). Former outsiders suddenly turn into serious competitors, while distant firms become co-actors in the same industry. As a result, firms are faced with strategic uncertainty, even fear of the future (Lee 2007; Yoffie 1996).

For example, the music industry initially saw the coming age of digitalized music (brought about by the MP3 format) as a threat to the entire business. Yet, with the introduction of the iTunes music store, the digital music industry was suddenly enriched with novel opportunities for both firms and customers to buy and sell music easily online. With iTunes, Apple succeeded in unifying the convergence of industries with a win–win situation for all, that is, firms and customers (see also Osterwalder and Pigneur 2010)—something in which many others fail.

3.2 The Challenge: Rethinking the Long-Term Perspective

If such win–win situations are not successfully created, the implications can be fatal: established firms give up their market incumbency to industry newcomers, and may even become outsiders. The problem persists, as firms tend to think shortsightedly, focusing solely on anticipating new competition, e.g., new products and services, within the existing industry context. This, again, frequently ends in strategic uncertainty, falling revenues, and even hostile takeovers.

So why are some firms more successful when industry sectors merge due to technological convergence? Is it due simply to their having better products or service offerings? Or are other approaches that are at least as important, if not even more so? How can this growing together of industries be managed?

We conducted a comprehensive study, with the specific aim of investigating these questions. Out of an initial sample of the 100 largest players in the ICT industry in the USA and Europe, we developed 30 extensive case studies

¹In this chapter, we define technological convergence as the growing together of previously distinct domains of technological knowledge. Similarly, we chose to define industry convergence as the resulting erosion of boundaries that demarcate previously distinct industry sectors.

(Eisenhardt 1989; Yin 1994). Case study material was collected through more than 50 interviews (including informal interactions) with senior management and executives, as well as through archival data, such as annual reports, firm-internal documents, branch reports, and industry analyses.

3.3 Changes in the Business Model as a Success Factor

Iterating across these case studies, we gained the insight that those firms that were dealing most successfully with industry convergence had implemented larger transformations in their business models in response to the increase in competition. Managing convergence is no longer determined through product and process innovation alone (see also Klang and Hacklin [2013]). On the contrary, by the time these are ready to hit the market, it is often too late. What we observed in our cases is that by deliberately extending and innovating their business models, successful firms can gain strategic advantage that reaches beyond industry boundaries.

In the following, we focus on three anonymized illustrative cases that can be regarded as representative of managerial initiatives and actions with regard to changes in the business model under the contingencies of technological convergence. We induce three archetypes for business models out of these illustrative cases: *brokering between industries*, *opening up the ecosystem*, and *attacking head-on* (Table 3.1). We describe, explain, and compare these archetypes on the basis of an existing business model framework and structure (Johnson et al. 2008). Finally, we discuss opportunities for managers to apply the business model approach to the early identification and analysis of a converging industry sector, and provide a decision rationale for selecting one of the three archetypes.

3.4 Brokering Between Industries: Capturing Convergence in Its Core

Chipmaker is a traditional, well-known producer of processor technology and components, as well as a historically influential actor in the emergence of the personal computing industry. In the context of the ongoing and heavily accelerating growing together of the information technology and telecommunication industries, the firm saw itself in an increasingly isolated position. Yet, quite early on, senior managers at Chipmaker had already identified evolving technological trends within network systems or mobile telephony and devices. Although these trends were not particularly related to any of Chipmaker's business activities at the time—that is, not recognizably relevant to competitor or customer segments—the firm decided to widen its product portfolio in these directions.

The firm identified a new common customer value proposition, which gave its large base of B2B customers the possibility to develop technologically integrated and industry sector-spanning products and services, using a toolkit provided by Chipmaker. By realigning the entire corporation toward generic platform

Table 3.1 Three archetypes of successful business models for meeting industry convergence

	Customer value proposition	Profit formula	Key resources	Key processes
Brokering between industries e.g., Chipmaker	Possibility to build cross-industry products and services based on a toolkit-like approach	Sales of the platform to third parties; indirect success participation	Broad product and service know-how, which spans technological boundaries	Scalable production; experienced B2B processes
Opening up the ecosystem e.g., Devicemaster	Extension of products and services toward customer segments from different markets, using network effects	Application use; directly linked to customer base	Strong core product and brand name, which can be leveraged in another industry through marketing investments	Fast and agile production pipeline; established customer feedback system
Attacking head-on e.g., PhoneLine	Extension of product and service portfolio for existing customers, with the purpose of building and sustaining customer loyalty	Complementary products and services as driver for profit in core business	Strong and established technological infrastructure; large customer base; strong brand name in service business	Established, dynamic customer relationship management systems; fast and agile marketing platform

architectures, Chipmaker became a strong and established technology provider for both personal computing and mobile communication devices. The firm succeeded in repositioning itself as a convergence enabler, which led to a new corporate identity. As one informant noted, “We are [Chipmaker] 3.0, the platform company.”

In initiating this transition, the firm found itself in a position where the customer value proposition, as well as the key resources of the business model, could be made available to the new industry sectors within a relatively short period of time.

In order to be able to get into such a favorable situation in the first place, it may be useful to allow the recombination of the core product or service with complementary products or services through a third-party provider. Providing some sort of toolkit—either technical or procedural—allows others to leverage the firm’s customer value proposition to create their own.

Using this approach, Chipmaker was able to profit from the sales of the platform to third parties. As they develop and sell products using Chipmaker’s platform, they generate indirect revenue for Chipmaker. By anticipating trends and adapting its business model, Chipmaker was in a position where it not only participated in the revenue growth of its client firms, but also in the growth of the industry convergence.

In order to master such a transition, the targeted alignment and positioning of key resources are needed. The technological basis may potentially be made compatible with a previously distant industry sector through incremental effort only.

Much more significant is the personal development of the workforce involved. On the sales front, it is advisable to invest in re-skilling and re-training (for example, for the B2B field sales force), to ensure a shared view of the future vision, development, and opportunities in converging industries. Apart from this, it is of utmost importance to abandon previously existing and potentially still prevailing cultural and mental boundaries between technological disciplines. It is crucial that this should take place consistently throughout the entire organization; it can be supported by hiring project managers experienced in multiple technological fields.

In the context of this transition, Chipmaker was able to combine its existing processes, know-how, and production technologies in a way that allowed it to target the convergence of industry sectors with a broader, more generic, and more attractive offering. In general, in such situations it is advisable to design key processes in an interdisciplinary style, for example, by making an innovation process run through different R&D teams, by definition breaking through established industry boundaries.

3.5 Opening up the Ecosystem: Letting the Business Model Interact with the Alien Industry

Devicemaster, a traditional in-house R&D company with a long history in the development, manufacture, and sales of hardware devices, found itself increasingly affected by the process of media digitalization, in particular by technological advances in the field of digital image processing. The senior management saw an inherent need to respond to the convergence of traditional information technology with new multimedia technologies. As a result, Devicemaster has increasingly supplemented its traditional business lines of color printers for personal computers and digital cameras with digital alternatives for the exchange and management of photos on the Internet. Without this, a dramatic decrease in sales in the traditional business was only a matter of time.

The Devicemaster management team decided to tackle the convergence of industry sectors early on, by extending existing products and services toward customer groups from other markets. Internal experimentation on customer behavior in digital photography ultimately led to the acquisition of a start-up digital photography services company, through which Devicemaster was able to build a novel customer value proposition. This was a service based on an online photo community that focused on the handling and sharing of images, rather than printing. Through the deliberate and targeted orchestration of ecosystems, the firm was able to open up its business model to the extent that it created several incentives for its core product to be used in other industry sectors.

In doing so, Devicemaster created a profit formula based on direct participation in the growth of the customer base. Such effects can be accelerated through letting customers participate in the growth of the network, for instance by creating incentive schemes on the basis of referral programs. The firm was deliberately searching for network effects that would allow them to create new customer

relationships independent of the existing install base. From the perspective of Devicemaster's key resources, only a complementary addition was needed; in essence, the firm was able to build on its key product—printing technology—albeit the printing of photos would now be centralized rather than take place at end-customer premises. In enforcing this move, Devicemaster's established strong and global brand name could be leveraged into the photography industry sector through targeted marketing investments.

In order for this to work, complementary assets need to be identified in such a way that they bring both core product and brand name closer to the new customer groups in the previously distinct, new industry. Not surprisingly, the close collaboration with, or even the acquisition of, small, agile start-up ventures from distant fields becomes relevant. Nevertheless, within the existing organization it remains crucial to concentrate on establishing an end user-driven culture, where the customer is regarded as a substantial stakeholder and co-creator within the ecosystem.

Through the acquisition of the start-up firm, Devicemaster gained access to new key processes that allow customers to store their own photos online, manage them efficiently, share them with friends, and order printouts or photobooks within the system.

In order to integrate such processes, or even build them from scratch, it is advisable to have a fast, agile, and flexible production pipeline in place. Additionally, a strongly established customer feedback system is crucial, allowing the firm swiftly to probe, experiment, and test new ideas with different customer groups.

3.6 Attacking Head-On: Rescuing Business Through Early-Mover Advantage

As a traditional, national network carrier for mobile and fixed communications, PhoneLine was increasingly pushed to the sidelines in consequence of the convergence of various communication technologies, mostly around the Internet. In other words, a former state-owned monopoly provider was exposed to competition from brand new companies, including cable TV companies and Internet service providers. These suddenly provided similar services and became direct competitors to PhoneLine's business. However, the firm adopted a crucial pioneering role in a holistic approach to the information and communication technology (ICT) world and PhoneLine's business model today is very much more than the sales of data communication services. Instead of letting itself become exposed to a price war, for example in the field of triple play,² PhoneLine's management team decided to face the brutal facts of industry consolidation, and embrace the opportunities—and threats—related to industry convergence head-on.

² Triple play denotes the combined service offering of broadband Internet, Internet telephony, and cable TV within the same subscription.

PhoneLine's portfolio of products and services for existing customers was extended step by step toward new data transmission technologies, even though many of these changes had an immediate cannibalizing effect on other business lines of the firm. Nevertheless, as customers could now get access to different technologies from one single provider, PhoneLine was able to increase and sustain customer loyalty. For example, PhoneLine was the first provider in its country to provide wide coverage of WiFi hotspots. Unlike many other incumbent carriers, it did not focus on WiFi technology as a threat to its existing telephony business ("Why pay for phone calls if you can make them for free over the Internet?"). Instead, the firm saw an early opportunity to develop complementary products and services building on this technology; based on the bundling logic, these in turn would act as profit drivers in the core business.

In this context it is advisable not to be too much concerned about the potential cannibalization effect of launching new products and services—someone else will do it anyway. It's better to look for new pillars around new products and services that could complement the existing core business. This may look like a high investment at first sight, but it will indirectly serve the profit in the core business.

In the PhoneLine example, the business model was largely extended toward services for home and business customers, and could build on a broad resource base, which consisted of the established technological infrastructure, the large customer base, and PhoneLine's strong brand name within the service business.

As far as resources are concerned, one question to ask is how existing resources can be adapted in a meaningful way and extended in order to allow the firm to claim a leading role in the newly emerging industry context—notwithstanding all the disruption and upheaval that will entail. Within the organization, it is particularly important to establish a culture of experimentation with new models and concepts, which also should leave room for failure.

As a result, PhoneLine today represents far more than yet another telecommunications carrier "bit pipe"; it has achieved a much broader and deeper positioning across various fields within the converged ICT domain. For example, through its home service team business line, the firm now successfully offers IT support for home consumers. In order to achieve this, senior managers had to search deliberately for possibilities for adaptation and extension, which can often be found in somewhat hidden key resources and process. For instance, the extension of customer relationship management (CRM) systems into flexible invoicing systems gave PhoneLine an advantage over other firms who did not have them. Equally, sustaining a strong marketing platform from which aggressive campaigns can be launched represents an easily forgotten key capability of incumbent players.

3.7 Finding the Most Suitable Archetype for Your Firm

Our case studies revealed that successful firms tend to recognize their true new competitors in the context of the business model, and do not focus on industry affiliation. Too narrow a focus on analyzing the existing industry, as part of the

competitive strategy process, can blind firms to potential future competitors from other industries. Searching for competitors around the business model creates new potential for identifying opportunities beyond the traditional boundaries of the existing industry context. At the same time, the business model-centric perspective allows the firm to achieve transformation or innovation, building on the existing resource base.

In this way the scope of innovation is shifted toward the business model. It is the similarity of other firms' activities to the firm's own business model that suddenly becomes of relevance, rather than a focus on products, production process, services, or a common customer base. If the firm has been able to observe the new competitor and anticipate the extent to which its business model might eventually come close to its own activity, the new competitor no longer looks like an alien and suddenly seems not so distant after all.

3.7.1 Compatibility of the Business Model

Traditional strategy processes or innovation screening instruments are well adapted for observing changes within a given industry or sector, allowing trends to be identified, and future scenarios to be developed (e.g., Porter's five forces, industry analysis, or stage-gate process). However, these traditional models tend to induce managers on the lookout for changes to stick within their own particular industry or sector boundaries. When previously distinct industries grow together through technological convergence, however, these traditional management approaches fall short. In this context, the concept of the business model offers a more suitable approach. The following questions should help firms identify and analyze new business model possibilities in a foreign industry at an early stage and, building on that, suggest a decision rationale among the three archetypes (Table 3.2). Obviously, not all components of the business model of a potential competitor can be scrutinized in full detail. Therefore, we focus on items that any business intelligence unit should be able to assess without major investment.

3.7.2 Structuring the Decision

Points are allocated on the basis of the answers to the questions in Table 3.2 and the sum provides an indication of which of the three archetypes is most suitable from the firm's current perspective (Fig. 3.1). If the results of the questionnaire show that the distance from the core offering is not too large (>20 points), the archetype of *brokering between industries* offers an interesting opportunity for the firm. If the compatibility of the firm's core offering with the foreign industry is limited, while its secondary offering looks more promising (10–20 points), *opening up the ecosystem* may represent a suitable approach. If the existing business model turns out to be largely incompatible with the foreign industry (<10 points), there may be few other options than *attacking head-on*.

Table 3.2 Questionnaire for identifying a suitable business model for convergence

Business model component	Focus	Claim	Rating (from 1 = do not agree to 3 = strongly agree)
Customer value proposition	Target customers	The customers of the foreign industry could also become interesting for our core product or service.	
	Offering	Our core product or service could also become interesting for customers of the foreign industry.	
	Job to be done	Our company is offering a solution to a problem, which also exists in the foreign industry.	
			Subtotal:
Profit formula	Revenue model	The mechanism, which we apply for generating revenues, could in principle also be applied in the foreign industry.	
	Cost structure	Our structure and composition of costs would look very similar in the foreign industry.	
			Subtotal:
Key resources	Technologies and products	Our technologies and products could create added value in the foreign industry through new recombination.	
	Sales channels	Our existing sales channels could create added value in the foreign industry through new recombination.	
	Partners and alliances	We have existing partnerships and alliances with firms in the foreign industry, or see opportunities for a potential collaboration.	
	Brand	Our brand is known in the foreign industry.	
			Subtotal:
Key processes	Sourcing	Our sourcing processes and capabilities are very similar to those used in the foreign industry.	
	Marketing	Our marketing concept and capabilities are transferable to the foreign industry.	
			Subtotal:
			Total:

Conclusion

The convergence of previously distinct industries, and sectors within them, has made remarkable impact on strategy making and innovation management in established firms. From the perspective of an established player, when industries grow together it makes little sense to try to compete on existing knowledge, technologies, products, or services only. To be successful even after the convergence has become established, a firm needs fundamentally to rethink the four

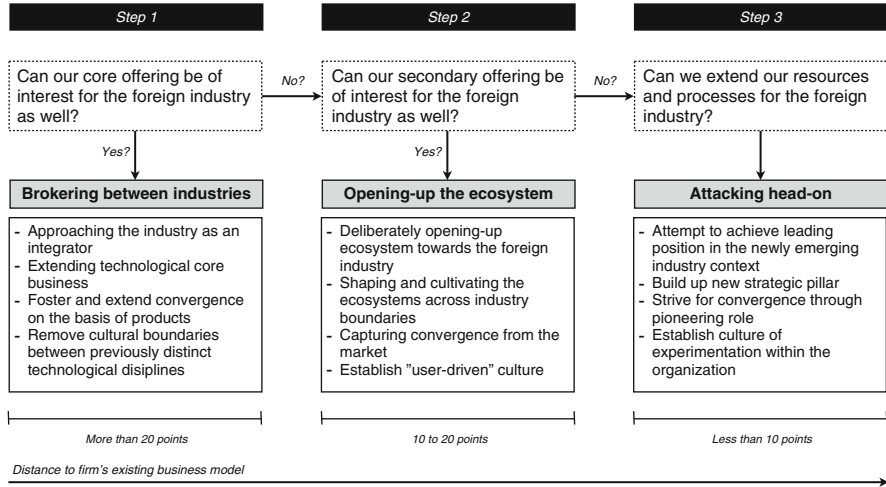


Fig. 3.1 Structuring the decision for a suitable business model for managing convergence

basic elements of its business model, that is, the customer value proposition, the profit formula, the key resources, and processes. This requires the ability—and willingness—to think beyond the existing boundaries of one's own industry or sector, allowing future differentiation to be achieved on the basis of the business model, rather than on the positioning within the old industry. Based on this logic, in this chapter we have suggested three different archetypes for tackling convergence: *brokering between industries*, *opening up the ecosystem*, and *attacking head-on*. With the help of a questionnaire building on the business model concept, we present an approach for analyzing the similarity between a foreign industry and a firm's existing business model, and anticipating new competitors. Working with this framework, we provide a conceptual method for assessing the suitability of the three different archetypes.

Returning to Apple, it could be argued that its hardware—that is, the portfolio of successful devices introduced on the market—does not necessarily stand out on a pure technical basis. Indeed, many observers have argued that there were a number of competing products already on the market that outperformed Apple, on the basis of their technical parameters (see e.g., Fontevicchia 2012; van Buskirk 2005). Yet, when technologies converge and the boundaries between industries melt away, a focus on product and process innovation will rapidly lose importance. What really counts is shifting the emphasis and scope of innovation toward the business model. At the end of the day, technologies do not stick to given industry boundaries—why should managers care to do so?

Exam Questions

1. *What is key claim of this article?*
2. *When industries converge, why do existing management tools fall short? Why is the convergence phenomenon problematic from a strategy and innovation point of view?*
3. *Why does the business model represent a more suitable framework for anticipating and creating opportunities in a converging environment?*
4. *List some examples for ongoing or emerging convergence trends between technologies or entire industries.*
5. *For what purpose do the authors suggest the three business model archetypes?*
6. *Describe the key characteristics of each of the three archetypes: brokering between industries, opening up the ecosystem, and attacking head-on.*

Reflexive Questions

1. *In this article the authors propose a stepwise decision tree, resulting in the choice of one of three archetypes. Why do you think the archetypes come in this particular order, rather than another one?*
2. *What is our current understanding of an industry based on? Discuss how we traditionally define an industry, and what such definitions entail for strategy making and innovation management.*
3. *What would be the implications of defining an industry context on the basis of business model similarity? Discuss the advantages and disadvantages of such an approach.*
4. *Why does technological convergence represent a particular case of technological discontinuity? Or does it? Discuss similarities and potential differences to existing innovation theory.*

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Thomas Hess and Christian Matt

Chapter Objectives

This article provides an overview of the changes in media companies' value chains that occurred due to the development of the Internet. In the following, we explain the technological and economic backgrounds and point out various key aspects, which we link to three trends. Each of the trends is further illustrated by practical examples from industry to enable a better understanding of the key issues. Throughout the article, our focus is on content of *media products and services* that are provided in digital format.

4.1 Background

4.1.1 Conceptual Background: Organizational View on Value Creation Structures

Michael Porter describes a firm as “a collection of discrete, but interrelated economic activities such as products being assembled, salespeople making sales visits, and orders being processed” (Porter 1991). These interrelated activities are common to a wide number of companies and are further referred to as the *value chain*. Porter originally concentrated on internal organizational processes, but currently a value chain analysis often takes all production and logistic activities into consideration, i.e., from the first sub-suppliers of the product to the distribution to consumers. Value chains are usually specific to the industry in which the firm operates.

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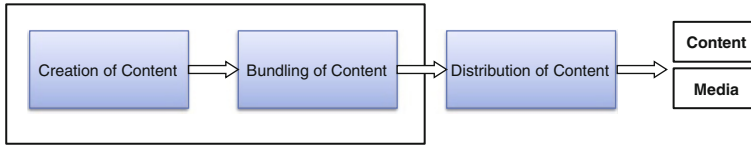


Fig. 4.1 Traditional value chain in the media industry (Schumann and Hess 2009, p. 12)

The companies in the media industry are also referred to as *media companies*. This is a class of companies that provides *content* (whether for entertainment, information, or education) on *public media* (Schumann and Hess 2009). From the consumer viewpoint, the value proposition comprises the medium and the product or the service.

Media companies can be classified according to their fulfilled value creation activities. Thus, in a simplified linear model, they can be grouped according to the value chain stages: *creation*, *bundling*, and *distribution* of content (compare Fig. 4.1). At the creation stage, actual content is produced, which can be a photographer taking a photo, or a journalist writing an article. The resulting product is called a *first module copy* and usually involves a significant amount of effort and costs. The bundling stage involves the grouping of different content modules, leading to a final product that can be found on the market (also called *first product copy*). For instance, text and pictures can be combined in a final newspaper article, whereas several articles build a newspaper. Digital technologies have simplified the bundling and the reuse of content. The distribution phase includes everything related to the distribution of content to consumers (*mass copies*). Content in digital form can be reproduced at very little cost and can be instantly “shipped” to consumers over the Internet. At this, the Internet has not just led to an acceleration of the distribution process, it has also led to a convergence of media, as different media types (e.g., movies, music, and print) can now be distributed and consumed with just one channel and the same technological end user device (mostly a PC or a notebook).

Although media companies may cover all value chain stages, many focus only on one value chain stage and a small number of media. Especially the distribution stage (i.e., delivering products to consumers) may overlap with other industries that also provide digital products and services such as printing shops and telecommunication companies.

Within the framework of globalization and the increasing digitalization of commercial relationships, companies have to decide what activities should be handled internally and which by other market players. At this, we distinguish between *vertical* and *horizontal integration*. Vertical integration determines which firms are responsible for which tasks and how the different companies are coordinated within the framework of the overall value chain. Such decisions are normally taken from the *transaction cost theory* viewpoint, according to which relevant influencing factors include the specificity of the task, the underlying uncertainty, and the transaction frequency (Williamson 1973). By taking these factors into account, companies need to decide whether it is more efficient to create products or services (or parts of it) themselves or to outsource certain tasks to

the market. On the other hand, horizontal integration determines how many companies there are on the same value chain stage (this is also relevant for the market concentration). The most important driver in the horizontal integration is therefore the realization of economies of scale and scope.

Intermediaries can play a decisive role in this process. An intermediary is “an economic agent that purchases from suppliers for resale to buyers or that helps buyers and sellers meet and transact” (Spulber 1996). In the past, the main task of most intermediaries was to coordinate the supply and demand as this is done in the wholesale and retail trade for instance. However, in the case of media companies, not only the communication between firms can be effected in a digital format but, depending on the product or service, also the complete production and distribution process. Although digital goods do not have to be stored or warehoused in the normal sense of the word, intermediaries nevertheless continue to play a significant role in many media markets.

Owing to some market players’ concentration of market power, financial and structural dependencies between corporations can arise in electronics markets as well. For instance, various media companies have attempted to design “*system goods*” in order to bring supply and demand together at a central (albeit digital) market place and to control access to this.

In the following, we opted for a comprehensive perspective, i.e., we investigate the configuration of value chains. This includes a company’s choice of the vertical integration depth, although this is not the focus of this examination.

4.1.2 Technological Background: Two Generations of Internet

From a technological viewpoint, it is not only the development of the Internet (also the “Web”) as a whole that can specifically be regarded as the driver of the changes we outline. Rather, a well-differentiated viewpoint on the individual developments is required, especially in respect to the two “generations” of the Internet. *Web 1.0* and *Web 2.0* can be schematically subdivided, although the differences are not always clear-cut (compare Fig. 4.2).

The Internet was first utilized as a *broadcasting* medium; that is, as in traditional media, the content was generally compiled and distributed by one or more professional editors. The distribution was progressively perfected. This occurred, for example, through *personalization*, i.e., through adaptation of content to consumers, and through the *push approach*. In the latter, the producer proactively initiates the transmitted content, while the consumer remains passive during this action. During this period, the majority of end user technology equipment was rather stationary and the bandwidth rather narrow.

Although the label “2.0” could be interpreted as a completely new development, the technical innovations are limited. Web 2.0 is therefore normally regarded as an evolution rather than a revolution. A significant feature of Web 2.0 is the new function of the consumer, who shifts from being a passive subject to having an

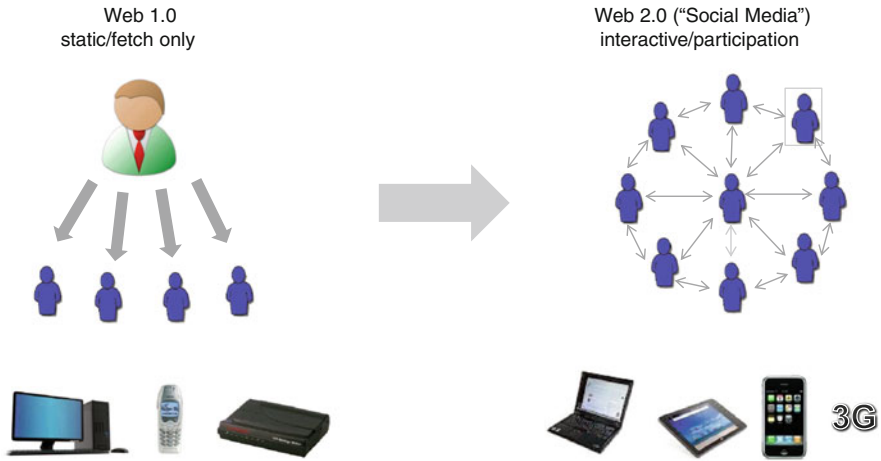


Fig. 4.2 Web 1.0 and Web 2.0

active role in the content creation process. The possibilities for consumers to interact have also increased, for example, in “*Internet communities*.” In this context both unidirectional and bidirectional communication are possible between pairs of consumers, as well as communications between the entire community of a service.

The Web 2.0 development is accompanied and supported by the proliferation of diverse mobile equipment (e.g., notebooks, smartphones, and tablet PCs). Driven by Apple’s success with its smartphone iPhone, and later with its tablet iPad, other manufacturers have also gradually profited from the trend towards mobile data communication equipment. During 2011, the number of smartphones first exceeded the number of PCs sold, including notebooks, netbooks, and tablets (Hamblen 2012). This would probably not have been possible without the simultaneous increase in mobile data services’ bandwidths. Whereas there were previously still relatively large differences between fixed connections’ bandwidths (e.g., in homes and within businesses) and those of mobile telephony, the current third and fourth generation (3G/4G)—such as UMTS and LTE—offer comparable bandwidths.

All these technological developments—and not just the mere invention of the Internet—made the following changes in media companies’ value chains possible and/or justified their need.

4.2 Trend 1: The Integration of Consumers in the Value Creation

Due to new technologies media companies have the possibility to actively integrate consumers into their value creation processes. By this they can exploit the consumers’ potential (usually at a very low cost or even for free) to create additional value. In the case of media companies, the integration can occur at any of the three stages of the traditional value chain, namely the content creation,

bundling, and distribution. The corresponding possibilities are described in more detail below.

4.2.1 Value Chain Stage 1: Content Creation

Content was traditionally created by one or more professionals, who were either employed full time by a media company or self-employed. In this context, many specific professions evolved, such as journalists, editors, and reviewers. Normally, consumers had no influence on the creation of content. They could only reflect their (dis)approval through negative or positive consumer feedback or by changing their future buying behavior.

The second-generation Internet changed this situation fundamentally. From then on, semiprofessional and nonprofessional consumers have also been able to create content—also called *user-generated content (UGC)*. This change was due to the low barriers that the users now encountered. On the one hand, the creation and publication of UGC is associated with low costs because the producer does not need special tools and the publication itself is usually gratis. On the other hand, users currently have a choice of many platforms on which they can publish their content without extensive quality control. Normally, users make their self-produced content available to the entire platform, which can thus be regarded as mass media dissemination. Due to the advent of Web 2.0, other users can generally rate, comment on, and share content with other users. In addition, direct contact with the originator of the content is mostly possible, which changes the original mass media communication to bidirectional individual communication.

Since users can now also create content, the traditional understanding of the user's role is transformed from that of a true consumer to a so-called *prosumer* (combining producer and consumer). However, consumers are not obliged to contribute to particular platforms—and many do not. The fundamental principle for the evaluation of user activity is the *participation inequality rule*, which is also called the “90–9–1 rule” and states that 90 % of users contribute no content, 9 % contribute a small amount, and 1 % of users contribute frequently. It should, however, be noted that this distribution of user activities varies strongly with regard to the type of website and other factors and that therefore the participation inequality rule only serves as a rough estimate. More recent approaches state that in small-scale, limited social networks, the distribution is nearer to 50–30–20 (Brandtzaeg and Heim 2011).

The involvement of users in content creation could be ascribed to various motives (Stöckl et al. 2007). These vary from the user's intrinsic motivation or the wish to make contact with others to immaterial incentives (e.g., in the form of a social ranking system within the community). In a few cases, these motivations are due to direct financial incentives, i.e., a direct payment for the content creation. A lack of user-generated content could, from a users' viewpoint, mostly be due to the amount of time required, a lack of interest in the work itself, and concerns regarding data privacy.

It is still unclear in which areas *professionally generated content (PGC)* and in which *user-generated content (UGC)* will prevail. One should also distinguish between “traditional” (valuable artistic or journalistic content) and more “modern” content. More modern content, such as personal profiles and product assessments, can only be produced by users. Although the data are still incomplete, on the basis of traditional content in many areas, one can see that user-generated content has indeed contributed to the broadening of the offering (also referred to as the *long tail*). However, high-demand content is rather created professionally (Anderson 2006; Silver 2011).

Currently, there are quite a large number of websites, where *professionally generated content* is combined with user-generated content, whereas pure UGC-based platforms for traditional content, such as Wikipedia, are the exception. This may be due to the challenging quality control. Another factor is that services that are based entirely on user-generated content are very dependent on their users’ voluntary participation. This is particularly crucial in the case of time-critical content, such as those on social news platforms. Since the user has no contractual obligation to contribute anything further, the community operators have no choice but to use professional editors to produce content if there are insufficient user activities. If they fail to do so, the platform will inevitably lose appeal due to its lack of new content. However, involving professional and remunerated editors is not always reconcilable with many services’ user-driven ideology—also because the incurred costs do not fit with the community operator’s business model.

4.2.2 Value Chain Stage 2: Bundling of Content

Not only the creation of content, but also the selection thereof was normally left to professional actors in the traditional realm. They chose from the given content—which they had created or purchased for this purpose—and bundled them into an offering for clients. They based this offering on their assessment of the clients’ needs and often also included their own objectives, for example, with regard to political communication. The consumers had no actual direct influence on the choice of content that they would receive—the choice of content thus lacked transparency and was not very interactive.

The use of traditional *personalization* and *recommender systems* (software-based) has not substantially changed this situation. By means of the manual capturing of user’s (explicit) preferences (e.g., ratings), or by means of the automated capturing of their behavior (= implicit preferences, e.g., surfing behavior), an attempt is made to select and present the content that is likely to be the most relevant for them. This can be considered as support to master the increased variety in content and to present users with content that they would not otherwise encounter. Recommendations may be based on the similarities between product characteristics and the user’s preferences (content-based filtering). In this case, users may state that they are particularly interested in science books and crime thrillers, and therefore receive recommendations of books in these two genres.

Another approach is to make recommendations on the basis of similarities between users (collaborative filtering). According to this approach, users, who have many purchases in common, are more likely to enjoy the same books that similar users will buy in the future. There are also various hybrid methods that attempt to combine the two basic techniques' advantages. Nevertheless, there is no fundamental change in the provider's intrinsic orientation and in the selection of content—the user is not really taken into consideration. In addition, these personalization and recommender systems are under fire because consumers are normally not aware of the underlying algorithms. Therefore these systems could be misused to lead them to buy slow-moving items or high-margin goods.

Crowdsourcing is an innovative concept allowing different tasks to be outsourced to an unknown number of individuals. This neologism was formed from the two concepts “crowd” and “outsourcing” (Howe 2008). The crowdsourcing principle is based on the theoretical concept of combined wisdom or the collective intelligence of the mass. This implies that, under certain conditions, large groups of humans may be more intelligent than individual experts (Surowiecki 2005). Various forms of crowdsourcing have evolved in recent years, for example, *crowdwisdom* (problem solving), *crowdcreation* (content production), and *crowdfunding* (financing). *Crowdvoting* can therefore be regarded as a new philosophy for traditional recommender systems, which allows for a content selection driven by users' aggregated opinions.

4.2.3 Value Chain Stage 3: Distribution of Content

Specialized companies that mainly take over individual tasks operate on this stage of the value chain. In the printing industry there are, for example, printing shops and logistics companies, while in the TV/Internet industry there are various types of network operators. Often there are regional dependencies between the individual companies, and media companies are responsible for integrating the various suppliers into one corporate network.

The Internet has had a major impact on the distribution of content. It comprises individual subnetworks and currently connects billions of computers. New technologies can store content on all these computers as part of a decentralized network, which allows this content to be made available to other users. Individual users then normally allow downloads and uploads to and from other computers. During these processes, individual computers normally have equal rights and this method is therefore called *Peer-to-Peer (P2P)* networking. P2P technology has been frequently used for the illegal exchange of proprietary (with copyright) content. Napster is a well-known example of an organization that had previously largely distributed music illegally, but later converted to become a legal *Music as a Service* provider. However, due to the higher data transmission speeds and better compression methods, P2P is presently more often used for videos and software. In pure P2P networking, identifying an to exchange partner, who holds specific content, is frequently a problem because there is no centralized server to match

supply and demand. In such exchanges, individual peers operate autonomously, i.e., they themselves decide when they want to be part of the network and what files they will make available. This leads to the available computers and files changing perpetually. In turn, this requires a dynamic administration and increases the complexity. Consequently, a hybrid form between a pure and a traditional client–server architecture is sometimes employed. In this form, the central server is used to administer the organization and the users' computers are employed for data storage and distribution.

These days, usually a few rather young and small businesses still frequently utilize P2P and, thus, their consumers' resources to distribute their content—especially if the content comprises large amounts of data. An example of a well-established company relying on such technologies is the *Voice over IP (VoIP)* provider Skype, which now also belongs to Google Inc.

4.3 Trend 2: Four New Types of Gatekeepers on the Internet

New technologies have had an impact on the different stages of the value chains in the media industry. They have also changed the distribution of market power with some players leaving the market and others appearing, so that electronic markets no longer resembles previous brick and mortar markets.

However, all companies that focus on B2C have one thing in common: they strive for access to consumers. Simultaneously and for the sake of competition, media companies have an interest in restricting other companies' access to consumers. Companies that manage to build up a position that allows them to grant other companies access to consumers and charge a royalty for this are called *gatekeepers* (Hess and Matt 2012). This term originated from communication and organization sciences and describes a role that enables a market subject to control access to information (White 1950). The main idea can also be applied to economic circumstances and generally denotes any economic subject that controls access to another economic subject.

In the field of digital media products four different types of gatekeepers can be identified, and that try to restrict different stages of the value chain (compare Fig. 4.3).

4.3.1 Gatekeeper Type A: Interface to Consumers

Technology-driven interdependencies between *complementary* products or services are the main cause for the appearance of this gatekeeper type. For example, Internet users need application software, system software, and hardware to access content on the Internet (compare Fig. 4.4).

Companies attempt to control access to consumers, such that when they grant other companies access, they can claim the associated commission. In such cases

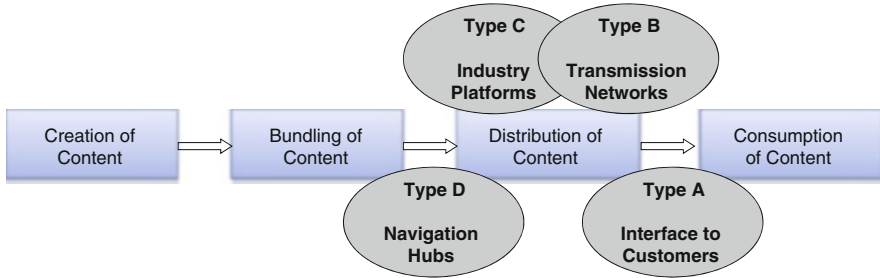
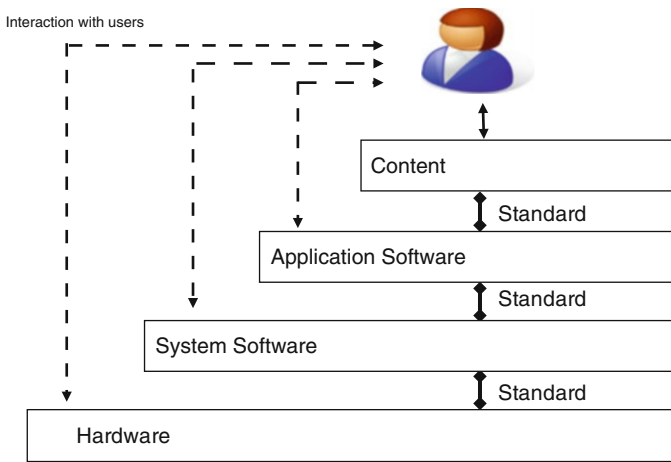


Fig. 4.3 The four types of new gatekeepers



=> Usage of standards is a strategic issue for Internet companies

Fig. 4.4 Interdependencies within system goods

system goods have evolved. They are characterized by the simultaneous or later utilization of the capabilities of the same system’s technologies. From an economical perspective, system goods depend heavily on network effects and, in the local case, mainly in the form of indirect network effects (Stango 2004).

With direct network effects, the consumer’s benefit from using a product increases with the total number of consumers using the same product. For instance, the utility of being the only user of a telephone network seems to be rather small, if one cannot call anyone else. With indirect network effects, the utility increase is mainly due to an increased offer of complementary goods (e.g., the more users there are of a particular game console, the more games there will be for that console). Lock-in effects are often linked to network effects because a change in technology does not merely lead to a substitution of the device, but also of other related components of the system good in question.

Standards are crucial for the development and specification of lock-in effects and an important competitive and strategic tool for corporations (Besen and Farrell 1994). Standards enable compatibility between systems, but can also reduce it. The more open the standard of the utilized system good, the simpler it is to exchange individual elements with other goods. Conversely, *proprietary* (i.e., closed) standards lead to a (mostly wanted) bond with the manufacturer and make it difficult for consumers to change to another good. A company's choice of an open or closed standard is usually dependent on the particular product and market, as well as on the competitive pressure in the market.

Apple is a good example of a company acting as Gatekeeper Type A. The company took advantage of the growing interest in legal sales of digital music and built up its for iTunes Store, which offers products from many music labels. The iTunes Store sells music in the proprietary format ACC, which in turn promotes the sale of Apple's own MP3 player, the iPod. Furthermore, the iPod is based on Apple's own media player and management software (also called "iTunes"), which makes shopping at the iTunes Store very easy, resulting in a sequence of wanted dependencies. Apple also used this approach when introducing its iPhone, which is also already set up to buy music from the iTunes Store (Dörr et al. 2009). All of this fulfills the characteristics of a gatekeeper at the interface to consumers and led to Apple being the market leader in the sales of digital music.

In general, hardware manufacturers have until now mostly assumed the role of gatekeeper Type A. It remains to be seen what the impact of the Android operating system, which is primarily promoted by Google, will be. Google was not a traditional hardware manufacturer but was primarily focused on bundling content. However, Google later entered into cooperation agreements with hardware manufacturers (e.g., HTC and Samsung) to support the distribution of Android and marketed special Google smartphones. Google's next step was the acquisition of the mobile telephony division of Motorola, which underlines Google's efforts to diversify its business activities and to further promote the Android operating system.

4.3.2 Gatekeeper Type B: Transmission Networks

Content is transmitted from the producer to the recipient via different forms of media. By their position in the communication process, the operators of transmission networks are natural candidates for taking a role as a gatekeeper. Traditionally, Internet service providers (ISP) had established a commitment to ensure the unrestrained transport of data packets, regardless of the content and its sender or recipient ("best effort" principle). This also includes the prevention of restrictions on specific sites, platforms, or types of hardware equipment. Thereby the Internet service providers had deliberately waived their possible role as a gatekeeper. This approach and the resulting discussion are also referred to as *net neutrality*.

However, in the following years, this approach has been questioned. The specific aim of many Internet service providers is to request different quotes for their

services depending on the transmission speed (and reliability), and thus to differentiate their offer. The central justification for this is the upcoming major investments to expand their transmission networks, which by conventional tariffs could not be financed, as Internet service providers claim. However, critics believe that such an action could potentially harm the open character and the economic importance of the Internet.

In most countries, the debate is still ongoing, but various cases where Internet service providers restricted access to specific services have already occurred. In the USA the most prominent one is probably the cable network operator Comcast, which intentionally slowed P2P communications and traffic. In Germany, several mobile network operators have restricted the usage of Voice over IP services to protect their business model. However, it remains unclear whether and how regulatory bodies will intervene in the future.

4.3.3 Gatekeeper Type C: Industry Platforms

Industry platforms serve as a basis to aggregate complementary goods (not necessarily created by the provider of the platform) and in order to match supply and demand. With *two-sided platforms*, the platform provider connects two different parties (here, usually content providers and consumers), whereas each of the two groups benefits from the increased participation of the other group (Evans et al. 2006). The attractiveness of an industry platform increases with a higher number of complementary goods, but content providers are at the same time more likely to offer more products if more consumers use the platform. Industry platforms therefore depend on indirect network effects on both sides. In order to reach a critical mass of consumers, platform providers may subsidize content providers to encourage the provision of more content in order to increase the attractiveness of the platform. As compensation for running the platform, the provider usually receives a fee, which can depend on the price of the traded product, or comprises a subscription fee, or a lump sum payment. Dependent on the platform's popularity with customers and the competition with other platforms, the platform provider may impose higher or lower royalty fees that can be charged from consumers, from content providers, or from both (compare Fig. 4.5).

Since industry platforms usually incorporate different kinds of market subjects, which are involved in the production and distribution of products or services that are dependent on each other, they build the basis of a so-called *business ecosystem* (Moore 1993). In some cases the platform provider may define certain standards and restrictions for products to be listed on the platform.

In addition to the previous practical example of Gatekeeper Type A, Apple's iTunes store also serves as an example for an industry platform. There exists a reciprocal dependency between Apple and the music labels. Music labels need to provide their products to the iTunes platform if they want to address the consumers of Apple products. However, as the platform operator, Apple also needs the music labels to be able to provide its customers with an appealing offer. Besides

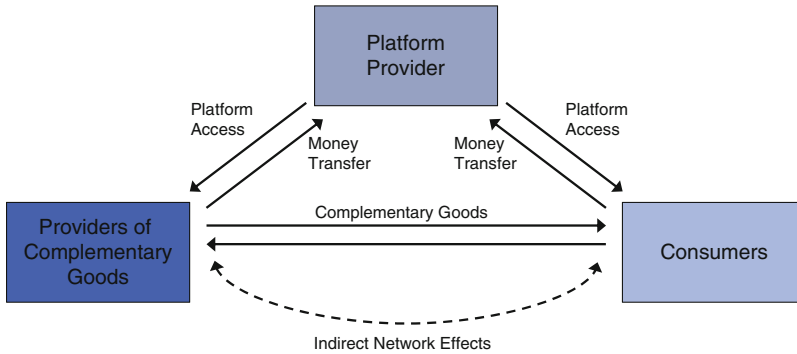


Fig. 4.5 Value creation in platform-based ecosystems (Hilkert 2012, p. 9)

strengthening its market power through its platform, Apple also receives a commission on all transactions. Therefore Apple has an interest to prevent its platform from being bypassed, or to at least make bypassing difficult. An important point is that, as the actual manufacturer of the underlying hardware (the iPhone), Apple is not only interested in its profits from its hardware sales anymore, since a substantial amount of revenues now comes from its own content platforms. Achieving a critical mass of hardware users is therefore necessary to exploit the indirect network effects. It could therefore be worthwhile to sell its hardware (the company's previous main product) very cheaply (or even at a loss) to ensure the sufficient diffusion of the industry platform and to realize profits with other platform-related revenues at a later stage.

4.3.4 Gatekeeper Type D: Navigation Hubs

Besides the dependencies due to rather technical circumstances, actual gatekeepers have also emerged due to a natural bundling of user interests-internet search engines play a major role in this respect. A plethora of users employ Internet search engines several times daily. Google and other search engine providers primarily utilize their market position to earn advertising revenue. Together, they receive approximately half of the total advertisement expenditure on the Internet and are often responsible for 50–70 % of the traffic on many websites due to the large number of page hits occurring via search engines (Statista 2012).

Google is the market leader in the realm of search engines. Whereas Google handles about 60 % of all search queries in the USA, this figure is more than 90 % in some European countries (LSF Interactive 2010). The primary reason for Google's market strength has been its supposedly superior search method, which was, and still is, very scalable. In contrast to previous search engines, the Google PageRank method bases the sequencing of hits not only on keywords' agreement with the content of web pages, but also on the importance of specific websites, which is based on the number of links between individual pages and the significance of the individual links.

Certain dependencies have arisen from Google's market strength. Abuse of its market strength is therefore constantly being scrutinized. Google is, for instance, accused of not only prioritizing according to an objective algorithm. This issue has become more controversial as Google has increasingly penetrated other business areas, such as its recent acquisition of the travel software specialist "ITA" and its integration of product price comparison and purchase options on the Google website.

The same development could occur in the *social networks*. After all, Facebook presently has a user base of over 900 million users (CNBC 2012). It is already integrating the content of external sites and plans to further expand its search activities—a convergence of traditional search methods enriched with social factors thus also seems possible and could pose a danger to Google's market dominance. Consequently, Google's social network Google+ can be regarded as an attempt to diversify its product portfolio and to profit from the same area to ensure its market strength.

The development of social networks benefits especially from direct network and lock-in effects: the more active users there are in a social network, the more interesting the network becomes for the individuals, and the greater the effort that an individual has invested in the network, the more difficult it is to change to another network if the existing profile data cannot be transferred easily.

4.4 Trend 3: The Changing Role of Intermediaries

From an economic perspective, intermediaries are needed if they can make the product exchange process between suppliers and consumers cheaper. This consideration is essentially based on the *transaction cost theory* (Williamson 1973). The associated cost-saving possibilities through intermediation were already shown in an early theoretical model (Baligh and Richartz 1964).

In the physical world the objective of many intermediaries used to be the trade of physical products. In many cases, this happened because many suppliers of media products did not have the money to open their own shops. However, producers of digital content modules can now directly distribute their goods over the Internet. Thus the question arises whether intermediaries are still necessary. In the early years of e-commerce, this was challenged by some researchers, but newer insights show that intermediaries are required or at least useful in certain markets and in certain market situations. Thus, we will discuss two new approaches that examine the question whether intermediaries are still necessary in markets for digital media products.

An analysis of the *functions* of content intermediaries is one way to take changed market conditions into account and to classify intermediaries' usefulness according to their duties (Hess and Von Walter 2006). In this sense, the bundling and the distribution of content can be regarded as intermediaries' main competencies, which can be further differentiated into specific functions (compare Fig. 4.6).

A functional analysis provides a qualitative assessment of the importance of single functions and the changes that may have occurred through the use of new

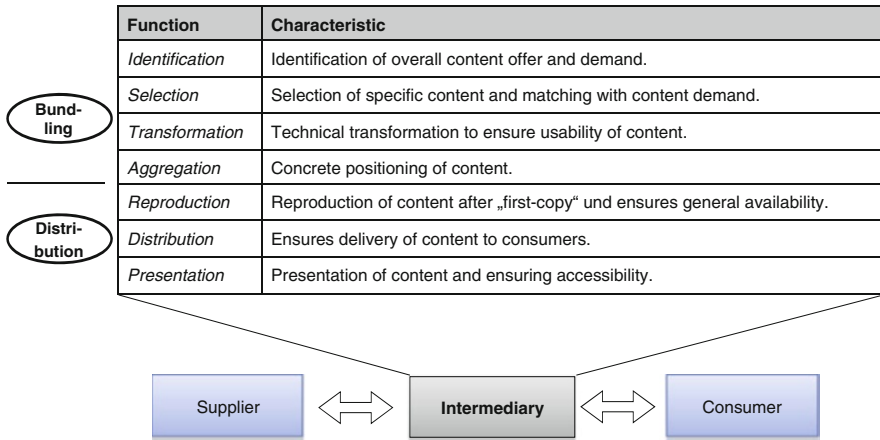


Fig. 4.6 Functional analysis of intermediaries (Hess and von Walter 2006)

technologies. For example, in the music market the function used to be performed by music labels, which bundled different music tracks on a sampler. However, currently, many online intermediaries (such as the Apple iTunes Store) now possess the right and the technological know-how to offer consumers individual bundles of songs that are not available from music labels directly. This also illustrates that intermediaries and the “original suppliers” of media products may not always be easy to differentiate.

The “reproduction” function is another example where a technological innovation change led to a change in intermediaries’ competencies. Whereas music labels and press shops used to reproduce physical music samplers, online intermediaries can now reproduce digital music products almost right away and no longer need classical stock keeping.

For the time being, no clear statement can be made in respect of potential changes in the form of the functions and who will cover these in the future. Technological competencies do, however, seem to play a large role. If intermediaries manage to further cover certain functions that used to be content producers’ exclusive tasks, this may be a significant threat to classical media companies. For instance, nowadays, Amazon also publishes books and approaches authors directly. In many cases Amazon offers higher royalties, as well as easier international sales opportunities than most publishing companies do.

The second approach to analyzing the benefits of intermediaries focusses on the *consumer viewpoint* and takes consumer purchase decisions into account (Matt and Hess 2012). The previous functional approach primarily takes an intercompany perspective and does not explicitly integrate consumers into its model. However, regardless of the circumstances of the prevailing market, the ultimate purchase decision is always made by consumers and other, especially behavioral, aspects may therefore play a large role. Analyzing consumer behavior when deciding between intermediaries and suppliers online shops can therefore lead to new

insights into which environmental or transaction-based parameters have an impact on this decision. In turn, this will also allow suppliers and intermediaries to better align their product offer to consumers' needs.

The first results indicate that in many markets suppliers cannot substantially exploit the newly emerged direct sales opportunities, since consumers prefer to purchase from large intermediaries. One of the main reasons for the failure of numerous supplier online shops may lie in intermediaries' larger product range and, thus, in consumers' lower search costs. The current strong market strength of certain intermediaries also leads to an enormous financial dependency for many media companies' online businesses. For instance, if Amazon does not sell the products of a specific publishing house anymore, this would probably lead to a massive decline in overall sales of the publishing house. For the time being, no weakening of the large intermediaries' dominance in certain media industries is currently foreseen.

Conclusion and Outlook

The progressive improvement of Internet technologies has had a significant influence on media companies' value chains; this can be categorized into three trends (compare Fig. 4.7).

In the following, we summarize the three trends to which the changes can be attributed:

- Trend 1—The integration of consumers in the value creation: owing to Web 2.0 technologies, media companies have the chance to integrate consumers into their value creation processes. Instead of the passive beneficiaries who previously had little to say, consumers can now create and distribute their own content without major technical efforts.
- Trend 2—Four new types of gatekeepers on the Internet: new gatekeepers emerged specifically with the bundling and distribution of content. In the case of bundling, these can be search engines or content platforms serving as a central point of contact for many Internet users. In respect to the distribution, the creation of system goods plays a large role, involving wanted dependencies between different components of system goods and approaches to restrict other companies' access to consumers.
- Trend 3—The changing role of intermediaries: new market constellations and sales opportunities have had an influence on the position of intermediaries. Although media companies now have the possibility to directly deliver their products and services to consumers via their own online shop, intermediaries have captured a leading position in many media markets. Nonetheless, intermediaries' exact benefit for customers varies with the market and the specific product or service, and may be analyzed in various ways. However, the concrete benefit cannot as yet always be measured accurately.

For the time being, these three trends are still developing and further changes are likely to be seen. Therefore we chose practical examples rather than abstract general implications to illustrate our findings.

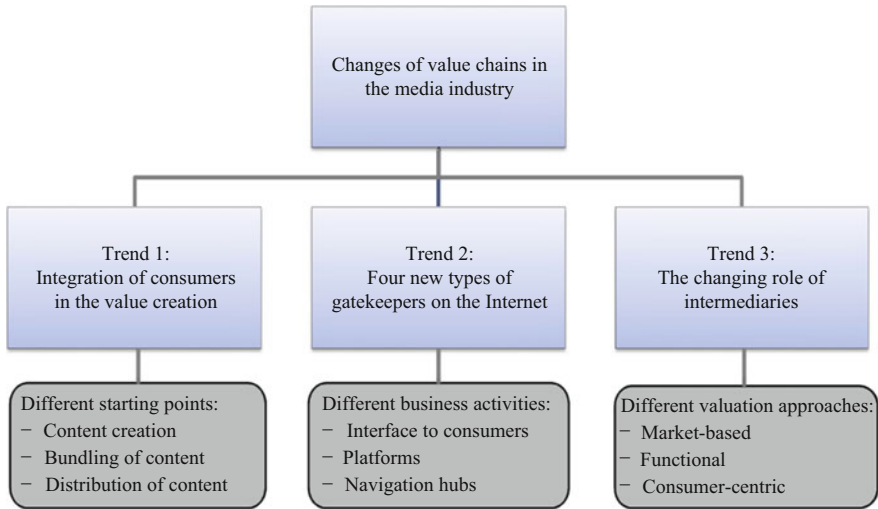


Fig. 4.7 Overview of the changes of value chains in the media industry

However, what will media companies' position in future value chains be? The previously illustrated examples demonstrate that single players may well be able to significantly change value creation structures for an entire industry. As happened in the case for industry platforms and business ecosystems, the traditionally linear organized value chain may be replaced with new models of value creation structures.

In the future, it appears conceivable that, primarily driven by a further increase in user-generated content, media companies will increasingly specialize in the bundling of content offerings and will deliver this directly to customers. Media companies could therefore increasingly separate themselves from traditional content production and act as content intermediaries, thus mediating between producers and consumers. Internet service providers would then assume the pure digital transport of preliminary content from the producer to the media companies and transport of the finished goods from the latter to the consumers. The continued existence of media companies could be justified by the matching of the supply and demand, for example, over suitable digital platforms. In this context, another interesting question is: to what degree will the Internet lead to a horizontal integration of value chain stages? One driver for this could be that high investments for small suppliers' technical support (such as a complex CMS for extensive cross-media concepts) can no longer be borne single-handedly and that economies of scale must be utilized by media companies to survive.

Exercises

1. Describe the different stages of the value chain in the media industry and mention some examples of concrete functions at each stage.
2. How can vertical and horizontal integration be distinguished and what are their underlying motivations? Mention different examples of such integration in different media industries.
3. What is an indirect network effect and why is this of relevance to the media industry?
4. What are the main characteristics and differences between the two “generations” of the Internet—Web 1.0 and Web 2.0?
5. How can media companies integrate consumers into their value chains and what is the impact of consumer integration on media companies?
6. Identify the differences between user and professionally generated content, and mention consumers’ motives for and objections to creating user-generated content.
7. What kind of new gatekeepers have arisen on the Internet and at which stages in the value chain do they operate?
8. Mention examples of each type of gatekeeper and explain which stakeholders are involved in the respective transactions.
9. Explain what intermediaries are and what their potential benefit is for certain media markets.

Reflexive Questions

1. Envision the consequences for media companies if a further increase in the production of user-generated content occurs. How should media companies deal with this—is it an opportunity for them or a threat to their business model? Is the suitability of user-generated content and its potential acceptance by consumers dependent on specific media (music, books, movies)?
2. Assuming that user-generated content will grow, will the value of brands in the media industry further increase or decrease? What is the value of media brands today? Also consider current content aggregation platforms such as Google news.
3. How can producers of content cope with the increased market power of certain gatekeepers on the Internet (such as iTunes)? Should they focus on maintaining good relations with these gatekeepers, or rather invest in their own online shops to sell more products and services directly?
4. At what stages of the value chain should media companies focus in the future? Should they try to cover a large number of value chain stages or/and media types, or rather become a specialist in certain areas?

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Media Convergence and Convergence Strategies in Human Resource Management

5

Christian Scholz and Stefanie Müller

Chapter Objectives

The objective of this chapter is to show which media convergence and convergence strategies in Human Resource Management (HRM) exist in theory and practice. It is also an objective of this chapter to show, under which circumstance divergence could be the better alternative.

5.1 The Topic: What Are We Talking About?

5.1.1 Starting Point: HRM as Media Management

HRM is a fascinating topic. While 20 years ago, HRM was seen as a synonym for bureaucratic administration, we have now experienced a dramatic shift towards new ranges of importance and new fields of activities. We see that **HR professionals** look for competitive advantages while reducing their employee focus (e.g. van Buren et al. 2011). Additional relevance derives from the relevance of HR activities, which are part of the global war for talent (e.g. Beechler and Woodward 2009) as well as of the global talent challenge (Schuler et al. 2011).

All this leads to intensified activities over the whole HR value chain (Scholz 2011). Challenges such as the management of diversity and inclusion (e.g. Shore et al. 2011) and green HRM (e.g. Renwick et al. 2012) as ecological sustainability in and through HR activities are gaining importance. This paper assesses the immediate link between HR business, social responsibility, sustainability, and the everlasting task of managing the corporate reputation (e.g. Roberts and Dowling 2002).

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It is obvious that most of these developments have connections to media. What we are seeing is that more and more HRM activities need a **communication strategy** for the application of internal and external media. Why is the company the employer of choice? How can companies transport their employer brand? How can companies find a global language policy? How can companies use employees as brand ambassadors? Since most of the activities in the HR value chain have a media aspect, HRM is definitely becoming the management of communication and media.

The logic behind all this is the idea of gaining competitive advantage for a company through the optimisation of **HR communication**. This is true both for internal and for external communication processes. For example, within the global war for talent, HR unit positions, the company as an attractive employer and highlights its **employer value proposition** (EVP). This eventually affects the commitment and retention of employees as well as the willingness of potential employees to apply.

Following this trend, we also have to rethink the activities of the HR department, because more HRM does not necessarily mean more activities for the HR department. On the contrary, when HRM moves towards the direction of HR communication management and when the HR department is not willing or able to cope with this trend, the HR department will lose its impact.

Therefore, HR professionals have to manage media: they need media for the internal communication of HR-relevant issues, while in times of war for talent external communication with potential employees also becomes more and more relevant.

5.1.2 Current Challenge: How to Survive in the Media Jungle?

However, today not only HRM deals with communication; many departments also get involved in external communication.

In the old days, we had clear communication channels between the company and external stakeholders such as the annual report, press releases, and printed job advertisements. These channels were mainly controlled by corporate communications, consisting of nomenclature and branding, graphic design, and visual presentation from which stakeholders form their impressions (Gray and Balmer 1998: p. 700).

Now, **more people in more roles** are acting in external communication. Product innovation connects with customers who give valuable feedback about existing products as well as ideas for new products, departments such as diversity management connect to the public on their own, and in many cases employees, especially trainees, have become company ambassadors that spread (hopefully positive) stories about their firms.

In addition, we see more **communication channels** offered by social media technologies. Weblogs offer everyone—with or without any programming knowledge—the possibility to publish content on the Internet. Further, employees

are permanently connected via social networks such as Facebook and XING, exchange short messages via Twitter, participate as users and content generators on the video platform YouTube, read the truth about the world on Wikipedia, and exchange all kinds of pictures on the photo-sharing platform Flickr. Thus, social media leads to a media jungle that offers a lot of opportunities but also the threat of getting lost.

5.1.3 Logical Consequence: The Search for Convergence

Simultaneously with the emergence of new media and new technologies, the search for convergence within this variety rose in prominence. **Media convergence** means the process whereby new technologies are accommodated by existing media as well as communication industries and cultures (e.g. Dwyer 2010). This convergence is usually seen from three perspectives (a) as a combination of technologies and platforms, (b) as an integration of services and markets or (c) as a consolidation of companies through alliances and mergers (Chon et al. 2003: p. 142).

Besides technical convergence, we therefore also see an ongoing **convergence with regard to content**. In particular, this convergence is based on the existence of (private) media companies or networks that use partly the same content. Media convergence refers to the merging of formerly independent technologies and devices, resulting in new services such as mobile TV, mobile Internet, Internet TV, and Internet radio.

Mobile TV, for instance, provides the same content as seen on traditional TV. In this case, we have a convergence of content. It also includes on-demand video that can be downloaded or broadcast to a number of users (Bayartsaikhan et al. 2007: p. 13). **Mobile Internet** refers to access to the World Wide Web via smartphones or tablet computers connected to a mobile network or another wireless network. In this context, the small screen size and limited memory are relevant challenges that will change the user interface of Web sites (e.g. Adipat et al. 2011). Internet Protocol TV blurs Internet and television media, recombines them in a new distribution mode over various platforms, and accesses devices (Dwyer 2010: p. 2). These new services change user behaviour as well as business models.

Even though everybody talks a lot about convergence, we have few discussions about what convergence is. Little is written about the **management of convergence**, except maybe convergence management within media companies as journalistic enterprises (e.g. Killebrew 2005). In the field of media management (e.g. Scholz and Eisenbeis 2008), technical aspects that lead to convergence in terms of the value chain are being discussed, for example, in the works of Zavoina and Reichert (2000) or Cooke (2005).

This development also concerns companies that use media for their internal and external communication every day. Without doubt—but without much energy yet—HRM also has to think about this media convergence and its consequences and implications for HR activities. Therefore, this article tries to provide some preliminary answers.

5.1.4 Specific Focus: Thinking About Media Convergence in HRM

5.1.4.1 As a Relevant Object

The first question to be addressed relates to the **relevant objects** that should be considered if we talk about media convergence in HRM. The relevant object is the point that should be investigated when looking for potential convergence movements. Similar to the convergence of the TIME industry (e.g. Jenkins 2004; Erdal 2009), content is an important aspect for HRM, too. Therefore, it is obvious that the technology used by HRM should also be considered. More HRM related, however, might be the question of the employer branding a company strives for, which is closely related to emotional positioning. This question is of a conceptual nature and thus it will be answered on a purely theoretical basis.

5.1.4.2 As an Existing Reality

The second question to be addressed concerns the current process of convergence. Taking account of the answers to the first question, we must analyse if movements towards convergence related to these objects can be found. Convergence can take place on **four different layers**:

- The first layer is the **specific company** as a particular organisation where one has to look for intra-convergence.
- The second layer refers to **a country** or a region, where one has to look for convergence between the players from the first layer.
- The third layer considers **Europe** where one again looks for convergence or divergence.
- The fourth layer deals with the **global economy** in totality and includes both the processes of convergence and those of divergence.

The answer to the second question is based on the findings from the literature and previous empirical studies. It is an overview of which developments in HR media management reality converge. This reality refers to the convergence of the relevant objects.

5.1.4.3 As a Formulated Strategy

The third question to be addressed investigates convergence as a formulated strategy. Here, we must accept the fact that convergence by itself neither is a general goal nor is always positive or negative.

Looking, for example, at the third layer “Europe,” we find a strong political will towards convergence but on layers one and two there is also strong divergence, which finally results in a fascinating construct that lives on the field of tension between convergence and divergence (e.g. Scholz 1992, 2012; Scholz and Müller 2010). To answer our third question we will get recommendations for **more strategic media management** within HRM.

5.1.5 Heuristic Framework: The CUBE Formula

Dealing with existing convergence as well as with convergence strategies needs a framework that guides the analysis. In this article, we use the CUBE formula, which stands for Content + Usability + Branding + Emotion (Scholz and Scholz 2002). Originally intended to design and evaluate Web sites, it can also be used as a heuristic framework, in our case for analysing media management in HRM.

In particular, we search for **four aspects** (Scholz 2011: pp. 186–188):

- “C” stands for **content** and means which content will be provided through the different media in a HRM context.
- “U” stands for **usability** and refers to the processes of media management and the applied technologies in HRM.
- “B” means **branding** and concentrates on internal and external communication with the aim of building a strong employer brand.
- “E” as **emotion** deals with the idea that the right emotion transported by different media can influence consumers or (potential) employees in different ways.

Each of these four aspects are analysed in terms of which typical objectives are relevant, which empirical convergence exists in HR practice and which optimal strategy should be followed. This results in 12 fields in which media convergence and convergence strategies in HRM can take place (Table 5.1).

5.2 Analysis: Applying the Heuristic Framework

5.2.1 Content as Unloved King (“Producing”)

Talking about HR media leads us immediately to the specific content that is connected to media. This content can be distributed over different media such as magazines, newsletters or the intranet/Internet. The interesting question is what is the best media for what content.

5.2.1.1 Objects: What Do We Find in Which Media?

When looking in HR textbooks for evidence of HR media and content, we usually find illustrative lists of **communication systems**. Here, we see those using an intranet, those using written words such as magazines, newsletters, bulletins, and notice boards, and those using oral media such as meetings, briefing groups, and public address systems (Armstrong 2003: p. 819). These systems more often describe internal HR communication.

New **social media** such as Facebook change the rules of the game for HR. The HR function has to move within these new media for recruiting the new generation of employees and gaining support for its employer brand. Furthermore, external media such as articles in professional journals, HR or career web presence, and HR or sustainability reports are to be noted.

Table 5.1 Our heuristic framework

	Typical objects?	Empirical convergence?	Optimal strategies?
Content			
Usability			
Branding			
Emotion			

What is rarely discussed is the content that is actually delivered by media. Accepting that “the media is the message” (McLuhan 1967), it is still necessary to know that content actually runs on which media.

One example for such a recommendation is the communication of benefits information to employees (Freitag and Picherit-Duthler 2004: p. 478). In this field, 79–92 % of HR managers prefer printed material.

There are additional suggestions for the **best methods of communicating** with employees (Smith and Mazin 2011: p. 74). Letters from the company president or owner are a good way to provide general information that employees can share with family members, for instance. A letter mailed to employees can summarise organisational performance, thank their efforts or reinforce important workplace matters. Newsletters can be used to inform, reinforce company culture, celebrate birthdays, and so on.

5.2.1.2 Convergence: Where Content Becomes Similar

Media convergence leads to a **democratisation of content** because of the development of *web 2.0*, where users generate and upload content for public access. The easier it is for all the internal stakeholders of a company to access media and produce content the more and more regulations or policies must be put in place about what corporate communication is and how it functions. Therefore, we see within companies the development towards corporate communication.

When we look at career websites, we can find a **similar architecture** of relevant issues and content. For example, there was an increase in the descriptions of career opportunities between 1997 and 2003 from 67.9 to 87.3 % (Heinze and Hu 2006: p. 319). Furthermore, articles in non-scientific journals recommend content about current employees, work culture, benefits and development opportunities (Zielinski 2011).

Looking at **human capital reporting**, we see some convergence at least (Pedrini 2007). This concerns the greater convergence between the Sustainability Report and Intellectual Capital Report. There is, for instance, convergence in the methodology of reporting. Both reports use quantitative indicators for financial and non-financial accounting and there exists some convergence in content, such as on the issues of human capital and relational capital management.

A similar development can be seen in corporate social responsibility reporting. In European reporting, seven themes that converge can be noted (Perrini 2005): operational efficiency, employee safety, environmental protection, quality and

innovation, open dialogue with stakeholders, skill development, and responsible citizenship.

Summing up, we see two trends (1) the convergence on career Web sites that is influenced by consulting firms and (2) the standardisation of content within external HR reporting.

5.2.1.3 Strategy: Content Convergence: Not Always a Good Idea

There are certain areas where HR definitely must follow a convergence strategy. This holds true for **HR reporting**, both within the company and between companies. One example of this is the standard “Human Capital Reporting 2010” (HCR10), which defines must-haves in the form of key performance indicators for the annual report of each company in Germany (Scholz and Sattelberger 2012). These indicators should be presented over several years, for instance, so that changes are transparent. Furthermore, the standard allows for comparisons between German companies.

However, content related to the specific nature of firms must not converge between companies, since it might gain and kill their **Unique Selling Proposition**. However, it must converge within the company based around corporate communication. There exist suggestions that companies need a communication policy, a corporate language policy, and a corporate information portal as part of their corporate communication design (Simonsen 2009). **Language policy**, for instance, means that a (national or international) company has to select which language should be used in business. This is necessary to reduce the negative effects of language diversity and provide a common ground for corporate communication. Especially for multinational companies, this point is relevant. A common corporate language has been argued to facilitate coordination, learning and value creation, formal reporting, and access to data or documents as well as reduce the need for translations (van den Born and Peltokorpi 2010). Therefore, media convergence management can also be seen as media selection management.

5.2.2 Usability as Technology (“Doing”)

For the purpose of this article, we do not focus on technologies themselves, but rather on the processes connected to them. In doing so, the search for usability leads to the question of which HR processes and activities need support from technologies such as Human Resource Information Systems (HRIS).

5.2.2.1 Objects: Which Processes Are of Relevance?

HRIS are the **backbone technology** for successful HRM. They can be defined as integrated systems used to gather, store, and analyse information regarding a company’s human resources. They are not limited to hardware and software applications for the technical parts; they also include the people, policies, procedures, and data required to manage the HR function (e.g. Hendrickson 2003: p. 381). This is

an important fact that leads us again to the media aspect: these systems produce an output in the form of dashboards or reports. This output has relevant content, which is illustrated in a complexity-reducing way.

According to a survey by the Society of Human Resource Management, HRIS are most **effective** in the fields of reporting, payroll, and compensation administration and least effective in recruiting/applicant tracking, training and development administration (Weatherly 2005: p. 6).

Only if they are connected to **value creation** can they play a strategic role. HRIS have the potential to lower administrative costs, increase productivity, speed up response times, improve decision-making, and enhance customer service (Snell et al. 2002).

New media technologies also influence HRM on a broad basis. These technologies can be used to support HR processes. Facebook or LinkedIn, for example, can support the recruitment process by searching information channels. Furthermore, wikis can be used for internal knowledge management.

5.2.2.2 Convergence: Technology as a Driver for Convergence

Even though this wonderful world of new media is supposed to be democratic with multiple options, we see strict convergence. In 2011 The *HR Magazine* ran a cover story entitled “The Grand Convergence” (Roberts 2011). This story deals with the **HR implications of convergence technologies** such as cloud computing including software as a service, mobile devices including smartphones, social media, and workforce analytics. Each technology already impacts on work, employees, and workplace culture. For instance, social media enables us to message a story to more and more people and create a global presence through external and employee networks.

In this context, it is also interesting that mobile devices and social networks work together. The best **apps** for mobiles are socially oriented. HR administration is not where mobile technology is going to be crucial. However, it becomes a key factor in getting work done and collaborating in real time. Therefore, the usage of social media converges: companies use public social networking websites such as Facebook and LinkedIn and they use internal social media tools for collaboration.

Behind all this is the logic that next-generation HR is emerging as a field that uniquely **combines activities and processes** that have traditionally been central to HRM, human resources, and organisational development (Ruona and Gibson 2004). Within this convergence, companies focus on people, on whole systems and integrated solutions, on strategic alignment and impact, and on the capacity for change.

5.2.2.3 Strategies: Two Different Directions!

At an **operative level**, we need the convergence of technologies with all the positive effects of HRIS. This holds true both within a company and between companies. Within a company, we look for convergence, for instance, in HR control, where critical HR processes and activities can be monitored in real-time

as the development of human capital value (Scholz and Stein 2010). Between companies, standardised IT systems such as those for payroll administration, help reduce costs. The cross-company convergence of these administrative processes does not eliminate competitive advantages.

However, at a **strategic level** divergence is crucial. Therefore, companies should think about which processes are strategic and how IT or other media can support these strategic directions. At this point, differentiation is the name of the game. Companies should try to gain a competitive advantage by being different within IT support. Even rather trivial looking questions such as how to attract new employees using a HR portal can be answered in very different ways. Therefore, propensities in the direction of convergence definitely should be avoided.

5.2.3 Branding as a Misunderstood Essential (“Positioning”)

In times of such a war for talent (Michaels et al. 2001), employer branding has to become more and more crucial as a competitive advantage. HR can use media to communicate the employer brand internally as well as externally.

5.2.3.1 Objects: Key Elements for the Employer Brand

With respect to the **war for talent**, companies have several important tasks (Scholz 2011: pp. 184–185): they have to attract new employees and they have to motivate and keep their existing ones.

One key concept in doing so is the **employer brand**. Just as Coca Cola and Ikea create a multidimensional but clear picture in the mind of the consumer, a company such as Apple or Google produces a set of attributes that is desirable for existing and potential employees.

The **characteristics** of an employer brand are based on the aggregation of the functional, economic, and psychological advantages of an employer (Ambler and Barrow 1996). It is not only a signal of the functional aspects, such as compensation or career opportunities, but also a psychological symbol, such as the image of the firm. The employer brand contains the unique unmistakable mark of an employer and describes a reality or an ideal of its workplace. In the recruitment process, for example, potential applicants will be attracted to a firm based on the extent to which they believe that the firm authentically possesses attributes such as a funny or creative working atmosphere (Backhaus and Tikoo 2004).

In contrast to the employer brand, **employer branding** includes the process of creating and maintaining an employer brand. In order to do so, different objects for designing a media presence (print as well as web) are relevant, such as slogans, logos, pictures, or colours.

5.2.3.2 Convergence: The Employer Value Proposition (EVP) as an essential message

There exists convergence around the aspects that each company has, namely its EVP, which is described as “the exchange, spoken or unspoken, between employers and employees that defines the relationship” (Fox 2012: p. 37).

Within employer branding, we see some convergence with regard to the **typical elements** of the employer brand from studies of recruitment and induction, team management, performance appraisal, learning and development, reward and recognition, and working environments (Barrow and Mosley 2005). Other studies focus on similar attributes, such as organisational environment, organisational fame and flexibility, variety of job and work setting, and compensation and career (Priyadarshi 2011).

This development is driven by studies of **employer attractiveness** (e.g. “Trendence” or “The 100 best companies to work for” from *Fortune* magazine), where the same attributes or characteristics of a good employer are always focused on and on which companies align their EVPs. However, it is also driven by consulting firms, which state which elements have to be part of the employer brand. Each company thus tries to attract potential employees with the same elements. Therefore, we find convergence between companies’ EVPs.

In addition, we also find convergence within firms with regard to **corporate branding**, where employer branding activities are also embedded in product or service branding—the whole company branding is similar.

5.2.3.3 Strategies: Branding as a Part of Media Management in HRM is a Must!

Branding as a part of media management in HRM is a must for each company—whether it is a large or a small firm.

Within companies, we need convergence according to a **corporate branding concept**. Elements of the employer brand have to fit with the corporate strategy and with the corporate products or service brands. In this context, media could be used as a means to reach such a convergence. One example is the motivation of employees to “live the brand” (e.g. Maxwell and Knox 2009). The behaviour of employees is an important component of the corporate marketing mix, because it provides external stakeholders with information about the identity of the organisation. This information has to be consistent with the advertised values of the corporate brand (e.g. Maxwell and Knox 2009: p. 894). In order to successfully manage a corporate brand, managers must therefore understand “how employees’ values and behaviour can be aligned with a brand’s desired values” (Harris and de Chernatony 2001).

One crucial strategy within branding is that companies not should use the same message or content within their employer brands. **Between companies**, we need divergence to realise competitive advantages within the war for talent. Therefore, companies have to think about their EVPs as a differentiated strategy. In this differentiated strategy, media mix is also relevant to attract the desired audience; for example, the younger generation expect other communication channels to those used with senior professionals. Besides the media mix for the target group, companies have to think about which media for the employer brand is more suitable for internal and which is more suitable for external communication.

5.2.4 Emotion as the Hidden Agenda (“Feeling”)

When we talk about emotion and HR with respect to external and internal communication, the emotional positioning of the employer plays an important role and this is thus the object of analysis in the following part.

5.2.4.1 Objects: Variety of Feelings

Emotions are playing an increasingly important role in the **workplace**. We are finding studies of emotions and leadership (e.g. Thiel et al. 2012), gender diversity and emotions (e.g. Ragins and Winkel 2011), and emotional information management (Taute et al. 2011). Emotions are furthermore a topic regarding the behaviour of frontline employees when interacting with customers or the general public (Kramer and Hess 2002).

According to Izard (1981) or Plutchik (1980), a set of **basic emotions** exists, which is composed of negative emotions such as anger or contempt and positive emotions such as happiness or interest. These emotions influence human and thus employee behaviour.

Most of these emotions arise in the context of **social interactions** as face-to-face communication or actually more and more about email, mobile phone, or the Internet. For media management within HRM, we need to understand which different emotions these different media evoke in the recipient.

In the context of **employer branding**, emotions also play an important role. In terms of the choice of employer, emotions affect potential employees. For instance, if the feeling of fun in an employer video implies a funny and cool working atmosphere, this can encourage an application.

Therefore, emotions are relevant not only for designing communication instruments (e.g. career Web sites, job advertisements) but also along the overall HRM value chain.

5.2.4.2 Process: The Same Emotions as Everywhere

We see that many companies have become aware of the importance of **emotional positioning** in a positive way (Taute et al. 2011) by using phrases within their communication such as “warmth,” “friendship,” or “love” as a reward for compliance. As well as this emotional positioning, companies enrich their communication with elements that are able to transport emotions such as online videos (e.g. Freer 2011) or “authentic” weblog postings (Gilpin et al. 2010).

Furthermore, we find a **homogeneous picture**. Most companies are trying to communicate emotions in their employer branding campaigns but the crux is that these emotions are nearly identical and they can be summed up with the keywords “work hard—have fun”—overall an indicator of a strong convergence movement. Google, for instance, advertises with the slogan “Work and play are not mutually exclusive” (Francis and Reddington 2012).

In addition, we are seeing convergence within the **media used to transport emotions**: according to the marketing or advertisement, we find more and more

videos about the company (corporate culture, workplace atmosphere), where “real” employees tell us about their work.

5.2.4.3 Strategies: Let Emotions Flow!

One important point that companies often ignore is that emotional positioning must be **authentic**. They should not advertise using emotions that in the real working environment do not exist. “Fun at work” as a basic emotion means that in reality this promised condition has to be during everyday life within the company. Similarly, the communicated emotions have to fit with the corporate level, such as strategy or culture, and with situational factors, such as industry or size. Only if companies discover a way to communicate an authentic emotional positioning can this become a USP in the talent market.

Just as branding strategies, companies have to be *different* in their handling and use of emotional positioning in media. They should *converge* within the company, but *diverge* between companies. Media for emotional positioning are also relevant: while it is important that an employer video exists, it is more important that the message reaches the recipient and that the content and used emotions are authentic.

Conclusions

Media management within HRM is becoming more and more a **strategic question**, because more and more internal and external communication processes are relevant for positioning the employer as one of choice. We see within this analysis that there exists **(media) convergence in HRM**. This convergence in some areas is the right strategy, but other fields need more divergence to gain competitive advantage.

Table 5.2 sums up the results of this analysis. In this table, we compare the typical objects with the empirical convergence and the strategic recommendations for the four elements of the CUBE formula. In some cases, the convergence reality and recommended strategies match, for example convergence development in human capital reporting. Others do not match, such as HRIS. In many cases of media management within HRM, more differentiated strategies are necessary, because of the differences that exist within and between companies.

Implications

With regard to the strategic point of media management within HRM at the beginning, we have three areas with relevant implications.

In the field of **research**, media management in HRM is a new and underdeveloped area. More conceptual and empirical research is needed. Until then, a lot of important questions are still unanswered: where is convergence efficient and where must firms think about divergence? Are there global and regional differences in

Table 5.2 Results of the analysis

	Typical objects	Empirical convergence	Optimal strategies
Content	Language policies/ corporate communication	Some convergence	Convergence within and between companies
	Human capital reporting	Some convergence	Convergence within and between companies
	Architecture of career website	Convergence within the company, convergence between companies	Convergence within the company, divergence between companies
Usability	HRIS	Some convergence	Operative convergence within and between companies, strategic convergence within a company, strategic divergence between companies
	New media	Convergence within the company, some convergence between companies	Convergence within the company, divergence between companies
Branding	Elements of a brand	Some convergence	Convergence within the company, divergence between companies
	Corporate branding	Some convergence	Convergence within the company, divergence between companies
Emotion	Kinds of emotions	Convergence	Some convergence
	Media in emotional positioning	Some convergence	Convergence within the company, divergence between companies

media management? Which media can transport which emotions? These questions should be answered in an international context. Do we need divergence within different countries or can we use the same media management in HRM at a global level? Therefore, in this context further behavioural studies in HRM are important.

In the field of HRM **teaching**, we have to continue to publish special textbooks (e.g. Karmasin and Winter 2006; Scholz 2006) that deal with convergence and media management in general as well as in a HRM context. Furthermore, curricula at universities and business schools must be extended to cover this special issue. With regard to content, students must know which media theories exist (e.g. media synchronicity theory or media richness theory) and their implications on HRM. They also have to learn about how communication works in different HRM fields, such as in downsizing processes. Finally, they have to think about the right media or media mix depending on the message. All these topics could be integrated into a multimedia teaching concept, where students get to know different media and their effects.

For the field of HRM **practice**, we have to think about which competencies HR managers need to manage media (content, usability, branding, emotions). Further, we need professional training for HR managers that focuses on media management

within HRM. They have to learn to deal with new media and IT support. The new generation of HR managers should have the right knowledge from business schools. However, questions on authority should also be discussed: which interfaces with other organisational functions are relevant? Who is responsible for what media process? It is unavoidable to interpret media management as part of strategic HRM.

Reflexive Questions

1. Discuss the statement: “Every HR manager is also a media manager.”
2. Discuss whether there could be or should be country-specific differences in media convergence in HRM?

Exercise Questions

1. Explain what the four letters CUBE stand for and relate them to the annual report of a company.
2. What kinds of convergences are related to the “C” of the CUBE formula?
3. Pick five career Web sites. Which elements of the employer brand converge? Which diverge?
4. Which emotions do you find on these career Web sites? Which do you find in the annual reports of the same companies?

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Chapter Objectives

1. To describe and discuss relevant topics concerning strategic and operative controlling both from a general view and a specific view on the business models and the control of convergent solutions.
2. To present the principles of controlling (strategic and operational).
3. To suggest the application of some basic instruments of controlling (i.e., portfolio analysis, business model analysis, calculating the lifetime value of a solution) for convergent solutions.

6.1 Introduction

From a rather general perspective, “**controlling**” is a function which intends to ensure rational decision-making in organizations with regard to the organization’s overall objectives. Controlling is broadly based on management accounting.

Convergence might be subject of controlling in so far as it is an issue in decision-making. In decision-making convergence could be an alternative (e.g., to merge two firms) or a situational condition (e.g., for most of us the convergence of communication technologies) [for decision analysis (Keeney 1982)]. In case that convergence is an alternative, basically, it has to be questioned whether or not, the net benefit of convergence is positive. For example, the merger of two firms usually is argued with inducing synergies which increase the value of the merged firm beyond the sum of the two firm values. Hence, in case of a firm merger, synergies are merely those effects which result from the new combination and which would

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not occur if the two firms continue operating separately (Biberacher 2003). From the perspective of controlling two issues result:

- Firstly, is convergence of two objects (e.g., firms) a beneficial option with respect to the overall objective (e.g., value of the merged firm) or put even shorter: Is convergence a beneficial alternative? Is it considerable to improve the business model with convergences? Hence, this addresses “whether or not to converge” and relates to rather strategic aspects of controlling.
- Secondly, in case that an organization has opted for convergence (e.g., for acquiring and integrating another firm) questions arise like: How to make sure that convergence is established? How to measure synergies? How to incentivize that convergence is implemented by managers? Hence, these aspects rather relate to operative issues of controlling.

However, it is worth mentioning that in the last decades, controlling itself is subject of convergence. In particular, we can witness a convergence of financial accounting and managerial accounting by International Accounting Standards. It was argued that these standards are more oriented towards the investors’ perspective than traditional financial accounting which is mainly directed towards creditor protection. In this sense, investor-related information provided by financial accounting numbers based on International Financial Reporting Standards (IFRS) and value-based management (Ittner and Larcker 2001) as an important issue in controlling might get closer (Weißenberger and Angelkort 2011). Moreover, the term “convergence” nowadays is broadly applied for a development which might end in a set of globally accepted financial accounting standards in the course of transitioning the US Generally Accepted Accounting Principles to IFRS [for an overview (Carpenter and Mahoney 2011); for critical comments (Reilly 2011)]

In this chapter, we address controlling as a function that seeks to ensure rational decisions related to convergence of, for example, business models or marketing channels; but we do not address controlling as a subject of convergence.

The remainder of this chapter is organized as follows. Subsequently, we go more into detail of different controlling functions. Afterwards we address the rather strategic dimension and question how the effectiveness of convergence could be figured out. Then, we focus the operative dimension introducing examples for analyzing and monitoring the efficiency of convergence.

6.2 Conceptions of Controlling

In German-spoken countries the term “**controlling**” is used for what in the Anglo-American countries often is summarized under “management accounting and control.” In case of strategic controlling there is a straight linkage to strategic analysis, strategic planning, and strategic performance management. The range of opinions about the essence of “controlling” is very wide-spread (Messner et al. 2008). Recently, three functional understandings appear to be predominant although further conceptions exist and are discussed controversially likewise [with further references (Weber and Schäffer 2008), pp. 20]:

6.2.1 Information Supply

The dominant function of controlling is to generate and supply the information to decision-makers which is required for decision-making. In this conception, controlling is broadly founded on accounting. Controlling is regarded as a kind of service function for managers and does affect managerial decisions only by generating and selecting information.

6.2.2 Coordination of Planning, Monitoring, and Information Supply

In this view, controlling has to coordinate among three subsystems (or subtasks) of management: planning, monitoring, and information supply (Horváth 1978). In the essence, controlling is supposed to coordinate departmental decisions with respect to the overall profitability objective of the firm. The need for coordination results from the fact that decision-making is decentralized. By its coordinative function, controlling ensures that the decentralized decisions of departmental managers are integrated and contribute optimally to the overall firm's objective. Two different stages of coordination are distinguished: Firstly, the structure of the firm's planning system, monitoring system, and information system is to be established (system-generating coordination). Secondly, within the established structure controlling has to react to day-to-day unforeseen events (system-interlinking coordination). Therefore, controlling is not directed to the coordination of operational activities but towards coordination within management/decision-making. Obviously, with this understanding the influence of controlling on decision-making is much stronger than under the information-centered conception as introduced above.

6.2.3 Comprehensive Coordination of Management

Like the aforementioned understanding, this conception emphasizes the coordinative function of controlling but extends the range of the coordination function. Additionally, human resources and organization are to be coordinated. By this extension, the scope of controlling is broadened since also behavioral control is in controlling's scope of responsibility. In particular, problems of opportunistic behavior resulting from asymmetric information and conflicts of interest are in the responsibility of controlling (Küpper 2008). For example, controlling is supposed to contribute to the design of incentive systems by proposing an appropriate assessment basis for management compensation. Obviously, with this definition controlling intensely interferes with decision-making, and it has been criticized that, in this understanding, controlling is some kind of "meta-management."

6.3 Strategic Controlling and Convergence

The appearance of convergence seems to be the result of increasing dynamic and complexity in most industries (Thielmann 2000). Convergence means that separated products, services, and technologies in separated markets convert to new solutions and new markets. In some cases the new solutions complement the traditional solutions, in other cases the new markets are in intense competition with the old markets because of comparable or even higher customer value (Greenstein and Khanna 1997). As a consequence, convergence is a considerable topic for strategic management.

Particularly technology, markets, or customers and availability of new solutions can drive convergence. For instance, in case of customers, new concepts of life and work design induce new claims on products and services which have to be met by the company—occasionally under uncertainty and risk. Thus, this has to be managed and controlled accurately because of the irreversibility of decision and activities which might be given at times. If one considers, e.g., the media industry, a company has to decide where to generate synergies and to allocate in the value chain of content, packaging, transmission, infrastructure, and user interface—mostly entailing huge investments and massive activities.

In order to be able to handle convergence, the strategic management has to deal with blurring contingencies, long-term perspectives, nonlinear developments and risk. The strategic controlling supports the strategic management processes within the company. Hence, the main viewpoint for the strategic controlling is the effectiveness of the intended and chosen activities. As a consequence, in terms of convergence the question arises whether or not convergence makes a significant contribution towards the strategic goals. A central aspect for this seems to be the estimation of the relevance and the success of investments in convergent business units, technologies and markets.

Following basic strategic principles, a major task of strategic controlling is the analysis of strengths and weaknesses of the company or business unit and the projection towards changes and trends in the relevant environments to unveil chances and risks using a comprehensive set of instruments (Buchholz 2009). Among them following instruments should be mentioned at this point:

- A field of utmost interest in strategic analysis is the analysis of the industry structure and therefore the structural underpinnings of profitability. Porter (1979) introduces a framework for an analysis with this viewpoint. His model of competitive forces provides deep insights into costs, processes, and investments in order to compete successfully. The main competitive forces are the bargaining power of buyers and suppliers, the threat of new entrants into the industry, and the threat of substitute products or services (Porter 2008). Besides factors like industry growth rate, governmental aspects, and technology, these factors drive rivalry among existing competitors (Fig. 6.1).

With regards to convergence, e.g., the bargaining power of web-communities can force competition towards the best convergent solution in the industry; the bargaining power of suppliers is relevant, e.g., concerning the setting of

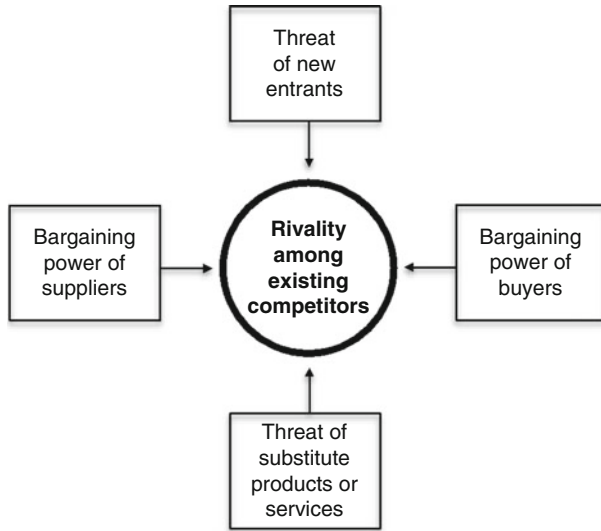


Fig. 6.1 Analysis of the industry structure (Porter 1979)

technical standards for media channels; e.g., the change within media or communication channels could drive the threat of substitutes; and e.g., the change within communication channels could allow the entrance of new competitors from other industries. Also with regards to convergence, one critical issue of this analysis is the definition of the relevant industry. In a situation of convergent markets, products/services, and technologies and therefore shifting industry boundaries, strategic errors could emanate from defining the industry too broadly or too narrowly. If the industry is defined too narrowly, there is a certain risk not to provide the appropriate solutions for the needs of the customers.

- Within the strategic controlling, a portfolio analysis can provide deep insights into the competitiveness of a company and the value contribution of business units, products, services, and solutions, as the management of synergies seems to be a central task in strategic accounting.

Furthermore, strategic controlling supports the setting of strategic goals, the estimation of alternative strategies, the choice of strategies (e.g., scenario analysis, business cases), the implementation of strategies (e.g. corporate dashboards, balanced scorecards), and ongoing strategic monitoring (Welge and Al-Laham 2008).

Central tasks of strategic controlling are the basic analysis and the ongoing monitoring of the *business model*. However, there are several approaches to describing a business model (Müller-Stewens and Lechner 2011). A basic approach to describing the basic idea of a business model is provided by Kim and Mauborgne (Kim and Mauborgne 2005). This model allows for a more creative way of identifying value innovations for both the market and the company, e.g., by crossing conventional market segmentation, service concepts, and customer

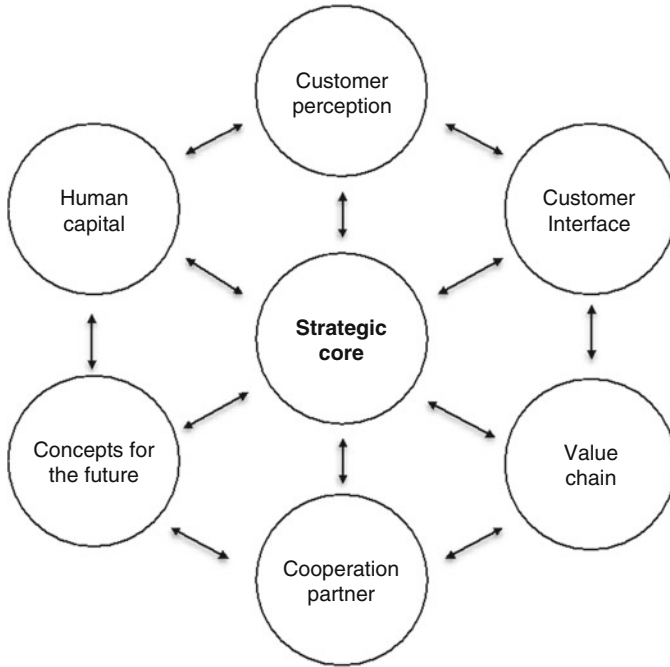


Fig. 6.2 7C Principle for business models (Greiner and Wolf 2010)

experience. Underlying intention is to go beyond competing and to provide new growth and profit opportunities. A conceivable way for this could be combining services from different industries to new solutions supported by convergence of technologies, content, and medias. This could lead to new business models and configurations of value chains.

A more detailed concept for describing a business model is the “7C Principle” (Greiner and Wolf 2010) shown in Fig. 6.2.

This model identifies a *strategic core* and six further elements of a business for configuring the strategy, an ongoing strategic controlling and performance monitoring:

- Customer perception
- Customer interface
- Value chain
- Cooperation partners
- Concepts of the future
- Human capital

The *strategic core* of a company can mainly be described by the products, services, and solutions it offers to customers and the basic strategic position in the industry. It represents the basic idea of the strategy as well as the portfolio of business units and the synergies between them.

These elements are suitable. The *customer perception* focuses on the specific benefit of the customer and the shared value proposition. With a viewpoint on convergence, questions arise such as e.g.: “How does the customer benefit from the convergence of technology x and y ?” or “Can we arouse interest on the market by adding content x to content y from company X and company Y ?” The customer perception also influences the positioning strategy and brand perception and is therefore a basic strategic element. The underlying factor for this is the customer’s perceived value which can be described as the difference between the prospective customer’s evaluation of all the benefits of a product or service and all the costs of an offering and the perceived alternatives (Matzler 2000). Generating customer perceived value is above all a central task for the marketing. Strategic controlling should allow and coordinate an ongoing performance monitoring of activities and results in this aspect of the business model.

Another element of the business model is the *customer interface* as the fundament of customer interaction. With regard to convergent technologies, media, and content, strategic controlling could focus on the effectiveness of the interfaces, synergies of interfaces and content in the present and future.

Management of convergence itself is essentially about competences and the underlying resources and capabilities. It is suggested that in industries with an advance towards convergence (like media- and communication industries), strategies should be developed with a resource-based view rather than a market-based view (Müller and Brösel 2008) caused by dynamic contingency factors, short product life-cycles, and drifting market segments. Core competences (Hamel and Prahalat 1995) and resources are attached to the company over a longer perspective. This leads to the strategic task of positioning within a more or less complex and emerging *value chain* or designing a value chain from the scratch. The degree of vertical integration, locations, procedures and processes, IT infrastructure, logistic systems, and organizational form are the main topics. Further, they are also a main topic for the strategic controlling as nowadays value chains can be reconfigured rapidly. Estimations of trends and generating scenarios for the future are of highest priority for strategic controlling as the positioning within a value chain seems to be a fundamental reason for the existence and the competitiveness of a company in the future. Gaps of competences have to be identified by the strategic controlling with a broad reference framework.

Defining the value chain and the customer perceived value are strongly linked to the element of *cooperation* (Greiner and Wolf 2010). First, strategic controlling should provide information for decisions about necessary types of cooperation, alliances, affiliations, and merger & acquisitions within the increasingly globalized and dynamic context. As a consequence, strategic controlling also has to broaden the focus on the configuration of cooperation and networks.

In many industries it can be shown that established companies fail to create appropriate *concepts for the future*. This is true for innovative products and services but also for business model innovations (Johnson et al. 2008). These companies try to fulfill customer needs on a high-end level with ongoing innovations, which sometimes leads to a significant “over-engineering.” Strategic controlling has to

provide a view on the low-end of the market and customer requirements to maintain agility and innovativeness in the customer solutions. Disruptive technologies (Christensen 1997) are often neglected by established companies. In the long term, this may lead to a loss of competitiveness.

A further topic for the strategic controlling is the *human capital* that represents important resources and skills for the business model. Following the concept of the balanced scorecard (Kaplan and Norton 1997), the human capital is a basic driver for strategic initiatives and the company's success and has to be controlled systematically.

6.4 Operative Controlling and Convergence

In this section we address the functions of controlling related to the *efficient implementation* of convergence. Convergence can be related to a wide range of subjects like, for example, the merger of firms, integration of business models, or the convergence of media. However, from a controlling perspective this makes our subject more complicated: A general rule in managerial accounting and control claims that the objective of accounting determines the accounting system. Therefore, we structure this section as follows: Subsequently, we provide an idea of operative controlling on a “meta-level” and then turn to an example of convergence.

6.4.1 General Analysis

As already mentioned, the controlling function can be defined with rather differing scopes. We pick up the differentiation introduced above and analyze the corresponding issues for convergence controlling.

6.4.1.1 Information Supply

An important function of controlling is to provide decision-makers with decision-facilitating information (Demski and Feltham 1976). Decision-facilitating information serves as direct input in decision-making and is supposed to improve the knowledge and prospects for making decisions. For example, in its decision-facilitating role, accounting information could relate to

- Gross benefits of converging two objects in terms of synergies
- Direct costs of converging two objects in terms of, for example, project costs
- Indirect costs of convergence, like, for example, costs of reorganization, losses of motivation

These items are required in

- Planned/forecasted numbers
- Actual numbers

Furthermore, it is helpful to have a model of the determinants for the costs and benefits of convergence. For example, what are the

- Value drivers of convergence
- Cost drivers of convergence

This also allows conducting *variance analyses* in order to identify the causes for deviations between planned and actual values of convergence.

6.4.1.2 Coordination of Planning, Monitoring, and Information Supply

With respect to convergence a coordinative function of controlling with regard to planning, monitoring, and information relates to the following issues:

- Coordination of objectives of convergence, in particular, with respect to
 - Long-term and short-term objectives (e.g., multi-period vs. single-period objectives)
 - Converging objects
- Coordination of premises related to converging objects (e.g., market size, market growth)
- Coordination of action plans related to convergence (e.g., project plans)
- Alignment of monitoring procedures towards planned objectives and action plans
- Alignment of information supply towards planning activities and monitoring procedures

6.4.1.3 Comprehensive Coordination of Management

In addition to the coordination needs mentioned before, further coordinative effort is required with respect to conflicts of interest and asymmetric information. In particular, in case that the converging objects are assigned to different decision-makers it is to be questioned whether these managers are interested in convergence and, in consequence, if they are willing to put enough effort in realizing convergence. Managers might act in order to avoid loss of power or to avoid effort. Against this background controlling has to decide whether, for example,

- individual performance, in particular, related to single converging objects
- team performance related to an overall value base (e.g., firm value)

is rewarded. Research indicates that situational conditions like

- highly interdependent tasks
- opportunities of mutual monitoring (i.e., avoidance of free-rider-behavior)
- high risks related to individual performance
- relatively small team groups

suggest applying a team-based value basis for rewards [with further references (Pizzini 2010)].

6.4.2 Example: Merging Products and Services into Solutions

In various industries firms emerge from product suppliers to providers of customer-specific solutions. For example, the idea of the so-called bundling is that the supplier not only develops a product for the customer, e.g., a complex technical

equipment; moreover the supplier also is intensely involved in the usage of the product on the customer's site and provides technical maintenance.

The integration of product and services into customer-specific solutions places special demands on managerial accounting and control that go beyond traditional concepts (Wall and Mödritscher 2012).

Cost accounting traditionally is directed towards cost centers and the calculation of (physical) products. However, with regard to solutions this appears rather inappropriate. One reason is that neither the physical product nor the services provided in subsequent years are the relevant objects of calculation but rather the customer relation. Therefore, it was argued that—instead of traditional cost accounting—measures like the Customer Lifetime Value should be applied (Blattberg et al. 2001). In the essence, the Customer Lifetime Value is given as net present value over the duration of the contractual relation:

$$CLV = \sum_{t=0}^T \frac{CF_t}{(1+i)^t}$$

with CF = contractual relation in period t

i = discount rate/cost of capital

t = period

T = duration of the contractual relation

However, with respect to the *coordination of objectives* some further challenges occur: The Customer Lifetime Value might be an appropriate for evaluating whether a customer relation is profitable. Moreover, the Customer Lifetime Value can be linked to the firm value. Yet, the measure has a multi-period horizon and, therefore, might be inappropriate for planning and monitoring short-term objectives. For this purpose, residual income-based measures are useful: Residual income in a certain period is the operating profit of that period reduced by the costs of capital employed in the beginning of the period. The key feature of residual income is that the sum of expected discounted residual incomes corresponds to firm value. Hence, a *periodic* performance measure based on accounting numbers can be linked directly to the *multi-periodical* firm value [with further references (Lambert 2007)]. A principle approach for the calculation of the lifetime value of the customer-specific solution is provided in Fig. 6.3. This approach is based on discounted residual profits of the customer solution (Wall and Mödritscher 2012). The residual profits are calculated on the basis of the turnover and the costs of the customer-specific solutions. The costs are either considered to be directly eligible for the customer solution or indirectly as targets budgets (indirect costs, costs of indirectly attributable processes and costs for managements processes). By including imputed interests on specific customer solutions, the lifetime value of the customer solution can be calculated by discounting the residual profits of the customer solution following the theorem of *Lücke* (Lücke 1955). This approach allows a controlling of the customer solution over time not by cash flows (usually

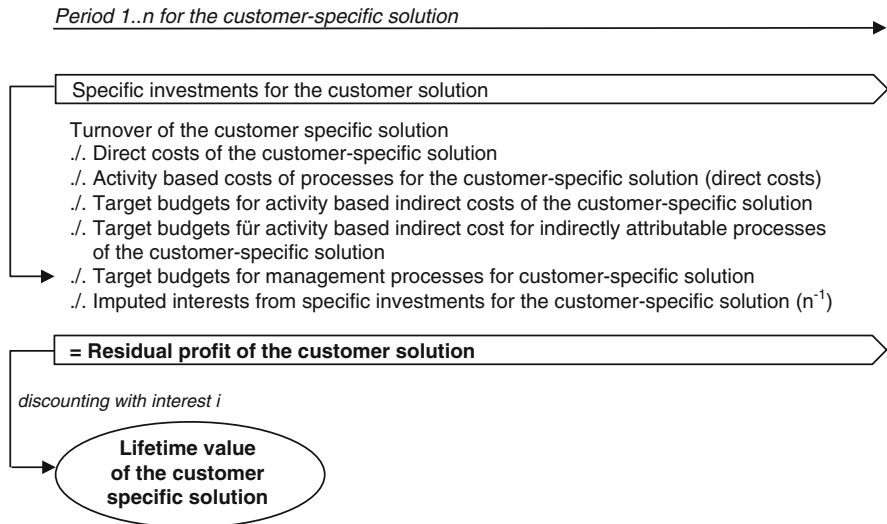


Fig. 6.3 Lifetime value of customer-specific solutions

used for discounting a net present value of an investment) but by turnover and costs, which seems to be widely applicable in practice.

However, tracing customer-relation-specific residual income measures in order to compute customer lifetime value and derive firm value from customer lifetime values poses practical challenges (Wall and Mödritscher 2012).

Merging products and services to solutions also leads to multifaceted *coordination need with respect to action plans*. For example, a typical problem of solution providers is to develop customer-specific hybrid products, i.e., individual bundles of a new product and related services. This requires coordination between the R&D department, the sales department, and management accounting. In particular, information about customer-specific requirements available in the sales department has to be communicated to the R&D and vice versa. Otherwise, sales managers might be tempted to promise solutions which have development expenses that reduce return on investment below the minimum required level (Tuli et al. 2007).

Behavioral control, i.e., mitigating of conflicting interests and asymmetric information has to face specific requirements in case of solution providers. As mentioned above, a general question is whether individual performance or team performance should be rewarded.

Individual performance, for example, could be rewarded on basis of the following measures:

- R&D department: development expenses, development time
- Operations management: capacity utilization, quality measures
- Sales department: revenue, contribution margin
- Service & maintenance: response time

However, it has to be questioned whether these measures provide incentives to care about the overall customer relation which represents—as indicated by the customer lifetime value—a more comprehensive objective. Moreover, providing individual incentives might induce that one department seeks to maximize the own rewards at the expense of another department. For example, the sales department might promise sophisticated technical solutions that the R&D department cannot provide, or, at least, not at a cost-covering price.

Therefore, for solution providers it might be more appropriate to rely on team-based performance measures. Examples are:

- Customer lifetime value
- Residual income
- Operating profit
- Customer satisfaction

Unfortunately, none of these value bases for rewards comes without problems: For example, the customer lifetime value is a multi-periodic measure which, at least, poses problems in case that rewards have to be paid annually; residual income is difficult to relate to certain customer relations; the same is valid for the operating profit which moreover does not provide goal congruence to firm value; non-financial measures like the customer satisfaction suffer from rather weak methods of determination compared to financial measures.

Hence, even if team performance seems more reasonable to be reflected in the reward systems than (merely) individual performance, there seems to be no simple solution for an appropriate team-based value basis for compensation.

Conclusion

The convergence of products, services, and solutions seems to be a broad subject area for both strategic and operative controlling. In this article we tried to point out that beneath a complexity of the subject itself there is also a significant need for new approaches in controlling. In case of business solutions controlling, for example, has to provide a long-range perspective both in strategic and operative issues. Consequently this drives special demands on managerial accounting that go beyond traditional concepts and leads to concepts like the Customer Lifetime Value. From a strategic perspective the whole business model has to be controlled systematically mainly to support decisions for business model innovations.

Exercises

1. Describe the basic idea behind the concept of controlling.
2. What is the main scope of strategic controlling?
3. Why is convergence a topic of utmost interest in strategic management?
4. What is the main scope of operative controlling?
5. Describe the basic elements of a business model?

6. What are “concepts of the future” and why do they often cause serious problems in well-established companies?
7. What could be the basic idea behind a controlling of solutions?
8. What could be the main effects of the convergence of business units (technologies, contents, etc.) in strategic and operative manner?

Reflexive Questions

1. Try to describe the business model of Apple.
2. Try to describe the controlling concept for a cross-media-platform driven by a newspaper publishing company.
3. Think about the issues that arise during the estimation of developments in media-platforms in the future.

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Part II

Convergence and Advertising and Marketing

Convergence in Global Markets: The Great Standardization Versus Localization Debate Is (Finally) Put to Rest

7

Barbara Mueller and Charles R. Taylor

Chapter Objectives

Upon completion of this chapter, the reader should

- Understand the trend toward convergence among consumer segments in the global marketplace
- Know the advantages associated with the standardization and adaptation of marketing programs
- Be familiar with key empirical studies that have shed light on the standardization debate
- Be able to outline the major theoretical frameworks for understanding global marketing strategy (Global Marketing Strategy Theory, Global Consumer Culture Theory, and Global Consumer Culture Positioning Theory)
- Understand several of the most useful cultural dimensions applicable to international advertising research (high versus low context, Hofstede's dimensions of culture, and the GLOBE dimensions of culture)
- Appreciate the implications of convergence for international marketing managers

7.1 Convergence in Global Markets

Convergence is a term that has been used extensively in virtually all the sciences over the past several years. The common denominator in the use of this concept is that it refers to the reduction of diversity within a given observable set or population

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(Mitry and Smith 2009). With increasing globalization and cultural cross-fertilization, it is reasonable to believe that markets are converging in many ways on several different levels (Usunier 2000). For example, there is increasing evidence of economic integration among major world regions, such as the North American Free Trade Agreement (NAFTA), the Association of South–East Asian Nations (ASEAN), and perhaps most notably the European Union (EU). These agreements have resulted in the harmonization of laws, regulations, and business practices between markets (Okazaki et al. 2007).

We may also speak of convergence among consumer segments in the global marketplace. Such convergence is due to a multitude of factors, among them the growth of global media, widespread access to the Internet, increased consumer spending power, and international travel. Batra, Myers, and Aaker (1996, p. 7171) contend that “There are clearly cases where the same consumer segment exists in many countries across the world, though obviously to different degrees.” In the past, global or cross-border segments were commonly viewed as comprising affluent consumers (e.g., those targeted by Louis Vuitton, Rolex, or Mercedes Benz) or teenagers (with their similar tastes in music, entertainment, and fashions). Yet, increasingly, other segments are emerging, including environmentally and socially concerned consumers (targeted by companies such as Toms, The Body Shop, and Aveda), and young married couples (targeted by low-priced furniture retailers, such as Ikea and the like), (Douglas and Craig 2011). Court and Narasimhan (2010) suggest that the emerging middle class in a broad range of developing countries may present yet another cross-border segment.

In a recent study examining whether psychographic segments exist for consumers of fashion products across Europe, Korea, and the USA, Ko et al. (2007) found four segments that cut across cultures. These were “information seekers,” “sensation seekers,” “utilitarian consumers,” and “conspicuous consumers.” The authors concluded that it is viable and perhaps desirable for fashion marketers to target cross-national segments in these countries as opposed to engaging in individual segmentations.

Cross-border segments transcend national boundaries and share uniform characteristics (such as needs, preferences, lifestyles, tastes and habits). Increasing convergence among consumer segments has enabled firms to formulate *standardized marketing strategies* for their brands (Jain 1989; Samiee and Roth 1992). A common marketing strategy can involve standardized products, uniform packaging, identical brand names, synchronized product introductions, and identical advertising messages across markets in multiple countries. Some even argue that such standardized marketing strategies for global consumer products are *drivers* of cultural change. Mitry and Smith (2009) note “the observation that people everywhere are adopting the same products is not as important as the observation that marketing strategies influence cultural change. Therefore, the type of cultural convergence that we see is the direct result of the rapid growth of mass communications and the marketer’s use of the media to promote product identity with perceived desirability. Moreover, the result of this continuing marketing process is not only increasing awareness of products that would otherwise be unknown, but it is also the propeller for convergence of consumer

preferences across cultural boundaries. The process appears to actually create evolutionary changes in consumers' previous culturally anchored behavior and serves in the formation of global market convergence." In short, standardized marketing strategies affect consumer perceptions and ultimately alter consumer choices, and this interactive process produces an evolutionary development towards convergence across consumer markets.

7.2 The Standardization Versus Adaptation Debate

The issue of convergence in global markets is closely tied to the **standardization versus adaptation debate**. For over five decades, both academics and marketers have argued over the degree to which firms should globalize or customize their marketing programs across countries. Debates regarding the viability of standardized marketing surfaced as far back as the late 1960s (Buzzell 1968). However, the concept of standardization was popularized by Harvard marketing professor Theodore Levitt, who suggested that people everywhere want goods of the best quality and reliability at the lowest price; and that differences in cultural preferences, tastes, and standards are vestiges of the past, because the world is becoming increasingly homogenized (Levitt 1983, p. 92). A standardized approach to the marketing mix, and specifically the adoption of standardized advertising, offers marketers significant benefits.

An important advantage of standardized advertising relates to the need to develop and implement campaigns more efficiently. Clearly, for a company operating in dozens of countries, developing a completely unique advertising campaign for every single market would be difficult to coordinate. When a general strategy emanates from headquarters it is easier to implement a campaign, even if some aspects such as language and executions are modified. Thus, improved coordination and implementation has been cited as a first benefit of standardization (Czinkota and Ronkainen 2010).

It is also the case that operating numerous different campaigns across the world is inefficient and cost prohibitive. Developing a general strategy and perhaps even some tactical aspects of a global ad campaign centrally can lead to significant cost savings. Additionally, in at least some contexts, there may be cost savings associated with making media buys that cut across borders. Thus, cost savings brought about by standardization are a second key advantage of standardization of advertising (see, e.g., Levitt 1983 and Ford et al. 2011).

A third key advantage of standardized advertising is that it can be used to craft a uniform brand image around the globe (Czinkota and Ronkainen 2010). Consistent with Levitt's view that improvements in transportation and telecommunications, among other factors, have led to more similarities among consumers across markets, is the idea that many consumers will respond to a general positioning statement or advertising strategy. In this way, consumers recognize brands like Adidas, Nokia, and McDonald's regardless of where they are in the world. With increased evidence that it is possible to target cross-national market segments, it

becomes even more important to build a common image while building brand equity cross-nationally (Ko et al. 2007).

One final benefit of standardization is the ability to exploit creative ideas (Mueller 2011). Good creative is hard enough to come by, without having to reinvent the wheel for each country that an advertiser plans to enter. Standardization allows a single strong creative approach to be employed across markets.

In contrast, those committed to complete *adaptation or localization* argue that converging technology and disappearing income differences across countries will not lead to homogenization of consumer behavior. Instead they emphasize the divergence of markets, noting that consumer behavior will become more heterogeneous because of cultural differences (de Mooij and Hofstede 2002; de Mooij 2003). And given that consumers and marketing environments vary so greatly from one country to the next, they contend it is necessary to adapt the marketing mix elements. Adherents of this approach point to a multitude of marketing blunders that have resulted from not paying sufficient attention to the role of culture (see Ricks et al. 1974 for a seminal article which ties most pitfalls in global marketing back to a lack of cultural awareness). Although such a customized approach typically results in higher costs, marketers hope that these costs will be offset by a number of advantages.

The ability to adjust to specific cultural preferences is an important benefit of the adaptation strategy. In an advertising context, this may involve a need to adapt the tone, format, length, or appeal type used in an ad. While it is often possible to retain a single positioning statement to build the brand or general strategic elements of the message (e.g., which feature is being emphasized), there are frequently elements of the execution that must be altered. A related advantage of adaptation is the ability to be understood in a local cultural context. This means both communicating in the appropriate language and also in terms understood by citizens of a country or region. Clearly, stubbornly running foreign language ads will simply result in failure in many advertising contexts. According to a study from RSM Erasmus University in Rotterdam, even people who speak more than one language respond more acutely to marketing messages delivered in their mother tongue (Ford 2008). A third important advantage of localization is that it is sometimes necessary to comply with legal restrictions or self-regulatory guidelines in a country. For example, Taylor and Raymond (2000) found that even among countries in the same region (East Asia), regulatory guidelines can vary a great deal, especially for certain types of products. When regulations vary across countries, advertisers may be obliged to adapt their strategy.

7.3 Empirical Studies Shed Light on the Standardization Debate

Duncan and Ramaprasad (1995) note that the crux of the standardization debate used to be: “Should multinational advertising be standardized or localized?” By the mid-1990s, the question became “In what situations and to what extent should

multinational advertising be standardized?" Today, Taylor (2005) notes that the debate is all but dead. The weight of the research evidence suggests that, at least for large multinational firms, the use of a globalized marketing strategy, including the creation of a global brand image, has major advantages and can lead to improved performance (Zou and Cavusgil 2002). Indeed, Okazaki et al. (2006) found that Japanese and US subsidiaries operating in the EU who standardized their advertising across the EU markets they sold their products in reported higher levels of financial performance (including return on investment from advertising) than those who adapted.

One need only to look briefly at the list of the world's best global brands and their value to realize the dramatic advantage a global brand can provide. Interbrand, the leading brand consultancy, produces its Best Global Brands report based on a unique methodology. It analyzes three key aspects that contribute to a brand's value: (1) the financial performance of the branded products or services; (2) the role of brand in the purchase decision process; and (3) the strength of the brand to continue to secure earnings for a company. For example, in 2011, the top five brands were Coca Cola (for the twelfth consecutive year), IBM, Microsoft, Google, and General Electric. The top four of these brands were all valued at over \$50 billion (Interbrand 2011).

A large number of investigations of standardization and related issues have been conducted over the years that have shed light on the debate. In a comprehensive review of the literature, Taylor and Johnson (2002) conclude that many companies have adopted an approach where broad strategies are standardized, but advertising executions are localized as needed. In a key study using survey methodology, Harris (1994) found that most multinational companies use standardized advertising, but the extent to which they use it varies. He emphasizes that practitioners should focus more on "how" to standardize as opposed to "whether" to standardize.

Subsequent studies appear to validate Harris' findings. In a major survey of multinational advertisers, Duncan and Ramaprasad (1995) found that 68 % of the multinationally advertised brands used a standardized strategy in all the countries in which their advertising ran, 24 % in some of the countries, and only 7 % in none at all. Standardization of execution was surprisingly similar with 54 % of the multinational brands using it in all countries, 36 % in some countries and 8 % in none at all. They found, however, the use of standardized language to be uncommon in all countries. Notably, the authors found that the desire to achieve a uniform brand image was the number one motivator for standardization—higher even than the motivation provided by potential cost savings.

Leefflang and van Raaij (1995) note that there is evidence of the existence of a single European market as the result of the unification process. While there are certainly recognizable differences between European countries, there are also significant similarities between them. Together these similarities serve to distinguish European consumers from those in other areas. Mitry and Smith (2009) note that, "strictly speaking, one cannot identify a singularity in European culture, but European consumers have shared close proximity and similarities in consumer

values and behaviors.” And a uniform marketing strategy across the continent has long been advocated by both the business and academic worlds (Dibb et al. 1997; Whitelock et al. 1995). Okazaki et al. (2007) explore the relationship between market convergence and standardization of advertising campaigns by examining US and Japanese subsidiaries advertising practices in the Common Market. The authors proposed that the convergence associated with European Market integration has lead firms to emphasize two advertising strategies: creating a uniform brand image and appealing to cross-market segments. Results of the survey of managers of subsidiaries of Japanese and US firms suggest that firms that believe the EU is converging are more likely to engage in these standardized advertising strategies. Additionally, they found that firms that seek to create a uniform brand image and appeal to cross-market segments are indeed more likely to standardize their overall advertising programs.

A number of investigations are suggesting that convergence is even creating opportunities for standardizing executional aspects of ads. Schwaiger et al. (2007) found evidence that some types of comparative appeals are successfully employed in Germany, a market where comparative approaches were not legal until rather recently and believed to be questionable in terms of effectiveness. Stepping outside the EU, Kalliny et al. (2008) examined advertising executions across the Arab world and found that while some significant differences were still present between the USA and Arab markets, there were more similarities than one might have anticipated. In an analysis of appeal types used in Japanese and American advertising, Okazaki and Mueller (2008) found an apparent trend toward convergence and concluded that Japanese advertising may have become more “American” and US advertising may have become more “Japanese.” Okazaki et al. (2010) conducted an experimental investigation that suggests that certain types of soft-sell appeals and hard-sell appeals may have the potential to be standardized across the USA and Japan in a way that likely would not have been possible a decade or more previously.

There appears to be ample evidence that standardized advertising strategy is more feasible than in the past, and that the benefits to marketers who employ this approach are considerable. However, the question regarding the degree to which standardized executions can be employed, and under what circumstances, has not been definitively answered. Multinational marketers must clearly still take cultural factors into account. Collectively, the findings of the investigations noted above suggest that both theories pertaining to global marketing as well as conceptual frameworks to help understand and measure culture are essential. If standardization is as important at a strategic level, it is critical to apply theoretical or conceptual perspectives that allow us to better comprehend how and why standardization strategies work. Fortunately, some recent advances in theoretical perspectives have allowed for better application to the issue of degree and effectiveness of standardized advertising. The remainder of this chapter will be divided into the following two sections: (1) frameworks for understanding international advertising strategy and (2) the application of cultural dimensions to international advertising research. In the first section, the following theories will be addressed: Global

Marketing Strategy theory, Consumer Culture Theory, and Global Consumer Culture Positioning. In the second section, Hall's concept of High versus Low Context and Hofstede's cultural dimensions are reviewed, while the new GLOBE framework is addressed in detail.

7.4 Theoretical Perspectives for Understanding Global Marketing Strategy

Several theoretical perspectives have been developed that provide a better understanding of the global marketplace and how global marketing strategy works. The first is *Global Marketing Strategy Theory* (see Zou and Volz 2010). In the original conceptualization of the theory, Zou and Cavusgil (2002) outline eight dimensions of global marketing strategy (GMS): product standardization, promotion standardization, distribution standardization, pricing standardization, coordination of value-adding activities, integration of competitive moves, global market participation, coordination of marketing activities, and concentration of marketing activities. Global Marketing Strategy theory argues that when fit (the degree to which a company's global marketing strategy matches the external environment and the firm's own organizational resources) is high, both financial and strategic performance are strong. In the context of promotion, this finding is suggestive of global advertising strategies being advisable when the external environment is conducive to it and the firm has strong organizational capabilities in this regard.

Of particular interest to advertising scholars is the degree to which using a global advertising approach effectively enhances company reputation and profitability. Conducting promotional programs across markets generally involves two additional GMS dimensions beyond promotion standardization: global market participation and coordination of marketing ideas. GMS theory defines coordination of marketing activities as the degree to which a firm's marketing practices across countries and cultures are independent. The theory posits that those firms with coordinated activities will achieve better outcomes. Further, those who engage in global market participation are predicted to have a higher potential for success.

Okazaki et al. (2006) applied GMS theory in their examination of US and Japanese subsidiaries operating in the EU. Consistent with GMS theory, the study found advantages associated with global advertising strategy. GMS also holds promise for better understanding of cross-market segmentation and associated targeting strategy (Ko et al. 2007).

A second influential theoretical perspective in the global marketing realm is *Global Consumer Culture Theory* (GCCT). Arnould and Thompson (2005) introduced the term "consumer culture theory" (CCT) to refer to a "family of theoretical perspectives that address the dynamic relationships between consumer actions, the marketplace, and cultural meanings" (p. 868). CCT views consumption as continually shaped by ongoing interactions within a dynamic sociocultural context and is fundamentally concerned with factors that shape consumer experiences and identities. Applications of consumer culture theory to a global

context have arisen from the view that cultural globalization is occurring. GCCT holds that a trend toward a global consumer culture has indeed taken place and that market segments that cut across national boundaries can often be identified, making it more possible than in the past to target global market segments. Consumer culture functions globally because it has become a key source of consumer identity and self-expression around the world. It is not just a matter of consumers consuming the same products, but rather the motives for consuming the same products (Waters 1995; Nijman 1999). According to GCCT, the global marketplace facilitates consumption and serves as a symbolic mediation, capable of providing the foundation for meaning, self-images, self-identities and values (Baudrillard 1998; Holt 2002). However, it is also notable that the GCCT avoids simply positing that consumers behave similarly around the world. To the contrary, the theory argues that similarities and differences can exist both within a culture and across cultures. This theory has also been applied to international advertising and can be used to help explain some of the nuances associated with designing effective international advertising.

Taylor (2010) notes that in recent years, global consumer culture theory (GCCT) has become a highly influential theory in the area of cross-cultural marketing. Indeed, GCCT has even redefined what constitutes a global brand for some scholars. Ozsomer and Altaras (2008) argue that in contrast to the traditional view of a global brand (largely based on the marketing standardization literature), in the GCCT definition of a global brand, the consumer's perception of brand "globalness" is paramount.

A third relevant perspective is an outgrowth of global consumer culture theory and can be referred to as a global brand positioning theory. Alden et al. (1999) examined the emergence of brand positioning strategies in advertising that parallel the growth of the global marketplace. They proposed a new construct—*Global Consumer Culture Positioning* (GCCP)—that associates the brand with a widely recognized and commonly interpreted set of symbols that are viewed similarly by consumers around the world, thereby enhancing the brand's equity. An excellent example of this approach is Coca Cola's launch of their global integrated marketing campaign in 2009. The campaign, which employed the "Coke Side of Life" theme invited the audience to rediscover the simple joys of life—a message Coca Cola hoped would resonate globally. Alden et al. (1999) contrast GCCP with two other types of consumer culture positioning: local consumer culture positioning (LCCP) and foreign consumer culture positioning (FCCP). LCCP is defined as a strategy that associated the brand with local cultural meanings, reflects the local cultural norms and is portrayed as consumed by local people in the national culture, and/or is depicted as locally produced for local people (for example, soy flavored Kit Kat chocolate bars available only in the Japanese marketplace). In contrast, FCCP positions the brand as a symbol of a specific foreign culture (for example, Ricola cough drops association with the Swiss Alps in its global media advertising).

Study results suggest that though global consumer culture is still in its infancy, meaningful percentages of advertising in seven countries, representing both developed and developing economies, employ GCCP (Alden et al. 1999).

Advertisements reflecting GCCP may employ a globally common language (English), global aesthetic style (for example, a globally recognized spokesperson—such as George Clooney for Nespresso) and story themes (for example, membership in the global culture via use of the latest technology—such as the Apple I-Pad). The increased prevalence of GCCP strategies being used is consistent with the notion that cultural convergence has had a profound impact on advertising.

An additional key finding from this line of research is that perceived brand globalness is positively related to consumers' perceptions of the quality and prestige of the brand. In essence this finding suggests that many, and perhaps most, consumers, have a more positive overall impression of global brands. Moreover, firms operating successfully in more regions benefit from higher global reach, which further contributes to a competitive advantage. In sum, this theory suggests that companies can achieve success by developing uniform positioning across markets and by achieving synergy as a result of operating across multiple markets.

Akaka and Alden (2010) note that since its initial development, there is growing evidence of GCCP's usefulness in advertising research regarding global strategies. For example, Nelson and Paek (2007) draw on GCCP in their content analysis of global advertising strategies and tactics across seven countries. Examining ads in local editions of *Cosmopolitan* magazine in Brazil, China, France, India, South Korea, Thailand, and the USA, the authors found that multinational ads were more likely to employ standardized elements (such as ad copy and models) than domestic ads. This is consistent with the idea that GCC features common symbols across cultures and that marketer communicate these commonalities through commercial messages.

7.5 Applying Cultural Dimensions to International Advertising Research

The above theories have contributed to our understanding of how global strategies can be used successfully in advertising. Yet, as noted previously, there is a clear need to take cultural and country specific measures into account in planning advertising executions. At least three major perspectives have had influence in the academic literature and also have practical applicability.

The first perspective is that of the anthropologist Edward T. Hall (1976), who contributed the idea of *high context* versus *low context* cultures to the literature. As defined by Hall, *low-context* cultures place high value on words, and communicators are encouraged to be direct, exact, and unambiguous. What is important is what is said, not how it is said or the environment in which it is said. In contrast, *high-context* cultures consider verbal communications to be only a part of the overall message, and communicators relay much more heavily on contextual cues. Differences between these two communication styles have been found to have direct implications for international advertisers. For example, American consumers are known for their interest in product information and precise details (Biswas et al.

1992). Thus, commercial messages in the USA tend to emphasize the merits of the product clearly, logically, and reasonably by directly presenting information, facts, and evidence related to the product (Hong et al. 1987). A number of studies have documented that Japanese ads, both broadcast and print, contain fewer information cues than ads appearing in the USA and many other countries (Lin 1992; Ramaprasad and Hasegawa 1990). Japanese advertising is less likely to focus on the product merits; the direct or hard-sell approach so common in American advertising has traditionally left Japanese consumers cold (Mueller 1992).

A second and highly influential perspective on culture that has been widely applied to advertising research is Geert *Hofstede's Dimensions of Culture* (Hofstede 1980). Indeed, Hofstede's original four dimensions of culture: individualism/collectivism, uncertainty avoidance, power distance, and masculinity/femininity have been widely studied in terms of their influence on differences in advertising. While some general criticisms of the Hofstede dimensions and the method by which they were derived have been made, there is no question that this perspective has contributed some insight into subtle differences in advertising in different countries. Several studies have shown that there are differences in the types of advertising appeals that work in individualistic versus collectivistic cultures. For instance, Frith and Sengupta (1991) demonstrated that ads containing only a single person are quite common in countries that rank high on the individualism index, whereas portrayals of a person alone in an ad are infrequent in countries scoring low on individualism. Power distance has been used to examine the depiction of rank and formality in advertising in various cultures. Zandpour and Campos (1994) found that testimonials by a celebrity, a credible source, or a user of the product were a distinct feature of ads in cultures with high power distance. Studies have also applied uncertainty avoidance in terms of attitudes toward advertising of certain types of products such as pharmaceuticals and OTC drugs (Diehl et al. 2007) and ad appeals. While masculinity/femininity has been applied less frequently, it has been included as dimension in several content analysis studies. For example, Milner and Collins (2000) found that ads produced for consumers in countries at the feminine end of the continuum feature a greater proportion of characters in relationships than those at the masculine end. Hofstede's long term/short term dimension, which was added later, has also been tested in some studies.

More recently, Robert House and his colleagues (2004) have developed a competing set of cultural dimensions which has begun to be applied to advertising research. Based on a large scale study of 62 countries, House identified nine cultural dimensions: uncertainty avoidance (the extent to which members of a society strive to avoid uncertainty by relying on established social norms and practices); power distance (the degree to which members of a society expect and accept that power is distributed unequally); institutional collectivism (the degree to which societal institutional practices encourage and reward collective distribution of resources and collective action, as opposed to individual distribution and individual action); in-group collectivism (the extent to which members of a society express pride, loyalty, and cohesiveness in their groups, organizations, or families); gender

egalitarianism (the degree to which a society minimizes gender role differences); assertiveness (the degree to which individuals in societies are assertive, confrontational, aggressive, and straightforward); future orientation (the degree to which members of a society engage in future-oriented behaviors such as planning, investing, and delaying gratification); performance orientation (the degree to which a society encourages and rewards group members for performance improvement and excellence); and humane orientation (the extent to which a society encourages and rewards its members for being fair, altruistic, friendly, caring, and kind to others). Known as the *GLOBE (Global Leadership and Organizational Behavior Effectiveness Research Program) dimensions*, several sound quite similar to those of Hofstede. Indeed, GLOBE scales measuring uncertainty avoidance, power distance, and collectivism were designed to reflect Hofstede's dimensions of uncertainty avoidance, power distance, and individualism. However, analyses conducted by GLOBE researchers revealed that the dimension of collectivism should be divided into two subdimensions: institutional- and in-group collectivism. The GLOBE researchers also found weaknesses with Hofstede's masculinity dimension and introduced two new cultural dimensions: gender egalitarianism and assertiveness. Future orientation is based on the work of Kluckhohn and Strodtbeck (1961) while performance orientation is associated with the construct of need for achievement (McClelland 1985). Prior to the GLOBE study, there were no frameworks that focused specifically on assertiveness as a cultural dimension. While this scheme and its methodology are also not without detractors, it is also beginning to be applied to advertising studies. In particular, assertiveness and performance orientation dimensions have been of particular interest to researchers (Terlutter et al. 2010; Diehl et al. 2008). It appears that the future will see more applications of this framework.

The three perspectives listed above are by no means the only cultural frameworks that have been applied to advertising. Several others, notably Harry Triandis (1994) and Trompenaars and Hampden-Turner (1997) have contributed important perspectives that advertising researchers have picked up on. As culture is a highly complex construct, it seems likely that work in studying and better understanding cultural dimensions and their impact on advertising will continue for many years. There have been numerous calls for a more general theory of culture as it applies to advertising, but to date this has been quite elusive, perhaps relating to just how complex culture really is.

7.5.1 Implications for Managers

While Levitt's (1983) conceptualization of the "global village" was likely overstated, more than six decades of research appears to have borne out Levitt's fundamental premise, which was that a trend toward cultural convergence was leading to the need for greater standardization of marketing practices than had previously been the case. In today's environment, it has become apparent that companies who standardize strategy across markets (at least those that have

sufficient similarity) realize an advantage based on economies of scale and, perhaps most importantly, the ability to achieve a global brand image. Clearly, brands such as Mercedes-Benz, Apple, Chanel, Nestle, Coca-Cola, and McDonalds have an image that transcends culture and national borders.

The extant literature is supportive of the idea that today's large companies are well advised to establish and reinforce a single brand image and positioning statement in advertising across the major markets it does business in. However, it is also clear that in many instances, executions must be adapted. A good example is Apple's "Mac versus PC" advertising campaign which emphasized the Macintosh computer's unique and innovative features (along with nimbleness and lack of virus issues). In the USA, this was accomplished by running a series of ads in which a youthful, hip character represented "Mac" while a somewhat overweight, "geeky" character portrayed the PC (see Fowler, et al. 2007). In the ads, the "Mac" character poked fun at the PC character in ways that pointed out some key advantages of the Mac linked to innovativeness and nimbleness. While this was a successful approach in the USA, Apple quickly found out that the campaign had to be modified in the UK and Japan. In the UK, the Mac character was viewed as "smug" and condescending in an unpleasant way. Meanwhile, in Japan, the "geek" image associated with the PC character did not make sense as there was not a negative connotation associated with it. Moreover, the "casual Friday" attire worn by the Mac character was unknown to the Japanese. To Apple's credit, the ads were modified to be more subtle. In the UK, the Mac character was shown to be more polite, poking fun at PC in a more pleasant manner, while in Japan, the Mac character was even shown "helping" the PC character.

The Mac versus PC example is indicative of the need for cultural dimensions such as context and individualism/collectivism being considered by advertisers. In this case, subtle changes to the execution were made and a successful global campaign was the result. The primary aspects of Mac's positioning and unique selling proposition were standardized, but the executions were adapted to match local preferences.

Recent research (reviewed above) gives credence to the idea that some key cultural dimensions, particularly context and individualism/collectivism, need to be given consideration when planning the executions of global campaigns. There is also sufficient evidence that Hofstede's dimensions of uncertainty avoidance and power distance take on considerable importance in many instances. While the research is less clear on masculinity/femininity and long-term/short-term orientation, advertisers are well advised to think about these dimensions.

The GLOBE study has provided additional insight for managers in terms of considering cultural dimensions in advertising executions, including taking a multidimensional view of the construct of individualism/collectivism focused on institutional- and in-group collectivism. Moreover, there is compelling evidence that the dimensions of assertiveness and performance orientation need to be considered (see, e.g., Terlutter et al. 2010).

It is somewhat paradoxical that at a time of unprecedented opportunity for standardized advertising, advertisers must consider cultural aspects in effectively adapting ads to get the same message across. However, this is today's reality for manager.

Summary and Conclusion

While it is no longer warranted to categorize standardization versus local adaptation as a debate, there is some merit in both perspectives. Research has demonstrated that global strategies do offer advantages and in most instances, marketers and advertisers are well advised to pursue global branding strategies reinforced by global advertising. At the same time, as one moves from strategy to execution, cultural differences and other country-specific issues do indeed matter, so localization issues must be considered. Thus, managers must strive to develop ad campaigns that get across a standard positioning statement and selling proposition, but simultaneously adapted execution to local markets as necessary. The weight of the evidence argues for considering global strategies first, with the realization that executional modifications will often need to be made.

Future research will contribute greater theoretical insight into global advertising. It is likely that this will occur both at a strategic level, with a focus on global strategies, and on a more tactical level with a focus on cultural differences. Increasingly, national boundaries are becoming blurred, cultures are converging, and consumer preferences appear to be driven less by long standing local and regional traditions, and more by perceived desirability of global products and brand identities (Erdem et al. 2006)

Exercises

1. Read the article “Who Standardizes Advertising More Frequently, and Why Do they Do So? A Comparison of US and Japanese Subsidiaries’ Advertising Practices in the European Union,” by Charles R. Taylor and Shintaro Okazaki in the “*Journal of International Marketing*,” 14(1), p. 98–120, 2006. The authors raise the question “who standardizes advertising more frequently for the EU and why do they do so?” The two researchers compare US and Japanese subsidiaries’ advertising practices in the “Common market,” as it is frequently called. Their first research question explores Japanese and US managers’ perceptions of EU markets. They examine the similarity of consumers and market conditions across Europe and consider the level at which the EU market as a whole is sought after by competitors. Their second research question pertains to the degree which Japanese and US subsidiaries standardize their advertising in terms of both strategy and execution in the EU. Finally, their third research question examines whether Japanese and US firms believe that standardization is associated with specific benefits. They explore the extent to which the ability to create a global brand image, the achievement of cost savings, the ability to appeal to cross-national market segments and improved coordination between headquarters and subsidiaries are perceived as benefits by the US and Japanese firms. Please summarize their findings and consider the implications for standardized advertising in the European Union or your home market.

2. Read the article “Our Ads R Us: An Exploratory Content Analysis of American Advertisements” by Charles Okigbo, Drew Martin and Osabuohien Amienyi in *Qualitative Market Research*, 8(3), 2005, p. 312–326. The authors find evidence that US cultural values are embedded in popular American magazines. These include individualism, an emphasis on equality, a future orientation, a desire for action and achievement, and a tendency toward directness and assertiveness. Select a magazine from your home country. Examine the ads closely—what are the dominant cultural values reflected in the commercial messages? Compare and contrast these values with those reflected in the advertisements from other countries.
3. Please read “The Hofstede Model: Applications to Global Branding and Advertising Strategy and Research,” by Marieke de Mooij and Geert Hofstede, in “*International Journal of Advertising*,” 29(1), p. 85–110, 2010. Go online to www.geert.hofstede.com. The site provides scores for a multitude of countries—from the Arab world to West Africa. Find the Hofstede dimension rankings for your home country. Using the magazine selected for the exercise above, examine the ads again. Do the ads in your country reflect masculinity or femininity? Individualism or collectivism? High or low uncertainty avoidance? High or low power distance? A long-term or short-term orientation?
4. Utilizing the magazine employed for the last two exercises above, analyze the advertisements for the types of strategies employed. Do advertisers tend to employ global consumer culture positioning, local consumer culture positioning, or foreign consumer culture positioning strategies? Examine whether there are differences in the ads for international brands versus domestic brands. In looking at the ads, distinguish between verbal versus visual communication. Has the copy been translated into the domestic language? Are foreign words employed? What about the images? Do they reflect the international, foreign, or local marketplace?

Reflexive Questions

1. Are we indeed converging toward a more homogeneous world in terms of consumption levels? If so, what is the speed of such convergence?
2. How is convergence affecting advertisers? What is the effect at a strategic level and what is the effect at the executional level?
3. Is there evidence that global advertising campaigns tend to be more effective for large multinational advertisers in comparison to localized campaigns.
4. Are there systematic differences in such convergence trends within high income versus low income countries?
5. Are consumption levels in certain product categories converging at a faster rate?
6. What are the underlying factors driving the convergence in consumption levels?

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A Process for Managing the Re-convergence of Marketing Functions

8

Edward C. Malthouse

Chapter Objectives

1. Explain how and why the subfields within marketing are expanding their scope and adopting concepts, methods, and approaches from sibling fields.
2. Understand the needs for, and difficulties with, managing all customer touch points across the subfields.
3. Manage customer touch points with the process identified here that join key concepts such as customer insights and brand concepts from advertising; customer lifetime value, measurement, customer databases, addressability, and personalization from direct marketing and CRM; and primary customer research from marketing research.

8.1 Introduction

Kotler (1997) described the evolution of corporate marketing departments. The story began at a time when “companies did not have *marketing departments*” and had only *sales departments*. He traced the development of a wide variety of “marketing” jobs including brand managers, marketing researchers, advertising and sales promotion managers, and more. Specialized academic fields as well as industry verticals emerged around these various marketing tasks, including marketing research firms, ad agencies, sales promotion agencies, etc. He then pointed up issues for marketing departments to ponder and concludes that “the future marketing department may metamorphosize into a different department, perhaps called the *Customering Department*.”

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This chapter continues the story, emphasizing marketing's role in managing customer interactions. I will argue that brand management, marketing research, advertising, and sales promotion, as well as other fields including information technology (IT), direct marketing, and public relations have evolved further over the past 15–20 years from being fairly distinct fields to ones with substantial overlap, each contributing concepts, approaches, and tools necessary to manage customer interactions in the current business environment. In this time period, the scopes of these fields have been stretched and they have progressed towards a common end point, although they will never converge completely. Thus, we have gone from having sales departments to having a broad array of specialized “marketing” fields, and we are now headed towards an integrated “*Customering Department*” along the lines of the one prophesied above. Based on this trajectory I will propose a process for managing marketing in this re-converging world that draws from traditional brand management as well as data-driven marketing.

8.2 The Changing Marketplace

In the mid 1990s, many specialized fields contributed to the practice of marketing. Marketing itself excelled at thinking through issues of marketing strategy: market segmentation, positioning, pricing, packaging, distribution, brand extensions, etc. Promotion was usually delegated to specialized agencies. Advertising agencies created broadcast and print ads that creatively communicated the product benefit. Agencies also managed execution, placing ads in vehicles to reach the targeted consumers. Direct marketing agencies, often independent of ad agencies, created direct-response media, selected lists of names, and tracked responses. Some direct agencies also helped organizations manage customer databases. IT managed operational databases that were usually not built or used for “marketing” purposes. The world has changed since then.

One of the main reasons for the change is technology. The world is becoming increasingly digital, where the marginal cost of a contact is often negligible and customer–company interactions—including transaction histories, contact histories, Web site click logs, customer reviews, comments and blogs—are easily recorded in databases, which can be used to personalize messages and other interactions. Everyone is familiar with examples of personalization on the web such as Amazon's recommendation agents, but technological advances are making it possible to personalize even traditional mass media such as TV advertising and in-store promotions. Databases also enable firms to allocate different amounts of marketing resources to different customers. Databases and direct communications create the possibility of longitudinal contact strategies, where sequences of contact points are created to achieve specific goals, such as getting a prospective customer to buy for the first time or getting an existing customer to buy from other product lines (cross-sell) or higher-priced products (up-sell). Organizations can respond to specific “trigger events” and other forms of consumer pull for information with appropriate

responses. Databases and digital communication have enabled cost-effective, one-to-one marketing on a large scale.

Complicating matters, many of the customer touch points are often managed by departments other than marketing. Database and customer relationship management (CRM) systems are usually managed by IT departments, and their messages may not be coordinated with what marketing is saying about the brand. This problem becomes worse if customer service, technical support, and other customer-touching departments send out yet other messages. If the advertising messages communicate one thing and other touch points something else, the consumer will become confused about the brand.

Another major change is media fragmentation. In addition to broadcast, print, direct and PR, there are now many more communication channels including the growing range of mobile devices. Within a communication channel the choices are proliferating, with expanding numbers of TV channels, Web sites, print vehicles, etc. Distribution channels have also expanded, with traditional brick-and-mortar retailers starting Web sites and catalogs, traditional catalogers opening retailing stores. At the same time, power has shifted from the company to consumers, who now actively avoid marketing messages through digital video recorders, do-not-call lists, spam filters, and the like. With ad avoidance and a greater number of communication and distribution channels, it would seem that having integrated, consistent brand messages is more important than before.

Consumer power has also shifted through the co-creation of messages and brand information. User-generated content such as reviews, tweets, videos (e.g., “Rats at Taco Bell/Pizza Hut,” “United Breaks Guitars”), Powerpoints (e.g., “Yours is a very bad hotel” review of Houston DoubleTree hotel), and parodies can severely damage a brand, even causing lasting damage since such content can remain available indefinitely. We have gone from a world where the organization controlled most of the brand messages to one where the organization participates in a conversation about its brands (e.g., Deighton and Kornfeld 2009).

Competition is also increasing. The Internet has reduced or eliminated geographic barriers to competition, and in many markets global competitors are only a click away. This is especially true with goods and services that can be distributed electronically. Mobile devices exacerbate the problem, giving consumers the ability to access information about competitive offers from anywhere, including the isles of retail stores.

There is also a trend towards accountability. Marketing managers are expected to demonstrate the financial returns of their actions and quantify the value of the intangible assets they create such as brands and customer databases. A related issue—and one that is becoming increasingly difficult—is how to allocate marketing resources across the proliferating communication channels and over time.

None of the specialized areas mentioned earlier—advertising, direct marketing¹, CRM, marketing management, etc.—possessed all of the concepts and tools

¹The definition of direct marketing varies by author, but most definitions usually include three characteristics (1) messages are usually addressed at individual consumers, (2) messages generally

required to address these changes. Computer science and IT may excel at managing large datasets in real time, developing efficient and scalable algorithms for recommending cross-sell opportunities, and testing endless variations of messages, but such optimizations could do more harm than good if they undermine the brand-building messages created by marketing departments and ad agencies. While traditional marketing excels at developing brand and market strategies, it had been less specific about issues central to direct and database marketing such as lifetime value, managing customer databases, and measuring the outcomes of marketing actions at the customer level. Direct marketing has often relegated the questions of positioning, branding, and market segmentation to marketers. It is important to achieve some level of coordination across these activities and having functional silos operating independently is no longer an option.

8.3 The Responses from Specialized Areas

Specializations responded to these limitations expanding their scopes and adopting ideas and practices developed by sibling fields. Consider, for example, direct marketing. In 1998 the Direct Marketing Association changed the name of its *Journal of Direct Marketing* to the *Journal of Interactive Marketing*. Then editor John Deighton stated at the time “the label *direct marketing* has become too restrictive to do justice to the ideas that it has spawned. In a very real sense, direct marketing has become too important and pervasive to be called *direct marketing*, since in the information age, every marketer has the potential (and perhaps the responsibility!) to be a database marketer (Deighton and Glazer 1998, p 2).” Interactive marketing² included “the strategic use of information and information technology as corporate assets,” which had been more of an IT issue in the past, “network-based communication, [and] customer and managerial behavior in interactive environments.” Subsequent editors have expanded the scope further to include consideration of the brand and other issues more traditionally central to marketing and advertising (Shankar and Malthouse 2006; Malthouse and Hofacker 2010).

Just as direct marketing has evolved to interactive marketing, advertising has been evolving towards integrated marketing communication (IMC), which grew out of Northwestern University’s advertising department. Early IMC thinking (e.g., Schultz et al. 1993) emphasized tactical integration. Schultz and his colleagues

seek to drive a specific “call to action,” and (3) outcomes are tracked at the individual level. Addressable media include direct mail, telemarketing, email, mobile, and personalized web pages (when customers can be identified by, e.g., logging in or cookies). The responses of individual consumers are tracked and stored in databases. See Roberts and Berger (1999) or Kotler and Keller (2006, Chap. 19).

² “The term *interactive*, as we interpret it, points to two features of communications: the ability to address an individual and the ability to gather and remember the responses of that individual. Those two features make possible a third: the ability to address the individual once more in a way that takes into account his or her unique response.” (Deighton 1996, p. 151).

recognized that direct marketing and public relations messages, as well as advertising, affected consumer perceptions about the brand and organization. They hypothesized greater effectiveness if these messages were coordinated to build the brand. Outside of the university there has been consolidation among agencies, with advertising agencies acquiring other specialized agencies (e.g., direct, PR, online, email, etc.) so that they could offer their clients integrated solutions. Since then, IMC has embraced customer databases, financial accountability, and integrating the organization around customer segments (Schultz and Schultz 2004; Iacobucci and Calder 2003). Again, we see a specialized field, advertising, expanding its scope, and gravitating towards a common center.

The failure rate of early CRM systems was very high. Rigby et al. (2003) attributed this failure rate to (1) “implementing CRM before creating a customer strategy,” (2) “rolling out CRM before changing your organization to match,” (3) “assuming that more CRM technology is better,” and (4) “stalking, now wooing, customers.” They explicitly note to their readers “that the words ‘technology’ and ‘software’ are conspicuously absent from the definition [of CRM].” While the technological piece is unquestionably important in today’s digital world, it must be combined with customer, branding, and marketing strategies to be effective. We see another specialization expanding its scope.

Market research has also expanded its scope and borrowed ideas and techniques from database marketing and IT. Beyond focus groups, surveys and market tests, customer databases, overlays and online discussion in reviews, and social media sites provide supplementary sources for customer and market intelligence.

8.4 A Process for Managing Marketing Communications

The previous sections have traced how marketing splintered into numerous subfields—marketing management, advertising, direct marketing, CRM—each of which then burgeoned, subsuming elements from sibling subfields. A potential problem is that different subfields are in different departments within an organization and do not necessarily coordinate consumer messages or strategies. What is needed is a systematic approach to all customer-touching activities that integrates the most important ideas from the different, converging subfields. I have attempted to propose such a process in Fig. 8.1 below (Malthouse 2013). It is important to note that customers appear in the center of the process. It is from the customers that all organizational successes flow and all resources are derived. This “outside-in” perspective is critical in understanding the process since it is often different from other communication planning approaches.

As is shown in the center of the Figure, the integrating force behind all points of contact with the “customer” is the *brand concept*. The brand concept is an idea that is articulated first by the organization. It is how the marketer wants customers and prospects think about it now and into the future. The brand concept defines why the product or service is or should be valuable to the customer. Therefore, the brand concept must be relevant and attractive to customers and prospects. It is, in effect,

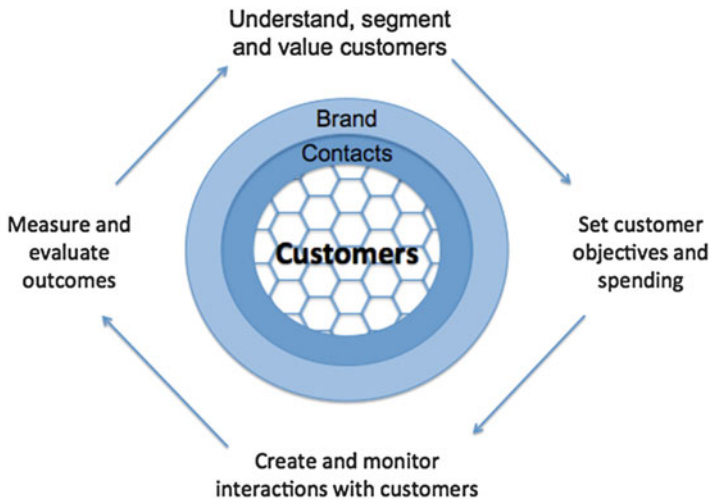


Fig. 8.1 A process for managing customer interactions

the connector between the customer and the organization, identifying how the consumer should derive value from the produce or service.

Great brand ideas are borne from a deep understanding of the “customer” and the various cultures, networks, and associations that surround and contribute to the brand. All valuable brand concepts clearly evolve over time. That allows them to remain relevant as consumer needs, culture, and competition change. As shown in the center of the process, the organization must therefore continually monitor customer relationships, evaluate the brand contacts, and evolve the brand accordingly. The fact that consumers can now question or challenge the brand meaning—and create and broadcast their own brand messages using digital media—creates major issues for the brand manager and the marketing organization.

Having a relevant and meaningful brand concept is important, but it is often not enough to be successful. Customers within the market segment are potentially heterogeneous in many ways. Some will be established as loyal customers, others will be new and learning about the brand, and others will have discontinued their relationship with the organization entirely. Different customers within the same targeted market segment may still have different wants and needs, and therefore seek different relationships with the brand. Managing thousands or millions of customers and prospects is a daunting task. Thus, we try to identify groups of customers with similar behaviors and/or needs and wants. The honeycomb pattern in the center of the diagram is meant to represent the different customer segments.

These groups are called *subsegments* or *customer segments* because they are groups within the targeted market segment. The brand is targeted at the market segment and a single overarching brand concept is relevant to all subsegments (e.g., see Malthouse and Calder 2005; Calder and Malthouse 2005). The interactions with subsegments, however, will be personalized and customized so that they are more relevant and so that an appropriate amount of marketing resources can be invested.

An organization's customers will have different wants, needs, preferences, and behaviors. For example, some airline customers fly often and others don't. Some supermarket customers buy organics while others have different preferences. Because of this heterogeneity, a firm should not offer the same contact points with all customers. Offering coupons (a marketing contact point) for organic produce to a customer who buys only junk food would not be relevant to the customer and would likely be ineffective, wasting marketing resources. Those flying 100,000 miles a year have different needs than those who fly once every other year, and all contact points—from emails and direct mails to security checkpoints—should be tailored to meet the needs of different customers and be justified financially.

After the organization has identified relevant subsegments, understood their wants, needs, and how they wish to interact with the firm, and estimated their value in the future, the next step is to set objectives for each subsegment. The organization must be clear about what it wants different groups to do and how this will change their value so that it can identify appropriate interactions for the next step in the process. At the same time, it must think about how to measure whether the objective has been achieved (fourth step). Thus, it should be clear that this is an ongoing, iterative process, with customers migrating between segments over time. The process moves the marketer and communicator far beyond the traditional "campaign" approach that has been used for such a long time in the communication field.

The goal for all segments should be to *increase customer lifetime value (CLV)*, which is the discounted sum of future cash flows attributed to the relationship. Several aspects of this goal should be emphasized. See Malthouse (2013) for a survey of CLV models and applications. First CLV deals with future cash flows, and not historical ones. It estimates the future profitability of a customer, and cash flows are discounted accordingly. Second, cash flows include both positive and negative values, and so CLV is the difference between the revenues and all expenses. Third, the goal is to *increase CLV*. Many writers in this area suggest identifying high-value customers and investing more marketing resources in them than lower value customers. This logic, however, is overly simplistic and flawed. Marketers should invest resources where they will increase profitability³. CLV thus answers budgeting questions: do not engage in marketing activities unless the increase in CLV exceeds their costs.

While the objective—*increase CLV*—is the same for all segments, the ways to achieve the goal may vary. There are three main ways to increase the CLV of existing customers (1) retain them longer, (2) increase their revenues, or (3) decrease the costs of serving and/or marketing to them. Different goals will be applicable for different customer segments. In many businesses, the most effective way to increase CLV is to increase the retention rate. In other cases, firms will try to

³ It could be that not investing resources in a high-value customer causes the customer to defect. In this case CLV would decrease, suggesting the company should have invested in the high-value customer. Again, the rule is to invest resources where they will increase CLV.

increase revenues by either cross-selling goods in other categories, up-selling to higher-margin items, or incenting the customer to concentrate their category purchases rather than buying from multiple firms (increase “share of wallet”).

The third step is to create and manage contact points. Contact points include those initiated by the organization such as traditional advertising, sales promotion, and direct marketing, plus responses to consumer-initiated contacts from Web sites and interactive media along with participation in consumer-to-consumer and third-party dialogs. Additionally, these interactions also include points of contact that are not traditionally found under the “marketing function” such as customer service, technical support, retail distribution, Web sites, and the like. The key points are (1) all contact points should build the brand (Calder and Malthouse 2005) and (2) the amount of money that can be spent on such tactics is determined by the change that they will have on a customer’s CLV. These decisions should *not* be made based on what was spent last year, some percentage of sales, or any related heuristic.

The fourth step is to measure what happens as a consequence of the contact points. This is essential for at least two reasons. First, the organization must know whether a contact point is achieving its objectives so that it can discontinue using ineffective ones. For example, if customers acquired from banner ads displayed on a particular Web site turn out to have CLV that is less than the acquisition cost, then the company should stop displaying banner ads on that site. Measuring the effectiveness of a contact point usually requires some sort of experimental design (e.g., a randomly selected set of customers from the segment receive the contact while others do not, making up the control group). See the discussion of *causal designs* in marketing research books or experimental design books for further discussion.

Second, knowing what happened will determine what contacts the firm will make with a customer next. For example, suppose that the objective of a contact was to “up sell” a customer to a premium product line. If the marketing contact point is successful and the customer is now buying the premium line, then the next round of contacts should be designed to further increase the customer’s CLV. Perhaps the next objective should be to “cross sell” another category. Or perhaps it should be to get the customer to increase purchase frequency. The process is iterative and customers will migrate between segments over time.

In summary, the organization should begin by identifying different segments of customers. Next it should decide on strategies for increasing CLV of customers in each segment and then create contact points. The last step is to measure the outcomes from the contact points to determine whether the contacts work and whether the customer has migrated to a different segment.

8.5 What Is Next?

What will happen to the specializations? Specialties will continue to expand in scope and adopt ideas from sibling fields, but there will never be total convergence, where they become coincident. Mailing lists will always be part most closely associated with direct marketing, and they will never be associated with advertising or brand strategy. But traditional direct marketing concepts such as measuring

behavioral responses, identifying and understanding best customers, and evaluating customer lifetime value are now associated with more than direct marketing. Likewise, the brand idea is no longer just driving creative ad messages; it should be the integrating force for all customer contacts including customer service, internet, retail, and even (perhaps paradoxically) “one-to-one.”

There will always be a need for people who can do something exceptionally well, but those with specialized knowledge and skills should understand that their area is one piece in a larger puzzle, it is becoming more important for the pieces to be connected, and they have a role to play in putting the pieces together. Managers at all levels will need even better peripheral vision. Perhaps the largest barriers to being customer focused involve the organizational structure. A major challenge is organizing the firm and offering incentives to execute the process in Fig. 8.1.

Organizations will have a competitive advantage if they can implement Fig. 8.1 by having a deep understanding of their customers, developing marketing and communication strategies from this understanding, create consistency across all touch points so that the customer has a distinctive experience, and measure the outcomes resulting from their actions. The competitive advantage comes from allocating marketing resources more efficiently by focusing on activities that increase CLV. It also comes from increasing marketing effectiveness through having coordinated contact points that all communicate the same brand message. Starting with the consumer experience makes it more likely that the products, services, and all contact points are relevant to consumers, which should cause them to be more loyal. It is immaterial whether all of this is called marketing; the important thing is that it is done.

Exercise Questions

1. What current developments characterize the changing marketplace?
2. Which process is outline in the text to describe an approach to managing market communications?
3. Which future scenario is drawn?

Discussion Questions

1. Select a brand that interests you. This exercise works best if you pick one that has a well-developed brand and a customer database. Consumer package goods, for example, are usually not a good choice because they often have well-developed brands, but lack access to customer data. Retailers (e.g., Tesco, Starbucks, Nordstrom, supermarkets), financial services (e.g., banks, credit cards, brokerage firms), travel (airlines and hotels), technology firms (e.g., Apple), and media companies work well.
2. Analyze the brand and write a positioning statement. You will have to read what the media has said about the brand, visit its Web site, and experience various

contact points in developing the positioning statement. The positioning statement should include the targeted market segment, the category in which the brand competes, points of difference from other brands in the category, and reasons to believe that the brand is different.

3. Identify and critique-specific contact points. Which contact points convey the brand concept and which ones, if any, undermine the brand?
4. Discuss what data the organization has available and discuss how it uses the data to create more relevant interactions with customers.
5. Identify at least a few distinct subsegments of customers that have different wants and needs, and possibly deserve different levels of marketing investments.
6. Set objectives for at least two of your subsegments, e.g., increase retention, cross-sell, up-sell, reduce costs. Discuss how achieving this objective will increase CLV (e.g., by how much?).
7. Propose contact points to achieve your objectives. How does the cost of your proposed contact points compare with the expected increase in CLV? How do your contact points build the brand?
8. Discuss how you will measure the effectiveness of your contact points?

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Hilde Voorveld, Edith Smit, and Peter Neijens

Chapter Objectives

1. To understand the concept of cross-media advertising
2. To understand the reasons why advertisers choose to use multiple media in a campaign
3. To learn about the theoretical processes underlying cross-media synergy
4. To understand how the factors fit, sequence and multitasking influence cross-media synergy
5. To learn about cross-media research in the field and identify its strengths and weaknesses

9.1 Introduction

Media convergence provides advertisers with complex challenges. Target groups are fragmented because of the enormous growth in media outlets. Consumers are less attentive because of media multitasking, and more selective because of interactive and “on demand” media options, making it easier than ever to avoid advertising. It is, therefore, increasingly difficult for marketers to reach their target groups, attract attention to their messages, and generate advertising effects.

Cross-media advertising—advertising in which more than one medium platform is engaged in communicating related brand content—is one way advertisers have responded to these challenges. In cross-media campaigns, advertisers seek to maximize the effectiveness of their budgets by exploiting the unique strength of each medium and by taking advantage of cross-media synergies. As Ephron (2000,

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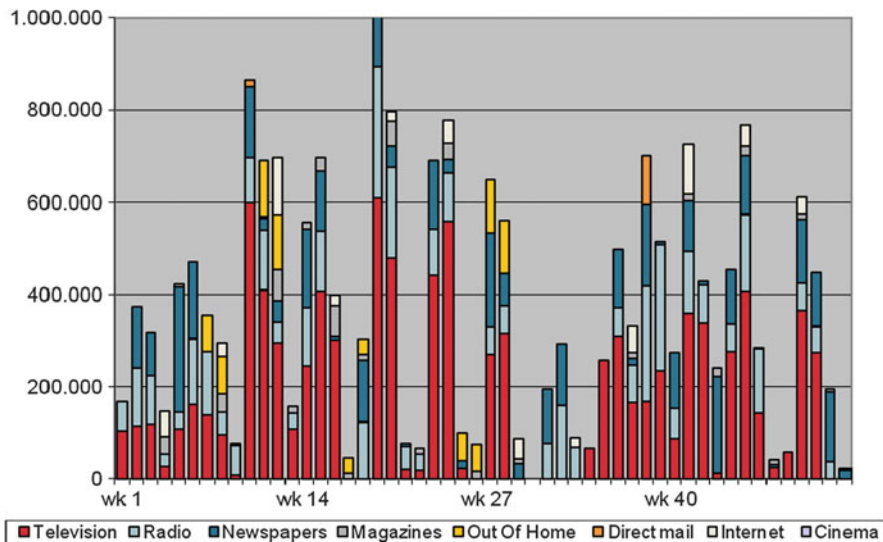


Fig. 9.1 Media expenditures of an automobile brand (52 weeks)

p. 10) succinctly put it: “Old media planning was about picking individual media. New media planning is about picking combinations of media.”

One of the biggest questions in cross-media advertising is how each medium in a cross-media campaign not only adds to but also enhances the contribution of the other media. This question is driven by the potential existence of synergy (Naik and Raman 2003).

This chapter aims to provide the reader with insight into cross-media advertising in practice, the reasons for choosing cross-media advertising, the theoretical processes underlying cross-media synergy, the multitasking consumer, and research into the reach and effects of cross-media advertising.

9.2 Cross-media Advertising in Practice

Figure 9.1 shows the advertising expenditures of an automobile brand in the Netherlands over a 1-year period. For each week of the year, we can see the amount of money spent on advertising in different media. The figure shows that this brand advertises on TV, radio, and the Internet, in newspapers and magazines, with out-of-home advertising, and via direct mail. In other words, the brand is a cross-media advertiser spending its money on multiple media, even in the same week.

The degree to which brands use different media in their campaigns varies. A study by Klausch et al. (2010) into the share and composition of 2,569 campaigns in the Netherlands (all in 2007) showed that about 40 % were cross-media campaigns. One-third of the campaigns used two media, 17 % three, 7 % four, and in the other campaigns more than four media were used. The most popular combinations were

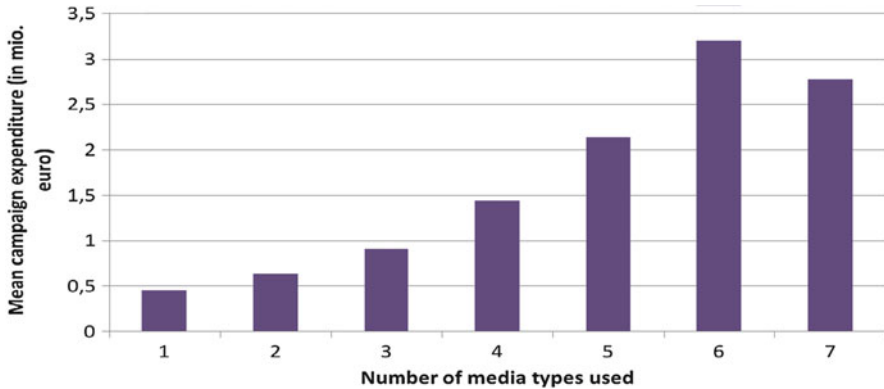


Fig. 9.2 Relationship between number of media used in the campaign and campaign expenditures

television and magazines (8 %), TV and radio (6 %), TV, radio, and newspapers (3 %), and TV and newspapers (3 %).

Figure 9.2 shows that campaigns in which more media are used are more expensive; putting it the other way around, more expensive campaigns are more likely to use multiple media.

The number of media used in campaigns differs across industry sectors. Cross-media campaigns are especially popular in the car and motorcycle, telecom, and ICT markets. On the other hand, cross-media campaigns are less popular in campaigns for detergents, luxuries, textile, shoes, body care, and food.

9.3 Reasons for Choosing Cross-media Advertising

Why are cross-media campaigns so popular? In this section, four reasons for the use of multiple media in a campaign will be discussed:

1. Target group extension
2. Complementary effects
3. Repetition
4. Synergy

9.3.1 Target Group Extension

Probably the most common reason for choosing multiple media in a campaign is target group extension: by using multiple media, a campaign can reach a larger part of the target group (Bronner et al. 2003).

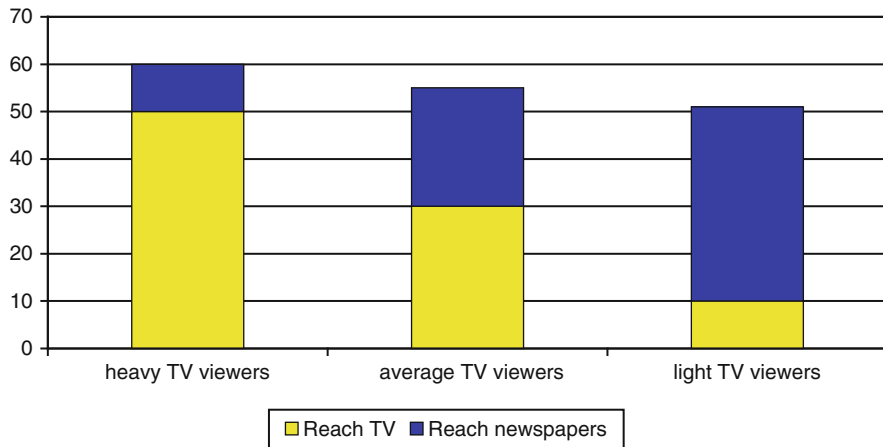


Fig. 9.3 Illustration of target group extension: reach of TV and newspapers for heavy, average, and light TV viewers

An example of a cross-media campaign aimed at target group extension was an advertisement for vodka that appeared on TV as well as in print media (Bronner 2006). These different media were selected because of the wish to reach different targets groups: the print media would reach people who were not regular TV viewers. This is illustrated by Fig. 9.3 (fictitious example).

9.3.2 Complementary Effects

When different media are combined in a campaign, the campaign can profit from the strength of each of the media: media may complement each other (Dijkstra et al. 2005). Such complementarities can be based on objective media characteristics, such as modalities or pacing. For example, when looking at or reading magazine ads, people have control over the moment and speed of information transfer (internal pacing) which allows larger texts to be processed; with television ads, on the other hand, the pace and moment are externally controlled. Complementarities can also be based on how people experience advertising in the different media. For example, advertising on television excels at conveying emotions, outdoor advertising is particularly suited for raising awareness, print is primarily experienced as a medium for providing information, and the internet scores high in providing information, feedback, and possibilities for transaction (Bronner and Neijens 2006). The campaign for the Dutch genever Hooghoudt, for example, was inspired by a search for complementary effects. The print ad showed the brand, the copy text read “bold men are better lovers,” and included a URL for more information on the internet (Bronner 2006).

9.3.3 Repetition

To maximize the effects of advertising, people may need to be repeatedly exposed to the same message. However, at a certain moment, people get used to a message and wear-out occurs. This means that people get annoyed and that the effectiveness of an advertisement no longer increases. Several studies have underlined the negative effect of repetition, conceptualizing it with the *Differential Attention Hypothesis* (Unnava and Burnkrant 1991) and the *Repetition Variation Theory* (Stammerjohan et al. 2005; Yaveroglu and Donthu 2008). Cross-media advertising is often used to slow down this process of wear-out (Dijkstra et al. 2005) because using varied messages or varying the media in which the message is presented will reduce wear-out effects.

A cross-media repetition strategy was applied in the so-called *Bob campaign* to prevent driving under the influence of alcohol in the Netherlands (Bronner 2006). Bob is the name given to the person who stays sober on an evening out and who drives his or her friends back home. The campaign presents the same message on the radio and in outdoor advertising. A cross-media strategy was consciously chosen in this campaign to make it possible to repeat the message without wear-out.

9.3.4 Synergy

Another example of a cross-media campaign was that for *Cup-a-Soup*, which used a funny TV commercial and a radio commercial with the same sound (Bronner 2006). When listening to the radio commercial, people remembered the TV commercial, which gave an extra dimension to the radio commercial, a process called *visual transfer*. In this case, the use of multimedia was inspired by a search for synergy effects, which can be defined as the added value of a medium (in this case radio) that results from the presence of another medium (in this case TV), causing the combined effect of media to exceed the sum of their individual effects (Naik and Raman 2003, p. 385). More synergy effects and the psychological mechanisms underlying these effects are discussed in Sect. 9.4.

9.4 Processes Underlying Cross-media Synergy Effects

In this section, the following psychological processes underlying cross-media synergy effects will be discussed: encoding variability, multiple source credibility, forward encoding, backward retrieval.

9.4.1 Encoding Variability

One explanation for synergy effects in a cross-media campaign is that information will be encoded in a more complex fashion when consumers are exposed to the

same message in a variety of media rather than being exposed to it in only one medium (Tavassoli 1998). More complex encoding results in a stronger information network in human memory, which in turn leads to enhanced memory performance (Stammerjohan et al. 2005) and more positive attitudes (Tavassoli and Lee 2003).

9.4.2 Multiple Source Credibility

The second mechanism that might explain why cross-media campaigns result in more positive consumer responses than single medium campaigns is *multiple source credibility*. When consumers are exposed to multiple media in a campaign, they could perceive these media as independent sources of information. Because messages from independent sources are more convincing and credible, being exposed to multiple sources can enhance the persuasive power of a message (Voorveld et al. 2011; Dijkstra 2002; Harkins and Petty 1987; Chang and Thorson 2004).

9.4.3 Forward Encoding

Another process underlying cross-media synergy effects is *forward encoding*, which occurs when the ad in the first medium primes the consumer's interest in the ad in the second medium. In other words, forward encoding probably stimulates encoding processes during exposure to the second ad. The first ad may have evoked curiosity and expectations, and this may motivate deeper processing of the second ad, especially when the second ad is presented in another medium. However, when the second ad is an exact copy of the first, people will not be motivated to process the second ad (Voorveld et al. 2011; Bronner et al. 2003; Edell and Keller 1989; Dijkstra 2002).

9.4.4 Backward Retrieval

Backward retrieval occurs when consumers mentally replay the previously seen ad when they are exposed to the second ad. In this process, "the elements in the second ad may serve as a retrieval cue to the ad memory trace from the first exposure" (Dijkstra 2002, 66; see also Chang and Thorson 2004; Voorveld et al. 2011). When the second ad is presented in a different medium, it may serve as a retrieval cue to the stored memory trace (Edell and Keller 1989), and people may imagine the previously seen ad while exposed to the second ad, for example, seeing the images from a TV spot, when they hear an ad on the radio. This is also called *visual transfer* or *radio replay* (Edell and Keller 1989; Smit and Neijssel 1998).

Box 9.1 A Study into Psychological Processes Underlying Synergy Effects

Voorveld, H. A. M., Neijens, P. C., & Smit, E. G. (2011). Opening the black box: Understanding cross-media effects. *Journal of Marketing Communications*, 17(2), 69–85.

The aim of the study was (a) to investigate which psychological processes are present when people are exposed to cross-media campaigns and (b) to examine to what extent these processes contribute to campaign results (Voorveld et al. 2011). Three psychological processes were studied: forward encoding (i.e., the ad in the first medium primes interest in the ad in the second medium); image transfer (i.e., mentally replaying the previously viewed ad when exposed to the ad in the second medium—also called backward retrieval); and multiple source credibility (i.e., believing the brand is good and popular because of the amount of advertising from multiple sources). To identify the role of these processes, a factorial between-subject design was used (TV commercial–Web site, Web site–TV commercial, Web site–Web site, TV commercial–TV commercial). Two cross-media conditions (Web–TV and TV–Web) were compared with two repeated medium conditions (Web–Web and TV–TV). Participants were 219 students. The study shows that two processes were more prevalent when people were exposed to cross-media combinations than when people were exposed to repeated media conditions: forward encoding and multiple source credibility. Results also showed that the positive effects of cross-media campaigns on campaign results can be attributed to forward encoding and multiple source credibility.

9.4.5 The Role of Sequence

To maximize the effect of the memory processes, it is essential to consider the sequence of media messages in a cross-media campaign. In the case of visual transfer, for example, radio is a good follow-up medium for television, but the effect would not be found if the sequence were the other way around. Media sequence in a cross-media campaign is related to the role of the different media in the five phases of consumer decision making (Gullen 2004; Weinblatt 1998) (1) to establish curiosity, (2) to establish the name, (3) to communicate the main message, (4) to support the main message, (5) and to build trust and commitment. Traditionally, television has been considered as the best way to start a campaign, raising interest and creating awareness, followed by print media to communicate, and support the main message in successive phases of the campaign. Research, however, contradicts these general media planning ideas (Dijkstra 2002) and suggests a more sophisticated role of sequence (Voorveld et al. 2011, see Box 9.2).

Box 9.2 Empirical Example Concerning the Role of Sequence

Voorveld, H. A. M., Neijens, P. C., & Smit, E. G. (2012a). The interacting role of media sequence and product involvement in cross-media campaigns. *Journal of Marketing Communications*, 18(3), 203–216.

Voorveld et al. (2012a) conducted a study on the role of sequence of exposure in cross-media campaigns using brand Web sites in combination with advertising in a traditional medium. In the experiment, 115 participants were exposed to combinations of TV commercials and websites (TV commercial–Web site vs. Web site–TV commercial) for either cell phone services (high involvement) or energy supplier services (low involvement). The results indicated a consistent interaction effect of media sequence and product involvement on three possible campaign targets: attitudes toward the ad, interest in the ad, and message evaluation. These interaction effects showed that while a TV commercial–Web site sequence was effective for informing consumers about both high and low involvement products, the Web site–TV commercial sequence was only effective for informing consumers about high involvement products. The main conclusion of the study is that sequence of exposure is vital in cross-media campaigns, especially when taking product involvement into account.

9.4.6 The Role of Fit

Consistent retrieval cues are very important to facilitate the previously described memory processes of forward encoding and backward retrieval. “Retrieval cues include such things as key visuals or distinctive slogans. Developing consistency with retrieval cues across all media helps to build a strong image for the brand” (Sheehan and Doherty 2001, p.49).

Research into the role of fit in cross media campaigns is scarce. A few studies have focused on tactics such as using a logo (Edell and Keller 1989; Bronner 2006). Other elements that have been considered are having a consistent visual or using a celebrity. Including these elements in the campaign facilitates retrieval and prevents confusing the message across media (Bronner 2006). In addition, strategic elements, such as making the same brand promise in all messages, are important to increase the synergy effect in cross media campaigns. Often these strategic elements differ, which may diminish the cross-media effects (Sheehan and Doherty 2001).

Overall, it is important that the characteristics of the advertisements be congruent for image transfer to occur (e.g., Jagre et al. 2001; Moorman et al. 2002; Neijens et al. 2009). As Smith (2004, p. 460) puts it, “the greater the match-up perceived, the greater the likely transfer of images.”

9.5 The Multitasking Consumer

People engage in media multitasking (using multiple media simultaneously) between 24 % and 65 % of the time they are using media (Pilotta and Schultz 2005; Pilotta et al. 2004; Foehr 2006). Of course, not all media are used simultaneously in the same way. People are most likely to multitask with computers, the Internet, and cell phones, and least likely to multitask when playing games or watching DVDs. Common media combinations are watching TV while being online, and watching TV while reading the newspaper, and browsing Web sites while listening to the radio.

Media multitasking might influence the effects of cross-media campaigns. Some authors argue that multitasking can be beneficial for the effects of advertising in general and cross-media advertising in particular (Pilotta and Schultz 2005; Schultz et al. 2012). However, the positive effects of multitasking have never been shown empirically. Other researchers argue that multitasking is detrimental for advertising effects, because it may inhibit attention to and processing of media messages (Jeong et al. 2010; Papper et al. 2004). See Box 9.3 for an empirical study by Voorveld (2011) that provides empirical support for this idea.

Scholars in the “negative school” argue that media multitasking is detrimental for advertising effects because the limited-capacity model suggests that individuals have a limited amount of cognitive capacity to allocate among different tasks (Lang 2000). During media multitasking, media compete for cognitive resources, and attention has to be divided (Jeong and Fishbein 2007), which influences message processing and effects.

Dual-processing theories, such as the Heuristic–Systematic Model (Chen and Chaiken 1999) and the Elaboration Likelihood Model (Petty and Cacioppo 1986), give insight into how persuasive messages are processed. These theories generally distinguish between two types of processing: systematic or central processing and heuristic or peripheral processing. Systematic processing requires an effort, with extensive elaboration, involving active learning and evaluation of the arguments in the message. Heuristic processing is more superficial and relies on simple heuristic cues or shortcuts, such as the number of arguments, the attractiveness of the source, and emotional appeals (Chen and Chaiken 1999; Petty and Cacioppo 1986). Since media multitasking leads to divided attention, this may result in a reduced ability to process information thoroughly, possibly resulting in persuasion based on superficial cues instead of arguments. Future research is needed to fully understand the influence of media multitasking on advertising effects.

Box 9.3. Media Multitasking and Cross-media Effects

Voorveld (2011). Media multitasking and the effectiveness of combining online and radio advertising. *Computers in Human Behavior*, 27(November), 2200–2206.

Research on the effectiveness of cross-media campaigns combining online advertising with advertising in traditional media has never considered one of the most important aspects of today’s overwhelming media environment:
(continued)

media multitasking. Therefore, this study investigated consumers' responses to a combination of online advertising (banners) and advertising on the radio while they were simultaneously exposed to these media. In an experimental design, 111 participants were exposed to both a web site and a radio fragment; only the specific ads (target ads for the brand Panasonic or filler ads) incorporated in the web site differed. The results showed a different pattern for cognitive measures and affective/behavioral measures. Combining banners and radio ads in a campaign did not result in superior cognitive reactions compared to using banners alone. Both the banners and the combination of a banner and a radio spot resulted in a higher aided brand recall, category-cued brand recognition, and brand-cued recognition than exposing participants to a radio ad twice. It can therefore be concluded that, in a media multitasking situation, the use of a visual ad (in this case, a banner) is necessary to evoke high cognitive responses. On the contrary, in terms of affective and behavioral brand responses, combining online and offline media resulted in more positive responses than using only radio ads. To evoke favorable affective and behavioral responses, it is therefore important to use both banners and radio ads in a campaign, instead of only banners or radio ads.

9.6 Cross-media Research in the Field

One of the biggest challenges in contemporary advertising research is determining how each medium in a cross-media campaign contributes to the campaign's impact. A clear answer is not easily found. Standard readership research does not offer a sufficient answer, because this audience research is traditionally focused on measuring just one type of medium. Industry data are available that give insight into TV audiences, radio audiences, newspaper readers and magazine readers, etc., but there is little information on the overlap between people's use of various media, because these data are collected by different individuals. This section discusses audience research for cross-media campaigns.

9.6.1 Ex ante Data: Data for Cross-Media Planning

In order to plan cross-media campaigns, media planners and marketers need to know what the reach and effects of their messages are. In other words, planners need data on individual media consumption that includes all media platforms in order to be able to answer such questions as:

- How many and which customers are reached with various combinations of media?

- What are the effects of different media combinations on brand recall, attitude, and buying intention?
- What are the effects of different sequences?

To answer these questions, the industry is experimenting with collecting single-source data, measuring all of an individual's media consumption; this is an innovation since audience readership research has traditionally focused on one medium only. An example of single-source data is *project Apollo* in the USA, which was promoted as a "single-source" national research service. The project was active between 2006 and 2008, combining media consumption data from Arbitron's Portable People Meter (Fitzgerald 2004) and ACNielsen's Homescan consumer product-purchasing data to better correlate the impact of media on purchase decisions. Advertisers such as PepsiCo, Wal-Mart, Procter & Gamble, Kraft, Unilever, S.C. Johnson, and Pfizer were involved. Unfortunately, the project was terminated in 2008 (for discussion of the project see Smit and Neijens 2011).

A second example of a single-source approach is the *Simultaneous Media Usage Studies* conducted by BIG research. This project focused on media usage by asking questions about what media forms respondents used simultaneously and how each medium influenced purchasing behavior. The data has been gathered twice annually in the USA since 2002 and quarterly in China since 2006 (Schultz et al. 2012).

Touch Points, commissioned by the Institute of Practitioners in Advertising in the UK is a third example of a single-source project. It presents itself as consumer-centered, multimedia research that produces information on consumers' use of all media. The project was launched in 2006.

A fourth example is *3M (Multiple Media, Multiple Phases, Multiple Products)* developed by the authors in 2011; this project registers which media are used in various phases of the consumer decision-making process. A unique feature of this project is that it differentiates between the various stages of the buying process and that it does not focus on purchases in general, but only on specific purchases, because consumers are often unable to correctly report their information search behavior for purchases in general (see Box 9.4).

Box 9.4 Cross-media Measurement: Multiple Media, Multiple Phases, Multiple Products (3M)

Voorveld, H. A. M., Smit, E. G., Neijens, P. C., & Bronner, A. E. (2012b). Media guiding consumers across different stages of the purchase process (Extended abstract). In Morrison, M. (ed.), *The Proceedings of the 2012 Conference of the American Academy of Advertising*. ISBN: 978-0-931030-43-7, pp. 30–31.

To give insight into how people use multiple media across the purchase process, a total of 347 respondents representative of the Dutch population filled in an online questionnaire. The questionnaire started by asking the respondent to indicate which products they had purchased recently. Participants were shown two lists, one with 22 high involvement products and another with 23 low involvement products. One of the recently bought
(continued)

products or services was randomly selected, and participants were told that a purchase process usually has five phases. The questionnaire walked them through these five stages one by one, asking them to indicate which media and information sources had been important to them at each stage, and which medium had been most important.

Preliminary results of this small-scale application of the questionnaire showed that media were most important in the stages of the purchase process before the actual purchase was made. Media that were most influential across the total purchase process were the Internet, TV, and free door-to-door newspapers. Non-advertising media that were important were conventional shops and Word of Mouth. Consumers indicated that cinema, mail, and outdoor advertising were least important in influencing their purchase decision. Though only small differences were found between the role of specific media in the various stages of the purchase process, there were interesting differences between high and low involvement products, between males and females, and between younger and older consumers. Consumers used more media when purchasing high involvement products than low involvement ones. In particular, the Internet was much more important for informing consumers about high involvement products than low involvement ones, while traditional media (especially TV and free door-to-door newspapers) were more influential for low involvement products than for high involvement ones. Men indicated they were influenced more by the Internet, while women indicated they were influenced more by television. Finally, older consumers generally reported they used media more often than younger consumers in their purchase process. Younger consumers indicated they were influenced by the Internet and television more often than older consumers, while older consumers indicated they were influenced by free door-to-door newspapers and conventional shops more often than younger consumers. By investigating media usage patterns in different phases of the purchase process, for different types of products, for different kinds of consumers, the current study offers insights that are helpful for practitioners in the current media landscape.

Note. This research was supported by a grant from the Marketing Science Institute.

9.6.2 Ex post Data: Data for Effect Research

Three types of research designs can be distinguished for studying cross-media effects: voluntary exposure, forced exposure, and forced abstinence (Bronner et al. 2003). *Voluntary exposure* is a popular design. In this design the sample of respondents is, for example, split into a group that encountered the campaign on TV, a group that encountered it in a newspaper, and a group that encountered it in

both media. In each group, dependent variables such as brand recall, image, attitude, etc., are measured.

This design is popular, but a problem with it is the self-selection pitfall: consumers in the different media groups are most probably not equivalent (with respect to a great number of variables) and probably had different opinions on the brand before they were exposed to the campaign. In other words, it is not clear whether different opinions about the brand can be attributed to exposure to the campaign or whether these differences already existed before the campaign started. Many trade studies apply this design and suffer from the self selection pitfall (see Box “[Classic Media Multiplier Studies](#)”).

Box 9.5 Classic Media Multiplier Studies

In the past 25 years, a number of studies have been conducted to prove the synergy effect of print media when combined with TV. The following is taken from <http://www.fipp.com>.

The “Multiplying the Media Effect” survey, carried out in 1985 and published in 1987, is the first of two classic pieces of research in the UK which demonstrated the improved communications delivered by TV-plus-print. The second project was “The Media Multiplier,” published in 1990. This project was commissioned by a group of consumer magazine publishers working together under the name of The Magazine Marketplace Group, under the auspices of PPA (Periodical Publishers Association), and the fieldwork was conducted by Communication Research Ltd. The first project was “Multiplying the Media Effect,” published in 1986 and 1987, and the same team went on to develop “The Media Multiplier” study. The report, written by Guy Consterdine, was published in 1990 by the Press Research Council, representing magazines and newspapers. The results demonstrated that advertising in magazines or newspapers in addition to television, rather than using television on its own, produces a number of very important communication benefits. Print not only makes its own unique contribution; it also makes the television commercials work harder. The effect of adding print to television is not merely additive; it is multiplicative. Using the two media produces an invaluable interaction, according to these media multiplier studies (Axel Springer 1989; Consterdine 1988, 1990a, b).

An alternative design is *forced exposure*. In this design, respondents are randomly allocated to different conditions (for example, TV, Newspaper, or both) and are forcefully exposed to the advertising in these conditions. This design guarantees that the respondents in the different groups are equal and that differences in brand recall, brand attitude, and other dependent variables measured after exposure to the ads can be attributed to the different media conditions. A problem of this design, however, is external validity: people are forced to attend to the ads in the different media, which they probably would not do in real life.

A third option is *forced abstinence*. Under this option some respondents are not exposed to the ads in some media, while others are exposed. For example, some respondents do not get a folder with the brand ad, or in certain areas the newspaper does not contain the ad for the particular brand. This design has the advantage of being realistic (no forced exposure) and the design guarantees equal composition of the different groups. A problem of this design is, however, that forced abstinence is difficult to realize for TV or radio.

Problems and pitfalls in cross-media effect research are numerous. For example, when comparing the effects of single media campaigns with cross-media campaigns, not only do the media differ but also the number of exposures (and possibly their content as well).

Finally, it is important to note that the results acquired from ex-post campaign-tracking studies not only give insight into the success of a campaign but can also provide input for future campaigns (ex ante data).

9.7 The Road Ahead

Cross-media campaigns—campaigns in which marketers seek to maximize the effectiveness of their budgets by exploiting the unique strengths of each medium and taking advantage of cross-media synergies—have become widespread. This chapter has looked at the insights provided by current research into cross-media issues. We have discussed the reasons media planners and marketers choose cross-media campaigns: repetition, target group extension, complementary effects, and synergy effects. The chapter has also described the psychological processes underlying cross-media synergy effects: encoding variability, multiple source credibility, forward encoding, and backward retrieval. The roles of fit, sequence, and multi-tasking were also discussed. The results of the studies described in this chapter provide guidelines for brand managers and advertising agencies.

One of the major challenges for cross-media research is to provide data that support cross-media decisions. Advertisers have formulated the conditions which new media research should fulfill (see also www.wfablueprint.org/goals.php; McDonald 2008). These include single source measurement of all media, measurement of cross-media reach and effects, new metrics like engagement that go a step further than the simplistic people-with-open-eyes-or-ears-in-front-of-the-advertising-space definition of reach, faster and continuous provision of measurement information, large enough sample sizes to measure hard to reach targets, more relevant target group descriptions, and passive measurement systems. Clearly, the age of convergence provide tremendous challenges not only to advertisers, but to advertising researchers as well.

Exercise Questions

1. What are cross-media campaigns?
2. Which media developments have contributed to the popularity of cross-media campaigns?
3. What are the reasons for cross-media campaigns?
4. What are media synergy effects?
5. Which psychological processes underlie media synergy effects?
6. What are the problems with current readership research?
7. What are advantages and disadvantages of the following designs for research into cross-media effects: voluntary exposure, forced exposure and forced abstinence? Which design do you think is best?
8. What is the self-selection pitfall?

Reflexive Questions

1. Do you think cross-media advertising will become more or less important in the converging media landscape?
2. Which media could best be combined in a campaign, in which order, and why?
3. What is your opinion about media multitasking: do you think it is beneficial or detrimental for advertising effects? How could advertisers cope with this type of media use?
4. Collect information about a current cross-media campaign and make a design for a study into its effects.

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Chapter Objectives

1. To understand how media convergence changes consumers' daily life and thereby affects consumer-brand-relations.
2. To comprehend how consumers are influenced by brands and their communication.
3. To learn how brand communication should be applied for different types of consumers with regard to their involvement and their motivation.
4. To learn how brands should respond to consumer-generated content that is negative for the brand and how to cope with social media crises.
5. To learn how to receive brand insights from consumers' online brand-related activities.

10.1 Introduction: The Challenges of a Converging Media World

What does media convergence mean for our daily life? Let's consider a typical day in the life of the 22-year-old student John Doe to understand the effects of converging media.

7.20 am: John wakes up to the alarm of his mobile phone. He instantly notices the push messages he has received from different apps. He quickly reads these new messages. Still in bed, he checks his Facebook account and writes comments on his friend's posts. 7.40 am: John gets up. On his way to the bathroom, he passes the kitchen and turns his new Hybrid Broadcast Broadband TV (HbbTV) set on. While having a shower, he listens to his favorite radio station. 8.00 am: John has breakfast and browses through his favorite sports

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magazine. The TV morning program is running in the background. John views a Nike ad that contains a quick response (QR) code. Being excited about the advertised shoe, he scans the code with his mobile device and is directed to the linked "microsite." He stays there for several minutes and carefully reads the given brand information. He distributes the information about the new Nike shoe to all his 190 friends on Facebook. 8.09 am: John's attention is suddenly attracted to a TV program summarizing the preceding day of a big sport contest. He leaves the Nike site and focuses on the TV show. 8.18 am: Meanwhile, John has finished breakfast. He goes back to his Facebook account and browses his "wall" for interesting new posts. John's attention is attracted to a post from a friend that contains a link to a TV program that was broadcasted yesterday evening. The TV show criticizes a well-known computer brand for its exploitative working conditions and the pollution caused in third world countries. John decides to watch the TV show. The TV program and the many negative posts provided by other users persuade John not to buy this brand. He decides to write a very critical comment about the brand on his favorite internet forum. 8.35 am: John reads a post from the Kellogg's fan page which encourages customers to participate in a contest to create a new type of cereal. John clicks the link and leaves Facebook for the brand page. He engages for almost 10 minutes in creating a new type of cereal. As John is interested in healthy nutrition, he fills in the order form for a booklet on healthy living. 8.45 am: John suddenly realizes that he is late. He grabs his bag and leaves home for university. On the bus, he reads the New York Times on his mobile phone. 10.00 am to 6.00 pm: John attends lectures and seminars at the university. He checks Facebook and comments on posts every hour at least. 7.10 pm: After a successful day at university, John returns home. He switches his Playstation on and plays the racing car simulator Gran Turismo. 9.00 pm: He surfs the internet on his new tablet PC. At the same time, he follows a national crime series on HbbTV. Instead of revealing the identity of the suspect, the crime show ends with a request to search for the suspect on the internet. Attracted by this opportunity, John presses the 'red button' on the remote control of his new TV set and is automatically connected to the related murderer search website. 11.20 pm: John writes approximately 100 text messages throughout the day. Already in bed, John posts his new lap time record and the news about the crime series on Facebook. 11.30 pm: John turns the light and all electronic devices off (except his mobile – he never turns it off).

The John Doe example illustrates that consumers are already living in a converging media environment. The traditional distinction between the "three screens" television, computer, and mobile phone is rapidly losing its relevance. Nowadays, consumers can easily get access to all different kinds of media by using one of the traditional screens. Modern TV sets are equipped with internet access, mobile phones can be used to watch television, and desktop computers are multimedia devices that support all different kinds of media. Meanwhile, even a fourth screen has been born: The tablet computer can be seen as a "true convergence device" that merges different channels in a highly convenient way (Shust 2011). Within seconds, consumers can switch from one medium to another. Thereby, the way consumers use media has dramatically changed. It seems that consumers are permanently multitasking and thus continuously splitting their attention between different online and offline media, different contents, and different actions.

Media convergence has changed the traditional notion of brand-to-consumer communications (e.g., Schultz et al. 2012; Kozinets 1999). Consumers like John Doe actively produce brand-related content. They are highly connected with other individuals and permanently share their opinions about brands in the form of comments on various social media pages, rather than just being passive receivers

of brand communication. Thereby, consumers can exert strong effects on brand image.

Besides the difficult question of how to integrate offline and online media, media convergence is challenging brand managers due to the above-described change in the way consumers communicate with and talk about brands online. This cultural change is enabled by technological innovations that are important drivers of this development. The “new kind” of media usage is becoming more and more characteristic for consumers of all social classes and genders.

10.2 Media Convergence and Its Consequences for Brand Management

10.2.1 From Technological Convergence to a Converging Media Culture

The concept of media convergence is strongly related to developments in different fields such as the progress in digital technologies, the blurring of the boundaries between different media, the emergence of new products and services, and the cultural change of communication behaviors (e.g., Jenkins 2001, 2004, 2006; Wirth 2006). Thus, (at least) three levels of convergence can be distinguished: technological, channel, and cultural convergence (Fig. 10.1).

Technological Convergence. The technological progress in the information and telecommunication (ICT) industry was the prerequisite for the development of new technological devices for consumers. Online- and mobile-based technologies in particular have been key drivers of media convergence. Through the technological advances in the ICT industries and the ongoing digitization, the usage boundaries of different devices are blurring. Thus, mobile phones have developed into multimedia gadgets that not only provide access to different media and different channels but also enable consumers to produce and distribute media content whenever they want and wherever they are.

Recent studies indicate that the process of technological convergence will further increase. Morgan Stanley Research (2009) proposes that mobile devices will have replaced the classical desktop computer as the primary access medium to the internet by 2015. The futurist Ray Kurzweil brings this rapidly accelerating technological development to the point: “*So what used to fit in a building now fits in your pocket, what fits in your pocket now will fit inside a blood cell in 25 years*” (Kurzweil 2009).

For brand managers, these technological developments are highly relevant since they mark the communication possibilities of the future. Technological convergence has already changed the way multichannel campaigns have to be planned and executed.

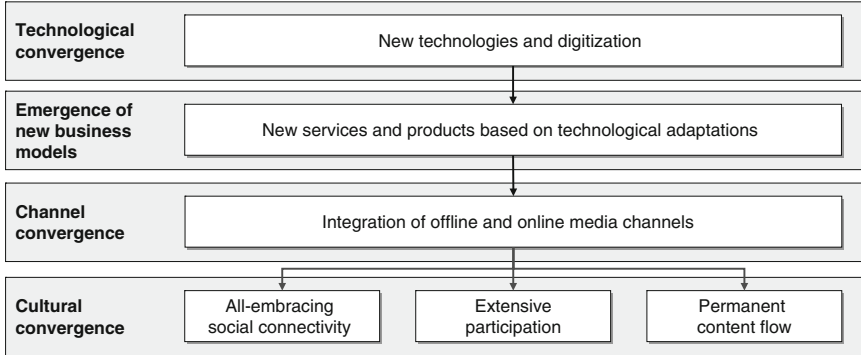


Fig. 10.1 The different levels of convergence

The Emergence of New Business Models. Based on the technological convergence, new business models have emerged in the form of new digital products and services. Driven by the web 2.0 movement, interactive and collaborative thought became increasingly important for online businesses (e.g., O'Reilly 2007). Characteristically, the users of web 2.0 businesses deeply engage with the Web site. For example, consumers upload videos to YouTube, cultivate their friendships via Facebook, and share their knowledge on Wikipedia. Generally, these web 2.0 business models are based on *engaging consumers* that *share* contents, *connect* with each other, and also *co-create* by bringing in personal experience, knowledge, and ideas (e.g., Wippermann 2010). Figure 10.2 illustrates these consumer engagement types and provides examples of typical web 2.0 business models. These web 2.0 businesses strongly depend on the consumers and the content that they generate. Thus, the consumer in the converging media environment has transformed into a prosumer that simultaneously *produces* and *consumes* contents (e.g., Ritzer 2010).

Channel Convergence. In a converging media environment, consumers are frequently switching between different media channels looking for entertainment or information. Thus, brands are increasingly forced to convey their advertising messages across different media and different channels. Thereby, the different communication instruments can fulfill different tasks depending on consumer's situational involvement. To integrate online and offline advertising successfully, managers have to define the role each advertising instrument has to play in a converging multichannel campaign. Magazine ads, for example, usually receive very little attention; gaze durations are short (approximately 2 s for a 1-page ad). Thus, this medium is mainly suited to convey quick messages that foster brand awareness and brand image. Consumers actively visiting brand Web sites, however, possess a higher situational involvement and are more likely to be interested in receiving brand-related information. Thus, brand Web sites provide the opportunity to convey more detailed brand information.



Fig. 10.2 Web 2.0-based business models. Source: Wippermann 2010

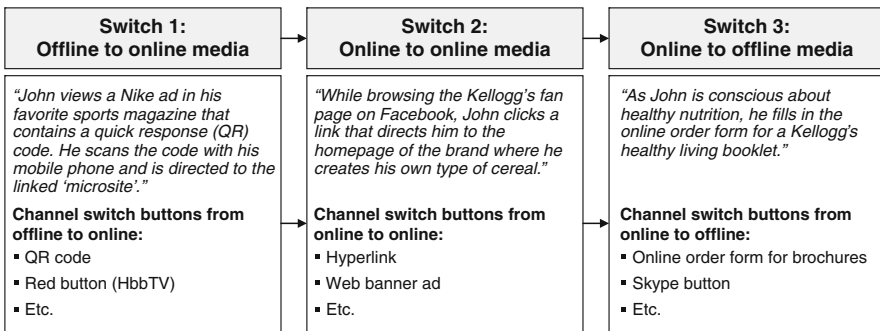


Fig. 10.3 Channel switch buttons supporting media convergence

In order to reach maximum persuasion power, companies should develop strategies to enhance consumer involvement and attract consumers’ attention from low involvement media to higher involving media. To support such channel changes, companies can employ “channel switch buttons” that link the different channels with each other and, thereby, help to direct consumers from one channel to another (Fig. 10.3). The inclusion of a Web site address in a print ad, a TV, or a radio commercial, for example, is a commonly used device to direct consumers from a brand’s offline communication to its online activities. However, a much more convenient channel switch button is the QR code. It can be reproduced in any form of visual communication. By scanning a QR code with a mobile phone, consumers are directed to a Web site. The tiresome typing of the Web site address is obsolete. Furthermore, QR codes can be used to convey a wide range of information, such as contact details, geo data, or short text messages. The “red button” is a device that links TV programs to Web sites in HbbTV. Thereby, brands can link their TV commercials with their online activities. By pressing the red button, consumers interested in the offer can easily jump to the brand’s Web site to receive further brand-related information. Switches between different online media can be supported via hyperlinks that are provided in Web sites, banner ads, email ads, etc. Switches from online to offline communications mainly happen if

consumers are becoming involved in an offer and want to contact the brand. Such channel changes are supported by the provision of company contact details such as phone numbers, addresses, or online forms to order brand brochures. Figure 10.3 provides an overview of different devices (“channel switch buttons”) that support channel changes.

Cultural Convergence. With the emergence of the Internet, the communication culture dramatically changed (e.g., Jenkins 2006). Information about nearly everything was suddenly ubiquitarily available. However, the Internet still took the form of a unidirectional mass communication. Consumers were able to view information on Web sites provided by brands, organizations, and people. Web 2.0 radically changed the character of the internet communication. All of a sudden, the internet became a participative social medium. Every consumer is able to distribute messages all over the world within seconds. Jenkins (2006, 3) brings this development to the point: “*In the world of media convergence, every important story gets told. . .*”

However, the extent to which and the way how consumers use web 2.0 opportunities still vary a lot across different age groups. In general, analyses of media usages show that consumers tend to spend more time with media they have been socialized with (e.g., Nielsen 2012). Consumers who have been brought up with print media and TV spend significantly more time with these media channels than consumers who already have experienced the Internet in their early childhood (e.g., Nielsen 2009). Thus, concerning the communication culture, roughly, the two user groups “digital natives” and “digital immigrants” can be distinguished (Prensky 2001a, b; Wippermann 2010). *Digital immigrants* are born before 1980 and were raised in a world in which print media and TV still were prevalent. Whereas, *digital natives* (born since 1980) grew up with the Internet, mobile phones, DVD, and modern computer games. John Doe, from the introduction of this article, is a typical digital native. They spend a considerable amount of their lives on the internet. Digital natives readily share private information about their “lives, relationships, memories, fantasies, desires” and frequently create new content in areas they are interested in (Jenkins 2006, 17; Wippermann 2010). Recent business models such as Facebook, YouTube, or Flickr further accelerate this change in communication culture. In contrast, digital immigrants are more reluctant about sharing personal information; they try to protect their privacy (Wippermann 2010). Even if they use the internet extensively, digital immigrants produce user-generated content to a significant lesser extent than digital natives. Wippermann (2010) points out that those digital immigrants will always stay guests in the digital world.

10.2.2 Brand Management Challenges in the Convergent Media Environment

Media convergence and the ongoing radical change of consumers' communication culture offer, besides plenty of new opportunities, many new risks for brands. A pivotal benefit of media convergence results from the opportunity to directly interact with consumers. Additionally, consumer needs can be better understood by closely paying attention to the brand-related contents posted on various pages like Facebook, Flickr, YouTube, Twitter, and in blogs. However, consumer-generated content can also cause massive threats to brands (e.g., Chiou and Cheng 2003). These threats often emanate on social media pages and converge into classical mass media like TV or newspapers. These changes in consumers' communication culture that are of paramount importance for brand management are summarized next.

All-Embracing Social Connectivity. Digital natives are highly socially interconnected. Most of these social interactions take place in social media networks such as Facebook, Google+, or in specialized blogs. On Facebook, for example, the average user is connected to 190 friends (Ugander et al. 2011). In the U.S., nearly 80 % of the active internet users regularly visit social network Web sites and blogs (Nielsen, NM Incite 2012). Meanwhile, more than 50 % of young female consumers report that the majority of their personal communication takes place online (and not face to face anymore) (Oxygen Media 2010). These younger consumers are accessible all of the time: They check their inbox highly frequently and never switch their mobile phone off.

Extensive Participation. The high level of social connectivity enables a high speed diffusion of information. Within the social web, consumers share information about any topic they are interested in. This kind of participation is a preeminent characteristic of web 2.0 (Jenkins 2004). Within a week, billions of contents are shared on the social media networking site Facebook alone (Econsultancy 2010). Within this jungle of user-generated information, also numerous brand-related posts appear. Consumers recommend brands to friends, report negative or positive experiences, share pictures of their products and brands with others, or establish brand communities. Apps like Seismic Ping further foster the speed of content flow since they allow, for example, posting to various social media sites at the same time with one entry. Brands get more and more affected by this user-generated content—positively as well as negatively (Muntinga et al. 2011; Christodoulides et al. 2012). Thereby, communication for brands gets less controllable for companies (Mangold and Faulds 2009; Kaplan and Haenlein 2010). In the old days of brand management, companies could control what has been said about their brands. Nowadays, in the world of convergent media, companies have to accept that a considerable amount of brand-related information is generated by users and is not any more under the control of the brand. Thus, brand management is becoming a

“more democratic process” in which consumers may exert a considerable impact on a brand’s image.

Permanent Content Flow. Content flow among different media channels is another key characteristic of the convergent media environment (Jenkins 2004). Brand-related content—no matter who produced it—is spread all over the web. Content that has been produced by person A is distributed by person B—often without the knowledge of the original sender. This usually happens in an uncontrolled and irreproducible way. Again, social networks are an important enabler. In this context, Jenkins (2006, 1 et seq.) reports the example of Dino Ignacio, a high school student, who published a self-made photo collage on his Web site that showed Sesame Street’s Bert next to Osama Bin Laden. The collage was part of the series Ignacio called “Bert is Evil.” What began as a student’s fun on a personal computer, ended up as an excellent example of content flow in a convergent media culture: To his surprise, while watching a CNN news report about an anti-American protest in Pakistan, protest placards with Bert and Bin Laden appeared. The contents from Dino’s personal Web site have travelled around the world via the Internet, popped up, and found their way back through another media channel. For brands, this example illustrates what can potentially happen with brand information generated by the brand itself and by users. This content flow within digital media channels further adds to the lack of controllability of user-generated brand communications. *To sum up*, brand managers should be aware of the following challenges:

- Social media platforms are a catch basin of brand-related communication.
- Social media interactions are an important part of consumers’ everyday communications — and brands are a part of these.
- Companies have to accept that a considerable amount of brand-related information is generated by consumers and is no longer under the control of the brand.
- Even a minority of consumers may raise their voice loudly enough to be heard by a large number of passive consumers. Thus, a minority can exert a considerable impact on a brand’s image.
- The speed of content flow has enormously accelerated. If contents are of interest for consumers it is very likely that they pop up anytime, anywhere.

10.3 Strategies and Tactics to Manage Brands in the Converging Media Environment

10.3.1 Towards a Brand Management Model for the Converging Media Environment

Considering the dramatic change in communication culture that has been caused by media convergence, one can easily get the impression that the principles for building and managing brands must have radically changed. However, the recipients of today’s brand messages possess brains that date back to ancient times. Of course, human evolution has not been accelerated by media convergence.

The way consumers perceive, process, and encode advertisements has not changed. Thus, most of the strategies and principles we are employing in offline advertising, still hold true for building and managing brands in a converging media environment (e.g., Rossiter and Percy 2012). These means just have to be adjusted to new media conditions.

What Makes a Brand Strong? Awareness and image are the main determinants of a brand's long-term success (Keller 1993, 2008). They are the key to the persuasion power of strong brands. Thereby, awareness is the necessary condition to ensure that a brand plays a role in the purchase decision. A brand unknown to consumers will usually not be considered as a relevant option to buy. The brand image goes beyond brand awareness. It is defined "as perceptions about a brand as reflected by the brand associations held in consumer memory" (Keller 1993, 3). In other words, the brand image is the sum of all associations that are connected in a consumer's mind with a brand. Consumers prefer brands that hold a strong, favorable, and unique image (Keller 1993, 2008, 2009). To sum up, the more familiar (brand awareness) a consumer is with a brand and the more positive, unique, and strong his/her associations (brand image) with the brand are, the more likely he/she will buy it one day (Esch et al. 2006). Thus, the building and maintaining of brand awareness and brand image is the superordinate target of brand management.

10.3.1.1 Strategies to Build Strong Brands

Brand positioning is the starting point for building strong brands. All brand communication-related decisions have to be aligned to a brand's positioning strategy. Positioning refers to the position a brand intends to gain in the consumers' mind (Keller 2008). It "*involves identifying and establishing points of parity and points of difference [. . .] to create the proper brand image*" (Keller et al. 2008, 94). In the positioning strategy, the brand management defines the core associations the target group should connect to the brand. These associations have to meet three requirements (Keller 2008; Kroeber-Riel and Esch 2011): Firstly, they must differentiate the brand from competitors; secondly, they must be attractive and relevant to the target group, and, thirdly, they have to have a long-term relevance for the costumers. Milka, for example, fulfills these requirements with its positioning of being "the ultimate tender alpine milk chocolate" (Fig. 10.8). Or, Beiersdorf uses the associations of "gentle," "protective," and "caring" to position its body care brand Nivea (Keller et al. 2008).

10.3.1.2 Techniques to Build Strong Brands

In order to foster awareness and image, brand management has to anticipate the way how consumers perceive and process brands. Thus, brand management has to follow vital psychological principles to successfully establish strong brands. The broad range of persuasion techniques that has been provided by branding and advertising literature (e.g., Armstrong 2010; Rossiter and Bellman 2005; Keller 2008) can be condensed to four vital communication tactics (McGuire 1978; Belch and Belch 2007; Kroeber-Riel and Esch 2011). Following the idea of McGuire's

information-processing model, these are attention, liking, comprehension, and retention (McGuire 1978).

Attention—Getting in Contact with the Target Group. The first obstacle a brand has to take is to become noticed. The brand, its products, and its communications must attract the attention of the target group—otherwise it is impossible to convey a message. Due to increasing media clutter, getting in contact with the consumer is becoming increasingly difficult.

Liking—Eliciting Positive Emotions. At every consumer-brand contact, the brand has to elicit positive emotions in order to establish brand liking. Negative (and even neutral) brand associations lead to dislike and dislike hampers sales. However, brand liking is an interstage; in the end it is brand preference that is aimed at. Consumers shall prefer the brand over its competitors (e.g., Rossiter and Bellman 2005, 110 et seqq.). Whether a brand relies more on *emotions* and/or *information* is determined by its positioning strategy that in turn depends on the target groups' buying motives.

Comprehension—Conveying Relevant Information. The brand management has to ensure that the relevant brand information are perceived and understood by the customer. However, this is difficult since most of today's brand contacts happen under low consumer involvement. Gaze durations are short and the level of cognitive processing is low. Thus, relevant information has to be conveyed quickly. Only high involvement consumers are interested in detailed brand information and exhibit longer gaze durations (e.g., Kroeber-Riel and Esch 2011).

Retention—Establishing Brand Knowledge. Brand communication has to be designed in a way that a brand's message (in particular the brand positioning) can be easily remembered. Many consumer-brand contacts are taking place in situations in which the potential customer is low involved and not planning to purchase a product offered by the brand. However, it is important to establish awareness and image in the early phases of the customer buying cycle to ensure that consumers include the brand in their purchase considerations.

Finally, after having passed these communications steps successfully, consumers may show a positive *behavior* towards the brand such as purchase, brand recommendation, or the creation of positive brand-related content. The extent to which consumers participate in creating user-generated content depends on their type and level of involvement (Muntinga et al. 2011, Fig. 10.4).

10.3.1.3 The Moderating Role of Involvement and Consumer Motives

Consumers differ in the way they are involved with a brand. Involvement can be differentiated concerning its intensity (high versus low) and its quality (affective versus cognitive) (e.g., Kroeber-Riel and Esch 2011). The intensity of brand involvement can vary over time. It increases before and during the purchase decision is made and decreases after the product has been bought. Brand

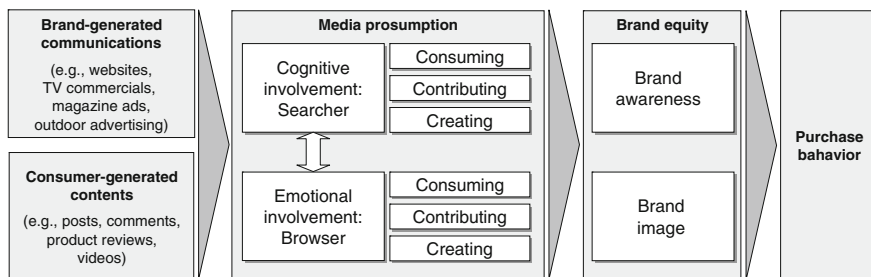


Fig. 10.4 Convergent media brand management model

involvement further underlies a situational impact whether a consumer has the time to engage in brand activities in the moment he or she gets in contact with the brand. This so-called situational involvement overrules the enduring brand involvement.

Involvement can be considered as a “*super variable*” that largely influences the consumer behavior. It determines, for example, whether and how consumers search for information, how they perceive and process brand-related content, and how actively they engage in a brand.

How Does Involvement Affect Media Usage? The situational involvement determines how consumers use different media. Following the suggestion of Gall and Hannafin (1994), made for the study of hypertext, we adopt the differentiation in browsing and searching. Accordingly, *searchers* actively search for (brand-related) information and therefore exhibit a higher involvement. The quality and structure of the information presented are important in the persuasion of this audience. *Browsers*, in contrast, have no search target. They wander around in a hypermedia basis, flip through TV channels, or scan a print magazine, mostly to satisfy affective needs such as having fun and getting entertained. Browsers may stop and engage in an activity as their attention is attracted by an object. Thus, browsers can become searchers when their involvement rises. The other way round, searchers can become browsers when they stop or interrupt their search.

How Does Involvement Affect Brand-Related Activities? The level of brand involvement determines the extent to which consumers engage in brand-related activities. Muntinga, Moorman, and Smit (2011, 2012) distinguish three types of “consumers’ online brand-related activities” (COBRA): consuming, contributing, and creating. Accordingly, lowly involved consumers primarily consume. They scan the information provided at a brand’s Web sites, watch brand-related videos on YouTube, play advergames, or view the posts of other users on Facebook. Contributing and creating, however, require an enhanced involvement. The first encompasses activities like becoming a member of a brand’s fan page, commenting on other consumers’ posts, or engaging in product ratings. Whereas, the latter refers to the generation of complex contents such as the production of brand-related videos or articles (Muntinga et al. 2011).

Type \ Level	Consuming	Contributing	Creating
Browser (Entertainment-driven)	-	Emotional involvement	+
Searcher (Information-driven)	-	Cognitive involvement	+

Fig. 10.5 Consumers’ brand-related activities

How Do Consumer Motives Affect Brand-Related Activities? Combining the different qualities and levels of involvement with the COBRA framework of Muntinga et al. (2011) provides six different ways of how consumers can engage in brand-related activities (Fig. 10.5). According to this, consuming, contributing, and creating can be driven by cognitive and/or affective motives. Emotionally involved consumers, for example, may take part in brand-related crowdsourcing activities such as designing burgers at McDonald’s or inventing new flavors of potato chips at Lay’s. Rather cognitively involved consumers are more likely to rate products and brands. The higher their brand involvement is, the more likely consumers get involved in creating. Highly emotionally involved consumers, for instance, may engage in producing a brand-related movie or in designing commercials. On the other hand, highly cognitively involved consumers may write extensive product reviews or articles about the brand.

However, overall, consumers seem to be rather passive. A study of the market research company Chadwick Martin Baley (2011) shows that the majority of consumers (77 %) on Facebook simply consume information about their liked brands instead of contributing and only 13 % of the consumers post brand-related contents.

10.3.2 Getting in Contact with Consumers in a Converging Media Environment

A raising number of brands, products, and services fight for consumers’ attention. The number of advertising messages dramatically increased during the last decade. Additionally, more and more private electronic communication takes place. Furthermore, consumers are developing strategies to ignore ads. Phenomena such as *banner blindness* (e.g., Cho and Cheon 2004) where consumers have learnt to avoid fixations on web banner ads or *channel hopping* while TV commercials are on screen (e.g., Lim et al. 2008) additionally complicate the communication task for brands. To sum up, it is becoming increasingly difficult for brands to get in contact with its target consumers. Thus, companies have to develop strategies to gain attention for their brands.

10.3.2.1 Attention Tactics I: Gaining Initial Contact

Consumers are permanently exposed to brands. While walking through a town we pass outdoor ads, in the underground we may be confronted with an ambient advertising, while browsing a magazine or searching the internet for information we are exposed to various ads. Whether these ads gain our attention or not, depends largely on the ad's *structural features* such as the size of the ad, the size of the ad's pictorial element, the ad's color, and the ad's layout (Rossiter and Bellman 2005, 188). For gaining the first contact, an ad's message content is of secondary importance. This holds true both for searchers and browsers.

In general, companies have to ensure that their Web sites and their brand-related contents can easily be found. Thus, every brand should optimize its page ranks in *search engines*. Being among the first entries in Google, for instance, can strongly increase the possibility for getting in contact with the target consumer.

Size. The bigger an ad is, the more likely it gains attention (Kroeber-Riel and Esch 2011; Rossiter and Bellman 2005). This holds true for all different kinds of brand communication. Rauschnabel et al. (2012) found, for instance, that the size of a brand posting on Facebook significantly affects the number of "Likes" the posting generates.

Picture. In general, the use of pictures significantly increases the likelihood that an ad receives fixations (e.g., Pieters and Wedel 2004). Pictures should, therefore, be used in all types of advertisements. Ads that depict faces (and eyes) of humans or animals, human or animal babies, erotic, or emotional scenes are particularly eye-catching (Kroeber-Riel and Esch 2011; Rossiter et al. 2004; Rossiter and Bellman 2005). In low involvement conditions, Rossiter and Bellman (2005, 200) recommend that the picture should be as large as possible. Rauschnabel et al. (2012) report that postings on Facebook stimulate more "Likes" and comments if they contain pictures, whereas long texts decrease the likelihood of consumer-brand interactions.

Color. Color has a strong positive impact on attention. Even ads in a colorful environment such as in broad audience or general business magazines benefit from color. For example, the attention probability for such magazine ads is reduced by approximately 30 % if black and white ads are used compared to four-color ads (Rossiter and Bellman 2005, 199).

Placement. The position of the ad is especially relevant for banner ads. Due to banner blindness, web banner ads should avoid the typical positions such as the top and the right end of a Web site (e.g., Cho and Cheon 2004; Sherman and Deighton 2001; Athenia Association 1997). Meanwhile, consumers have learnt to avoid fixations on these positions since they are mainly used for advertisements. Banner ads that are included in the text of a Web site are more likely to gain attention.

10.3.2.2 Attention Tactics II: Holding and Intensifying Contact

Whether an advertisement successfully holds or intensifies attention is mainly due to its message content. Companies should try to engage consumers in an involving interaction with the brand in order to increase the positive effects on awareness and image. The more involving a brand contact is, the better the brand will be anchored in consumer's mind and the more associations can be connected to the brand. Still, raising involvement is a very challenging task since consumers' inertia is enormous. It is easier for high involvement (emotional) brands (e.g., Apple, Harley-Davidson, Mini) to overcome consumer inertia than for low involvement brands (e.g., Newcastle Brown Ale, Lay's potato chips). However, only ads that exactly meet consumer interests have the chance to increase involvement.

Tactics to Persuade Browsers. The motivations of browsers and searchers to engage in interactions with brands differ. The media consumption of the predominantly emotionally involved browsers is largely entertainment driven. Thus, *enjoyment* and *remuneration* are the main motives for them to consume, contribute, or create brand-related content (Muntinga et al. 2011). There are many opportunities for brands to entertain their target consumers (e.g., advergames that are related to a brand's positioning; entertaining podcats). In the case of remuneration, consumers interact with the brand because they are aiming at receiving some sort of reward (e.g., a prize). Muntinga et al. (2011, 28) report consumer statements that illustrate how these motives can interact: "then I started to actually like playing the game; so, I initially played to win a trip, but I finished it because I thought it was amusing" (female, 25). Ambient advertisements can be particularly helpful to direct very lowly involved consumers to visit a brand's Web sites. An example of Newcastle Brown Ale illustrates how effective a combined stimulation of entertainment and remuneration motives can be to raise consumers' involvement: The brand placed giant dummies of a Newcastle Brown Ale beer glass in the entrance of the Del Mar Race Track (*Attention tactics I: Gaining initial contact due to size*). People were able to step behind the glass; this looked like they were standing inside it (*Attention tactics II—Holding contact due to enjoyment*). Consumers were invited to upload their pictures of standing inside the beer glass on Facebook or foursquare for receiving a Newcastle Brown Ale T-shirt (*Attention tactics II—Intensifying contact due to remuneration*) (Fig. 10.6). In the end, such extensive brand contacts foster brand awareness and brand image.

Tactics to Persuade Searchers. Searchers, on the other hand, follow a concrete search target. Their motivations for consuming, contributing, or creating brand-related contents differ from the motives browsers have. They are primarily looking for information. Thus, searchers read product reviews that have been written by others, they ask questions in brand communities, or go to a brand's Web site to receive latest information about a product they are interested in. Muntinga et al. (2011) identified four motivations to consume brand-related content: Information seekers want to improve their brand and product *knowledge*, they want to stay



Fig. 10.6 Newcastle Brown Ale multichannel campaign. *Source:* Newcastle Brown Ale [2011](#)

updated about the consumption situation of their *social environment* (e.g., which brands do my friends like?), they are looking for reliable *pre-purchase information*, or they are aiming at *inspiration* (e.g., watching friend's holiday pictures to get ideas for their own holidays). To hold the contact with searchers, information should be presented in a way that supports their search. Search engines on the brand's Web site should be intuitive and brand-related information should be easy to understand. Nevertheless, searchers can also be motivated to involve in brand interactions by satisfying *remuneration* motives (Muntinga et al. [2011](#)).

Recommendations for getting in contact:

- Brands should use attention tactics (size, color, structure, and placement) to ensure that their advertisements get noticed.
- Search engine page ranks should be optimized.
- Brands should develop strategies to involve their target consumers in intensive brand interactions.
- To hold the contact with browsers, brands have to satisfy their entertainment and remuneration needs.
- To hold the contact with searchers, brands have to facilitate their information search.

10.3.3 Conveying Emotions in a Converging Media Environment

Eliciting emotions is an important prerequisite for successful brand communications (e.g., Heath et al. [2006](#); Poels and Dewitte [2006](#)). Emotional attitude formation is a fast and unconscious process (e.g., Damasio [1994](#); LeDoux [1996](#)). While cognitive thinking is demanding for the human brain, relying on feelings is less demanding and an automatic process. Thus, consumers' emotional assessments are always ahead of their cognitive thinking. The formation of an emotional attitude is finished within a fraction of a second. In no more than 100 ms, subjects are, for example, able to give an emotional assessment of a stranger and can decide whether they like or dislike this person (e.g., Willis and Todorov [2006](#)). It is assumed that the same holds true for consumer evaluations of brands.

Positive affect causes liking which in turn has a positive effect on purchase behavior. Hence, the conveyance of positive affect is an important prerequisite for building strong brands. Companies can use emotions to persuade consumers in two ways: either peripherally or centrally (Kroeber-Riel and Esch 2011). The first is related to the creation of a positive atmosphere. The latter refers to the development of an ultimate emotional and sensorial brand experience.

Creating a Positive Emotional Atmosphere. In this case, emotional stimuli are used to create an emotionally pleasant background mood in the brand communication (Kroeber-Riel and Esch 2011). Pleasant colors, surroundings, odors, background music, or objects (e.g., beautiful flowers) can be used to establish a positive atmosphere. Information is more likely to be accepted and remembered better when it is presented in a pleasant atmosphere compared to a negative or neutral (Kroeber-Riel and Esch 2011). To sum up, companies should ensure that they establish a pleasant emotional atmosphere at every brand contact.

Providing an Emotional Brand Experience. In this approach emotions are used in a central way to persuade consumers. Here, the brand aims at providing a vivid emotional experience that is strong and unique (Kroeber-Riel and Esch 2011). Brand experiences can build the basis for strong and enduring consumer-to-brand relations (e.g., Brakus et al. 2009; Schmitt 2009). At this point, emotional experience is the main reason why consumers are buying the brand. Brands like Bacardi (“150 years of starting parties”), Harley Davidson (“Your ride to freedom”), or Milka (“The Alpine Milk Chocolate Experience”) follow such a strategy and provide their emotional experiences consequently across all brand contacts. Harley Davidson draws a consistent picture of its emotional experience of independence, unlimited freedom, and American way of living across all media. Embedded videos or aesthetic pictures, for instance, are telling stories about customers experiencing their Harley and undergoing the feeling of freedom and independence.

Tactics to Persuade Browsers. Due to their emotional involvement, browsers want to get entertained and stimulated in the first place. Pictures, videos, music, or advergames are particular suited to trigger brand experiences. The TV station Fox Crime, for example, advertised the start of the crime series blue bloods on large billboards. People could use their smart phone for interacting with the billboard and playing a shooting game, which matched the brand positioning. Many people passed by and watched others experiencing the fun of playing the game and also started it. The activity was also linked to Twitter.

Tactics to Persuade Searchers. Searchers are primarily interested in information and facts about brands. Entertainment is of secondary relevance. Nevertheless, brand-related information should always be presented in a pleasant and entertaining way since this positively affects brand-related cognitions (e.g., Batra and Stayman 1990).

Recommendations for eliciting emotions:

- Companies should create a positive emotional atmosphere at every brand contact.
- Emotional brand experiences should be used to establish strong and enduring consumer-brand relations if they match the brand's positioning.

10.3.4 Conveying Information in a Converging Media Environment

Most of today's brand contacts take place under an extremely low involvement. Consumers are distracted and brand exposures are short. Thus, cognitive processing mostly takes place on an extremely low level. Already a decade ago, participants of the study of Lenhart et al. (2001) showed a dramatic increase of multitasking among young consumers: "*I multi-task every single second I am online. At this very moment, I am watching TV, checking my emails every two minutes, reading a newsgroup about who shot JFK, burning some music to a CD and writing this message (17-year-old boy).*" Up to now, the extent to which consumers multitask even further increased (Rideout et al. 2010, Fig. 10.7).

The moments in which brands receive full attention become rare. Even searchers are often multitasking while they are looking for information. The average exposure time of a 1-page print ad in a broad audience magazine is, for instance, approximately 2 s (e.g., Armstrong 2010, 246). Thus, companies generally have to take care that their advertising messages are easy to understand. Hence, the old *KISS principle* ("Keep it Short and Simple") has not lost its relevance.

Many brand touch points are frequented by both searchers and browsers. Magazine ads, web banner ads, outdoor ads, or postings on a brand's fan page on Facebook are confronted with consumers of varying involvement (albeit browsers are often the majority). To ensure that such contacts are effective for both groups of consumers, brand information should be presented in a hierarchical manner (e.g., Armstrong 2010; Kroeber-Riel and Esch 2011). Thus, the most important information (e.g., the brand's positioning, the ad's key message) has to be conveyed by such ad elements that are fixated in the first place (image and headline). Information that are of inferior relevance for the advertising message should be included in the copy text. This kind of *hierarchical information design* ensures that both low and high involvement consumers perceive the advertising messages at a glance, whereas information seekers additionally have the opportunity to receive deeper information, for example, through the copy text. Additionally, brands should link their low involvement advertisements (e.g., TV commercials, magazines ads, outdoor ads) via *channel switch buttons* (e.g., QR codes, red button at HbbTV) to high involvement media (e.g., brand Web site) that provide detailed information about the brand. Thereby, information seekers can satisfy their enhanced information needs conveniently by switching from one channel to another.

Tactics to Persuade Browsers. Lowly involved consumers primarily watch the images and headlines but hardly ever read any copy text (e.g. Kroeber-Riel and

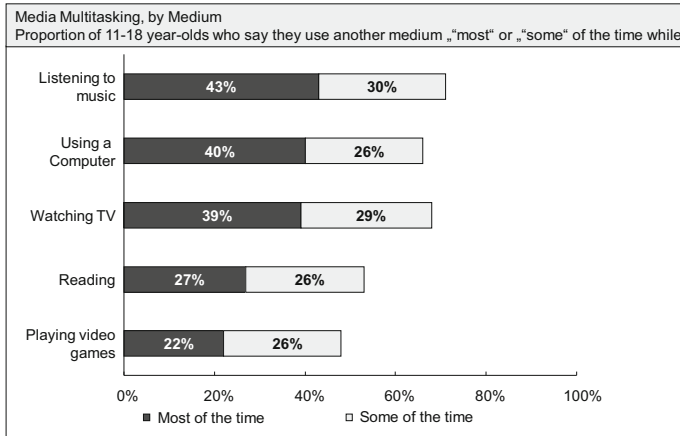


Fig. 10.7 Media multitasking by medium. *Source:* Rideout et al. 2010, 33

Esch 2011). Pieters and Warlop (1999) showed that this even holds true for the perception of product packages during brand choice: Consumers under time pressure focus more on pictorial elements than on textual elements. Hence, the advertising message must be communicated by images and meaningful headlines. The same applies to online advertising and the design of Web sites. Even on brand-related social media pages, browsers prefer images and videos instead of reading longer texts (e.g., Rauschnabel et al. 2012). Finally, mystery ads do not work for lowly involved consumers since they are too passive to solve the mystery.

Tactics to Persuade Searchers. Consumers that are in the pre-purchase phase often exhibit an extensive information interest. They are more willing to read information in a textual form than browsers (e.g., Kroeber-Riel and Esch 2011). Hence, searchers often use high involvement advertising such as brand brochures or brand Web sites. Nevertheless, information should be provided in a convenient way so that information seekers find it easy to get and comprehend the information they are aiming at. Thus, companies should use images, videos, graphs, or mp3 besides textual information to support perception and processing of information. Furthermore, highly involved consumers attach great importance to the quality of brand information and evaluate it more critically than browsers. Due to their enhanced involvement, searchers also often engage in brand-related social media communication. They post comments, ask questions in blogs, or rate products. Thus, they also create brand-related communication besides consuming it. Finally, well-trained employees should be responsible for answering the questions asked by consumers quickly and reliably.

Recommendations for conveying information:

- Information has to be provided in a hierarchical manner.
- The advertising message must be communicated by images and meaningful headlines (avoid mystery ads).

- Companies should provide reliable and true information in a comprehensible manner.
- Channel switch buttons should be used to support the enhanced information needs of searchers.
- Companies should define guidelines how employees have to handle consumers' questions and comments.

10.3.5 Retention of Brand Information in a Converging Media Environment

Building strong brands is a process in which the consumer learns to connect positive and unique associations to the brand (e.g., Keller 2008). For this purpose, repeated exposures to a brand and its communication are necessary. As we said before, the brand building process is becoming increasingly challenging due to today's difficult communication conditions. In order to advertise in an effective and efficient manner, each contact with the brand should help to build brand equity (Naik and Raman 2003; Reid et al. 2003). The concept of *integrated advertising* supports brand building especially against the background of today's advertising clutter. Accordingly, every advertisement has to be designed in a way that consumers promptly recognize the sender of the message ("formal integration") and perceive and process the brand positioning quickly ("content-related integration") (Esch 1998; Kroeber-Riel and Esch 2011).

Formal Integration. Formal integration refers to the idea of a "one look approach" (Esch 1998; Belch and Belch 2007). For this purpose, every consumer contact should use the brand's corporate design. The consistent use of these brand specific elements (e.g., color, logo, brand name, brand-specific layout) ensures that the consumers quickly recognize the advertised brand in every single brand contact. Formal integration significantly contributes to establishing brand awareness (Esch 1998).

Content-Related Integration. Content related-integration refers to the "one voice approach" (Esch 1998; Belch and Belch 2007). The messages a brand conveys across all different contact points should be coordinated. In general, the brand's positioning should be conveyed at every single contact point as far as possible. Content-related integration can be realized by using same images, music, scents, haptics, or verbal messages across all communication contacts. Thereby, content-related integration supports to establishing brand image (Esch 1998).

The chocolate brand Milka consistently uses its lilac color and the unique written brand name (*formal integration*). Furthermore, the emotional "alpine milk chocolate experience" is conveyed across all media (*content-related integration*): Images (and if possible sounds and odors) of the alpine world and the lilac cow are prevalent in every single contact (Fig. 10.8).

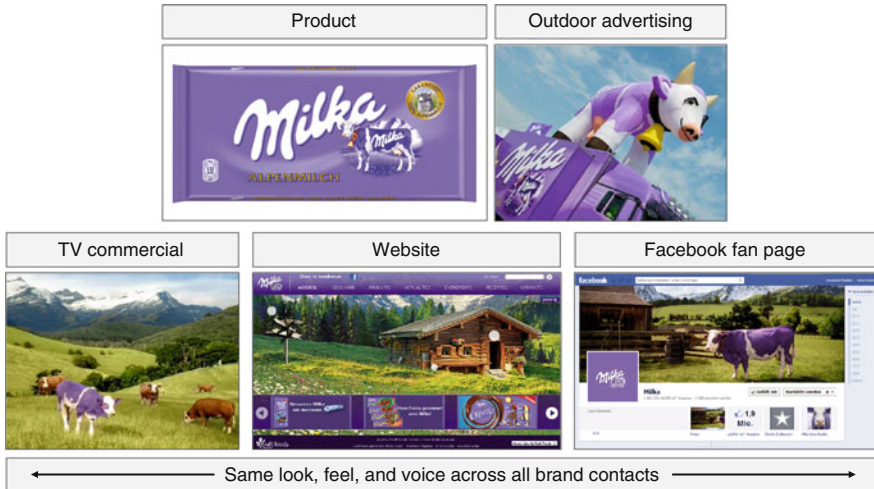


Fig. 10.8 Integrated advertising from Milka

Recommendations for retention of brand information:

- Brands should apply formal integration: Every brand contact should have the same “look” to ensure that even lowly involved consumers quickly recognize the advertised brand (supports brand awareness).
- Brands should apply content-related integration: A brand should communicate with the same “voice” across all contact points to support the establishment of brand image.

10.4 Tactics to Solve Social Media Brand Crises

In the convergent media environment, it is necessary to constantly monitor online media for brand-related conversations as a brand’s image can sincerely be damaged by negative word-of-mouth (WoM). By monitoring brand-related conversations closely, brands can actively engage in discussions with consumers, gain deeper insights in the needs of their target consumers, and have the chance to immediately respond to negative WoM. The latter point is pivotal in the social media landscape. Furthermore, it is of major importance that customer complaints are taken seriously. As shown by prior research, 34 % of negative WoM is caused by unsatisfactory handled customer complaints (Sundaram et al. 1998).

Tools like Radian6, Sysomos, or Brandwatch allow a tracking of consumer generated brand-related contents. Dell, for example, established an extensive monitoring center called “Social Media Listening Command Center”, which monitors the internet in different languages (Menchaca 2010). Dell’s Chief Blogger Lionel Menchaca reports that they monitor on average more than 22,000 company-related

postings every day. Since Dell considers social media interactions as crucial, they also train employees how to behave in these conversations (Menchaca 2010).

For today's brands, it is of paramount importance to be prepared for social media crises since they can affect every brand. Domino's Pizza, for instance, was involved in such a crisis in 2009. They were confronted with a disgusting video that was uploaded on YouTube by two employees (Beaubien 2009). Soon after the video was released, the company published a video on the same social media platform. There, Patrick Doyle, president of Domino's Pizza in the USA, explained the incident and apologized to the consumers.

The following activities help to solve social media crises:

- *The company must react immediately.* Rapid reactions in the form of statements and explanations help to decelerate the spread of negative WoM.
- *The company must take the crisis seriously.* Social media crises do not arise without any reason. Senior brand representatives like the CEO should communicate with the public to express that the brand will do anything to defuse the crisis. Additionally, companies should consider personally mailing customers to provide them with comprehensive information about the crisis.
- *The company must be open to the fears of the public.* The company should reflect negative WoM with openness and should try to understand the concerns of the consumers. Brand replies have to be honest statements and do not allow for any unserious argumentation. This will further encourage negative WoM.
- *The company must act transparently and honestly.* Brands must be aware of the danger that is related to fake comments that are posted by employees of the company. Sooner or later this will leak out and will seriously damage brand trust.
- *The company must provide permanent feedback.* Brands should establish their own feedback channels such as a crisis-related blog and a twitter account to ensure a permanent interaction with the public (Gregory 2009). Thereby, further diffusion of negative WoM to other communication channels is inhibited. Finally, brands should immediately reply to consumers within the same channels the negative WoM was articulated in.
- *The company should stop their advertising during the crisis.* The advertising stop helps to avoid mixed messages. If advertising went on as if nothing happened, the public could get the impression that the company takes the crisis not seriously enough (Gregory 2009).

10.5 Gaining Consumer Insights in a Converging Media Environment

Brands can profit from interactions with consumers in the form of gaining valuable insights concerning the consumer needs and strengths and weaknesses of their products. Volkswagen for example launched the "People's Car Project" in China in order to understand future demands and consumer needs. About 33 million users accessed the project's Web site and over 119.000 ideas have been submitted (Volkswagen 2012). Submissions included funny as well as sophisticated examples

illustrating the high emotional and cognitive involvement of the participating consumers. A selection of ideas was shown at “Auto China 2012” in Beijing and also converged into other media. In addition, actively engaging in a dialogue in the social media landscape offers the chance to strengthen the relationship with consumers, enhance their satisfaction and helps to build as well as sustain brand equity (Keller 2009).

Despite the great opportunities related to engaging and listening to social media conversations, only 5 % of the brands on Facebook make use of the interactivity potential of this channel (Socialbakers quoted after AllFacebook 2011). General Motors (GM), for example, used their Facebook page primarily for conveying information about GM and not for engaging in an active and meaningful dialogue with their customers (Ochman 2012). As a consequence of their social media crisis, Dell launched a Web site called “Ideastorm” where consumers provide ideas and improve Dell’s products. To date, over 18,736 ideas have been submitted and over 530 have been implemented already (Dell 2013). This shows that brands can strongly benefit from channeling customer-generated insights and add lasting value to the brand.

However, consumer insights based on an analysis of social media conversations bear the risk that these results are *not representative* and might be biased by heavy users of the analyzed media. As mentioned before, results by Chadwick Martin Baley (2011) show that a majority of consumers (77 %) just consume information about the brands they like on Facebook, whereas a minority (13 %) posts brand-related content.

Recommendations for gaining consumer insights:

- Brands should use social media to gain insights into consumer needs as well as into the strength and weaknesses of the brand.
- Brands should not open up accounts on Facebook, Twitter, or YouTube if they cannot provide enough content.

Conclusion

One-sided brand-to-consumer communication is now complemented by consumer-to-brand and consumer-to-consumer communication. Media convergence is leading to a continuing increase in consumers’ multitasking. Thereby, consumer involvement is further decreased. It is rare for brands to receive the full attention of the consumer. On the other hand, social media—which has become an integral part of our everyday communication—gives consumers the ability to participate in brand communications and to interact with other consumers about brands. Consequently, a large body of decoupled brand-related conversations is growing within our data-driven communication environment from day to day. As a consequence, brand management runs the risk of losing control. Thus, brands have to implement more knowledge about communication processes and its effects on consumers to cope with this challenge. Brand monitoring has become crucial to brand success in this communication environment.

As the technological progress will continue, different communication mechanisms and devices will play a pivotal role for brand success in the future. Augmented reality will mark a new step in our communication life. For example, Google's Android-based "Project Glass" will assist consumers interactively in every situation by displaying information about their real world surroundings. Furthermore, virtual reality formats will open an elusive number of possibilities to convey brand messages to consumers.

Questions on the Text

1. What are the fundamental developments that serve as a basis for today's convergent media environment?
2. What are the key characteristics of cultural media convergence and how do they impact today's brand management processes?
3. What are the objectives for a successful brand management in the convergent media environment?
4. How can today's consumers be categorized according to their behavior in using digital media?
5. What are the strategies and tactics companies can employ to manage brands successfully in the convergent media environment?
6. How should brand managers act to solve a social media crisis?
7. How can brand managers gain consumer insights in the converging media environment and what are the potential pitfalls of these insights?

Further Discussion

1. Think about the technological progress for the next 20 years. How will the convergent media environment look like?
2. Discuss potential strategies that brands can follow to avoid the potential dangers of losing control over their brand.
3. Discuss approaches of tracking brands in a convergent media environment.

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Part III

Convergence and Consumer Behavior

Ralf Terlutter and Martina Moick

Chapter Objectives

1. To understand that convergence and consumer behavior are closely linked and impact each other
2. To obtain a basic understanding of consumers' activating and cognitive processes and how they are related to convergence
3. To understand how consumers' reality is shaped by real experiences and by experiences conveyed through media
4. To understand the relationship between consumers' lifestyles and convergence
5. To learn how some basic trends in consumer behavior are related to convergence
6. To become familiar with the Technology Acceptance Model (TAM) by Davis (1993) and subsequently developed enhancements
7. To understand the importance of mobile end devices for consumers' multifunctional consumption
8. To get an idea about how the merger of TV and Internet is related to consumer behavior and about the role of interactivity
9. To gain a basic understanding of how the developments above impact the industry of consumer goods

11.1 Convergence

During the last decades, the concept of convergence has had a huge impact on the digital economy and the industrial structures. Especially the sectors of telecommunication, information, media, and entertainment are increasingly growing together, originating from more or less separated and independently working areas.

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Convergence involves aspects of offer, product, and supply side, as well as user and usage side (Kolo 2010). Convergence can be described as a process that takes place on different levels and can be observed from different perspectives.

Economic convergence. This mainly describes the convergence of industries. Sectors and companies that originally operated in separate industries find themselves in the same industry now, and they may become competitors or collaboration partners, or even sometimes both at the same time. For companies this produces growth opportunities as well as new risks. New competitive situations and even new business strategies emerge. For example, publishers adopt activities of media companies to extend the print version by adding an online version. A provider of telephony now offers TV via smartphones.

Convergence of technology. This is based on the digitalization, which allows products to become more complex and multifunctional (Stieglitz 2003). Therefore, development of devices, broadband connection, and higher performance of processors linked with other technical platforms enable a joint data flow. The fusion of multimedia systems and end devices provide examples of technical convergence. For instance, television, telephone, and Internet are increasingly used on a common infrastructure, which is based on the IP protocol and often referred to as Triple Play or Quadruple Play (the latter applies if telephony is differentiated into fixed and mobile telephony).

Convergence of content. This describes the digitalization of media content. It is the coming together of previously separated content, such as text, picture, video, and sound. Content can be used commonly on one device, which is neither tied to a place nor a specific time. Due to cross-media marketing and digitalization, it becomes possible to offer additional benefit. Accordingly, consumers are enabled to receive additional information and features on a certain topic (Heng et al. 2010). For instance, when searching for information on the Internet via smartphone, the consumer can view text information, video blogs, podcasts, etc.

Political convergence. This convergence includes regulations for telecommunication, broadcast, and online media (Wirtz 2010).

Convergence of the usage and functionality of end devices. In the context of consumer behavior convergence of usage plays a particularly important role. Converged devices, such as smartphones, tablets, and other multimedia systems, convince consumers through multi-functionality. It can be described as the fusion of different functions which are involved and available on one end device. For instance, smartphones can be used for telephony, watching TV, listening to radio as well as for their calendar function, etc. Convergence of use is to a substantial extent dependent on the acceptance and reception by users and consumers. The customers' decision to use a product and/or the service is responsible for the market success (Siegert and Hautzinger 2006).

On the one hand, it can be argued that technical convergence represents the origin of this process. Developments of technology and digitalization have triggered the cooperation and fusion of previously separated sectors. Further, they have evoked the merger of several types of content and functionalities. Consequently, in turn multimedia products and services influence consumer behavior. Due to multi-functional converged devices, media consumption has been changing, as part of usage at any time and any place.

On the other hand, marketers are confronted with new consumer needs and expectations, which have a decisive influence on the development of products and services. Consequently, this has an effect on the technical as well as on the content convergence.

Within the scope of consumer behavior the article primarily focuses on the usage and functionality of converged devices.

11.2 Basics of Consumer Behavior

Consumer behavior can be defined as “*the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs*” (Schiffman and Kanuk 2009, p. 3). Consumer research explores how individuals spend their available resources on consumption-related items and how they make their decisions (Schiffman and Kanuk 2009). It is important to assess different factors that influence consumer behavior, such as the consumers’ environment (experience and media environment), attitudes, or social status, for instance.

The behavior of an individual is based on intervening variables, which we call internal psychological processes. These internal processes can be differentiated as activating and cognitive processes. Activating processes include internal arousal and excitement, whereas cognitive describes how information is received, processed, and stored (Kroeber-Riel et al. 2009). Consumer behavior usually results from the interaction of both activating and cognitive processes. We speak of activating processes when the activating component dominates, and of cognitive processes when the cognitive component plays the more important role.

11.2.1 Activating Processes

Activating processes drive behavior and prepare individuals to perform. Put simply, they deliver “energy.” Activating processes can be classified into emotion, motivation, and attitude and they are built upon one another (Kroeber-Riel et al. 2009).

Emotions are internal processes, which are perceived as pleasant or unpleasant and are consciously experienced to a greater or lesser extent. Emotions are among the principal human drivers.

Motivations are emotions and stimuli, which are aim-oriented towards a certain behavior.

Attitudes are evaluations of products, individuals, and behavior patterns. They already include a strong cognitive component. Behavior is (pre)determined by attitudes, especially when the consumer is highly involved. Attitudes will influence behavior substantially if the consumer thinks about the buying decision and acts based on a determined opinion (Kroeber-Riel et al. 2009).

To give an example: If we apply the above typology to smartphones, the use of a smartphone may make the individual feel good (emotion), may motivate him to use the phone more often, e.g., especially in front of his peers (motivation), and finally may make him buy the new version of the iPhone because he thinks that the new iPhone is especially suited to achieving his goals (attitude).

The current market environment is characterized by strong competition, high information overload, exchangeable products, market saturation, and often low-involved consumers. In such a market environment, an adequate activation of the consumer is important, because it predetermines to what extent the consumer is attracted to marketing communication and how efficiently the offered information is processed and stored. For instance, it is essential that advertisements catch the attention of the consumers; otherwise there will be no impact on the consumers' choice and their intention to act. In addition, many products that are functionally interchangeable are differentiated via emotions.

11.2.2 Cognitive Processes

Cognitive processes are mental processes, in which individuals receive, deal with, and store information. By means of cognition, behavior is mentally controlled. Cognitive processes can be divided into the reception of information, processing of information (perception and evaluation), and storage of information (learning and memory) (Kroeber-Riel et al. 2009).

Reception of information is a process, in which stimuli are considered and are decoded more precisely. Reception of information can be active (search for information) or passive.

Processing of information is the process where received information is evaluated, linked to related information, and completed. The human memory is important for the processing, storage, retaining, and retrieving of information (Schiffman and Kanuk 2009).

Storage of information is the process that describes the long-term storage of the processed information. The consumer gains knowledge and experiences, which are reflected in one's prospective behavior (Kroeber-Riel et al. 2009).

An example: A consumer may actively search for information on a new smartphone on the Internet or may accidentally overhear a conversation about a new smartphone between others. If the information is of interest to the consumer (e.g., because he/she has a general interest in smartphones or because he/she currently needs a new phone), the new information will probably be connected to existing knowledge about smartphones and eventually stored as memory. In the context of the purchasing decision, the information may be retrieved.

11.3 The Effect of Convergence on Consumers' Environment

The environment of humans can be divided into two different realities. The first reality—it can be labeled “environment of experience”—is realized by perceiving direct contacts and experiences with the environment. Examples include the surrounding landscape, the climate, the monuments, or the social environment, e.g., the individuals around us, our interactions with them, and cultural determinants. The second reality is transmitted by the media. This “environment of media” is growing in importance. Media experiences are becoming more dominant and are often considered as reality. This means that individuals constitute their reality based on stimuli and impressions, which are perceived of the media and which are reflected in one’s behavior (Kroeber-Riel et al. 2009). For this reason, the boundaries between the environment of experience and the environment of media are blurring noticeably. The development of multimedia, the Internet, and the convergence of media systems further strengthen the importance of the environment of media, which is becoming more dominant in consumer behavior. For example, consumers use the telephone and the Internet to connect with others and foster relationships. Mass media enable the users to participate in world affairs. Concerning buying decisions, consumers use the Internet to obtain information about products and services and to order these. Today’s younger generation in particular is used to live in an environment in which the physical and media reality are combined. It can be noticed that the consumers’ needs for information and communication are changing (Heng et al. 2010). For instance, the living room is evolving into a media control center, in which entertainment electronics are merged with games and publishing. The virtual world is integrated in the physical one and additional information can be received by computer technology. The pictures from a magazine, for example, can be linked to a video or a QR Code (quick response). This code enables access to additional information on a certain topic on the Internet via hyperlink. For this reason, the usage behavior of consumers is changing, which also induces many changes in the area of marketing.

Due to convergence developments, attitudes and behavior have been changing. Many consumers now have a demand for a continuous connection of their mobile device. There is a trend appearing towards the exploration of realities, systems, and objects via different senses, e.g., by using the fingers to touch the screen of a mobile device. Accordingly, consumer research is confronted with new challenges. For instance, we can expect that it will become more common to activate consumers through interactivity and to design, for instance, advertising information as a multisensory experience delivered via media devices.

11.4 Consumers' Lifestyles and Convergence

In the convergence sector of mobile end devices, lifestyle aspects occupy an important position. In today’s consumer society, people are free to select a certain set of products, services, and activities. Consumers’ lifestyles represent

consumption patterns, reflecting choices of how to spend time and money. Based on consumers' selection of products and services, people sort themselves into certain groups and define their own lifestyles. In doing so, they provide additional information about who they are or who they aspire to be. These choices create opportunities for market segmentation strategies to look at patterns of behavior in order to understand consumers.

Lifestyle may be defined as a combination of the person himself or herself, products, and settings to express a certain consumption style. Therefore, lifestyle-marketing gains in importance because it offers a way to understand consumers' everyday needs and wants. Strategies are targeted towards positioning products based on consumption patterns and the creation of a brand personality. Products should fit into situations that refer to everyday life, and they should allow consumers to pursue their desired lifestyle and express their own social identity. Consumers often tend to select products and services, which are associated with a certain lifestyle and they use the products to demonstrate a specific lifestyle. For instance, the decision to buy the iPhone instead of another smartphone is often made because the individual wants to demonstrate a specific lifestyle and status.

For a company, it is relevant to continuously identify sets of products and services that are linked in consumers' minds to a specific lifestyle. However, lifestyles are also subject to change, because peoples' tastes, preferences, and values evolve over time. In particular for mobile end devices, the dynamics of convergence seem to change peoples' preferences quickly and easily (Solomon 2007 and Solomon et al. 2006).

11.5 Technology Acceptance Model to Understand Consumer Behavior

The success of convergence features and services depends largely on the consumers' acceptance. At the end of the twentieth century, consumers were hardly able to imagine the combined usage of the television and the Internet, such as live streaming or interactive TV shows. Television was associated with passive lean-back usage and was used for recreation and entertainment; the Internet was related to active lean-forward usage (Stipp 1999). The behavior of recipients has changed because of the wider diffusion of information technologies, the increase of ubiquity, and the continuous connectivity offered by the Internet. The use of converged devices and contents is accepted and has become normal in an individual's daily life.

In this context, the TAM provides a theoretical framework to explore the individual's behavior towards a new technology and the acceptance or rejection thereof (Lee et al. 2003). TAM is derived from the Theory of Reasoned Action (TRA) (Ajzen and Fishbein 1980) that underlies a belief–attitude–intention–behavior relationship. TRA establishes a determination of individual behavior by behavioral intentions to perform behavior, and the determination of behavioral intentions by individual attitudes and subjective norms regarding a behavior

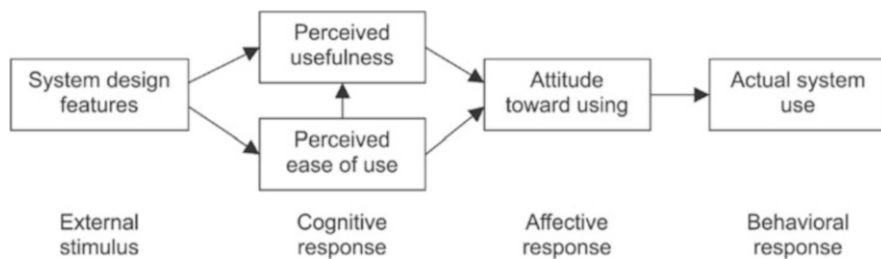


Fig. 11.1 Technology Acceptance Model (Davis 1993)

(Ajzen and Fishbein 1980). Based on this relationship, TAM was originally applied to predict and explain the use of computers in the workplace and how user acceptance is influenced by system characteristics (Davis 1993). TAM proposes two constructs, perceived ease of use (PEOU) and perceived usefulness (PU), which are used to include external stimuli, e.g., social norms that are fundamental determinants of individuals' behavioral intention (BI) with regard to information system use (Davis 1989). PU is defined as *"the degree to which an individual believes that using a particular system would enhance his or her [...] performance"*. PEOU is defined as *"the degree to which an individual believes that using a particular system would be free of physical and mental effort"* (Davis 1989, p. 320). Figure 11.1 shows the TAM with the constructs used and the underlying effects. Both constructs, PU and PEOU, are directly influenced by system design features. This also means that external stimuli have an indirect effect on the attitude towards using and the actual usage behavior through PEOU and PU. PEOU has a causal effect on PU. According to TAM, a user who finds the system easy to use also perceives it to be more useful (Davis 1993).

TAM has proven to be useful and has been applied in a range of system implementations in different areas, such as organization, medicine, and education, for example (Legris et al. 2003). It helps to understand and explain usage behavior of implementations.

TAM has been extended by antecedent factors and modified by including additional theoretical constructs (Venkatesh and Davis 2000). Figure 11.2 shows the extension of the TAM, which is called TAM 2.

In the context of changing consumer behavior and the convergence of products and services, there may be a need to adopt and modify TAM and TAM 2 or to apply other models of technology acceptance. In particular, the original TAM primarily focuses on the utilitarian components, since the system should contribute to a better and more effective performance in the workplace. Hence, consumers' intentions to use technology were practically solely based on functional and utilitarian needs.

Today's consumers make their decision to use and adopt converged products and services based on utilitarian attributes, hedonism, as well as social factors (Arruda-Filho et al. 2010; Bruner and Kumar 2005; Shang et al. 2005). Results of a study about iPhone usage yield hedonism as a powerful motivation for using the technology. Hence, consumers' choices for the mobile device are based on factors such as

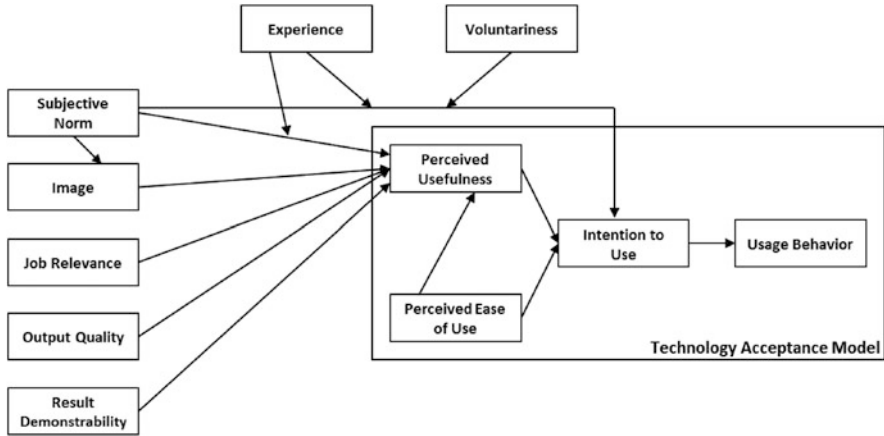


Fig. 11.2 Technology Acceptance Model 2 (Venkatesh and Davis 2000)

enjoyment, playfulness, and social status. Moreover, users emphasized convergence and hedonic usage in mentioning the device's features and services (e.g., Internet access, digital camera, and MP3), rather than functionality and ease of use (Arruda-Filho et al. 2010). Similar findings have been shown in the research of van der Heijden (2004). Results indicate that perceived enjoyment and perceived ease of use are stronger determinants of intentions to use than PU (Van der Heijden 2004).

Therefore, to understand and explain consumers' intention for converged technology use and behavior it is essential to apply TAMs that include contemporary components, such as hedonic attributes for instance.

11.6 Trends in Consumer Behavior

As we discussed in the previous sections, over time consumer behavior has been affected by different determinants. It is influenced by activating and cognitive processes, but also by the consumers' environments, such as the experience environment and the media environment. The consumer market is surrounded by a dynamic environment that underlies different frame conditions that include market side, communication side, societal conditions, and demographic developments, for example. Hence, consumer research and marketing are confronted with huge challenges in meeting consumer needs. The market is characterized by a great degree of saturation with often interchangeable products (see for instance the large number of smartphones available), which makes a clear differentiation from the competitor more difficult. In addition, increasing market differentiation requires target group-specific operations. Concerning the communication, consumers are confronted with an information overload, enhanced by an increasing media diversity and complexity (e.g., Smartphone, iPod, TV, tablet). Due to convergence, the

development of end devices, and the ubiquity of the Internet, consumers have been changing their needs and desires. There is an increasing demand for portability, interactivity, and individualization. Correspondingly, needs for information and media consumption have been changing as a result of the ubiquity of mobile devices. The access to information at any time and in any place has already become normal for users. Hence, customized and personalized services have been growing in significance (Kolo 2010).

One important development is the more active role that the consumer now plays with regard to Web content. The consumer's role has been changing substantially, since he or she first evolved from a linear passive consumer to a producer of content. For instance, YouTube and MyVideo constitute platforms, on which laymen themselves have the opportunity to broadcast content. Consumer-generated content is very popular and highly demanded by the consumers (Pols et al. 2007).

Consumer behavior and convergence can be described as the understanding of how consumer needs and expectations are evolving as new technology becomes available.

11.7 Converged Devices and Services Enable Multifunctional Consumption

The digitalization and the omnipresence of the Internet have changed people's interaction with technology, in both an organizational and individual context (Chang 2007). The usage patterns of humans have been changing substantially by the mobile Internet access through Smartphones and Tablet PCs as well as the increased usage of the World Wide Web through TV devices. These connected devices offer additional functionalities and services. They enable new forms of utilization for the consumers, such as listening to mp3 while reading an e-book or newspaper on the Smartphone or Tablet PC, for example.

11.7.1 Mobile End Devices: The Key Products of Convergence

Due to the development and the technological progress of mobile end devices, the separation of content from physical media is gathering pace (Stobbe 2011). Smartphones and Tablet PCs are characterized by the availability of content and information at any time and in any place. They offer a broad range of functionalities that enables user to perform various tasks and fulfill different purposes. Based on previous studies, Chang (2007) divided the use of Smartphones into four categories that show the technological function and the consumer utility. The variety of features has also been realized in the area of Tablet PCs, the new generation of converged mobile devices.

- Communication-orientation: This is the feature that allows the user to connect with his/her family, friends, and business partners and to maintain relationships.

- Entertainment-orientation: Mobile device features are mp3-enabled, allowing users to listen to music, while also watching videos, playing games, and using the camera to take pictures.
- Personal information-orientation: Smartphones become personal digital assistants, since they offer organizer functions, such as calendars, alarm clock, administration of contacts, the possibility of taking notes, and a navigation system.
- Commercial transaction-orientation: Consumers may check their bank accounts, pay their bills, and shop online by using m-commerce services.

In many cases, a significant influence on the consumers can be determined, since users do not merely adopt mobile devices, they often spend more time with their mobile phones than with their families and partners. Mobile devices have evolved to consistent companions, due to a great range of functions. For many consumers, smartphones and tablets are now part of everyday life (Stobbe 2011).

Over time, mobile phones developed from huge to very small devices. The phone was seen as more exclusive and innovative, the smaller and thinner the device. However, the current generation of Smartphones is characterized by larger touch screens (Stobbe 2011). The new design improves usability and also satisfies the need for haptic experiences that the converged mobile devices offer. It has become an important and emergent design factor to gain information through touch. Consumers use their hands to explore and evaluate products (Arruda-Filho et al. 2010).

The diffusion of high-performance end-user devices has grown in importance concerning mobile entertainment. In particular, Tablets are expected to become established as a popular end-user device for watching films and playing video games (Stobbe 2011). That implies a change from previous TV usage habits, which primarily take place in the living room of the consumers (Schidlack et al. 2010). The possibility to watch TV content on mobile end-user devices may increase consumer usage in general and will also particularly influence the traditional TV infrastructure. For Pay-TV and advertisements new sales opportunities are emerging (PWC 2011).

As a consequence of the possibilities involving the different functionalities and content, consumers are raising their demands and increasingly tend towards the on-demand consumption of music, videos, news, games, and books.

11.7.2 IPTV- and Hybrid-TV: The Merger of TV and Internet

IPTV (Internet Protocol television) refers to the delivery of TV programs as a series of IP packets via broadband connection (typically using the telephone network). IPTV is distributed by a service provider and can be free or fee-based and can deliver both live TV or stored video. IPTV requires a set-top box. The customer selects the program that he/she wants and the provider sends it to the customer's home. The content remains on the service provider's network. Only the selected

program is sent to the customer. A new stream is transmitted from the provider's server to the customer, when the customer switches channels.

When talking about Hybrid-TV, we typically refer to watching or using Web content (Web TV, but also other Web contents) on TV devices.

During recent years, there have been massive efforts by a European consortium (HbbTV consortium) to set standards for the connection of TV and Internet.

Hybrid Broadcast Broadband TV (HbbTV) aims at harmonizing the **broadcast**, **IPTV**, and **broadband** delivery of entertainment to the end consumer through connected TVs (**Smart TVs**) and **set-top boxes**. In 2010, the European Telecommunications Standards Institute (ETSI) gave its support to the HbbTV initiative. Services such as digital Teletext, catch-up TV, electronic program guides, interactive advertising, games, and voting are possible with HbbTV.

The combination enables many interactive services. For instance, users can gather information about a product over the TV/Internet access. If they see an advertisement for a product or they see a product placement in a film, they can immediately get additional information and/or buy the product by using e-commerce (Schidlack et al. 2010).

The findings of a study by BITKOM (2010) show user's acceptance and potential usage of Internet TV. Half of all respondents, and as much as 94 % of the users aged between 14 and 29, reported an interest in the possibility of surfing the Internet and downloading films by using the TV device. This suggests that the "usual" infrastructure of the Internet will become less important in the future.

11.7.3 Convergence and Changing Using Patterns and Some Effects on the Industry

Due to the fusion of the TIME sectors, in particular consumer-end devices, services, infrastructure, producers, service providers, and commerce are confronted with the influence of convergence developments. Digitalization and convergence have caused a structural change, particularly in the consumer electronics sector (Schidlack et al. 2010). Developments have influenced consumer needs and have replaced established and obsolete technologies (Schidlack et al. 2010 and Stobbe 2011). Companies are confronted with short innovation and product life cycles. Accordingly, they are forced to react to shifts in demand and sales (Schidlack et al. 2010), since there has been fast-paced growth in several segments (Stobbe 2011). There is rigorous competition because of new competitors in the sector, but there are also new sales and marketing channels emerging (Schidlack et al. 2010). It is necessary to convince the consumers with innovative products, new designs, as well as with distribution strategies and service concepts (Schidlack et al. 2010).

With regard to end-consumer devices, consumers' requirements and expectations have been increasing. End-consumer devices are characterized by greater complexity, but need to be realized with simple operating concepts ("simplicity"). Usability has become a decisive economic factor for producers. Consumers prefer all-in-one and "connectable" devices (Schidlack et al. 2011).

Smartphones include an mp3 player, a navigation service, a digital camera, for example.

Consumer preferences for multifunctional consumer devices particularly threaten stand-alone products that are easy to integrate in a device without any loss of quality, e.g., (simple) digital cameras (Stobbe 2011). Digital cameras of comparable quality to Smartphone cameras are affected by revenue declines. Producers of digital cameras pursue technology strategies to preserve the segment of digital cameras and try to increase the quality of the cameras drastically. There is a distinct trend towards the differentiation of products by the extension of advanced technologies and additional functionalities (Stobbe 2011).

With regard to more complex products, it has to be expected that consumers will further raise their demands for services. For instance, companies may be forced to offer both online and mobile services, developing an information app about system updates or location-based services, for instance (Stobbe 2011). Furthermore, with numerous devices a need for continuous access to one's personal data, such as images, videos, and music, has been emerging. Cloud services offer possibilities of storage and retrieval of content at any time, in any place, and on every connected end-consumer device.

The understanding and insights in consumers' usage patterns of end-consumer devices constitute the base and starting point for offering products and services as well as information, satisfying true customer demands.

Exercise questions

1. Provide an overview of the different aspects of convergence and explain briefly which level of convergence is primarily of importance for consumer behavior.
2. Explain the system of humans' internal processes and relate this to a "converged" device, e.g., a tablet computer.
3. Which environments of humans can be differentiated? Discuss how convergence has influenced these environments.
4. Which fundamental idea does the TAM pursue and on which constructs is it based? Discuss extensions of the model already available in the literature. Discuss additional constructs that may be considered in research in terms of consumer behavior and convergence.
5. How has the use of converged devices influenced consumer behavior?

Reflexive questions

1. Describe the current developments with regard to the merging of TV and Internet.
2. What are the major challenges for the industry in terms of customized expectations in the era of convergence?

3. Discuss the possibilities of recent market research in consideration of Social Media platforms. In the next step, also explain potential pros and cons and give examples for the implementation of market research 2.0.
4. In terms of user-generated content, converged end-user devices, and increasing consumer expectations, how can marketers generate consumer loyalty?
5. Which features and additional information could be offered in interactive advertisements for Tablets to generate added value for consumers? Discuss the issue in relation to the areas of food, automobile, and event.

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Chapter Objectives

- Identify the prevalence of media multitasking in today's media consumption patterns
- Discuss the phenomenon from the perspective of cognitive psychology
- Stress the surprising lack of experimental research on the topic
- Identify the implications of media multitasking for marketing managers and practitioners
- Encourage further discussion about the evolution of media consumption habits and its consequences

12.1 Introduction

12.1.1 Technological and Media Convergence

Due to the rapid evolution of information technology, the current media landscape is undergoing remarkable changes. Historically, technology devices operated over a single media, performing only a limited number of tasks. For instance, movies were played on a TV over a VHS or DVD, using a separate video player, while music records were played on a cassette deck or CD player. Likewise, listening to the radio required a dedicated radio frequency tuner, while video games could only be played on a specific gaming console, connected to a TV. Over the past decade, advances in the information technology sector have allowed for technologies to merge into a myriad of new forms. Today, media devices are able to channel as well as interact with a great variety of media types. Sony's PlayStation 3, for example, is

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designed and marketed to function primarily as a gaming console. However, it is able to connect wirelessly to the Internet and plays almost any existing video, audio, and image format. These functions allow users the opportunity to engage with an array of different media on a single device. Furthermore, these features are far from unique to gaming consoles, such as the PlayStation 3. In fact, almost any image and sound-producing device on the market, ranging from televisions (e.g., smart TVs) to high-end portable devices (e.g., the iPad), allows for customized, integrated media experiences.

As technologies converge, the evolution of media that rely on these technologies follows a similar pattern, moving rapidly towards the unification of traditional media formats. Media broadcasters must move along with this trend in order to stay current in satisfying viewers' needs. Since digital connections can distribute any type of content, print media and radio broadcasters are increasingly using the Internet in order to reach wider audiences. Similarly, traditional television broadcasters begin to provide a broader choice of "content on demand," thus moving gradually away from linear, programmed content. Nowadays, even mobile phone networks make use of current technological developments by distributing video and audio content onto multifunctional handheld devices (e.g., smartphones).

12.1.2 The Rise of the Media Multitasking Phenomenon

Clearly, technological and media convergence reflect an important new direction in the evolution of traditional media. In the present chapter, we will look at this transition from the perspective of media viewers, exploring how it affects their media use behavior. Specifically, we will describe a recent phenomenon that exemplifies the impact of technological and media convergence on media use behavior. It is a phenomenon that, although prominently observable in society, has remained somewhat outside the general spotlight for both academics and professionals in the media field.

Some aspects in the evolution of media have had a significant impact on media viewers' behavior. For example, media interactivity allows viewers to become increasingly in charge of their media consumption choices. Consequently, this freedom of choice pushes viewers to redefine the way they attend to and consume media content. As the variety of media content also increases, single media exposure seems to become less adequate in engaging and maintaining viewers' full attention. These changes, among other factors, have led to a specific shift in media use behavior, where viewers choose to engage in more than one media activity simultaneously (Foehr 2006; Roberts et al. 2005). This newly acquired habit to use media simultaneously, rather than sequentially, is commonly referred to as *media multitasking*, although some authors prefer to use the term *simultaneous media exposure*. Technically, media multitasking could occur with multiple windows containing different streams of media content, yet viewed on a single

media platform. For example, on the same computer screen one can surf the Internet while listening to an online radio broadcast and occasionally checking incoming e-mails. Still, media multitasking is more commonly discussed in the context of multiple media platforms (e.g., using the Internet while watching TV).

12.1.3 The Demographics of Media Multitasking

A large-scale research conducted by the Kaiser Family Foundation shows that over one-third of youngsters often expose themselves to a second medium while surfing the Internet, watching TV, listening to music, or reading (Roberts et al. 2005; Foehr 2006). Specifically, it reports that American youngsters (age 8–18) spend an average of 6.5 h per day with media, a number similar to the period before the digital revolution. However, the media content they consume has increased by an amount equal to approximately 2.5 h of media viewing per day. This increase reveals a new strategy of young media viewers to squeeze more media content into the same time frame (Roberts and Foehr 2008). Therefore, while media multitasking leads to increased exposure to media messages, it leaves media use time relatively unchanged.

Another comprehensive investigation of media multitasking behavior was conducted, starting in 2003 (Pilotta et al. 2004). Conducted by BIGresearch, the Simultaneous Media Usage Study (i.e., SIMM) involved multiple data collections over time, reporting widespread simultaneous media usage among the US population. Multitasking behaviors ranged between 40 % and 65 % of total media usage, with some media combinations (e.g., surfing the Internet while watching TV) being more popular than others (e.g., listening to the radio while reading a magazine). A more recent investigation, the Mediascope Europe Study, was conducted in 2010 by the European Interactive Advertising Association (EIAA), focusing specifically on simultaneous Internet and TV use in Europe. It found that 40 % of all media viewers, irrespective of age, multitask most days and evenings. The study identified communication, such as e-mail or instant messaging, as the most popular Internet activity while multitasking. While 16–24-year olds were most likely to multitask with media, the study reported no gender bias in media multitasking behavior. There seems to be a general consensus across the data that media multitasking behavior is more common among younger generations, especially those who grew up during the advance of interactive media.

An interesting additional finding is that while multitasking with media, most viewers report the tendency to construe one medium as *foreground*, while the other as *background*. That is, when two media are viewed simultaneously, one of them often holds viewers' primary interest, while the other is perceived as secondary or less important (Schultz 2006). Furthermore, some media formats are more frequently used as foreground (e.g., print media), while others are more often viewed as background (e.g., radio broadcasts).

12.1.4 The Antecedents of Media Multitasking

The motivational drivers of media multitasking behavior are most likely multidimensional, encompassing both environmental and individual factors. Few researchers have approached this subject. A study revealed both media availability (e.g., having a TV in the bedroom) and individual differences in sensation-seeking tendencies as significant predictors of the propensity to engage in media multitasking (Jeong and Fishbein 2007). Foehr (2006) further stressed the importance of new interactive technologies, especially the Internet, in allowing and cultivating the impulse to multitask with media. The rise in popularity of highly interactive media formats (e.g., chat, email, social networks), combined with their high accessibility through an array of portable media devices (e.g., mobile phones, portable video consoles), plays an undeniable role in facilitating viewers' appetite for consuming media simultaneously. It is also interesting to consider how media multitaskers themselves explain the motivation and perceived value of their media use behavior. For example, kids who kept diaries on their media multitasking behavior reported that being constantly distracted by different media streams is not necessarily a bad thing, since it helps them fight the tediousness of everyday activities, such as doing homework (Roberts et al. 2005). In summary, the above findings suggest that both utilitarian and hedonic factors could play a role in the motivation to engage in media multitasking. In the next section we will look into the cognitive consequences of media multitasking behavior.

12.2 Media Multitasking and Cognitive Processing

Due to the growing tendency to engage in media multitasking, it is important to identify how it potentially affects traditional media consumption patterns. Engaging in media multitasking, or simultaneous media exposure, presumes certain inherent mental habits, such as *dividing attention* or *switching attention* between two or more media channels. These new habits could in turn be changing the way viewers attend to and process media messages. We will rely on insights from cognitive psychology to help us identify the implications of media multitasking for the cognitive processing of media messages.

12.2.1 Where Is Multitasking Located in the Brain?

It is important to start by identifying the part of the human brain that is mostly involved in the act of multitasking. Evidence from imaging studies suggests that the general ability of humans to multitask is supported by cognitive and neuroanatomical systems located primarily in the prefrontal cortex (Burgess 2000), which is considered the center in the brain responsible for complex cognitive processing, decision-making, and personality expression (Wood and Grafman 2003). A broader

term for the function performed by the prefrontal cortex is *executive control*, which refers to the ability to regulate thoughts and behavior towards the pursuit of internal goals (Squire et al. 2003).

12.2.2 Multitasking and Task Performance

Performing two tasks at the same time can be a challenging activity. Even when both tasks are very simple in nature, their successful completion requires adequate and timely responses. The inability to attend to each task quickly enough often leads to what cognitive psychologists have termed *dual-task interference*. In particular, research on dual-task interference processing has demonstrated a number of negative effects of multitasking, including lack of focused attention, decreased depth of cognitive processing, and decreased performance (Rubinstein et al. 2001; for a review, see Pashler 1994). There is also an extensive body of literature studying the high perceptual costs inherent to switching attention between different task-sets (for a review, see Monsell 2003). Decades of research within the cognitive psychology tradition have confirmed that the ability to multitask is limited by a number of cognitive “bottlenecks.” Evidently, when two tasks are performed concurrently, the prefrontal cortex tends to queue appropriate responses, leading to significant task delays (Dux et al. 2006).

Under certain conditions, however, dual-task interference can be reduced and even completely eliminated. According to multiple resource theories (Wickens 2002), when two tasks need different cognitive resources to be completed, they can be performed with low to zero interference. However, when both tasks draw on the same resource pool, the limited available resources need to be allocated sequentially to the two tasks, resulting in reduced performance. For example, dual-task interference is significantly lower when the two tasks operate in different perceptual modalities (e.g., a visual and an auditory task) compared to tasks that belong to the same (e.g., two visual tasks) sensory modality (Duncan et al. 1997). These findings have also been tested in the context of multitasking with media. Pool et al. (2003) found that multitasking, combining homework with watching television series, *negatively* affected students’ homework performance, while multitasking with homework and music, or even music videos, did not.

Furthermore, current developments in dual-task interference research have presented strong evidence that, with considerable practice, two tasks can be performed simultaneously with virtually no cost to either task (Schumacher et al. 2001). The finding that two tasks can be performed efficiently if they are very familiar further contradicts the established view of persistent costs associated with dual-tasking and suggests that executive control might be adaptive. A potential explanation for these effects is that performing two tasks simultaneously becomes more efficient with practice, because one of them becomes automatic demanding less cognitive resources. When only one task requires active decision-making, people can strategically reconfigure the two tasks to be viewed in a unified manner, which is referred to as the *reconfiguration hypothesis* (Ruthruff et al. 2001).

In layman's terms, attempting to perform two tasks simultaneously often poses significant interference, leading to a reduction in the performance and cognitive processing of both tasks. However, it is possible to reduce this interference, as long as the tasks draw on different cognitive resource pools or responses to at least one task are automatic. Next, we will discuss several experimental studies that have looked specifically into the media multitasking phenomenon from two different cognitive perspectives.

12.2.3 Experimental Research on Media Multitasking Behavior

Experimental research into the cognitive outcomes of media multitasking is extremely scarce. Brasel and Gips (2011) recently conducted a naturalistic experiment, letting people use the Internet in combination with TV at their own will for approximately half an hour. On average, multitaskers switched between the two media four times per minute, with average gaze durations of only 2.6 s. Furthermore, participants considerably underestimated the frequency of switching their attention between the computer and the TV. The shortness of gaze durations for both media suggests a highly fragmented environment, where attention needs to be constantly reoriented. The rapid attentional shifts indicate a lack of interest and shallow cognitive processing, due to imminent task switching costs. The fact that people significantly underestimated the frequency of attention switching also points to a primarily automatic consumption of simultaneous media content.

Another relevant stream of research is concerned with individual differences in the human *tendency* to multitask, which is commonly defined as polychronicity (Bluedorn et al. 1992). Indeed, research suggests that people differ in the way they use their time: some prefer to engage in only one activity at a time (monochronicity), while others choose to process multiple tasks in parallel (polychronicity). Based on this theory, Schultz et al. (2005) argue that in the context of media exposure some viewers choose to process content from several media simultaneously, rather than sequentially.

A recent study explored the difference in cognitive processing mechanisms of high (habitual) media multitaskers and low (infrequent) media multitaskers during simultaneous media exposure (Ophir et al. 2009). The study suggests that individuals who media multitask regularly have a fundamentally *different cognitive approach* to processing information. Contrary to expectations, high media multitaskers exhibited greater difficulty in filtering out irrelevant stimuli, were less likely to ignore irrelevant representations in memory, and less effective at task switching (Ophir et al. 2009). Thus, high media multitaskers appear to be prone to attend to stimuli in a breadth-based rather than centrally focused way, since they are more likely to be distracted by the multiple streams of media they frequently consume (Lin 2009). Furthermore, Cain and Mitroff (2011) replicated these effects even under low working memory load, confirming the idea that attentional factors are their primary drivers. It still remains to be explored whether these differences are the result of stable individual differences between types of media users or

simply a consequence of prolonged simultaneous media exposure. The results seem to be in line with the finding that individual differences in sensation-seeking tendencies are significant predictors of media multitasking behavior, since people higher in sensation seeking often enjoy higher environmental stimulation levels. Furthermore, some scientific support exists for the link between heavy media use and attention deficit problems among young people, although the link is rather complex and requires further research (Schnabel 2009).

12.2.4 Measuring Media Multitasking Behavior

Designing valid measures for the frequency of media multitasking behavior is an important step in advancing our scientific knowledge of this interesting behavioral shift in media consumption. Ophir et al. (2009) were the first to develop a comprehensive index to measure media multitasking behavior. The Media Multitasking Index (MMI) addresses 12 different primary media formats (e.g., television, print media, web surfing) and measures the reported frequency (in hours per week) with which each primary medium is used in conjunction with other media, controlling for the total hours of media consumption. Another way to measure media multitasking behavior is by classifying it along a continuum, ranging from concurrent tasks that require very frequent switching to sequential tasks that require only occasional switching (Salvucci and Taatgen 2008). It is unclear which of the two methods is superior, since they approach the phenomenon from different perspectives.

12.3 Consumer Perspectives on Media Multitasking

12.3.1 Threats

Distractions are everywhere and different media formats are constantly fighting for viewers' limited attention. As discussed in the previous section, cognitive psychology already provides some insight on the implications of media multitasking for the depth and efficiency of media message processing. Increased availability and accessibility of media content lead to choice overload, to fragmented attention, and eventually to decreased depth of cognitive processing. As media multitasking is evidently becoming a mainstream media consumption pattern, these outcomes could also be relevant for the processing and general effectiveness of persuasive messages distributed through media channels. For example, the recall and recognition of advertised brands and products could suffer significantly, along with subsequent affective responses, when consumers are being exposed to them while media multitasking. Studies show that divided attention can have detrimental effects on memory because it affects information processing at the encoding stage (Naveh-Benjamin et al. 2000). This is especially true in the context of media, where information channels are often conceptually different. For example, split screens featuring banners with news headlines not related to the current news

broadcast have been shown to decrease memory for news content (Bergen et al. 2005). It is imperative for the marketing communication industry to take these changes into account as it develops and employs more innovative strategies to reach customers.

12.3.2 Opportunities

When consumers also choose to multitask with different media, this new context presents not only threats, but also new opportunities to creatively deliver persuasive messages. As outlined in the introduction, when media multitasking consumers are likely to assign one medium as primary (foreground) while the other as secondary (background). One of the most essential questions for marketers today is whether consumers are able to process the two media in parallel, simply assigning more attentional resources to the foreground media, or whether they are forced to constantly shift between the two streams of information. Although cognitive psychology does not provide clear answers, the *reconfiguration hypothesis*, which we introduced in the second section of this chapter, does point towards the potentiality of parallel processing. The fact that people tend to considerably underestimate the frequency with which they switch their attention between media (Brasel and Gips 2011) could also be a consequence of *reconfiguring* the multitasking environment and perceiving it in a unified manner. Some authors have argued that if simultaneous processing of separate media forms is possible in some form, then the perceived synergy between the two media could have a significant impact on consumers, leading to the experience of synesthesia (Pilotta and Schultz 2005). In this context, synesthesia would refer to the combination of sensory modalities (e.g., auditory and visual) that makes possible the integration of media experiences. Furthermore, Naik and Raman (2003) maintain that media synergy could either diminish or heighten the effect of any individual medium on the consumer. If media synergy is actually part of the everyday media multitasking experience of consumers, then it is crucial to identify the conditions under which media effects will be heightened or diminished. When that knowledge is available, the potential to enhance media effects through media synergy presents a clear opportunity for marketing managers to improve their communication strategies. Cross-media campaigns are one way to make use of the opportunities provided by media synergy. For example, using an online and an offline medium has resulted in more positive consumer reactions, compared to single media campaigns.

Indeed, the idea about media synergy becomes instantly relevant when discussing media-driven marketing strategies. If media synergy exists, it would pose significant challenges for traditional media analysis that relies on quantifiable constructs such as simple media exposure, its duration, and frequency. Traditional media assume a linear marketing strategy, where all communication is directed at consumers and is controlled by the marketing organization. It also assumes that media forms are individual and separable. However, in today's fragmented media marketplace, as we have already stressed, it is not marketers but consumers who are

in control and they have decided to change the way they experience media by combining them. Schultz (2006) developed a model of new media consumption, based on the idea of media synergy and consumer control. The model places a focus on the process of media consumption rather than media distribution, urging for a significant reconsideration of traditional media planning concepts and measurement techniques. The next subsection discusses other relevant findings taken from the literature.

12.3.3 Evidence from Research

The EIAA Mediascope Study (2010) showed that media multitaskers represent roughly 50 % of electronic commerce in Europe. Furthermore, the value and frequency of online purchases were higher for media multitaskers compared to single media users. In particular, 34 % of surveyed consumers stated that researching a product they are currently considering buying is an activity they sometimes undertake while multitasking. Europeans also identified using the Internet (34 %) as a very popular activity during TV commercial blocks, with channel surfing (39 %) and chatting to someone else in the room (37 %) only marginally in the lead. Furthermore, approximately half of the surveyed consumers reported they had used the Internet for further research after viewing a TV or Internet advertisement.

Interesting data from an experimental study on concurrent TV and Internet usage during the 2010 Olympic games were published recently in the Harvard Business Review (Zigmond 2011). Curiously, although heavy PC and smartphone users are generally believed to watch significantly less TV compared to light users, they were two to three times more likely to watch TV during the big sports event. Furthermore, spikes in Google search patterns during the Olympics opening ceremony revealed that multitaskers used the Internet to search for information on the brands and products they saw during the commercial blocks.

Voorveld (2011) was the first to experimentally study the effect of media multitasking on advertising effectiveness, focusing on the combination of online and radio advertising. Participants were exposed to a combination of online banner ads (visual) and offline radio ads (auditory). As expected based on previous cross-media campaign studies, cognitive responses to the ads presented simultaneously were higher compared to a control condition where participants were exposed only to the radio ads twice. On the other hand, due to diminished cognitive processing during the multitasking condition, brand recall and recognition did not differ from the condition where exposure was only to the banner ads. These findings suggest that visually presented stimuli are essential in order to trigger high cognitive responses in a media multitasking context. Furthermore, the study reports that a combination of online and offline advertising stimuli led to more positive affective and behavioral responses compared to using a single medium, irrespective of its modality. Despite its inherent limitations, the study does provide some insights for managers in the field of advertising and media planning. In particular, it stresses the

importance of considering the potential detrimental effects of a media multitasking context when planning a campaign. It could be beneficial for media planners should first determine which media combinations are common for the consumer group their campaign is targeting. Furthermore, different strategies should be used depending on the aim of the campaign. If the goal is to enhance brand memory and recognition, simultaneous advertising in different media might not be the most effective strategy. Conversely, if the campaign aims at influencing brand attitudes or behavior, combining media might be beneficial.

Apparently, overlapping consumption could provide advertisers with new opportunities to reach consumers through traditional media channels. What makes the data presented above even more exciting is the Internet's capability to act as a direct purchasing channel for a variety of goods and services. In theory, media multitasking could occasionally lead from the mere exposure to a persuasive message directly to an actual purchase, thus eliminating several steps in the commercial process. Extensive research into the specific patterns of overlapping media consumption is urgently needed before marketing strategists can benefit from these opportunities, however.

Conclusion and Future Directions

The transformation of the media landscape is undeniable. There are more media forms and technologies merging together, accompanied by more consumer interaction. Media and technological convergence alter the ways in which media content is consumed. The media multitasking phenomenon is an important reflection of these changes.

Information is power for consumers today. The Internet provides them with instant access to vast amounts of knowledge along with infinite opportunities to actively share it. As a result, consumers are no longer passive receivers of media messages, but they actively seek to satisfy their specific media content preferences. They are in control of when, how often, and what type of media content to attend to. From the perspective of marketers, the somewhat erratic behavior of the empowered consumer threatens the effectiveness of traditional communication channels and strategies. Furthermore, it undermines the value of traditional methods and techniques to measure advertising effectiveness. However, as we discussed, it might also provide exciting new opportunities as soon as marketers learn more about the implications of media viewers' new consumption habits.

If the traditional way to consume media is indeed a thing of the past, marketers need to look for new ways to effectively communicate to media consumers. It is imperative that future scientific inquiry explores the media multitasking phenomenon as a new media consumption context, identifying its specific threats and opportunities for strategic marketing. Enriching our knowledge on this topic could spark interest into new creative ways to capture consumers' attention in a complex, fragmented media environment.

Exercise Questions

1. How does *technological convergence* contribute to viewers' motivation to change their media consumption habits?
2. How is *media multitasking* defined and what *antecedents* of this phenomenon have been identified in the literature?
3. Explain how individual differences in the tendency to multitask with media are related to *cognitive processing*.
4. What are the implications of *media multitasking* for marketing practitioners, in view of the notion of the empowered consumer? Discuss both threats and opportunities.
5. In the context of *media multitasking*, what is synesthesia and what potential relevancy does it hold for marketing practitioners?

Reflexive Questions

1. Outline the major costs associated with *general multitasking*, relying on insights from the cognitive psychology literature.
2. Discuss the potential impact of *simultaneous media exposure* on consumers' persuasion knowledge, while keeping in mind cognitive psychology literature on *dual-task interference*.
3. Reflect on the potential managerial implications of *media multitasking*, in view of the evolution of media consumption habits.
4. Imagine you are a part of creative marketing team in a large automotive manufacturer. A new affordable sports car model is ready to be launched. Your task is to design a creative *integrated marketing campaign* for the new product that encompasses at least four different media types. Work in teams, using your newly acquired knowledge about the *media multitasking phenomenon*.

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Uwe Hasebrink and Sascha Hölig

Chapter Objectives

1. To raise awareness for the fact that audiences have to be regarded as constructions that are shaped by specific interests
2. To understand the consequences of media convergence for audience behaviors
3. To introduce the concept of media repertoires as an instrument to analyze stable patterns of cross-media behaviors
4. To reflect the fact that the close link between technical devices and concrete activities is about to disappear
5. To understand the argument that users' actual communication modes are clearly triggered by the respective information need

13.1 Audiences in Analogue Media Environments: Where Do We Come From?

From a management perspective audiences have always been a highly risky and volatile component of media business. The “people out there” perform a wide range of highly individualistic practices of media use that are dependent on social context and situational conditions. Thus audiences are hard to control. In order to gain control media companies are—as Ien Ang put it as early as 1991—“desperately seeking the audience.” This desperate search has led to a specific conceptualization of audience that helped to construct audiences as countable and tradable commodities. In the second half of the twentieth century a powerful research

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industry has developed that focuses on providing evidence on what people do with the media. The media industry has an existential interest in finding out how many people use their products; it is exactly this kind of audience data that media companies can sell to the advertising industry. The challenge for this kind of research is that mass media audiences cannot be regarded as a concrete and countable group, as for example the audience being present in a theater or cinema. Instead, it is necessary *to construct* media audiences by certain operational definitions and methodological procedures. All over the world, the media and advertising industries have developed similar mechanisms to construct the “mass audience” as the dominant model of research on exposure to media (Ang 1991; McQuail 1997; Webster and Phalen 1997).

The theoretical and empirical core of this model can be characterized along the following premises:

- Audience measurement focuses on *contacts between users and specific media*; thus the respective research is mainly based on behavioral measures as the frequency and duration of use.
- Audiences are described as *aggregate behaviors* for instance as the percentage of users that have been reached by a specific medium.
- Audiences refer to *single media*, so the respective research constructs television audiences or radio audiences or newspaper audiences.

In the following we will discuss how this dominant model of audience research is challenged by the ongoing process of media convergence. Based on that, we will present two conceptual approaches to audience research that help to adapt to the changing media environments. Finally we discuss some implications for the role of audiences in media management.

13.2 How Does Convergence Affect Audience Behaviors?

The concept of audience as described so far is under pressure. This is not a new phenomenon: many researchers have questioned the industry’s “dominant model” of constructing audiences as a controllable and tradable commodity since the early beginnings of audience research (e.g., Ang 1991; Webster and Phalen 1997; Napoli 2011). However, today, due to the process of increasing media convergence, the concept is challenged on a more fundamental level.

As outlined in more detail in other contributions to this volume the term *convergence* refers to several parallel developments. Firstly, as indicated by the earlier keyword *multimedia*, today’s media services increasingly combine and integrate different forms of presentation, i.e., pictures, moving images, sound, written text. Secondly, the concept of convergence refers to the fact that, as a consequence of digitization, any media content can be distributed by using different networks and platforms. Thirdly, convergence refers to the development of new technical devices, which integrate formerly separated functionalities, for example telephone, TV screen, and games console. And fourthly it refers to the merging of at least three industry branches, i.e., information technology, media, and

telecommunication; this process is partly the condition, and partly the consequence of the other three developments.

From the users' perspective the process of convergence is linked with several consequences. Different technical functionalities and services get merged and are made available on the same device. At the same time a single service may be used via different technical platforms. Thus a service is no longer rigidly coupled with a certain device, and neither are forms of media use and communicative activities bound to a certain technical equipment or distribution platform. It is not possible to decide at first glance what a user is actually doing when he or she uses a certain device, e.g., a laptop, a mobile phone, or a TV set. Below we will introduce the concept of communication modes that meets the challenges of this development.

While these aspects challenge the previously unproblematic definition of the concrete medium that has been used, another consequence of current changes in media environments follows from the increasing role of cross-media strategies on the supply side. Again, the fact that people do not use just one medium but combine different media and different kinds of content is all but new; as Schröder (2011) has put it, media use has always been inherently cross-media. However as shown above this has not been reflected in the construction of media audiences. Today, with concrete media content being distributed on different platforms and with new forms of trans-media story-telling being developed, approaches to the analysis of audience behaviors have to consider this aspect in order to provide meaningful results on current patterns of media use. This challenge will be taken up in the next section.

13.3 Cross-media Repertoires: How Do Users Combine Different Media?

Research into media use traditionally focuses on the use of single-media types such as television or newspapers or the Internet, or of single genres such as news or daily soaps, or of specific topics or products; in doing so the entirety of different media that an individual uses and the interrelations amongst these different media are often ignored. On the other hand we see a growing need for trans-media approaches in research on media use because of the processes of differentiation and convergence of media technologies and media products and the increasing importance of cross-media strategies for media industries.

Research into media use is also characterized by a conceptual gap between two paradigms (for a recent overview, see Nightingale 2011): On the one hand there is the large industry of audience measurement and sometimes also academic studies that aim at providing an accurate picture of people's media-related contacts and behaviors (Napoli 2011; Webster and Phalen 1997); this kind of research mainly relies on large standardized representative surveys that allow for solid descriptions of aggregate audience behaviors. On the other hand there is a broad mainstream of academic, mostly qualitative research on audiences and reception processes that aims at reconstructing individual media use as meaningful practice within social contexts (Jensen and Rosengren 1990; Livingstone and Das 2009). Although both paradigms share individual and aggregate patterns of media use as their main object

of investigation, there is no productive cooperation; as a consequence results of large-scale audience measurement studies are generally highly descriptive and far away from people's everyday practices and thus "meaningless," while results from qualitative receptions studies have limited capacity to generalize their concepts and empirical findings to broader populations.

In order to help to overcome these two gaps of research on media use, we have proposed the concept of media repertoires (Hasebrink and Popp 2006; Hasebrink and Domeyer 2012¹): the media repertoire of a person consists of the entirety of media he or she regularly uses. While the trans-media aspect is quite obviously an inherent characteristic of this approach—therefore it provides a conceptual basis to overcome the above-mentioned single-media bias of audience research—the concept of media repertoires also offers a potential to productively combine the two research paradigms and to link findings on aggregate patterns of behavior and their distribution among the population with results of qualitative work on the meaning of media practices. From the perspective of a repertoire-oriented approach these two paradigms and their corresponding methodologies are regarded as the two sides of a coin—taken together they allow for a more insightful analysis of trans-media practices.

Figure 13.1 characterizes the two areas of research on media use as sketched above. Media repertoires as we conceive them can be regarded as a relevant issue for both areas: they may contribute to both kinds of research questions, since they are understood as patterns of behavior—as such they are compatible with audience research—and at the same time they are understood as meaningful practices—as such they are compatible with research on media use as social practice.

The concept of media repertoires refers to the entirety of media that a person regularly uses. Media repertoires can be regarded as relatively stable trans-media patterns of media use. A repertoire-oriented approach to media use is characterized by the following principles:

- **User-centered perspective:** the concept of media repertoires moves the media user into the focus; rather than taking the media-centered perspective that asks which audiences a particular medium reaches this concept emphasizes the question which media a particular person uses.
- **Entirety:** the repertoire-oriented approach stresses the need to consider the whole variety of media regularly assembled by a person; this shall help to avoid misinterpretations resulting from approaches to single media.
- **Relationality:** within a repertoire-oriented approach the interrelations and specific functions of the components of a media repertoire are of particular interest since they represent the inner structure or coherence of a media repertoire; this reflects our basic assumption that the media repertoire of a user is not just the mere sum of different media he or she uses, but a meaningfully structured composition of media.

¹ The following paragraphs are based on this publication.

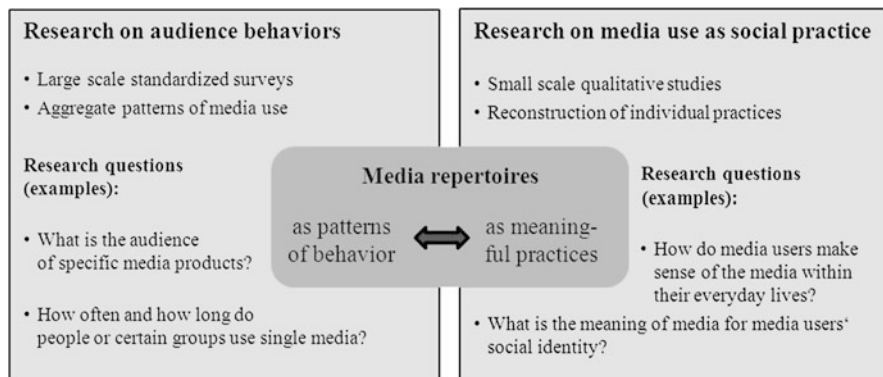


Fig. 13.1 Media repertoires as conceptual link between two areas of research on media use, Source: Hasebrink and Domeyer (2012)

In order to demonstrate the fruitfulness of a repertoire-oriented approach to audiences in converging media environments we will present exemplary results of a repertoire-oriented analysis of audience data. While the concept of in principle allows designing qualitative as well as quantitative studies we decided to present an example for a standardized survey, since these kinds of data are used most often in audience research.

The empirical basis of our analysis is the German study *Mass Communication*, which has been run every 5 years since 1964; we have used the respective surveys of the years 1980, 1985, 1990, 1995, 2000, 2005, and 2010. The surveys are based on representative samples of the German population (14+ years). The questionnaire includes a broad range of indicators for media use, e.g., the frequency and amount of use of television, radio, newspaper, Internet (since 2000), magazines, books, video/DVD, CD/records. In addition there are some items asking for evaluations and opinions regarding the respective media. At this place we will present three steps of analyses that can serve as examples for different approaches to the analysis of media repertoires.

13.3.1 Describing Relative Proportions of Media Within People's Time Budget

The first and rather simple approach to an analysis of media repertoires is to take the proportion of time that is devoted to different media and to present the findings as trans-media time budget (see Fig. 13.2). General descriptions like this can be used as indicator of the aggregate media repertoire of the population and of the relative importance of the single media that have been investigated. The findings indicate a substantial increase of the overall repertoire in terms of the time devoted to all media between 1980 and 2010 reaching a level of 9–10 h per day in the years 2005 and 2010. As for the relative importance of single media Fig. 13.2 shows that

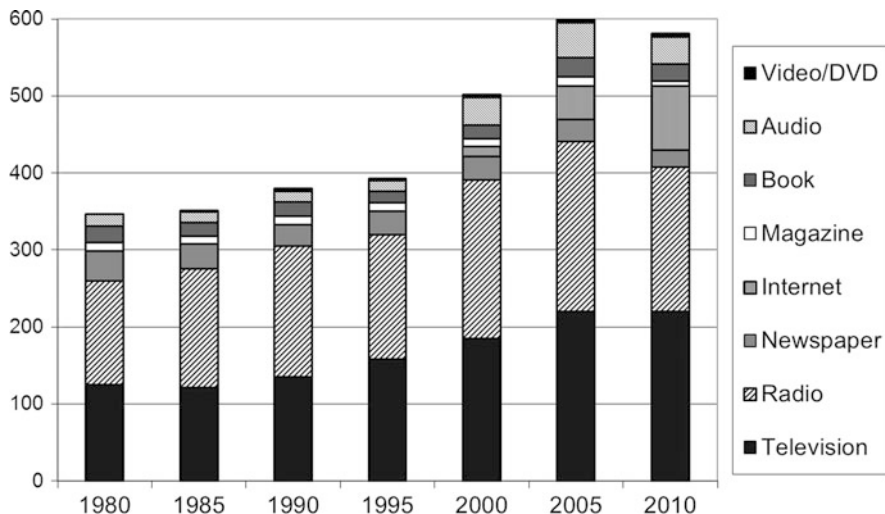


Fig. 13.2 Time budget for eight types of media in Germany 1980–2010 (in minutes per day), Note: representative samples of the German population 14 years and older. 1980/1985: $n = 2,000$; 1990/1995: $n = 6,000$; 2000: $n = 5,017$; 2005/2010: $n = 4,500$. 1990 has been the first survey that included the area of the former GDR. Until 1995 data were collected by means of face-to-face interviews; since 2000 data are based on telephone interviews. Source: Hasebrink and Domeyer (2012)

almost all media have increased the absolute duration of use except newspapers and magazines. In relative terms, the percentage of television has slightly increased (1980: 36 %, 2010: 38 %); starting with a first reliable measure of 3 % for the year 2000 the Internet increased its share up to 14 %. The clearest decrease can be observed for newspapers (1980: 14 %, 2010: 4 %).

13.3.2 Investigating Correlations Between Different Media

While this kind of analysis is quite familiar it is only a first step towards the description of media repertoires. A second approach to this kind of data is an analysis of the correlations between different kinds of media or content. When we calculate bivariate correlations between the amount of use of two media, e.g., television and Internet, a negative coefficient would indicate a certain tension between these two media, i.e., they do not seem to fit to each other, and using one of them goes to the expense of the other one; as a consequence there should be few people who combine heavy use of both media. A positive correlation between the frequencies of use of these two media would indicate that they are likely to be combined within media repertoires. Finally, a zero correlation between the two media would suggest that we can find any combination of them within different media repertoires. Thus, we regard the bivariate relations between different media or kinds of media content as one important indicator for media repertoires.

Table 13.1 Correlation between the frequency of online use and the frequency of use of other media in 2005 (Pearson correlation coefficients)

	Total population	Selected subgroups		
		Adolescents	Middle age, middle class	Pensioners
<i>Respondents</i>	<i>n = 4,500</i>	<i>n = 444</i>	<i>n = 915</i>	<i>n = 1,052</i>
Television	-0.15	0.02	-0.03	0.00
Radio	0.00	0.22	0.02	0.11
Newspaper	-0.06	0.22	0.02	0.09
Magazines	0.03	0.21	0.09	0.06
Books	0.02	0.06	0.05	0.11
CD/records	0.20	-0.03	0.12	0.13
Video/DVD	0.33	0.20	0.15	0.17

Source: Hasebrink and Popp (2006)

As an example for this kind of analysis we take up the ongoing discussion about how the increasing role of online media might affect the use of traditional media. The data provided by the above-mentioned study allow for the calculation of correlations between the frequencies of use of different media. Table 13.1 analyzes the extent to which the frequency of online use correlates with the frequency of use of seven other media in 2005. For the whole population the findings show that there are small but (due to the big sample size) highly significant negative correlations with television and newspapers and moderate positive correlations with listening to audio media and watching videos or DVDs. This finding could be read as follows: The more people use the Internet, the less they watch television and newspapers—an interpretation quite in line with the public debate on the consequences of online media on traditional media. However, as detailed analyses for more specific groups demonstrate, this interpretation does not hold at the more particularized level. Within the group of adolescents the correlation between online and television is zero, and for newspapers there is a moderate and highly significant positive correlation. For young people these data say the more they use the Internet the more they read newspapers, which is clearly against common assumptions on the relationship between the Internet and newspapers.

The lesson to be learnt from this empirical example is twofold: Firstly, the patterns of how people compose their media repertoire are more complex than often expected. Research on media use has to systematically analyze the relationships between different media as they are reflected by patterns of exposure. Secondly, it is crucial to consider the role of demographic and other contextual variables. At first glance there is a negative correlation between the Internet and television. However, when we look at specific groups there isn't one to verify this finding. Thus the correlation for the total sample can be fully explained by social factors—in this case the fact that older people watch a lot of television and are less likely to use the Internet compared with young people.

13.3.3 Identifying Patterns of Media Use and Types of Media Users

The principal idea of media repertoires obviously goes beyond the level of bivariate correlations between pairs of media. Media repertoires are conceived as comprehensive patterns of media use. Empirical approaches to the analysis of patterns are, for instance, configuration frequency analysis, or, most important in the field of lifestyle research, cluster analysis. The rationale of these approaches is to identify cases which share the same attributes and as such can be regarded as one cluster of media users that can be clearly distinguished from other clusters of media users with different attributes of media use. Thus, to identify clusters of media users on the basis of their overall pattern of media use is the third empirical approach of the proposed repertoire-oriented approach.

The rationale of this step has been the assumption that people's media repertoires differ with respect to the favorite medium; the survey used above included the respective variable, which was used as a categorical variable in a two-step cluster analysis together with eight variables indicating the frequency of use of eight media (see Table 13.2). Due to this procedure four of the five clusters are mainly characterized by one of the media as favorite; however the analysis also reveals significant differences between the clusters with regard to the frequency variables indicating that the five repertoires differ with regard to the favorite medium as well as to the frequency of use of the other media. Cluster 1, for instance, includes users who say TV is their favorite medium and who watch TV more often than any other group; they combine this TV-oriented pattern with high frequencies for radio and VCR, and low frequencies for Internet and particularly for books. Thus this repertoire is characterized by a clear preference for audiovisual content. Those who regard the Internet as their favorite medium (Cluster 5) have quite a rich media repertoire with regard to all electronic media, while they are less frequent readers of newspapers. The only cluster that includes users with different favorite media (Cluster 2) is characterized by the lowest use of the traditional news media (TV, radio, and newspapers) and an above-average frequency of Internet use. Compared to the other cluster with high Internet use (Cluster 5, see above), this repertoire indicates a generally low interest in media.

To our understanding this kind of approach to media audiences meets the challenges linked with converging media environments. Instead of characterizing media users by single indicators this approach takes a holistic view on media-related practices. Thus it takes into account that today's media users face a rich media environments and that the core question from a communication management perspective is which of the available offers they select and combine with which other kinds of media offers.

Table 13.2 Clusters indicating five media repertoires in Germany 2005

Cl.	%	Favorite medium	TV	Radio	Newspaper	Internet	Magazine	Book	Video	Audio
1	35	TV	++	+		-		--	+	-
2	10	Various	--	--	--	+	-			
3	11	Newspaper			++	-		++	-	-
4	24	Radio		++		-			-	
5	21	Internet	+	+	-	++			++	+

Source: Analysis based on the 2005 survey of the German long term study 'Massenkommunikation'; $n = 4,500$; result of a two-step cluster analysis with one categorical variable (favorite medium: TV or radio or newspaper or Internet) and eight continuous variables (frequency of use of the eight media). +/–: higher/lower than average, $p < 0.05$; ++/––: higher/lower than any other cluster, $p < 0.05$. Source: Hasebrink and Domeyer (2012)

13.4 Communication Modes: What Are People Actually Doing When They Use a Medium?

The repertoire-oriented approach as presented before provides a conceptual framework for the description and explanation of media users' stable and often habitualized patterns of cross-media behavior. The second approach to audiences in converging media environments sets out to solve another problem that media companies have to face: due to multifunctional devices and forms of digital content that are distributed through different platforms it is increasingly difficult to decide what an individual is actually doing with a certain media service. Are people who watch a TV newscast on their mobile phone watching television? And what kind of activity is it if they download TV news from *YouTube*? Do users of social networking sites or micro-blogs look for information in order to build an opinion on current issues? Or do they rather manage their personal networks? From a management perspective this uncertainty is quite threatening: how can you develop formats or content for specific target groups if you do not know how the users will perceive and use the respective offer?

Traditional approaches of audience research have been aligned to devices and services: the assumption was that each media device is linked with a specific media activity. People sitting in front of a TV set were regarded as watching television, and so was the assumption for listening to the radio or for making a phone call. Current technical devices, however, are no longer limited to one specific function; rather, they provide many options of usage. At the same time any concrete media-related activity can be realized with different devices. The same is true for media services. A concrete website offers a wide range of functionalities. Thus the structural link between a device or a concrete service and its specific use is repealed. The consequence of this decoupling of apparatus and media service on the one hand and communicative activities on the other hand is that audience research cannot infer a specific communicative action just from the device or service that has been used; instead we have to take a user-centered perspective.

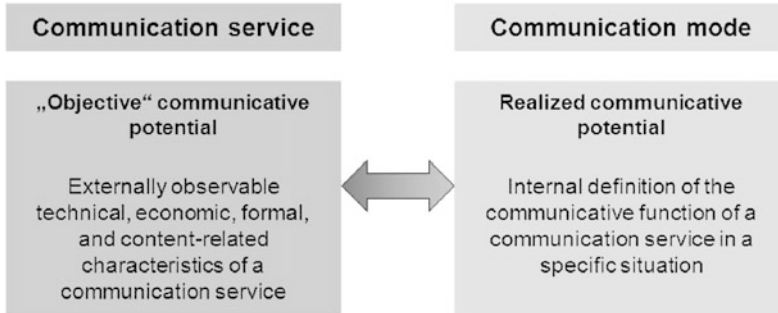


Fig. 13.3 Communication services and communication modes as interrelated concepts

In order to meet these challenges we propose the concept of *communication modes*, which refers to how users define themselves and their current activity in a concrete situation of media use (see Hasebrink 2004; Hölig 2012). To think in terms of communication modes includes a user-centered perspective: It is the user, who defines her or his communicative situation, e.g., as “watching TV,” “reading a newspaper,” and “chatting with a friend,” etc. Nevertheless it is assumed that communication modes are linked to the respective communication services. While a specific communication service cannot determine the communication mode of its users, it defines the range of modes which can be realized by using the respective service. Communication services are defined on the basis of externally ascribed, “objective” criteria referring to technical and economic features and to the content and presentation of the service. In dealing with a specific communication service users realize a particular part of the given functional potential; this is what we call the communication mode (see Fig. 13.3). Following this conception communication services and communication modes are mutually related to each other; the theoretical status of this relationship is analogue to the discourse on media genres: by using certain genre-specific indicators the service triggers certain genre-related schemata, which help the user to make sense of the respective story; however, the producers as well as the recipients can also play with the respective genre conventions and thus open a wide spectrum for interpretations.

Communication modes refer to the situational level of analysis: a communication mode is the concrete form of using a communication service in a given situation. It is the situation-specific result of functional expectations and the way of handling the respective service. Furthermore it is assumed that in any situation the users are in exactly one communication mode and that they know what they are doing, i.e., in which communication mode they are. This does not mean that they explicitly or consciously reflect their current mode; instead the knowledge might be rather implicit—it becomes particularly obvious when there is a dis-match between the mode and the respective service: as soon as the ongoing interaction does not suit the current expectations, the user will reevaluate the situation and change the service (according to the function he or she would like to realize) and/or redefine the communication mode (according to the features offered by the respective service).

At this place we will exemplify these conceptual considerations by asking what people are doing when they use the Internet for information. The range of functionalities that are part of what we are used to call “the Internet” seems to be interminable. The Internet does not only represent a source of content, but at the same time it is a communication channel; it is not just a means to receive information but also to produce, distribute, or share information. In addition, communicative activities on the Internet can refer to one single communication partner, but also to specific user groups or even large publics. This makes it hard to decide if the user is engaged in interpersonal or mass communication. Audience research and communication management cannot rely anymore on the plain question if and how often people use “the Internet”; instead it is necessary to investigate how people themselves define what they do with the Internet, i.e., which communication modes they realize.

Following this argument Hölzig (2012) investigated how media users deal with the Internet in order to realize a range of information needs located on the spectrum between interpersonal communication and mass communication. The first research question was which characteristics media users apply in order to distinguish different information services on the Internet. In order to answer this question an open card sorting method was applied: subjects got a set of 31 cards each indicating a specific Internet service—e.g., reading a newsletter, watching live stream television, chatting, etc.—and were asked to sort them according to their similarities and differences. The core data of this step were collected by recording think-aloud-protocols of subjects’ explanations why they felt that a specific service differs from the others. These arguments have been analyzed with a focus on the spectrum between mass and interpersonal communication; the following criteria were identified as characteristics that are used to distinguish between different Internet services:

- *Users’ Activity*: users distinguish usage situations according to their own activity. The distinction is made between being active (e.g., producing, sharing or distributing), passive (e.g., reading, listening, watching), or interactive (dialogic communication).
- *Communication Partner*: users make clear distinctions concerning their communication partner and evaluate if the source or the recipients correspond to their expectations. Applied categories are friends or relatives, interested anybody, expert or authority, mass media or journalism.
- *Co-audience*: in addition to the type of communication partner the audience size and access possibilities, as perceived by the Internet user, are relevant. Differences are made between individuals, closed groups, public but focused group, and a mass audience.
- *Temporal Distance*: the common differentiation between synchronous (real-time) and asynchronous (with time delay) communication is supplemented by quasi-synchronous communication (not real-time communication but near-term) and communication without any time relation.

Any particular combination of these four criteria characterizes a specific communication mode. Thus these criteria can be used as an instrument to assess the mode of specific communicative actions.

In order to validate this instrument, a second research phase was based on the following considerations: in a concrete situation the salient information needs and thus the specific gratifications sought influence the communication mode that is applied. The argument here is that the concrete activities performed on the Internet are not determined by the Internet as the platform or by a certain Internet service, but to a considerable extent by the interests and needs of the user.

The research design simulated different information scenarios. With regard to either political or health-related issues subjects were asked to imagine one of four basic types of information needs (a) general orientation on the respective field; (b) specific interest in a concrete issue; (c) knowledge of what the relevant peer group thinks about these issues; and (d) individual problem-oriented issues (Hasebrink and Domeyer 2010). The hypothesis was that depending on the respective information need users would realize different communication modes. Subjects were asked to search on the Internet for the information they needed. They were completely free to choose any service they wanted, be it an online newspaper, *Wikipedia*, or a direct message to a friend on a social networking platform. When they felt they had reached their aims they were asked about what they had done on the Internet along the four criteria that were identified in the first step. The analysis showed that only very few out of the logically possible combinations of these four criteria appeared significantly more often than expected. These combinations can be interpreted as typical communication modes:

- *Journalistic mass communication*: passive reception of content from journalistic sources with a small temporal distance and a disperse mass as co-audience
- *Public expert communication*: passive reception of content from specialized sources with a small temporal distance and a public co-audience
- *Private expert communication*: nonpublic, real-time conversation with a topic-related specialized communication partner
- *Personal communication*: nonpublic, real-time conversation with friends, relatives, etc.

These communication modes have been meaningfully linked with the different information needs: *public expert communication* is significantly linked with concrete thematic interests, while the mode of *private expert communication* is applied if there is an individual problem to be solved. The mode of *personal communication* is closely connected with peer-related information needs, and *mass communication* with undirected information needs for general orientation. The findings support the assumption that the communication mode, which is applied in a concrete situation, is strongly related to the salient information or communication need. While this statement might seem rather trivial, it clearly emphasizes the fact that users' media-related practices cannot be inferred from the specific media platform or service they use—as audience research often does. The observations in this study demonstrate that even single services or websites, for example, a concrete social networking platform or the portal of a newspaper publishing house, are used for different communication modes, depending on the respective information need of the user.

Conclusions

This article has started from the established model of audience research according to which audiences are constructed on the basis of the number of people reached by the respective medium or service, the frequency and duration of use, and the structure of this group in terms of specific target groups. As we have shown this approach is under pressure. The consequences of the current process of media convergence question many of the premises of former audience research. We have discussed two of the challenges that arise.

On the one hand people's manifold media-related activities cannot be understood appropriately on the basis of information of contacts with single media. All users use different media; they combine different platforms, genres, and kinds of content and thus compose an individual media repertoire that makes sense to them within their everyday life. Communication management in convergent media environments has to deal with these media repertoires in order to understand the role of specific media offers within these repertoires. Particularly cross-media strategies have to be based on this kind of evidence.

On the other hand the former link between a certain technology or a certain device and users' activities has substantially eroded. Today we cannot know what a user is doing when he or she watches a TV screen or a mobile phone or visits a social networking site. Research has to ask users for their own definition of the current situation. As we have shown this insight does not mean that there are no regularities or patterns of user behavior; the concept of communication modes refers to certain culturally established practices that users realize when they use the media. For audience research that sets out to deliver relevant theoretical and empirical evidence for purposes of communication management this concept can help to identify these patterns and regularities even in converging media environments.

Exercise Questions

- What are the main construction principles of classical audience measurement?
- In how far are these classical approaches challenged by media convergence?
- What are the main differences between a repertoire-oriented approach and classical audience measurement?
- How can media repertoires be investigated?
- How are communication modes defined?
- What is the conceptual link between information needs and communication modes?

Reflexive Questions (Food for Thought)

- In all, the two approaches presented here might lead to a loss of control of media companies over their audiences. Can you imagine strategies that can help to regain control?
- How can you find out if a concrete newscast on a mobile device is received in the same communication mode as the same newscast on the TV screen?
- Which criteria of communication modes would be relevant for other gratifications sought (e.g., entertainment, catharsis, etc.)?

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Part IV

Convergence and Technology

Hermann Hellwagner

Chapter Objectives

- To introduce and illustrate the position that progresses in the media domain is driven by interplaying “technology push” and “application pull” forces
- To give examples of important technology developments in the audio–video area and their impact on the media world, businesses, and consumers
- To give examples of today’s user requirements, changing behavior, and growing demands and their impact on research and technology development
- To introduce immersive environments as a potential significant future, interdisciplinary direction in the rich media area

14.1 Introduction

Media convergence is defined by Encyclopaedia Britannica as a “*phenomenon involving the interlocking of computing and information technology companies, telecommunications networks, and content providers [...] Media convergence brings together the ‘three Cs’ – computing, communications, and content*” (Encyclopædia Britannica Inc. 2012) Considering a modern smartphone as an example, this confluence of the “*three Cs*” is obvious. But what is the driver of this confluence? What did enable the industry to develop such “smart” devices? From the point of view of the author, a researcher in multimedia technology, this confluence is not a monolithic “*phenomenon*” or the result of a specific development; rather, the background of convergence is a sophisticated interplay between “technology push” and “application pull” forces, as depicted in Fig. 14.1.

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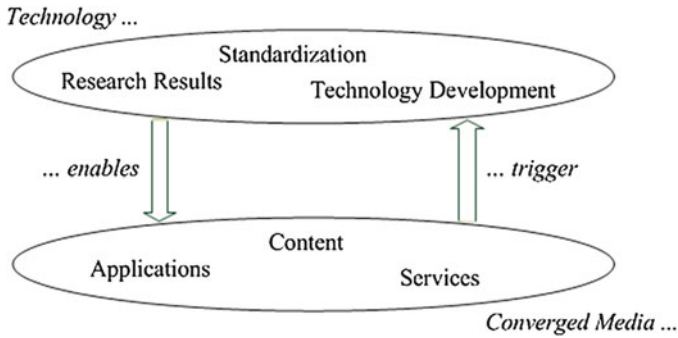


Fig. 14.1 Interplay of technology and media convergence: “technology push” and “application pull”

The figure indicates that, on the one hand, intense research work and technology developments (RTD) as well as standardization efforts in the areas of content processing, computing, and communications have for many years been strong enablers of new content offerings, applications, and services. On the other hand, there is a reverse effect: new converged media applications and visions require and trigger new RTD efforts that again bring about new devices, software, and systems. This constitutes a positive feedback loop that has created remarkable progress in both areas, converged (or rich) media applications and their supporting technologies, and that will continue to foster progress in the years ahead (Jayant (Ed.) 2012).

This contribution discusses these two aspects by means of examples of how RTD and standardization enabled rich media applications (Sect. 14.2) and of how content growth, creativity, and visions in the application space set new requirements for and trigger scientific and technological advances (Sect. 14.3). While Sect. 14.2 looks back into the past and Sect. 14.3 examines recent and current developments, Sect. 14.4 addresses some of the future trends and challenges. The focus will be on audiovisual (A/V) content and communications since these are the author’s areas of expertise.

14.2 From the Past: “Technology Push” Aspects . . .

In this section, three examples of developments in the technology arena will be covered that enabled novel media applications and new consumer electronics devices or software, and even facilitated new, or disrupted existing, business models:

- Digital coding (compression) and storage of A/V content
- Standardization and interoperability
- Advances in wired and wireless broadband networks

A major first step toward converged media was undertaken in the 1980s and 1990s by developing effective techniques, tools, and devices for *digital coding*

(compression) and storage of A/V content. A leading group in that effort was established in 1988, the *Moving Picture Experts Group (MPEG)*, a working group of the International Organization for Standardization (ISO), formally named ISO/IEC JTC 1/SC 29/WG 11. The group's responsibility is "*the development of standards for coded representation of digital audio and video and related data*" (MPEG Home Page 2012).

The first work item and goal of MPEG was "*coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbits/s,*" which in practice meant to enable "*efficient storage and retrieval of audio and video on compact disc*" (MPEG Achievements 2012). This was the first large-scale attempt to develop techniques to store digital audio and video on digital storage media; it succeeded in 1992 in that a first international standard called *MPEG-1* was released.

MPEG-1 provides the means for efficient encoding of digital video at roughly VHS quality and of digital audio at a subjective quality level that is close to the original stereo audio. MPEG-1 deploys *lossy compression* techniques, which for instance for video leads to a compression factor of 25–30, (Sikora 1997), as compared to a "naïve" digital coding format.

But can this be done without substantial quality loss of the media, and how? The answer is apparently, yes, it can be done, by employing sophisticated mathematical-algorithmic techniques that basically *eliminate redundancy and irrelevancy* from the original uncompressed video or audio data stream. In a video, for instance, redundancy takes two forms: *spatial redundancy*, which denotes that adjacent pixels or areas in an individual picture are similar (correlated) to each other, and *temporal redundancy*, which means that successive pictures in a video do not differ too much from each other, enabling pictures to be predicted from previous ones when object or camera motions are taken into account. Original A/V data streams also contain a significant amount of *irrelevant information* in the sense of information that is imperceptible for the visual or auditory human systems and can thus be eliminated or encoded with less detail. In the auditory domain, for example, this led to the development of advanced psychoacoustic models that guide what audio information must be encoded and at what accuracy.

MPEG-1 led to a number of products and applications, among them (Chiariglione 1999; MPEG Achievements 2012): A/V players both in hardware and in software, portable cameras, the Video CD format and associated decoders/playback devices and software, and the use of MPEG-1 technologies in Digital Audio Broadcasting (DAB). Yet, the most prominent outcome is *MP3*, formally MPEG-1 Audio Layer III, which undoubtedly has changed the way we handle and consume music, and has transformed the music industry.

MPEG-2, started only 2 years after MPEG-1 and completed in its most important parts in 1994, was specifically targeted to enable *Digital TV* services. MPEG-2 basically extended and improved MPEG-1 to support interlaced video (required for TV sets of that time), to better encode stereo and multichannel audio (resulting in the well-known Advanced Audio Coding (AAC) standard, for instance), and most importantly to support efficient transmission (broadcasting) and storage of audio and video. MPEG-2 video encoding can achieve compression factors of

30–40 (Sikora 1997), facilitating high-quality digital video comparable to NTSC/PAL TV signals prevalent at that time; in terms of bit rates, 4 Mbit/s and higher bit rates were targeted, significantly higher than for MPEG-1, but still manageable for TV broadcasting systems.

MPEG-2 was a recognized success. It provided the core formats and protocols for digital TV broadcasting over satellite, terrestrial, and cable networks as well as for storage and distribution of movies and other programs on DVDs. The production and consumption of digital A/V material changed drastically, with high-quality digital cameras, DVDs and DVD players, digital TV receivers, “set-top boxes,” storage of A/V content on hard disks and initial distribution over the Internet being representative developments enabled by MPEG-2 technologies. New standards adopted and tailored MPEG-2, for example, Digital Video Broadcasting (DVB), and new industries and businesses emerged. MPEG-2 is also widely used for High-Definition TV (HDTV) systems meanwhile.

In recognition of the achievements and the significant impact of the standards MPEG-1, MPEG-2, and the well-known image compression standard JPEG on the media and consumer electronics industry, the ISO/IEC JTC 1/SC 29 received the *1995–1996 Engineering Emmy Award for Outstanding Achievement in Technological Development* (Chiariglione 1996).

MPEG-1 and MPEG-2 devised the basic methods for video and audio compression and storage in digital format. These methods were developed further, refined, and extended in subsequent years, and many of them are still in use today. One further landmark development on this way deserves to be mentioned: *MPEG-4 Advanced Video Coding*. The main goal of this standardization activity, joint work between ISO and the International Telecommunication Union (ITU), which delivered the video coding standard known as *H.264/MPEG-4 AVC* in 2003, was to further increase the compression performance and to provide “*network-friendly video representations*” (Wiegand et al. 2003). More precisely, it was designed to achieve twice the compression efficiency of MPEG-2 (MPEG Achievements 2012) and to support high-quality video “over the Internet,” both live services like video conferences and on-demand services such as video-on-demand streaming applications. Since its approval, H.264/MPEG-4 AVC has fully achieved these goals and become the most commonly used video format on the Internet. It is being used by Internet streaming services such as [YouTube](#) and the [iTunes Store](#), by Web software such as the [Adobe Flash Player](#) and [Microsoft Silverlight](#), and also in various HDTV broadcasting systems, for instance, DVB; moreover, it is being used as a standard format on Blu-Ray Disks (Wikipedia 2012).

The group that developed the H.264/MPEG-4 AVC standard was even presented two Emmy Awards in 2008 and 2009 (ISO/IEC 2009), recognizing the substantial influence that this standard has on business and society.

The presentation so far already gave some insight into the second enabling aspect of media convergence that will be briefly addressed here: the importance of *standardization and interoperability*.

Interoperability denotes “*the ability of two or more systems or components to exchange information in a heterogeneous network and use that information*”

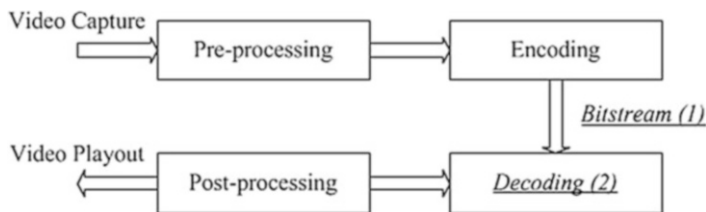


Fig. 14.2 Scope of MPEG-1 and MPEG-2 video standardization (*underlined items*)

(IEEE 2000). In the media world, this concept requires that content must be produced, stored, distributed, and retrieved in a standardized way by diverse devices and/or software components, irrespective of type, vendor, or provenance of the equipment.

The need for standardization in the media arena was judiciously respected from the very beginning in the efforts described above. Research institutions and companies from all over the world, represented by hundreds of individuals, cooperated to create the basic standards that eventually formed the core of the value chains and business opportunities, for instance, in the digital TV field. The scope of the standardization activities was carefully cast, and topics outside this scope were left open for competition among the industry players in the field.

This is illustrated by the following example. Figure 14.2 shows the coarse steps of capturing, preprocessing, digitally encoding, decoding, post-processing, and playing out video data. The scope of standardization in MPEG-1 and MPEG-2 was restricted to (1) *the format of the video bitstream* (data stream), i.e., regulations on the codes and their values to be used in the bitstream (syntax) and their meanings (semantics), and (2) *the process of video decoding* as a reference software decoder, specifying what visual information should be produced for a given encoded video stream. In addition, subsets of the standards for different applications were defined, for example for SD and HD TV, in conjunction with conformance tests. All this allowed extensive testing of whether or not a given video stream or a specific encoder or decoder implementation conformed to the standard.

This represented a first-ever approach to standardization, leaving *freedom to implement* the encoding and decoding steps in diverse ways. In other words, the encoder and decoder could be realized in hardware or software, could be simple or complex, cheap or expensive, support a minimal subset or the full functionality of the standards, and realize low or high compression ratios, as long as they produced conforming encoded bitstreams (encoding) or valid visual information from the bitstreams (decoding), respectively. These concepts left ample room for competition and diversification for the industry and fostered the wide adoption, momentum, and impact of the standards. There were clear benefits for the stakeholders and the awareness that standards and interoperability were the basis of the media business and had to be developed and maintained in a cooperative fashion.

Finally, it is worth noting that consistent *quality* testing was at the core of the standards developments. In case of competing proposals of functionality for the coding standards, the proposals were evaluated and selected according to their

figures of merit concerning visual/auditory quality and compression efficiency. The quality evaluations were based on objective quality measures and/or partially extensive subjective tests. This ensured that the best technical proposals made it into the standards, building confidence in the techniques.

The importance of standards for digital media communication and convergence and in particular the processes and achievements of MPEG are summarized in (Chiariglione 2012).

The third element of enabling technology to be briefly addressed here are the continuous *advances in wired and wireless broadband networks* that we have experienced over the past years. Growth in network speeds has been exponential in different technological and usage domains, as indicated by the following data:

- Both Internet traffic and bandwidth grow by approx. 55–60 % per year, as determined by the so-called “Global Internet Geography” analysis for the period 2007–2011 (TeleGeography 2012).
- The speed of high-end users’ wired connections to the Internet grows by approx. 50 % per year, as exemplified by “Nielsen’s Law of Internet Bandwidth” for the time frame 1998–2010 (Nielsen 2010).
- Wireless connections, both in wide-area cellular networks (e.g., GSM, UMTS, and forthcoming LTE systems) and in short-range WiFi networks (e.g., IEEE 802.11 WLANs), have become faster by almost 50 % per year, as shown for the past 20 years in (Raychaudhuri and Mandayam 2012).

These growth rates mean that network capacities double every 1½–2 years, almost matching Moore’s law on advances in computing speed. These improvements have enabled a wide spectrum of applications that involve transmitting high volumes of data over the standard Internet, e.g., Voice over IP (VoIP), video streaming, Internet Protocol TV (IPTV), or rich media embedded in social networks. The growth trends are expected to continue, supporting new classes of applications and services, which will be discussed below.

14.3 . . . to the Present: “Application Pull” Aspects

The technologies described above, among others, have become “*true enablers of next-generation services and facilities, specifically diverse rich digital media services,*” as (Jukan and Mambretti 2012) put it. Simultaneously, the new opportunities are creating new demands and challenges for technology. This leads to a situation that is characterized by (Jukan and Mambretti 2012) as follows: “*Driver applications and support technologies have challenged and enabled each other in an unprecedented progression.*”

Again, three examples will be explored to illustrate the “application pull” side:

- Increasing demand for, and volume of, multimedia content
- Growing number and diversity of devices
- Higher quality and novel forms of media content.

A first challenge for technology is that the “*appetite*” for rich media content in the Internet is rising sharply. At the time of writing, multimedia content, dominated

by digital video, has already become a major component of traffic in the Internet. Moreover, the amount of media content is expected to double every 1–1½ years (Jukan and Mambretti 2012). It is worth noticing that this growth rate is higher than that of the basic network capacities pointed out above.

The networking equipment vendor Cisco, in a periodic forecast of Internet traffic called “Visual Networking Index (VNI),” predicts that Internet video will reach 50 % of consumer Internet traffic by the end of 2012 and 62 % by the end of 2015, not including peer-to-peer (P2P) file sharing traffic. Accounting for P2P traffic as well as other forms of visual information transmission, e.g., IPTV, this percentage is significantly higher (Cisco 2011). In the arena of mobile devices and networks, the predictions are similar, stating for instance that by the end of 2016, more than 70 % of the mobile data traffic will be due to video (Cisco 2012).

The growing demand for, and volume of, media content stems from both the rapidly increasing trend toward user-generated content and sharing this content, and more and more appealing media services and portals on the Internet. Flickr, YouTube, and Facebook are well-known examples of the former; Netflix is representative of the latter. Netflix is a video-rental company mainly active in North America that nowadays typically streams the content to the users over the Internet on demand. With more than 100,000 movies and TV shows available and more than 23 million users (Netflix 2012), Netflix alone accounts for up to 20 % of the downstream Internet traffic in the USA at peak times, according to Cisco’s VNI.

The technological responses to these challenges are manifold. Besides the progress being made in improving the core networking technologies as outlined in Sect. 14.2, Internet Service Providers (ISPs) and telecommunication companies worldwide are continuing to heavily invest in their networks at all levels (access, distribution, and backbone networks) and to deliver higher-bandwidth connectivity to their customers, in both the wired and wireless domains.

On the media content distribution side, novel forms of content delivery over the Internet have been devised and are being deployed to cope with the load of serving a potentially vast user community; examples are peer-to-peer (P2P) systems and content delivery networks (CDNs).

Traditionally, for instance in proprietary IPTV systems, content is delivered from a central server (farm) along a tree of sub-servers toward the clients/users. In contrast, in P2P systems all nodes contribute to the delivery of content by assuming both roles, requesting content (pieces) as clients and providing content (pieces) as servers. While P2P systems have a bad reputation as illegal file sharing platforms, they do have technical and economic merits as sophisticated and cost-saving solutions for media distribution, even of live content such as TV channels. For an example, the interested reader is referred to the European project “P2P-Next,” the goal of which was to devise and build a next-generation P2P content delivery platform (P2P-Next 2012).

A CDN is typically a large, distributed network of servers, mostly deployed at or near the “edge” of the Internet, in data centers close to the users. Content is replicated and transmitted to the CDN servers and cached there (i.e., stored for a certain time period). The major benefit of a CDN is that even high volumes of

media content can be served to many users on demand with high performance (e.g., short download times or streaming startup latencies), high availability (due to fallback options to other CDN servers in case of a server failure), and at low costs (lower than if the content had to traverse the entire Internet from origin to destination for each user). CDNs are highly popular and widespread in today's Internet, with different deployment and business models: large companies running their own CDNs (e.g., Google), specialized enterprises providing CDN services (e.g., Akamai Technologies), or media companies (e.g., Netflix) making use of cloud computing/storage offerings.

Finally, since rich media distribution has become the dominant source of traffic in the Internet today, the basic principles of the Internet are being questioned. Starting more than 40 years ago, the Internet was basically designed to transmit text messages (e.g., e-mails), probably files of moderate size. The number of users and devices on the network, the type and volume of data/content to be transported, the diversity of applications and services, and the role of the network as a crucial worldwide infrastructure were unforeseeable in the initial years and decades when the basic principles and protocols were defined and realized. Thus, partly due to the digital media revolution, the Internet is seen as "*just working*," not more (Handley 2006). There is wide consensus that the Internet needs to be reworked in order to be able to cope with the future requirements. In recent years, therefore, intense activities on *Future Internet* research and experimentation are being performed, with mainly the USA, Europe, and several Asian countries pursuing their own programs. The European efforts are substantial, for instance with 128 collaborative ongoing projects in 2011 (Domingue et al. (Eds.) 2011). A major thrust of the Future Internet research is to address the growth and diversity of the media content and work out feasible and sustainable concepts for *Content-Centric Networking (CCN)*.

Increasing difficulties arise in today's rich media systems due to the *growing number and diversity of devices* requesting services and content, which will be discussed as the second example of challenges posed to RTD.

The sheer number of devices connecting to the Internet today is astounding. Again according to Cisco's forecasts, "*the number of mobile-connected devices will exceed the number of people on earth*" by the end of 2012, and there will be more than 10 billion such devices in 2016 (Cisco 2012). The main technological measures to keep up with the growing demand emerging from these devices have been discussed above.

The diverse capabilities and constraints of the devices pose even more serious problems. We all enjoy consuming rich media services on a variety of devices nowadays, including (Smart) TV sets, stationary and portable computers, game consoles, tablet computers, and smartphones. However, none of us wants to bother with configuring those devices or with selecting specific content variations and services fitting specific device characteristics like display size, operating system, or the media formats supported. End users just desire (and expect, meanwhile) to access the media content and services anytime, anywhere, and from any device, in the highest quality possible for the device in use.

These expectations have been anticipated and worked on in the multimedia communication community since more than a decade under the term *Universal Multimedia Access (UMA)* (Timmerer and Hellwagner 2005). Again, *interoperable* solutions are highly desirable, which is why MPEG started standardization efforts and addressed the technical issues in this problem domain. This resulted in the *MPEG-21* series of standards, called *Multimedia Framework*, which the author and his group actively contributed to (Timmerer and Hellwagner 2005; Burnett et al. 2006). Together with an earlier family of standards, *MPEG-7*, the *Multimedia Content Description Interface* (Manjunath et al. 2002), the basic means to realize UMA are provided.

At the core of the MPEG-7 and MPEG-21 standards are *descriptions*, also known as *metadata* (data about the multimedia data), that are intended to instruct and steer the delivery of the content to the end user devices. MPEG-7 basically describes the *content* properties, for instance, the coding format and the spatial resolution, frame rate, and bit rate of a video, but also provides general and semantic information like title, description, director, and actors of a movie, in a standardized way. MPEG-21 in contrast provides descriptions for the *usage environment* of the content, which means metadata specifying the device properties (e.g., display size), the characteristics of the networks traversed (e.g., the transmission capacity to be expected), the preferences and constraints of the end user with respect to the content (e.g., genre preferences), and even the natural environment the content is consumed in (e.g., brightness or noise level). In a sense, both the source (content) and the destination (usage environment) of the media consumption chain are captured. (There are many other elements to the MPEG-7 and MPEG-21 standards families, which for the sake of brevity will not be dealt with here.)

Given these descriptions, which basically define the problem of UMA in a technical sense, the media can be adapted for consumption by a specific end user on a specific device to provide the best possible experience. Thus, *multimedia content adaptation* has been a major thrust of RTD for many years, with many hard problems in the details being addressed and solutions being proposed. For example, the decisions on *where* to perform content adaptation and *what* precisely to do in that process and *how* are interesting optimization problems; several other issues are addressed in (Timmerer and Hellwagner 2005).

Unfortunately, the concepts worked out in the MPEG-21 Multimedia Framework have not been widely adopted in practice to date. From the author's point of view, the main reasons are the following. The MPEG-7 and MPEG-21 standards are very complex, amounting to hundreds or even thousands of pages of specification text and requiring complex software to be realized. Also, the solutions envisaged in MPEG-21 seem to be too "static" in hindsight, making it difficult to adapt media content to dynamically fluctuating network conditions, for instance. (This issue will be further addressed below.) Most importantly, apparently the (industry) players in the field do not see immediate benefits in implementing interoperable and principled solutions to the UMA problem; rather, they prefer to provide more or less proprietary platforms that deliver rich media content end to end with high quality and satisfying experience for the user.

A prominent example for the latter behavior is Apple Inc., with a largely closed multimedia infrastructure that delivers excellent services to the users, though. A more ad hoc solution is pursued by Netflix that reportedly are capable of streaming content to more than 700 types of devices (Netflix 2012), which they basically cannot control. To that end, each content item is “transcoded” into dozens of different formats and variants, and the specific version that best fits the user’s request and device is selected for delivery—a costly solution in terms of computational, storage, and maintenance effort.

Yet, there are noteworthy developments that originated from the MPEG-21 Multimedia Framework efforts and that are still attractive to the entire media world. One is the concept of practically useful *scalable media content* that directly addresses the urgent need of serving the diversity of devices. This concept denotes the approach to encode media content in *layers*, one base layer and one or several enhancement layers; the base layer contains the content in low quality, the enhancement layers, building on the base layer, enhance the quality progressively, proportionally to the additional amount of data delivered, and along several dimensions. For instance, for video these enhancements can pertain to the spatial domain (higher resolution pictures), the temporal domain (increased frame rate), and the quality domain (fewer or less severe coding artifacts). The obvious benefit of scalable content is that many different device types can be served from a *single* content source, with different (number of) layers being transmitted to, and processed and displayed by, different devices. The most promising example in that area is an extension of H.264/MPEG-4 AVC called *Scalable Video Coding (SVC)*, again a standard jointly developed by the ISO and the ITU (Schwarz et al. 2007; Hellwagner et al. 2011). While SVC approaches were part of earlier standards, SVC is novel and useful in that it provides competitive compression efficiency; the development goal was to incur only about 10 % overhead as compared to single-layer H.264/MPEG-4 AVC, which was basically achieved.

In response to the need to dynamically adjust the media streams to possibly rapidly varying network conditions, e.g., when a user is moving in a car, recent work focused on approaches toward *dynamic adaptive streaming* of multimedia content. Several companies had already introduced their own solutions in that direction, for example Adobe, Apple, and Microsoft. All these solutions make use of the most widespread protocol in the Internet, HTTP, and thus can exploit the existing HTTP Internet infrastructure, notably CDNs, as explained above. A general and interoperable solution was, however, not available until the Third Generation Partnership Project (3GPP), a standardization organization in the mobile broadband communication field, and later on MPEG integrated dynamic adaptive streaming into their portfolios (Stockhammer 2011; Sodagar 2011). MPEG recently released the *Dynamic Adaptive Streaming over HTTP (DASH)* specification, a standard solution for HTTP streaming and adaptation of multimedia content that enables interoperable communication between servers and clients by different vendors (Chiariglione 2012)

Simply put, the basic principle is that content is encoded and stored on the HTTP server(s) in various forms called *Representations* that may differ in terms of coding

format, quality, spatial resolution, bit rate, language, and the like. Furthermore, the content is temporally divided into *Segments*, each typically a few seconds long; each segment is accessible by a unique identifier and can be fetched using standard HTTP GET requests. The content structure and the identifiers are described in a standardized XML document called *Media Presentation Description (MPD)*, kind of a directory of the content offering on the server(s).

A client device accessing the content is initially provided by the MPD; it reads and interprets the MPD to find out which content representation is desirable and appropriate for the device under the given network conditions. Then, the segments (or parts thereof) are being fetched one by one using HTTP GET requests. When the network conditions become better or worse, subsequent segments can be requested in higher or lower quality from different representations. This client-driven approach, in contrast to typical earlier server-driven streaming approaches, is highly practical, well proven, and flexible since each client can select, on its own, the best content representation and adjust that decision on a segment-by-segment basis when network bandwidth conditions change, for instance. Moreover, it runs “on top of” the established protocols and HTTP/CDN infrastructure of the Internet, avoiding changes to be made in the Internet. Finally, it can be combined with scalable media coding to form different content representations.

The final challenge that requires technology developments is the quest for *higher quality and novel forms of media content*. Today, a growing number of users are not satisfied with 2D content, not even in HD format. 3D content is regarded as exciting, and the content industry pushes very high-quality and 3D content into cinemas, for example, to increase revenues. There is pressure that even better or richer content be made available for the home environment as well: “*Time for Video to Become 3-D*,” as (Chiariglione 2012) puts it.

Not surprisingly, RTD has been going on in this area as well for several years. One notable development is the specification of *Multiview Video Coding (MVC)*, a 2008 extension of the H.264/MPEG-4 AVC standard, which defines efficient coding of multiple camera views (Chiariglione 2012); MVC has been adopted by Blu-Ray 3-D (Tanimoto et al. 2012). Building on MVC, a current project of MPEG is *3D Video (3DV)*, the goal of which is “*to define a 3-D format that enables both advanced stereoscopic display processing and improved support for autostereoscopic N-view displays*” (Chiariglione 2012). These efforts are destined to finally bring about *Free-viewpoint TV (FTV)*, in which the user should be able to freely choose and change viewpoint in 3D space (Tanimoto et al 2012).

Substantially higher quality of 2D content is another direction that is being pursued; improvements in temporal and spatial resolutions, in color fidelity, and in pixel depth (bits per pixel) are being envisaged. Work on *Ultra-HD (UHD)* content and display technology is under way, with $4k \times 2k$ resolution currently being targeted. Again, a joint team of ISO and ITU is working intensely in this area, currently developing a *High Efficiency Video Coding Standard (HEVC)* (Chiariglione 2012).

The interested reader is recommended to consult the literature cited above and further reading provided therein.

14.4 Future Trends and Challenges

Given the enormous advances of rich media services and supporting technologies as sketched above, the question is exciting, “where is this heading to?”

Several papers in (Jayant (Ed.) 2012) provide highly informed and enlightening answers: *truly immersive, rich media communication* as well as *mixed-reality systems* will be among the next frontiers (Apostolopoulos et al. 2012; Barba et al. 2012; Steinbach et al. 2012).

The field of *truly immersive communication* is driven by the vision “*to enable natural experiences and interactions with remote people and environments*” (Apostolopoulos et al. 2012). Progress has been shown recently by the advent of high-end video-conferencing/telepresence systems; however, these systems are expensive and require all participants to sit in specifically equipped studios.

There are many challenges ahead, both for research and technology development and for understanding, representing, and serving the *users*, the humans who are central to the immersive experience. The notion of *quality of experience* must be understood and quantified along several dimensions (Jayant (Ed.) 2012), which requires interdisciplinary research, at least involving computer scientists, telecommunication experts, and psychologists.

The vision of immersive communication is excellently structured and illustrated in (Apostolopoulos et al. 2012) as shown in Fig. 14.3, which is a simplified version of a diagram of that paper. The important dimensions in immersive communication are to support (1) *natural conversation* among participants and (2) *information sharing* as conveniently as possible.

As an example, consider immersive communication systems. Today’s high-end telepresence systems, exemplified by HP Halo and Cisco Telepresence, give participants at different sites the feeling of being in the same room, by using a wall of displays, life-size video feeds of remote users, and high-quality audio. More details and snapshots are given in (Apostolopoulos et al. 2012). One future direction could be toward virtual 3D telepresence, by 3D-capturing the movements of remote participants and the objects in the remote environment, analyzing the data, transmitting it, and locally rendering the remote people and items on stereoscopic displays. This description makes obvious that the quality of experience of the users must be the definite yardstick when designing and realizing such an environment. It is interesting to note that the communication systems mentioned above were “*conceived by veteran storytellers in Hollywood*” (Apostolopoulos et al. 2012).

Haptic communications is regarded as an important part of immersive systems by (Apostolopoulos et al. 2012) and is technically further explored in (Steinbach et al. 2012).

With modern smartphones and cloud systems to back them up in terms of computational power and storage space, *mixed-reality systems* are “*moving out of the lab and into the real world*” (Barba et al. 2012). The “classical” notion of *augmented reality (AR)* enriches the environment or objects therein with computer-generated content, for instance with images or maps, and allows interaction with

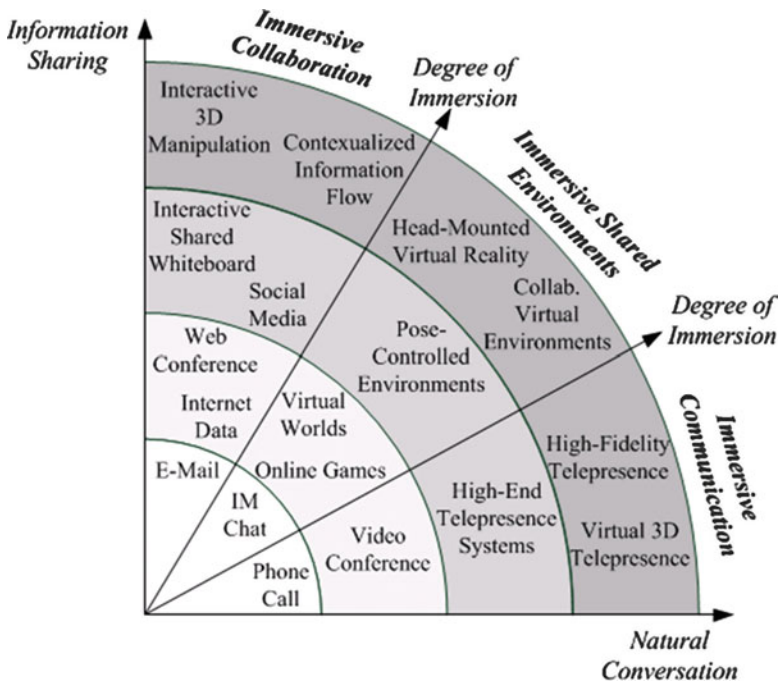


Fig. 14.3 Toward immersive environments [adapted from Apostolopoulos et al. (2012)]

this content. This can be taken further into what Barba et al. (2012) call *mixed reality (MR)*, denoted as integration of “*physical and virtual elements into a new hybrid reality.*” Clearly, this new reality should be 3D, posing the challenge to align virtual content with the physical environment as naturally and seamlessly as possible in three dimensions, on our mobile devices that today still by far lack the computational, communication, and storage capabilities to evoke true immersive feeling. But progress is being made, as illustrated in (Barba et al. 2012) by means of several examples.

It will be exciting to monitor the further technological advances that will be made and to experience novel applications and services that will emerge. The interplay of technology and rich media applications will continue to thrive; in the words of Apostolopoulos et al. (2012): “*as technology pushes (i.e., supplies), society pulls (i.e., demands).*”

Questions

1. Why does coding (compression) of audiovisual material work so well? Give an example.
2. Why is standardization and interoperability important in the media world?
3. What was the impact of the MPEG-2 video coding standard?

4. What was specific about the scope of the MPEG-1 and –2 standards and what did this entail?
5. What are the reasons (sources) of the growing demand of multimedia content in the Internet nowadays?
6. What are technological responses to this growing demand?
7. What is a content delivery network (CDN)? Create a rough sketch of a CDN and outline its benefits.
8. Why does the diversity of multimedia-enabled devices pose problems for multimedia communication? What do the MPEG-7 and –21 standards provide to ease these problems?
9. What are the benefits of Dynamic Adaptive Streaming over HTTP (DASH)? What are the advantages of a client controlling the media streaming process?
10. What does immersive communication denote?

Discussions

1. In your opinion, which features should a future immersive communication system (e.g., a 3D video conferencing system) have in order to feel “natural”?
2. Discuss what the concept of quality of experience (QoE) might mean in detail, concretely, possibly quantitatively. Why is this important for immersive communication? Recall your own personal “experiences” with IT devices and software.
3. Do some research and reading about so-called “second-screen applications”, i.e., people using two devices when consuming multimedia content or services, e.g., TV and smartphone. Do you think that this will be the future of media and entertainment or information?
4. Can you find counterexamples for the position of the chapter, i.e., that there are both “technology push” and “application pull” forces driving the media domain. In other words, are there examples for notable developments that work(ed) just one way or the other?

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Technology, Convergence, and the Internet of Things **15**

John N. Gathegi

Chapter Objectives

- Discuss the concept of technology convergence
- Introduce the “Internet of Things”
- Discuss the legal, security, and privacy implications of the “Internet of Things”

15.1 Introduction

That technologies are converging has become a truism as ubiquitous as the term “Internet.” The trend is rapidly transforming society on a global level, defining market structures, social interactions (Ebecken 2011), individual politics, cultural production, and consumption (Valcanis 2011). A focus on convergence of technology traces its origins to the 1990s discussion of multimedia. The discussion then centered around the idea of integrating old media with new media to create an “interactive” user-centered environment, driven mainly by the multimedia industry (MacManus 2012a).

The defining characteristic of technology convergence is that it enables the seamless access, at any time and from anywhere, to a vast and varied array of information sources (Neelameghan and Chester 2007). Pierce (2010) sees the trend as pointing to a convergence of technologies to the point where increasingly powerful digital devices such as smartphones and tablets provide a single point of access. In media, for example, the technologies driving convergence are powerful mobile devices, broad network connection, smart interfaces, and easy-to-use software (Naone 2010), as well as the proliferation of Internet-connected devices and

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an expanding applications ecosystem. This has resulted in an expansion of Internet-enabled portable consumer electronics, including IP-enabled entertainment devices, such as the ever-evolving television set (MacManus 2012a).

Scholars have noted an increasing recognition of the need to converge disparate applications and dedicated systems infrastructure through the implementation of common communication platforms (Sampson 2010). This technological convergence enables the implementation of communication services based on different technologies for the benefit of both providers and users (Arruda-Filho and Dholakia 2009).

15.2 Current Developments

Not too long ago, one needed separate devices to perform various functions: a camera to take pictures, a mobile phone to take and place voice calls, a CD player (remember the Sony Walkman?), an MP-3 player, a computer and modem to connect to the Internet, a PDA to remind you of appointments and to manage contacts, a mobile GPS device, among others. Now, the mobile smartphone not only offers access to voice and Internet connectivity, but also routinely has a high-definition camera, incorporates an MP-3 player, provides access to your email, has a calendar to remind you of important appointments, manages contacts, provides radio reception, and enables connectivity across many social networks. In short, utilizing a smartphone, the user can surf the web, email, connect to social media networks, play multimedia applications, download and upload content onto the Internet (for retrieval using general and specialized web browsers), send text messages, talk to other users, and find directions to a destination.

This convergence of technologies has encouraged the development of multimedia communication: integrated presentation of sound, video, graphics, and text, which is also interactive. Examples of these abound in streamed content over the Internet, as well as a combination of functions in mobile phones and tablets. It has also spawned advances in unified messaging technologies, which is essentially the integration of different communication methods such as e-mail, text, sms, voicemail, and video messaging into one “unified” form. A variety of devices can then be used to access all these communication types. Already, applications are available that are essentially a unified inbox for voicemail and email that is accessible through a mobile device, phone, or a computer.

Multimedia communication is essentially an integration of telecommunications and data communication services, based on the simple premise that communication of any kind can be turned into digital data. The Internet supports communication of digital data. Thus different communication services and types can be bundled together to operate seamlessly over the Internet. An example that is dramatically altering the telephone industry is Internet telephony, which threatens to kill traditional telephony.

The mobile TV represents an example of technology convergence of television mobile telephones, and computer tablets (Schuurman et al. 2011). The market for

such IP-enabled portable consumer electronic devices for home entertainment is expected to grow from 2.2 billion devices shipped in 2011 to 3.5 billion shipped in 2016, and a mobile industry group projects a worldwide growth from 9 billion to 24 billion for devices that include IP-enabled washing machines and Internet-connected cars (MacManus 2012a), making for a US\$1.2 trillion industry by 2020 (MacManus 2012b).

Convergence, however, is not only about accessing all your information from one device (e.g., smartphone), but also about using any device to access all of your information from any location. Thus, there has been an increasing demand for converged Wi-Fi/cellular applications and services, as communication costs get lower access and voice/data services improve (Celine and Fraser 2009).

The benefits of communication convergence are not confined to the entertainment sector. An article titled “Wireless health care” (2010) that appeared in the *Economist* demonstrated that health care is being transformed by the convergence of wireless communications, social networking, and medicine. The article described some applications of technological convergence in the health field. For example, the use of smartphones and electronic health records empowers both doctors and patients, and mobile health technologies through the use of cell phones and mobile computers are helping deliver health care to remote places.

MacManus (2012a) notes that we are not only witnessing a proliferation of Internet-enabled hardware, but also that software is fulfilling its part in convergence. He gives as an example Showyou version 3.0, the video aggregator application that has been described as the “remote control for web video,” as it makes it possible to use a variety of devices such as an iPad, iPod, iPhone, Kindle Fire, and Apple TV to watch videos. But more importantly, MacManus (2012b) reports that at the 2012 Consumer Electronics Show (CES), over half of all devices were Internet-connected, and that nontraditional devices such as TVs, cars, refrigerators, and washing machines made up nearly 60 % of those devices, which takes us to the next section, a discussion of when ubiquitous connectivity brings the future into the present.

15.2.1 Internet of Things

The technologies we have discussed above have one thing in common: they are essentially based on the power of computing and computer programming to create the digital environment that allows them to work seamlessly together. The Internet is an essential backbone that allows this digital environment to become a reality. MacManus sees the Internet as “empowering everything. . .around us” and declares it “the next big thing in computing” (MacManus 2012b) that will create an ambient intelligence around us.

We already discussed above the trend in Internet connectivity of nontraditional devices. The “Internet of Things” is a not-so-new phrase for how common devices are now enabled to connect to a data network, a concept described as inter-device internetworking (Gershenfeld et al. 2004). The term was first introduced in 1999 by

Kevin Ashton as the title of a presentation he made at Procter & Gamble, which sought to link the then new idea of Radio Frequency Identification (RFID) to the then hot topic of the Internet (Ashton 2009). The first international conference on the Internet of Things appears to have been held March 26–28 in Zurich, Switzerland (Floerkemeier et al. 2008), almost 10 years later.

While there is no consensus on a definition (Medaglia and Serbanati 2010; Kortuem et al. 2010), Kopetz (2011) describes the Internet of Things as based on the idea of creating “smart objects” by embedding technology (such as enhanced-intelligence Radio Frequency Identification, or RFID) in physical things and then connecting them to the Internet, effectively creating a connection between physical and virtual objects (Medaglia and Serbanati 2010). These smart objects are not only activity-aware in terms of understanding the world around them in relation to activity streams and events, they can also be policy-aware in terms of interpreting activities and events in relation to predefined organizational policies (Kortuem et al. 2010). Other terms that have been used to convey essentially the same idea are “ambient intelligence,” “ubiquitous or pervasive computing,” “ubiquitous networking,” or “invisible computing” (Wright et al. 2010). We will use the term Internet of Things because, while the other terms can sometimes be used in very specific ways, we want to make sure our meaning is broad rather than narrow.

Bandyopadhyay and Sen (2011) view Internet of Things as a world where physical objects are connected to enable them to be active participants on the Internet in terms of exchanging information about them and their surroundings. Thus, the essence of the Internet of Things is the integration of disparate technologies such as embedded sensors, near-field communications (NFC), and real-time localization with communications solutions, applied to both physical and virtual worlds. This has impacts on varied areas such as transport and logistics, healthcare, smart home and business environments, as well as personal and social domains (Atzori et al. 2010).

Already, Internet-connected cars are becoming mainstream, with the 2013 Ford Fusion, for example, touting its connection to the Internet as its main feature (MacManus 2012b). Two years earlier, scholars were already painting a picture of robotic taxis that cruised driverless taking account of real-time traffic movement data and avoiding jams, which could be flagged down by pointing a mobile phone at them, and they would know where you were going even before you got in (Atzori et al. 2010). The technology of using mobile phones to interact with tagged physical smart objects has been referred to as PMI—physical mobile interaction. This technology is already quite common in information retrieval and dissemination, mobile phone payments, and other applications (Broll et al. 2009). We see it daily on magazine cover, flyers, and posters as little squiggly squares known as Quick Response (QR). Using a smartphone, the user can scan the QR code and get multimedia information on an object delivered through the Internet on a web page.

In the *Internet of Things*, Chui et al. (2010) describe six types of applications that are emerging, and which they group into two broad categories (a) information and analysis and (b) automation and control. In the first category, they include (1) tracking behavior, (2) enhanced situational awareness, and (3) sensor-driven

decision analytics. The information and analysis category include the process of embedding sensors into products to track movement and monitor interactions, and even recreate events such as collisions. Computer black boxes in newer cars, for example, are becoming commonplace, and those connected to the Internet are in the near horizon. This will have an impact not only on the auto industry, but on the insurance and media industries as well. Sensors that track customer's eyeballs as they look at store items to measure how long they linger will have an impact on marketing and store layout.

In the automation and control category, Chui et al. (2010) include (1) process optimization, (2) optimized resource consumption, and (3) complex autonomous systems. This category includes the use of sensory feedback to start, modify, and stop processes, with the goal of optimizing process and the consumption of resources. This is especially important in data centers, as we move into cloud computing, and also has applications in the auto industry, as in helping stop or avoid collisions by use of collision avoidance systems.

15.3 Privacy and Security Challenges

Privacy is the notion that individuals have some degree of control over the dissemination of their information. At the government-to-individual level in the USA, this is enshrined in the US Constitution's Fourth Amendment against unreasonable searches and seizures, and the Fifth Amendment's right against self-incrimination. When it comes to private relationships, this notion is less well developed in the USA than it is in the European Union countries. While the USA has its defamation and invasion of privacy laws, nothing that comprehensively protects commercially transacted private user data on a national level is available. North American privacy doctrines are based on the notion of "reasonable expectation of privacy." But in the Internet of Things world, if everything is connected, there would be little reasonable expectation of privacy.

Sarma and Girao (2009) see challenges arising out of the increase in ways for people to be reachable, whether voluntarily or involuntarily. Specifically, they are concerned about the loss of privacy and security risks with personal data. Atzori et al. (2010) note that while most issues of privacy on the Internet arise out of users interacting actively with the Internet, those issues will arise with passive or no involvement in the Internet of Things environment. To the extent everyday objects around us become part of the Internet in the Internet of Things world, the risk to privacy and security is similarly distributed over a wider sphere (Atzori et al. 2010).

Atzori et al. (2010) offer three reasons why the Internet of Things is vulnerable to attacks (1) components are often unattended making physical attack easier, (2) most communication is wireless, raising the possibility of eavesdropping, and (3) most components are passive and will thus have low energy and computing resources, making their capacity to implement complex security schemes difficult. But they also discuss solutions to address these and other problems, such as authentication and data integrity. Indeed work is already progressing to enhance

hitherto passive components with application logic, enabling them to assess their environment and communicate with each other and with human users (Kortuem et al. 2010).

Kranz et al. (2010) point out some problem areas with the widespread use of smart objects in the Internet of Things environment. First, they point out the potential for radically changing the look and behavior of an object by adding smart functionality. Second, they point out the converse problem of invisibility, where the functionality is so well hidden that there is nothing in the appearance of the object to alert the user that there is interaction going on between the user and the object—they call this the invisibility dilemma. In this respect, they propose that a user must always be able to identify digitally enhanced artifacts. This leads to their third point, which is that there is a difference between explicit and implicit user interaction with a smart object. In the former situation, the user is fully aware that the object is a smart object, and is using the object to achieve some goal. In the latter, the user, while aware of smart objects, is simply concentrating on using the tool, and is not alert to the fact of the interaction with the system. In this context, Sarma and Girao (2009) argue that not only should the user be able to identify smart objects, smart objects too should be able to identify the user, implying perhaps that the smart object would refrain from interacting with the wrong user. Nevertheless, the problem of users being “followed” without their knowledge, and leaving traces of themselves in cyberspace, will continue (Weber 2010). Some countries, notably those within the European Union, have taken measures to begin addressing these problems, starting with regulations on implementing privacy and data protection guidelines in RFID applications (Weber and Weber 2010).

Privacy has also been discussed in terms of human rights. Both Art.12 of the Universal Declaration of Human Rights and Art. 17 of the International Covenant on Civil and Political Rights protect the right to privacy as a human right. This means individuals should be free from national and international surveillance and should be able to control the way information about them is used. In the Internet of Things context, individuals should be able to deactivate their own tags. Perhaps, as the European Union suggests, individuals should be able to disconnect from the networked environment at will. But human rights are generally defined in terms of state actor versus individuals, although sometimes a state may be obliged to step in to stop non-state actors who violate human rights (Weber and Weber 2010).

Security and privacy are related, as threats to the former are threats to the latter. In the Internet of Things world, where everything is connected to everything else, security challenges are likely to be myriad and complex. With the ubiquitous RFID technology, for example, Weber and Weber (2010) note some likely threats. Attackers could, for example, deactivate RFID tags to stop them from functioning. They could also clone tags that would then give fake tag responses, or they could integrate malware into the RFID tags to launch an attack later. In this context, organizations may want to invest in in-house privacy and security officers.

15.4 Legal Challenges

Advances in technology have always brought with them new legal challenges. In the Internet of Things environment, for example, many devices will be able to communicate with each other and make decisions without human intervention (stopping a car before an accident, for example). However, not all such decisions will be harmless. The challenge then will be to fix legal liability for decisions automated systems make that cause harm to humans or other systems. But because of the global nature of the networked environment, a further challenge will be at what level to fix such legal liability.

Weber (2010) poses the question whether there is a need for international or national laws to deal with the challenges in the Internet of Things. He suggests that laws will need to be developed to address different areas, for example (1) right to know—which mandates that the user is made aware of data collection, and the type of data collected, (2) prohibited data collection—which addresses areas where society decides to limit data collection (sensor-embedded beds and shower rooms may be a good example), and (3) information technology security legislation—laying minimum requirements for consumer data protection.

The current Internet of Things legislative model in the USA and elsewhere is industry self-regulation. The major drawback of self-regulation is the lack of a legally enforceable mechanism; only those principled or motivated enough will participate in self-regulation because often there are no sanctions for noncompliance (Weber 2010). The theory is that the market will self-correct to weed out non-compliers. Weber and Weber (2010) advocate self-regulation. They argue that the Internet of Things is much too important to be left unregulated, but that international agreements will be hard to come by, because most Internet of Things users are private businesses and individuals. They nevertheless proceed to describe what an international legislative regime might look like.

The widespread availability of customized information will challenge many areas of the law. The notion of “freedom of contract,” for example, will need to be revisited. Peppet (2012) argues that the old notion that there was asymmetrical information between consumer and sellers who offered standard form contracts might no longer apply, because the consumer will have all the information he needs, and more—highly salient and easy available, suggesting that courts will be more willing to enforce consumer contracts as written.

Privacy legislation is another area that will face new legal challenges in the Internet of Things environment. Weber and Weber (2010) note that not only are privacy concerns different in different regions of the world, it would still be gigantic task to craft universal legislation even if the concerns were identical. However, there is precedence for international legislation. RFID, for example, relies on radio, the frequency allocation of which is subject to national and international regulations, such as those from the International Telecommunication Union (ITU). Weber and Weber (2010) suggest, for example, a universal frequency for RFID tags, to promote interoperability.

In the USA, Lyons (2010) argues that the federal government is best placed to regulate economic issues brought about by the technology convergence. It is able to do this from a unified national platform-neutral approach as opposed to the current situation where some technologies (e.g., cable and TV) face different regulatory treatment as a result of historical accident. But there are challenges at the federal level as well when it comes to dealing with the individual states. For example, even though the Telecommunications Act was meant to eliminate outmoded regulations and do away with local phone service monopolies, it still maintained state jurisdiction over local cable and telephone networks (Lyons 2010, p. 433).

Other countries face similar challenges. In China, for example, over ten different departments are charged with regulating the content of Internet publications. But because of the convergence of ICT technologies, this has proved to be an insurmountable challenge that not only directly impacts the growth of the Internet in China, but places a strain on that country's informational engagement with the international community (Weiguang 2009).

But perhaps it is in the intellectual property area that we will continue to encounter enhanced new and old challenges.

15.4.1 Intellectual Property Challenges

One of the remarkable features of the convergence of media technologies is that it has spawned a "remix culture." This may be in no small way attributable to the ease with which material can be copied, used, mixed, transformed, and recast. Many young people brought up in the Internet era, the so-called "digital natives," have come to expect that they will be able to take content from the web and manipulate it to suit their needs, often completely unaware of the rights-issues involved. In the Internet of Things, corporations will be drawn into the remix culture, as it will often be necessary to combine different sources of data from different smart objects to make relevant decisions.

In this context, current copyright law will be stretched. The protection of software as programming will come up against the protection of content, and major challenges will arise in the attempts to protect multi-format, multimedia content and accessories or artifacts. If everything is communicating with everything else in the Internet of Things, the problem of identifying rights holders will intensify.

In the area of copyright, for example, the problem of determining copying will get even more complicated in the Internet of Things environment. The classic distinction between ideas and the expression of ideas will get foggier, because smart object will not only be capable of synthesizing information to create new ideas, which are not protected under copyright, but also be able to express those ideas as well, to which copyright applies. Thus the concept of the author, whether individual or corporate, will need to be revisited. That copyright law is sensitive to changes technology can be seen from the establishment of the World Intellectual Property Organization's (WIPO) Copyright Treaty, which spawned the US Digital

Millennium Copyright Act (DMCA), that was necessitated by the evolving nature of technology and the convergence of many information and communication technologies.

Much of the content being exchanged among smart objects will probably be in contexts quite different from what the creator intended, thus raising the problem of infringement by the creation of derivative works. While it might be hard to argue that a car that parks itself is a derivative product of a GPS program, more down-to-earth battles have already emerged in this arena. For example, not too long ago, Amazon wanted to introduce Kindle 2 which would have a text-to-speech feature allowing it to read content aloud. Audio book publishers were outraged and resisted the move. In the Internet of Things world, such transformations will occur almost routinely.

Copyright will not be the only intellectual property problem area in the Internet of Things environment. Oppenheimer (2010) notes that the lines between what is protected by copyright and what is protected by patent have become blurred by convergence of technology in software, communications, and media. Because of many technologies converging, Paradise (2012) predicts that there could be a problem of overlapping patents and claims that cross multiple technologies.

As smart objects communicate with each other and with humans, there are bound to be trademark issues. Situations such as the trademark fight between CISCO and Apple will probably increase. CISCO refused to grant Apple licensing rights to the iPhone, forcing Apple to go ahead and introduce the phone, and triggering trademark litigation between the two companies, but the two later reached an agreement to cooperate.

Smart objects will let sellers connect with buyers, without regard to trademarks. It will be up to trademark owners to police and protect their trademarks, as is the case now. Already, we have seen that search engines can display many trademarks, generating claims of infringement, or being accused of misleading consumers into buying trademark-infringing or trademark counterfeiting goods. Unlike copyright law, there is no regulation for Internet intermediaries for trademark infringement.

These and other intellectual property issues will become even more complex with the licensing nightmare that is bound to occur in the Internet of Things environment, where smart objects are communicating with each other and with humans in real time. It will probably be quite difficult to license all elements of a technology and its manifestation (content) across myriad smart objects and communicative technologies, and rights management issues in general will continue to be a hot topic. Organizations may want to establish executive departments to deal exclusively with the enforcement and compliance of intellectual property.

Implications and Conclusions

We are now connected to the Internet by the things around us; it is no longer necessary to go sit in front of a computer to get connected. This all-around connectivity made possible by technology convergence will have implications not only for how individuals in society interact with one another, but also how

groups and organizations communicate. It will have an impact also on how marketing and message delivery is done, as it will force marketers and other message deliverers to customize their messages. Ironically, the customization will be made easier by the convergence, because each user action, whether listening to a particular type of music, streaming content in the car, or opening the refrigerator to remove or restock, can be logged, analyzed, and used to further customize the message to that individual user. We have already seen billboards in Japan that change their message in response to the type of observer before them (Chui et al. 2010). There is likely to be continued development of multimedia metadata and semantic management, in order to help interoperability, management, and intelligent access to multimedia.

We can expect continued technology convergence, and specifically the Internet of Things environment to have wide ranging impacts on organizational structures, decision-making, and management, among others. However, in addition to the privacy, security, and legal concerns we have discussed above, there are likely to be lingering digital divide concerns because access to the Internet of Things world will not only be a matter of social justice, but a matter of necessity. Last but not least is the consideration to human health, when, for example, billions of RFID tags are emitting electromagnetic energy all around us, and individuals find it difficult to disconnect from the interconnectivity.

Exercise

Look around you and make note of the several objects that surround you. Now walk around in the neighborhood and make more notes of objects that you see. Given what you have read in this chapter, draw a chart of possible interconnectedness of these objects as they relate to you, your family, and your colleagues, in terms of their value as possible media. Compare your findings with a friend, classmate, or colleague.

Questions for Discussion

1. What is the defining characteristic of technology convergence?
2. Describe the ways in which you have seen the television set evolve in your lifetime.
3. Do you think television will survive the next 10 years? If yes, why and in what form? If no, why?
4. Why do you think (or not) the Internet of Things would be vulnerable to attacks?
5. What are some of the copyright challenges you would envision occurring in the Internet of Things environment?

Questions for Reflection

1. Some countries might more readily adapt to the concept of the Internet of Things than others. Think of the different political systems between the USA and China, for example, and discuss how the two countries might deal with the concept. Discuss the specific and unique challenges you anticipate each country to face.
2. What do you think of the concept of the Internet of Things? What are the pros and cons of having ubiquitous smart objects.
3. Discuss a scenario where you would marry the notion of smart objects, communicative media, and health. How and what would you want to achieve?
4. Discuss the idea that people would become connected to things, whether they were willing to be connected or not. Should individuals have the right and capacity to disconnect? How would that affect the entire notion of the Internet of Things?

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Towards a Better Understanding of Mobile Marketing: Theoretical Construction of Ubiquity

16

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Chapter Objectives

1. To explicate the importance of mobile marketing as a new business channel.
2. To conceptualize the construct of ubiquity based on a qualitative exploration.
3. To empirically validate the construct of ubiquity.
4. To draw theoretical and managerial implications based on the empirical validation of the ubiquity.

16.1 Introduction

In recent years, marketing is becoming more and more ubiquitous. Consumers are now accustomed with a multifunctional touch screen, which replaced a tiny keyboard, in searching information in smartphones. Typically, this adoption and development of hand-held device is called “mobile commerce” (hereafter, m-commerce). Apple’s iPhone, Google’s Android, and RIM’s Brackberry are among the most sold that capture more than 90 % of worldwide market share (Brown 2011). Compared with “traditional” mobile phones, these smartphones offer more advanced computing ability and seamless connectivity, enabling users to enjoy a more ubiquitous environment. For example, both iPhone and Android utilize the App Store or Market, respectively, where users can download a diverse range of applications without typing URLs. As of February 2011, the number of App Store downloads exceeded 10 billion worldwide (Apple 2011). In addition, the rapid penetration of location-linked Web sites (e.g., TripAdvisor, Urbanspoon), QR code, Bluetooth, and NFC make smartphones a powerful marketing tool.

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However, while industry has shown rapid technological innovation and growth in terms of hardware, OS, and applications, our understanding toward ubiquitous marketing remains limited. Academic research in this area primarily focuses on technical or otherwise managerial aspects, while our basic knowledge on ubiquitous nature of mobile marketing has still been in its infancy. Prior research collectively agrees that the mobile device is unique and distinct from traditional media because of its ubiquitous capacity. That is, services offered by mobile devices are omnipresent and almost always available with immediate and continuous connection. This unique characteristic of the mobile device was conceptualized as early as 2002 by Balasubramanian et al. (2002), Watson et al. (2002), and Barnes (2002) in terms of time and spatial flexibility. On the other hand, little attention has been paid to the formal scale development of ubiquity.

To fulfill this research gap, this chapter introduces a preliminary phase of our perceived ubiquity scale development. Qualitative research based on interpretative epistemology is combined with quantitative surveys. We believe that this scale development takes a significant step on the path toward a comprehensive understanding of m-commerce. The conceptualization of ubiquity also benefits marketers and advertisers who attempt to reliably inform that they seek to fulfill their target customers' needs and interests at the right time and the right place.

In what follows, we organize the chapter in the following manner. We first present a review of the relevant literature regarding the definition of ubiquity concept. Then, we establish our theoretical base in terms of internal versus external states. Next, we explain grounded theory approach that is used for initial conceptualization and item generation. On this basis, the ubiquity scale is developed and validated by a quantitative survey. In closing, theoretical as well as managerial implications are drawn, while important limitations are recognized and future research directions are suggested.

16.2 Basics of Mobile Marketing

Mobile marketing emerged in the late 1990s with a simple commercial messaging through SMS (Short Message Services). However, the progress toward a more advanced level of mobile marketing was slow, primarily due to expensive mobile Internet connection and low usability of the device. This situation has drastically changed when iPhone was introduced in 2007. Along with the Android and the BlackBerry, these smartphones now offer a broad range of mobile applications and related transaction services (Okazaki 2012).

We need to begin this chapter by defining the term “mobile marketing.” The Mobile Marketing Association, or MMA (2009), defines mobile marketing as “a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network.” There are two critical points in this definition:

1. The “set of practices” includes “activities, institutions, processes, industry players, standards, advertising and media, direct response, promotions,

relationship management, CRM, customer services, loyalty, social marketing, and all the many faces and facets of marketing.”

2. To “engage” means to “start relationships, acquire, generate activity, stimulate social interaction with organization and community members, [and] be present at time of consumers['] expressed need.” Furthermore, engagement can be initiated by the consumer (“Pull” in form of a click or response) or by the marketer (“Push”).

The terms “mobile marketing” and “mobile commerce” sound the same, but they are slightly different. Loosely defined, mobile commerce (or m-commerce) is “the one or two-way exchange of value facilitated by a mobile consumer electronic device (e.g., a mobile handset) which is enabled by wireless technologies and communication networks” (MMA 2010). The driver of this value exchange is mobile marketing. Without mobile marketing, neither selling nor buying would occur, since the existence of goods or services would not be communicated to consumers—hence no consumer response (Okazaki 2012). Without marketing, we would not have any distribution channel that moves products and services from businesses to consumers. But the MMA definition implies that mobile marketing covers many more “faces and facets” of marketing, including public relations, events and experiences, CRM, and loyalty management.

16.3 Prior Research on Ubiquity

The Merriam-Webster Dictionary (2005) defines “ubiquitous” as “existing or being everywhere at the same time.” In computer science, the concept of ubiquitous computing arose from the Xerox Palo Alto Research Center (PARC), creating an environment in which each user continuously interacts with new kinds of wirelessly interconnected computers (Weiser 1993). There the computers are available but invisible to the users throughout the physical environment. Marc Weiser called this next-generation computing environment “ubiquitous computing,” and it is a complex integration of human factors, computer science, engineering, and social sciences. In his vision, computer hardware and software will become an effective part of our environment, performing tasks that support our broad purposes without our continual direction, thus allowing us to be largely unaware of them (Weiser 1993). It is in effect the opposite of virtual reality where virtual reality puts people inside a computer-generated world, ubiquitous computing forces the computer to live out here in the world with people. Thus, ubiquity means being invisible or seamless so that the computer does not intrude on users’ consciousness. More recently, The Global Information Technology Report (Dutta and Mira 2010) notes that “Internet ubiquity offers connectivity to people wherever they are, whenever they want to access the network, with the device of their choosing. . . . Above and beyond Internet availability, ubiquity means that the Internet follows users seamlessly, rather than users searching for it as they move about during the day from place to place, device to device” (p. 37).

As a stepping stone of the study, an extensive literature review was performed in multiple steps. First, an exhaustive search of the mobile marketing literature was attempted in various disciplines, including management, marketing, business, engineering, information science/management, finance, and operations research. We used keywords such as “mobile commerce,” “mobile marketing,” and “mobile promotion” among others. The following databases were examined: ABI/INFORM Global, Academic Research Library, Arts & Humanities Full Text, EBSCOhost Business Source, Emerald, Elsevier SD Freedom Collection, IEEE Xplore, and Wiley InterScience. Second, we selected only those journals currently indexed in either the Social Science Citation Index (SSCI) or the Science Citation Index (SCI) of the ISI Journal Citation Report. This procedure is in line with most recent citation analysis in business and marketing (Zou 2005). The ISI Journal Citation Index has been widely recognized around the world as “the most authoritative measure of the impact of an article on the related literature” (Zou 2005, p. 101). Next, each article was manually evaluated to see if the main focus was on commerce or marketing, rather than technology (e.g., software development, programming). Finally, we singled out only studies that offer explicit reference to, or definition of, ubiquity. On this basis, 13 articles from 12 journals were chosen.

As expected, the majority of the studies have unanimously claimed that ubiquity is one of the most important attributes in m-commerce. Wastson et al. (2002) offer a pioneering discussion and describe ubiquity as synonymous with omnipresence: “not only that they are everywhere but also that they are, in a sense, ‘nowhere,’ for they become invisible as we no longer notice them” (p. 332). Perhaps more commonly, however, a notion of ubiquity has been related to an “anywhere, anytime” nature (Balasubramanian et al. 2002), and defined as a combined flexibility of space and time (Kleijnen et al. 2007; Ko et al. 2009; Okazaki et al. 2009; Scharl et al. 2005) which is analogous to ubiquitous availability (Gao et al. 2009).

Nonetheless, the comprehensive understanding of this concept has been far from optimal. None of the studies we reviewed has explored a full dimensionality of ubiquity, nor proposed a formal measurement for this construct.

16.4 Theoretical Framework

16.4.1 Time–Space Perspective

The core concept of ubiquity seems to stem from the so-called “time–space perspective,” whose origin can be traced to the work of Hägerstrand at the University of Lund, Sweden. He focused on the organization of activities into temporal and spatial terms, which can be employed to define the performance of human activities. This was the very first step in so-called time–geography, an attempt to stress the factors associated with the spatial and temporal spread of innovations within particular environments. According to Lenntorp (1999), time–geography constitutes a foundation for a general geographical perspective. It represents a new structure of thought under development, which attempts to consolidate the spatial

and temporal perspectives of different disciplines on a more solid basis than has thus far occurred. Time–geography is not a subject area per se, or a theory in the narrow sense, but rather an attempt to construct a broad structure of thought that may form a framework capable of fulfilling two tasks. The first is to receive and bring into contact knowledge from highly distinct scientific areas and from everyday praxis. The second is to reveal relations, the nature of which escapes researchers as soon as the object of research is separated from its given milieu, in order to study it in isolation, experimentally, or in some other distilled way (Lentorp 1999).

Hägerstrand (1975) argues that the importance of spatial factors is demonstrated by interpersonal communications, where most influence is transferred within local social systems or the “neighborhood effect.” According to him, both terrestrial and social distance barriers impede diffusion, in that human activities form environments that have a hierarchical ordering to the extent that those who have access to power in a superior domain frequently use it to restrict the set of possible actions permitted inside the subordinate domains. On this basis, Hägerstrand (1970) developed the basics of time–geographic notation, in order to have a means to keep track simultaneously of both the spatial and temporal dimensions.

In Hägerstrand’s theory, there is a “time–space” entity called a “domain.” A domain is defined as “a time-space entity within which things and events are under the control of a given individual or a given group” (Hägerstrand 1970, p. 16). In a domain, activities and events are under the control and influence of specific individuals or organizations. Domains, such as a school or an office building, often serve as stations for individuals to bundle. The ability of an individual or an organization to navigate through the domain depends on the following three time–space constraints that characterize information technology (Hägerstrand 1970): Capability constraints, coupling constraints, and authority constraints.

Coupling constraints require the user’s presence at a specific time and place, and therefore they are instrumental, physiological, and cognitive limitations. That is, individuals must join other individuals or organizations in order to form production, consumption, social and other activity bundles. Capability constraints refer to the user’s resources and ability to overcome spatial separation at a specific moment. They circumscribe the amounts of effort needed for people to associate themselves with others and with material artifacts at specific places and times for a certain duration, in order to realize production, consumption, and transactions. Finally, authority constraints become important when several activities are pretended to be packed into a limited space. Authority constraints subsume such limited space occupation in terms of rules, laws, economic barriers, and power relations, which determine who does or does not have specific access to specific domains at specific times in specific spaces.

Although Hägerstrand’s theory is derived from a different discipline, the concepts of coupling, capability, and authority constraints are very relevant to our conceptualization of the ubiquity concept. Telecommunication systems allow humans to eliminate distance for some types of activities and interactions.

Transportation, along with telecommunication and settlement systems, grows and declines in response to human activities in space and time.

16.4.2 Internal and External States of Mobile Users

Prior research indicates that human activities are extensible according to developments in communication and transportation technologies whose innovation could substantially reduce the time required to interact with persons in distant places (Kwan 2000). Adams (1995) argues that “as distant connections become easier to maintain, spatial patterns of social interaction change; work and home, resources and industries, management and labor assume varying spatial configurations” (pp. 267–268). This is precisely the result of the rapid advances in the Internet in general, and the mobile device in particular. The extensibility of human activities is also related to the sense of being in a natural and virtual environment. In this light, presence or the sense of being in a natural environment is often less important than telepresence or the sense of being in a computer-mediated environment (Steuer 1992), when firms plan to market goods and services through Internet. Thus, presence and telepresence have often been discussed in conjunction with temporal and spatial characteristics.

On this basis, we introduce the concept of internal and external states, both of which explicate the range of our sensory domain. Internal state refers to the domain related to one’s immediate physical environment. This concept captures the referencing of our perceptions within our sensory system or when one is actually present in the physical environment. By contrast, external state refers to the domain related to one’s environment mediated by a medium. Thus, this concept captures the referencing of our perceptions beyond our sensory system or when one feels “being there” in a mediated, rather than immediate, environment (Schloerb 1995). In our research context, the medium is mobile Internet which offers human extensibility to overcome the limit of our sensory system, enabling us to stretch out from internal state to external state. Such domain within or beyond our sensory system is framed by another axis, space and time. Taken together, we propose a perceived ubiquity landscape that comprises four quadrants framed by internal–external states on one axis and space–time on the other. In this way, this study defines perceived ubiquity not only as a combined flexibility of time and space but also as a combined perception within and beyond one’s sensory system. This operational definition, along with the landscape, is used as a theoretical base for the scale development.

16.5 Grounded Theory

To gain additional insights of mobile Internet users, we chose the grounded theory approach. As the name suggests, the theory is grounded in the words and actions of those individuals under study (Goulding 2005). Here, the researcher sets aside theoretical ideas to allow a “substantive” theory to emerge, while rigorously

seeking a plausible relation between concepts and sets of concepts. The procedures of grounded theory seem more appropriate, compared with traditional quantitative methods, because the relevant literature on ubiquity is extremely scarce. A well-integrated set of concepts can be obtained only through thorough observation of the real phenomena under study. Grounded theory seeks not only to uncover relevant conditions but also to determine how the actors respond to changing conditions and to the consequences of their actions. The data collection procedures involve interviews and observations as well as other sources (Corbin & Strauss 1990). Concepts are developed through constant comparison with additional data. This constant comparison constitutes the heart of grounded theory as a method: the process of constantly comparing instances of data that have been labeled as a particular category with other instances of data, to determine if these categories fit and are workable. If they are, and the instances mount up, then we have what Strauss (1987) and Glaser (1992) call “theoretical saturation,” which is the ultimate goal of grounded theory. Additional data are collected by theoretical sampling, meaning that researchers seek “people, events, or information to illuminate and define the boundaries and relevance of the categories” (Charmaz 2006, p. 189). After reaching theoretical saturation, researchers begin sorting, diagramming, and integrating the categories (and subcategories), closely inspecting how these categories could be reconstructed into theoretical conceptions.

16.5.1 Focus Groups

The goal of the second phase of the investigation was to confirm specific dimensions of perceived ubiquity proposed in the previous section and to generate an initial pool of scale items. The primary basis for this phase is the use of focus groups. In total, eight focus groups were conducted with interpretative approach. Our approach was based on grounded theory in which interpretative data collection continues until our findings reach a theoretical saturation. Each focus group consisted of five to eight general consumers. The first half of the sessions consisted of consumers aged 20–30 years old, while the remaining sessions were comprised of consumers aged 30–40 years old. The moderator asked open-ended questions related to their personal experiences, anecdotal stories, perceptions, and emotions with regard to mobile Internet usage. To stimulate active discussion, visual images or photos of mobile services, such as SMS, GPS, and QR code, were projected with PowerPoint slides. Here, the main objective was to freely and spontaneously associate their thoughts and perceptions to mobile Internet usage. All conversations were recorded and the transcripts were generated immediately after each session.

The constant comparison method was used to find similarities and differences in the participants’ responses to our questions. The transcripts generated after the sessions were analyzed by conducting three types of coding (Charmaz 2006). First, we examined the transcripts of focus groups by initial coding (word-by-word, line-by-line coding) according to consistency and relevance. Next, we scrutinized these results by focused coding to identify the most significant and/or frequent

dimensions associated with perceived ubiquity. Properties of each dimension were examined by axial coding. These coding results were constantly compared from one focus group to another. This procedure continued until a theoretical saturation was achieved, where no more new insights were gained.

16.5.2 Coding

Each time an interview was completed, we generated a complete or “word-by-word” transcript, based on which two levels of coding were conducted: initial coding and focused coding. During the first stage of coding, we conducted a “detailed line-by-line analysis (looking for words and sentences in the text that have meaning) necessary at the beginning of an investigation in order to generate initial conceptual categories, and to suggest relationships among categories (Strauss & Corbin 1998, p. 57). The constant comparison method was used to find similarities and differences in the interviewees’ responses to our questions. This comparison led to focused coding. At this level, we attempted to synthesize the initial coding and determine the most frequent and significant categories. Coding took place concurrently with data collection. We continued this process—interviews, generation of transcripts, coding, and constant comparison—until we reached a theoretical saturation: a point where new interviews no longer sparked new insights (Glaser 1978). Core categories were then constructed. A core category pulls together all the concepts in order to offer an explanation of the phenomenon. It is impossible to provide a complete overview of the interviews in this brief paper; however several excerpts from the transcripts have been organized around the following core themes.

16.5.3 Results

Interesting insights about mobile Internet users’ motivations and behaviors emerged from the grounded theory. These consumers enjoy connecting to the Internet with their mobile device, due to its speed and immediacy. These attributes are inherent characteristics because the device can be carried or used on the move. Their interest in browsing the Internet via 3G or Wi-Fi essentially lies in a motive to search information when needed or to reach a specific destination on a GPS-linked map. Often, these consumers use mobile Internet while they are doing something else, e.g., watching TV, listening to music, or simply killing time in a café. Since recently devices gained the capability of being “always on,” consumers are unaware that their device is on or off anymore. This continuity is an important difference between PC and mobile devices.

Using the dimensions emerged from the grounded theory, a review of the literature, and our theoretical conceptualization, we proposed eight dimensions for the quadrants of our perceived ubiquity landscape: immediacy, speed, portability, mobility, reachability, searchability, simultaneity, and continuity.

Immediacy and speed both refer to the quickness of action or occurrence. However, immediacy implies light, effortless, easy displacement while speed is the state of being in rapid motion. This motion fills the gap between departure and arrival, or desire and fulfillment, and refers to the manifest concrete realities of special separation (Tomlinson 2004). Prior research suggests that instant connectivity is one of the important attributes in m-commerce, which leads to an immediate and rapid response (Barnes and Huff 2003; Ko et al. 2009). Portability means the quality of being light enough to be carried, which relates to the very physical characteristic of the device (Bruner II and Kumar 2005; Kleijnen et al. 2004; Kleijnen et al. 2007; Barnes 2002). Mobility is the quality or state of being mobile and particularly refers to something that can be operated while in transit. Gao et al. (2009) point out that ubiquity means being portable, which enables an extensive reach beyond our special and temporal constraints. Hence, reachability is the capability of getting in contact with or communicating with. Searchability refers to the capability of making a thorough examination. This dimension has been widely discussed in context awareness computing (Stafford et al. 2004; Peters et al. 2007; Pascoe 1998). Simultaneity means happening or existing or doing at the same time (Leung and Wei 2000), while continuity refers to the state or quality of being continuous, which seems to correspond to one of the 3G characteristics, “always on.” Kleijnen et al. (2007) see simultaneous and continuous access to services as a unique ability of the mobile device that traditional channels cannot offer.

16.6 Scale Development

In the grounded theory, properties of the key dimension were examined by the axial coding. Insights gained from this procedure were combined with published scales to generate an initial pool of construct items. To ensure that the items were a proper and representative sample of the theoretical domain of the construct, four items were generated for each dimension. In total, 32 items were proposed. These items were then converted to Likert scales for the content validation. Domain sampling suggests that “a measure be composed of a sample of items from a large hypothetical domain of items,” thus the initial domain of the construct should capture a broad “universe” (Netemeyer et al. 2003, p. 95).

To ensure content validity, 15 expert judges were recruited from a relevant population (Netemeyer et al. 2003). The judges received the list of 32 scale items with a description of study purpose. Eight judges were university professors in marketing and advertising, and four judges were practitioners in the telephone and IT industry. The panel was asked to assess each questionnaire item on a four-point scale (completely adequate, somewhat adequate, somewhat inadequate, completely inadequate), and in the case of an item rated as questionable, they were asked to explain the reason and make recommendations. The expert members rated most of the scale items to be “completely adequate” or “somewhat adequate,” but pointed out five items as “somewhat inadequate” in terms of wording. After incorporating recommendations, a final pretest involving all dimensions of value was administered

to a convenience sample of 44 university students. The pretest indicated no specific problem in wording and comprehension. Thus, face validity was also considered.

16.7 Preliminary Scale Validation

We analyzed 32 items measuring four constructs. Our sample consisted of 345 undergraduate students at a large public university located in a Southern European country. The students were business majors and primarily over 20 years old, comprising approximately the same proportion of males and females. A structured questionnaire was developed, in which the items from the different dimensions were mixed and randomly rotated to minimize halo effects. Each item was written in a brief statement measured by a seven-point Likert scale with one being completely disagree, seven being completely agree, and four being neutral. Respondents were told that the questionnaire presented statements pertaining to their own experiences in three mobile services: SMS, GPS, and Web browsing. Here, our objective was to capture overall perception of mobile-based services or transactions. These services are different in terms of their technical nature but capture the majority of mobile content revenue, thus justifying their use as survey stimuli.

All measures were analyzed for reliability and validity following generally accepted guidelines (Netemeyer et al. 2003). Specifically, we performed a confirmatory factor analysis (CFA) and undertook the purification of the scale items based on the pattern of standardized loadings and fit indices of the CFA. We excluded the items with the loadings below .50 and high standard error. In addition, the items with high cross-construct correlations were examined if they distorted the global fit. This was especially important because the proposed scale needs to cover a specific universe of the domain. A careful examination of CFA results suggested the elimination of four constructs (mobility, reachability, speed, and simultaneity). The resulting model consists of four constructs: continuity ($M = 5.08$, $SD = 0.46$), immediacy ($M = 5.80$, $SD = 0.14$), searchability ($M = 5.40$, $SD = 0.16$), and portability ($M = 5.52$, $SD = 0.24$). All statistical examinations of quality indicators, such as Cronbach's alpha, average variance extracted and composite reliability, were satisfactory, suggesting that our scale purification achieved reasonably reliability and validity.

16.8 Implications

Theoretically, this chapter provides an initial phase of the ubiquity scale development. Drawing upon prior research on time–geography, perceived ubiquity is framed by two principal axes: space–time perspectives and internal–external states. The notion of internal and external states is taken from Janelle's (1995) human extensibility theory based on presence and telepresence. That is, we conceptualized that perceived ubiquity is somewhat related to telepresence in a computer-mediated environment but distinct in that perceived ubiquity is framed by awareness or

understanding of the environment, while telepresence is framed by the feeling of being in that environment.

Following a main definition of ubiquity in prior research, this study employed interpretative approach and used grounded theory for the scale conceptualization. On this basis, we proposed eight dimensions of perceived ubiquity which were reduced to four. Immediacy and portability both capture attributes of mobile Internet within one's sensory system. On the other hand, continuity and searchability envisage attributes beyond one's sensory system. In a way, this conceptualization seems similar to interactivity of traditional or wired Internet but differs in many aspects. Interactivity has been suggested as a multidimensional scale consisting of synchronicity, active control and two-way communications, which controls online users' behavior in a computer-mediated environment. Interactivity is especially related to a concept of flow and telepresence (Hoffman and Novak 1996). In contrast, our perceived ubiquity is related to telepresence but only in a context of time and space. Otherwise, its components have little to do with those of interactivity. In other words, mobile Internet seems to offer two different sets of online benefits, interactivity and perceived ubiquity, both of which allow users to enjoy flexible and accelerated information search and exchange.

Managerially, our research can be an important step toward better understanding the meaning of ubiquity. Marketers and advertisers can use this scale to measure each dimension of perceived ubiquity to increase their online service utility. As the types of mobile-based applications proliferate, it seems crucial to ensure that consumers perceive their services to be continuously and immediately available. At the same time, these applications, besides being easy to download, should be easily reachable and searchable. It follows that if firms promote the same applications in both media, perceived ubiquity scale would enable them to distinguish PC-based applications and mobile-based applications in terms of ubiquity.

The dimensions of perceived ubiquity, in particular, portability and immediacy, indicate that the tablet PC may indeed be a cutting-edge alternative to the PC or smartphone. While it is as portable as smartphone, it allows consumers to use applications, search tools, and services in an immediate way. At the same time, nearly identical applications are available for the tablet PC and smartphone (e.g., App Store for iPad and iPhone). Firms may be increasingly pressured to clearly differentiate the nature and utility of applications that are available for distinct online media. In doing so, our perceived ubiquity scale would provide firms with a useful tool for distinguishing between them, as well as for explaining which factors lead to more beneficial results.

16.9 Limitations and Future Research Suggestions

To make our scale development objective, we should recognize two important limitations. First, prior research suggests that the scale needs to be stable across weeks, months, or years (Netemeyer et al. 2003). However, test-retest reliability was not tested in this research. Second, the item we used to measure portability in

known-group validity performed poorly. Portability, however, is one of the most evident characteristics of smartphones (i.e., size), thus further refinement of the items should be attempted. Third, prior research indicates that, under certain circumstances on desktop computer, longer rather than shorter download times motivate web users to keep surfing longer (Selliera and Chattopadhyay 2009). Such aspect seems contradictory to our findings on immediacy but not has been furthered in the present study.

Besides addressing these limitations, future research should examine the scale for further properties. Most importantly, we should test whether the scale has a wider applicability to digital context, beyond mobile Internet. By definition, ubiquity is a general concept which is not limited to mobile Internet. As tablet PC and e-book hardware have been penetrating worldwide, the notion of ubiquity should cover these contexts. Next, future research should also address the scale in a cross-cultural context. The present study should be replicated in other countries to test whether the scale is sufficiently robust cross-culturally.

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Exercises

1. What is mobile marketing? How has it been defined?
2. Please briefly explain what ubiquity means.
3. What is grounded theory? Why was it necessary in this study?
4. What is the basic scale development procedure in this study?

Reflexive questions

1. The ubiquity scale is conceptualized as a multidimensional scale consisting of internal/external states and time/place flexibility. What are the possible implications for online media planning?
2. In light of the ubiquity concept and its usefulness in online marketing, what kind of recommendations could you make for practitioners?
3. What is the logical extension of this study? Any suggestion for future research?

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Paschal Preston and Jim Rogers

Chapter Objectives

1. To illustrate how the concept of convergence relates to and aids a more thorough understanding of the recent evolution of the music industry
2. To emphasise the limitations associated with a techno-centric approach to media and cultural industry analysis
3. To de-bunk ‘myths’ associated with the role of digital technological innovations in causing significant disruption to long-established interests in the music industry
4. To demonstrate how aspects of convergence lie at the heart of re-structuring processes in the music industry in the digital era
5. To highlight the important role played by copyright in shaping contemporary media and cultural industries

17.1 Introduction

This chapter is primarily concerned with interrogating the complex relationships evolving between technology, socio-economic factors and the contemporary music industry and their implications for the concept of convergence. It will also show how the music sector comprises, in many respects, the leading edge sector in terms of the threats and opportunities posed by technological change for the broader media and cultural sector.

Like other radical technological innovations, the Internet with its relatively rapid and widespread diffusion may be taken as having the potential to seriously disrupt the existing industrial structures and rules of the economic game, especially

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between different players within the media industries. This includes the potential to disrupt the power or role of existing media firms and their established industrial practices and interests. Much recent commentary on the role of the Internet in music industry emphasises the significant level of disruption visited upon this sector by developments in the digital domain. The music industry is frequently described as being in a state of crisis at the hands of file-sharing technologies and a primary 'victim' of the 'internet revolution'. As such, in the context of this particular media and cultural industry, technology convergence trends are often considered and reported in quite negative terms. This chapter is thus devoted to interrogating such techno-centric assumptions and examining whether or to what extent the transition to digital may have induced a certain 'crisis' for the prevailing models and practices of the recorded music industry.

Critically here, we shift the lens away from technology-centred analysis to afford much greater consideration to the response strategies of the established music industry to developments in the digital domain. In essence, we highlight the fundamental role of economic moments (especially struggles over distribution) in well-grounded analyses of the music industry's evolution in recent times. So, we consider how major actors in the music industry have been repositioning themselves to more successfully engage with the opportunities arising from developments in the digital sphere and to suppress the potential of digital distribution technologies to damage their economic health.

In the chapter that follows, Sect. 17.2 will emphasise the usefulness of maintaining a focus on the music industry when it comes to examining the implication of technology convergence trends in the broader media and cultural sectors. Section 17.3 will proceed to outline some of the meanings and uses of the term 'convergence' and its suitability as a conceptual frame for understanding the character and scope of processes of change and continuity in the twenty-first century music industry. Section 17.4 will consider how a discourse of crisis has evolved around the music industry in recent years with technology convergence trends 'popularly' conceived in a very negative light. Section 17.5 will then proceed to examine the changing role and scope of the music sector and its increasingly dense and complex relations with the digital media world, and beyond. This will ultimately serve to challenge the dominant framing of the music industry as a site of digitally induced crisis and, outline why and how the music sector provides a suitable site for exploring the evolving meanings and relevance of the concept of convergence. In Sect. 17.6, we will offer our conclusions.

17.2 Why Focus on the Music Industry?

Precisely what is it that makes the music industry a suitable site for examining the meanings and relevance of convergence? Essentially, the music industry is widely perceived as the first of the media and cultural industries to face the threats and opportunities associated with digital technological innovations. In this respect, it is the 'cultural' canary down the 'digital' mine. The music industry's ongoing

negotiation of new and evolving online platforms for the sharing, distribution and promotion of content is thus of immense interest to the other players in the medial and cultural content sectors.

Since the late 1990s, the music industry's relationship with digital technologies is commonly perceived to have altered quite radically. When music 'consumption' went digital in the 1980s following the evolution of the compact disc, the record industry experienced a decade and a half of remarkable year-on-year growth with global retail revenues peaking at a record value of \$38.7 billions in 1999 (IFPI 2000). However, when music 'distribution' went digital through the advent of online platforms for the circulation of music recordings, record industry revenues have experienced over a decade of significant decline. When we also consider the extensive staff cuts that have occurred across the major labels as well as the decline and closure of numerous retail outlets, the music industry in the new millennium may appear to present a somewhat gloomy picture.

Developments in the realm of digital technologies are now widely viewed (and routinely blamed by the record industry itself) as key causes of the decline of this sector. The development of the MP3 file and subsequently peer-to-peer file sharing software has enabled the duplication and circulation of music among consumers to proliferate and provide the major companies in the industry with questionably the most significant challenge of their history. Many media, journalistic and academic accounts point to the collapse of the record industry as platforms for the sharing and 'illicit' downloading of music are seen as obliterating the market for recorded music. Some commentators (e.g. Barfe 2005; Napier-Bell 2008) have even gone so far as to argue that such online activities effectively represent the death of the record industry as we know it.

As such, the outcome of the record industry in the context of an evolving digital environment is of immense interest to all other media and cultural industry sectors. Thus, analysing how this sector has repositioned itself to meet the challenges of the Internet and mobile media can shed light on the more general trends of the shifting global media, culture and technology landscape.

17.3 Convergence as a Conceptual Frame for Understanding the Nature of Change in the Music Sector

While widely criticised by scholars in the field of communications studies, the concept of convergence established itself as an influential and resilient idea throughout the 1980s and 1990s. Essentially, it implies a blurring of distinctions between what were previously separate communication services and functions (de Sola Pool 1983). Underpinning this idea is the notion that the increasing shift towards a common digital mode has blurred sectoral boundaries between communication services or information markets which were hitherto discrete and distinct.

The convergence idea also played a central role in a whole series of technology-centred new communication innovation initiatives and pilot projects which have proved to be remarkably unsuccessful in commercial terms. These range from the

various optimistic initiatives around videotex services in the 1980s (see, for example, Bouwman and Christoffersen 1992) to the many subsequent 'interactive' services trials in Europe and the USA in the early 1990s.

For example, the convergence idea underpinned the public announcements of Microsoft when justifying that company's major investments in new Internet-based information content services fields, especially in the latter half of the 1990s. The basic idea was the company could utilise its dominant position in the areas of computer operating systems and applications software as leverage for establishing a prominent role in the emerging domains of online digital content services. But despite its vast investment resources derived from its monopoly position and related technology rents in the computer operating systems and software tools markets, even this major corporation was forced to revise its strategy rather dramatically. Thus far, Microsoft has been unable to successfully realise its particular take on the convergence idea in practice, apart from the partially fruitful outcome of its large-scale investments in the digital games space (Preston 2001).

The lessons of the costly investments and experiences during the fashion for 'convergence' during the late 1990s clearly point to the limits of techno-centric analytical perspectives. The lessons also imply that the boundaries between the various sub-sectoral components of the media sector (or other primary information services) are not fundamentally eroded by the trends towards digitalisation at the level of information engineering or processing. The core competencies, distinctive industrial structures and organisational capabilities or cultures which favour success in one domain of the media or other primary information sectors do not automatically translate into other domains. In essence, there remain many important institutional and capabilities factors which operate as barriers to the successful production and sale of new-ICT based media (content) services, however 'convergent', interactive or customisable these may seem at the level of technical delivery systems or technology-centred analyses (Preston 2001). Yet, despite the long history of failure and criticisms of such technology-driven visions of new media developments, the convergence idea remained very much alive and operated as a core concept underpinning 'expert' financial analyses of investment strategies and major corporate investment decisions as well as policy initiatives related to new media 'content' industries during the dot.com boom of the late 1990s (Preston 2001). However, the effect, if not intent, of many industrial and policy appropriations of the convergence idea, was to facilitate further concentration and centralisation of ownership and control in the media sector.

During the early years of the first decade of the twenty-first century, 'convergence'-centred investment and industrial strategies went all out of fashion, a shift no doubt directly related to the clear and spectacular financial failure of so many such ventures undertaken in the late 1990s, especially the most prominent case—the merger Time-Warner and America Online. But if appropriations of the convergence idea to justify cross-sectoral investments and industrial mergers (and media concentration) have gone out of fashion, the term continues to be used for other purposes. More recently, the idea of convergence has been frequently invoked to refer to changes in the production practices and industrial routines in news media.

Many studies have invoked the convergence concept in studying changes in news production practices within media organisations (and their ‘multimedia newsrooms’) seeking to produce and distribute integrated news services across different media platforms, including their implications for the professional roles and status of journalists (e.g. Preston 2009). Other recent applications of the convergence idea include efforts to identify the specific characteristics of the new kinds of texts or textuality afforded by digital media and network systems (e.g. Fagerjord 2003; Storsul and Stuedahl 2007).

When it comes to the music industry, we observe that technology convergence trends are commonly defined in very negative terms. Primarily, they are represented in terms of a fundamental decline for the music industry. The transition to digital distribution platforms is widely perceived as radically disrupting the roles and interests of the major music companies and how they make money. As we shall see in Sect. 17.4 below, technology convergence trends are, in this context, synonymous with a notion of ‘crisis’.

17.4 Technology Convergence and a Discourse of Crisis in the Music Industry

A discourse of crisis has evolved around the music industry in recent years. Much media coverage has focussed on the depletion of record industry revenues and consequent questions around the long-term viability of the industry arising from the transition to a digital milieu. Online music ‘piracy’ is portrayed as an epidemic that has grown to cripple the industry. Such a doomsday scenario is vividly illustrated by *Irish Times* journalist Conor Pope who asks:

Has music had its day?..Of the all the upheavals wrought by the internet revolution over the last fifteen years, the shake up in the world of music has been amongst the most profound. The consequence of free music downloads could end up destroying not just the shops that used to sell music, but an entire industry. (The Irish Times, Monday April 27th 2009, p. 15)

Such crisis rhetoric is also fed by those academics who have emphasised the transformative power of digital technologies. For example, Nicholas Negroponte, a professor at MIT and celebrated guru of the information age, argued that copyright would ‘disintegrate’, with everything capable of being reduced to streams of ones and zeros being potentially ‘up for grabs’ (Negroponte, *Wired.com*, February 1995). For Kevin Kelly, the associate editor of high-tech publication *Wired* magazine: ‘The recording industry as we know it is history...[with] digital file-sharing technologies...undermining the established economics of music’ (*New York Times Magazine*, 17th March, 2002: 19–21).

Examining a variety of potential causal factors for the decline in recorded music sales revenues, Liebowitz (2006) argues that the widespread adoption of peer-to-peer file-sharing technologies represents the primary explanation for the recent downturn in the record industry’s fortunes. Furthermore, Liebowitz’s (2008) argues

Table 17.1 Retail value of recorded music sales 1999–2010 (combined physical and digital formats in \$US billions)

	1999	2000	2002	2004	2006	2008	2010
Total	38.7	36.9	32.2	33.6	31.8	26.5	24.4

Source: Author, compiled from IFPI recording industry in numbers reports 2000–2011

that file-sharing activities are directly responsible for a decline in recorded music sales that is larger than the actual decline that has occurred. His analysis of trends in album sales across the USA leads him to conclude that but for peer-to-peer file-sharing, record sales would have actually continued to experience growth into the early years of the new millennium, keeping with the average achieved by the recording industry over the previous 25 years. For Liebowitz, these findings ‘confirm the worst nightmares of the recording industry’ (ibid: 859).

Such accounts as those above feed into the conventional wisdom that digital technologies not only pose a grave threat to the health of the established music industry but that this threat is being realised and the music industry is experiencing radical upheaval in the wake of the ‘internet revolution’. Notions of decline or even demise have become common-sense assumptions in much discourse surrounding the evolution of the music industry since the advent of digital distribution, perhaps reflecting the pre-dominance of technological determinist thinking in contemporary society. The core thrust of such arguments appears to be supported by recorded industry statistics which detail a picture of diminishing trade and retail revenues since the turn of the millennium. Revenues from recorded music retail sales indicate a massive drop of almost 37 % from a record high of US\$38.7 billion sales 1999 to US\$24.4 billions in 2010 (IFPI 2000, 2011). While the graph of records sales has not been one of uniform downturn over the past dozen years [for example, there was a modest recovery of 4.7 % throughout 2004 and sales held steady throughout 2005 (IFPI 2007)], the overall picture here is one of very significant decline since the advent of such sites as MP3.com and Napster in the late 1990s and the plethora of file-sharing platforms that have followed in their wake (Table 17.1).

However, while developments in file-sharing technologies are thus perceived as inducing this ‘crisis’ for the prevailing models and practices of the record industry, a more robust analysis of processes of change and continuity in this sphere demands that we employ a more holistic approach and consider the core response strategies of the established music companies to digital developments. As we indicate below, the established music industry actors have mobilised considerable resources to promote institutional, policy, regulatory and other kinds of ‘matching’ innovations to meet the new challenges and threats enabled by technological innovations (Preston 2001). So, while techno-centric analysis points to transformation and a crisis of digitalisation, by extending our scope to consider the policy, economic and socio-cultural spheres as sites of innovation, we ultimately construct a more comprehensive and realistic scenario for digital media industries at the current moment.

17.5 Moving Beyond Techno-Centric Analysis: New Forms of Commodification, Concentration and Convergence in the Music Industry

The period since the late 1990s has seen the established music industry repeatedly seek recourse to the courts in pursuit of the producers and suppliers of file-sharing technologies, individual network users and subsequently internet service providers (ISPs). Facilitated by neo-liberal policy regimes, the past decade has seen the reach of copyright law extend into and expand through cyberspace. Such developments are well documented, but while they represent a core response strategy of the established music companies to the potential threats arising from digital technological innovations, it is the music industry's less-documented exploitation of recording and publishing copyrights across a proliferating range of platforms and spaces that is of greater interest to us here. While much emphasis is placed on the downturn in the record sales market during the first decade of the new millennium in many accounts, it is necessary to recognise the growing range of additional revenue streams now opened to music companies in order to understand more thoroughly and holistically the economic significance of the contemporary music industry.

As such, we note how the major music corporations have not only pursued 'defensive' strategies in the courtroom aimed at suppressing the harmful effects of digital technologies to their health, equally (and with significant success) they have mobilised their large and concentrated resources to generate entirely new revenue streams in 'convergent' and neighbouring industrial spaces.

17.5.1 A Booming Market for Digital Music Sales

Sites and (cyber)spaces for the licensing and sales of digital music have multiplied in recent years. In 2003 Apple became the first of the major players in the technology sector to enter an agreement with *all* of the major record labels for the digital distribution of music content. Since the launch of Apple's iTunes in October of that year, licensed digital channels for music have multiplied rapidly. By 2011, global revenues through such channels had grown to account for estimated revenues of US\$ 5.2 billion, representing 32 % of overall record industry revenues (IFPI 2012). Since 2004, the variety of 'legal' digital music services has increased more than eightfold to a point where internationally, there are now more than 400 such services offering approximately 20 million licensed music tracks for download or streaming (ibid) (Table 17.2).

The range of business models employed to deliver such digital music services has also evolved far beyond the initial a-la-carte download stores. Rather, we have witnessed the evolution of subscription services, mobile services, streaming services, social networking sites, brand partnerships and direct to consumer sites. The past 5 years have also seen record companies enter into joint initiatives or partnerships with a host of ISPs in different territories.

Table 17.2 Global digital recorded music sales market value 2003–2011 (US\$ billions)

	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	0.02	0.4	1.1	2.1	2.9	3.7	4.2	4.6	5.2

Source: Author based on IFPI digital music reports 2004–2012

In sum, the record industry has succeeded in significantly increasing the range of licensed online digital channels through which recorded music can access its end users and the revenues generated through these channels. Aside from internet platforms, mobile music has assumed an increasingly role. Juniper Research (2011) predict that mobile music revenues would continue grow from \$3.1 billions in 2010 to an estimated value of \$5.5 billions by 2015.

Thus, whilst there has been a substantial decline in the volume of global physical sales since the end of the last decade, the subsequent and phenomenal growth of digital sales paints a significantly brighter picture for the major companies that have been reaping the benefits of emerging and proliferating digital formats. The sheer variety and range of such formats is perhaps best illustrated through such releases as the Beyonce album *I Am Sasha Fierce* which was made available in no fewer than 260 different formats including ringtones, mobile full-track downloads, video, bundled album digital music store downloads and other. Likewise, Justin Timberlake's 2006 release *Future Sex/Love Sounds* appeared in 115 products or formats.

17.5.2 Licensing Revenues and Promotion from New Digital Platforms

Recent years have also seen the established music companies become increasingly active in forming alliances with established and emerging social media networks. Sites such as YouTube, Vevo and MySpace have all ultimately entered licensing agreements with the major music labels. As noted by Van Buskirk (2009), the relationship that has evolved between the music industry and platforms such as these highlights how the major labels have instituted legal proceedings against a social media network, then subsequently settled, licensed and in some cases, become stakeholders in the service.

Also, in the wake of a number of legal actions taken by the record industry against video sharing platforms such as Bolt and Grouper back in 2006, the major music labels have been successful in forging licensing agreements with sites for streaming audio and music video content on the Internet. Ad-supported and/or subscription-based streaming partnerships such as Spotify, Deezer and We7 offer the best examples here. Such models have been experiencing a boom in recent times with the number of people subscribing to such services internationally growing from 8.2 million to a figure of 13 million throughout 2011 (IFPI 2012).

Since the latter half of the last decade, online and mobile communication services have also evolved fresh sources of revenue for major music copyright

holders. While the major labels had earlier entered licensing deals with global Internet communications company Skype (for the sale of downloads on the sites online retail store), 2011 saw Niklas Zennstrom and Janus Friis, the founders of Skype, launch a new music subscription service, Rdio, with recordings licensed from all of the major labels and a range of independent music companies. Equally, telecoms operators such as Telenor, TDC and Zune offer other examples here. The licensing agreements established with Telenor are illustrative of the type of deals that have enabled music companies to evolve revenue streams through ringtones, ringback tones, mobile music videos, wallpapers, etc., as well as offering platforms for download sales. TDC, a Danish telecoms company, had, by 2010, sold in excess of a quarter of a billion downloads. Universal Music also entered a deal with the Microsoft-owned (and recently discontinued) 'Zune' digital media brand, whereby the music company received royalties from the Zune MP3 player as well as download revenues in return for making its catalogue available on Microsoft's digital music service.

Equally, Internet radio services have been extending their reach with platforms such as Pandora attracting 40 millions 'active' listeners throughout 2011, a 65 % increase on the previous year (IFPI 2012). Also, while Nokia has been an established carrier and distributor of licensed music content in terms of its digital music store, streaming and mobile services, late 2011 saw it launch its Nokia Music App which offers users a host of music radio platforms amongst a range of other services.

Music is pervasive, and music is invasive, and as the above indicates, the digital realm has opened up a host of new (cyber)spaces for music to pervade and invade. Copyright law has ensured that an increasing range of these online spaces become licensed sites for the sale or streaming of music content.

17.5.3 Digital Games

Another process that has intensified in recent years has been the convergence of the record and music publishing sector with the providers of digital games hardware and content. Here we might consider that while Sony is a key player in the music industry, it also produces and supplies the various generations of the Playstation consoles and games. Likewise, Universal Music is one of the major global record and music publishing companies, while its sister company, Activision Blizzard, is one of the most significant publishers of digital games. Universal and Warner's have also become key actors in the mobile games sector in recent times. As such, music and digital games offer themselves to each other as very useful and lucrative sites for cross promotion and revenue generation.

Aside from the fact that songs and music form core constituent element of games per sé, there is also a range of games such as *Song Pro*, *Rock Band*, *Guitar Hero* and *Sing Star* that are entirely based around music content. While primarily allowing the user to simulate the performances of their favourite artists, these games platforms also enable users to buy thousands of digital downloads and to purchase

a range of additional digital music products and services. For example, Sony Playstation game *Sing Star* offers virtual branded goods to players.

Equally digital games are used for promoting exclusive material and releases that are only accessible through digital games consoles. For example, the game NFL Street features a host of exclusive (previously unreleased) tracks by various Sony recording artists that can only be played on Sony Playstation 2, Microsoft Xbox and Nintendo GameCube consoles.

And beyond the use of music itself, the characters of some more prominent recording artists have also been incorporated into games themselves. For example, Marilyn Manson features in the Playstation and Xbox game *Area 51*, likewise, R&B singer Cupid features in the online game *Dance*. The exploitation of such 'brand' rights via games represents a relatively fresh avenue for revenue generation for music artists and companies.

17.5.4 Licensing Revenues Beyond the Digital Realm

To further understand how the music industry is weathering the digital storm, we must also consider how music is unique as a media form. Aside from being a stand-alone cultural form in its own right, music embeds itself in other media forms. As such, music has evolved as a core constituent element of television, film, radio, advertising, games and a range of other content spheres both within the digital world and beyond. Its unique characteristics enable it to colonise spaces that other media forms cannot reach. As physical sales of recorded music have declined with the transition to digital, the major music copyright owners have become increasingly aggressive at peddling their wares to music supervisors in other media spheres.

As recent decades have seen broadcast airspace increase multi-fold, so to have the spaces for licensing music content. Likewise, advertising has proliferated and in doing so offered fresh sites for music to occupy. According to New York-based composer and producer Andy Bloch, we have witnessed 'a palatial shift in the record and publishing industries to monetise their back and current catalogues, and for emerging artists to find an outlet for their music' (cited in *USA Today*, 29th July 2008). Perhaps such a development is most vividly illustrated by the fact that Woody Guthrie now sells cars (Audi), The Beatles sell electronics, hardware and banking products and services (Target, and Halifax); Bob Dylan sells lingerie (Victoria's Secret).

Thus, while debates over authenticity and integrity abound, the potential of music as a commodity to be licensed across a wealth of traditional and new digital media platforms offers significant optimism to the music industry. The extent to this potential is being realised is illustrated by the recent performance of the music publishing sector. Despite the 'recessionary' environment, January 2012 saw the International Confederation of Authors and Composers Societies (CISAC) announce that global performing royalty collections rose to a new peak of \$7.5 billions in 2010, thus painting a picture of steady, although not uniform climb over a

7-year period. CISAC note year-on-year growth of 5.5 % in the music publishing sector and celebrates the economic performance of this significantly growing sector which stands 'in striking contrast to the performance of other cultural sectors' (CISAC, Global Economic Survey, January 2012). Thus, music publishing licensing agreements have evolved as an integral asset to the self-preservation of the music industry.

Summary and Conclusions

From the mid-1990s onwards, much transformative hype accompanied the rapid and widespread diffusion of the Internet. Some authors pointed to a 'new economy' arising from digital technologies and the concomitant demise of the 'old' economic rules and norms that we seen to have characterised the modern capitalist era (see, for example, Kelly 1999). Equally, others confidently predicted that the new digital technologies and networks would radically disrupt the prevailing order across media and cultural sectors, and with it, diminish the power and role of the key actor in these spheres (Negroponte 1995). The decline of physical record sales and the consequent fall in revenues for the record industry have often been perceived, and widely reported, as the evidence of the transformative and highly disruptive power of digital technologies in the media and cultural industries. Furthermore, this scenario of decline and crisis is often portrayed as the fate awaiting other sectors of the established media industries, perhaps reflecting the predominance of technological determinist thinking in society.

However, the examples we offer above point to a different understanding of the music industry's negotiation of the transition to a digital environment. Despite the much reported decline of the record industry, such a trajectory of growth as illustrated in the music publishing sphere is much more in keeping with broader music industry trends. As Winseck (2011) indicates, 'total' global music industry revenues (including recording, publishing, live and internet/mobile revenue streams) have actually risen from a figure of \$51 billions in 1998 to more than \$70 billions in 2010. As such, it is important to recognise the music industry as much more than just the record industry. While many media (and indeed academic) accounts conflate the terms, the music industry actually comprises a broader range of integrated sub-sectors. While this chapter has not covered developments in the live music industry (which itself has experienced significant growth over the past decade), it has shown how, in the light of technological developments that threaten one of its traditional revenue streams, the industry has worked to increase its returns in other sub-sectors.

As such, we have avoided the transformative type of 'technological determinist' accounts and instead adopted a 'social shaping' perspective to more fruitfully examine the nature of change and continuity in the music industry in recent times. We have also demonstrated that any concept of crisis must be accompanied by attention to restructuring processes whereby those corporations have mobilised their concentrated resources to devise new kinds of institutional,

marketing and organisational innovations. In the process, they have learned to live with and adapt to the challenges posed by external technological developments, developing both defensive and offensive strategies to protect and expand their revenue streams.

Furthermore, the processes we have described also indicate that another concept of capitalist property and ownership—copyright—is increasingly relevant to gaining a more thorough and holistic understanding of the outcome of digital innovations in the media and cultural spheres. The process of convergence outlined above provides the industry's established actors with increased scope to exploit the copyrights under their guardianship.

In this chapter we have highlighted how some of the new business models launched by the music industry have generated fresh revenue streams from music culture despite the relative decline in recorded music sales. As we have seen, the application of the concept of convergence highlights how the music industry is mobilising its considerable resources to meet challenges in the digital realm.

Exercise Questions

1. How is convergence most usually conceived in the context of the music industry?
2. What makes the music industry such a useful site for examining the concept of convergence in the contemporary digital environment?
3. How realistic are more 'conventional' conceptions of convergence given recent developments across the broader music industry?
4. What are the limitations associated with adopting a 'technology-centred' approach to analysing the evolution of the music industry in the internet age?
5. Discuss the various opportunities and threats experienced by the music industry as a result of digital technological innovations.
6. In what 'new' ways do music companies exploit the ownership of copyrights in the internet age?
7. Beyond the digital media platforms addressed in the article, can you relate music to other (new or traditional) forms of media (e.g. TV, radio, film)?
8. Try to draw up an exhaustive list of potential sources of income for the managers of major music copyright catalogues (i.e. music and songs).

Reflexive Questions

1. Consider the story of the music industry that is ultimately depicted in this chapter. Does this account suggest that music possesses a unique set of features or characteristics as an element of the broader media industries? If so, what are they?
2. As individuals, how does our use of music illustrate processes of convergence?

3. To what extent, if any, do you see developments in the music industry resonating with developments in other media industry sectors? Do developments in the music industry contradict developments in other media industry sectors?
4. The article stresses the role of copyright in shaping the evolution of the music industry. To what extent can we see copyright (or other forms of intellectual property such as trademarks and patents) shaping our personal and professional lives? Do we conceive of intellectual property as a liberating or constraining force?
5. Do you think that the internet has shifted the balance of power in the music industry? And to what extent, if any, has it altered power relations across other media industries?

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Carsten Winter

Chapter Objectives

1. **Developing media convergence foresight as a scientific *and* strategic challenge:** To understand the social peculiarity of the convergence of especially different media roles and to reconstruct its causes and effects as a new scientific and strategic challenge.
2. **Media development within the history of music culture:** To understand media development as development of producing, allocating, perceiving and using music within the overall history of music culture.
3. **The new strategic challenge of prosumer-oriented and constituted digital network media business models:** To understand the converging role of “prosumer” and how its different stages of development affect the development of future business models.
4. **Convergence foresight into a post-capitalistic “global” music economy:** To be able to understand the network media dynamics and challenges on the way to a smarter, more inclusive and sustainable music economy.

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18.1 Introduction: Convergence Foresight as a Scientific and Strategic Challenge

Obviously, changes in the music culture and economy take place when music is produced, distributed, perceived and used by historically “new” media,¹ such as sheet music, the radio, discs and more recently, *MySpace*, *Last.fm*, *YouTube*, *Facebook*, *Spotify* or *SoundCloud* to name but a few of today’s new digital networked media. Their commercial and individual development as well as the use thereof drives converging and diverging processes more than ever before. Increasingly more people, with diverse interests, are involved in simultaneous complex processes on the level of technology, products and industries. These people particularly adapt and change or develop new media practices, which especially drive the convergence of the formerly distinctive roles of “producer” and “consumer” in the surprisingly new role of media “prosumer”. This term, introduced by futurist Alvin Tofler in (1970) and then developed in his book *The Third Wave* (1980), assumes that consumers will be more and more interrelated with the processes of production, which will change not only this process but also many other basic assumptions of doing business.

The scientific challenge posed by convergence processes is finding definitions as well as appropriate concepts to name and to understand their challenges as precisely as possible. In the mid 1990s, these efforts became the focus of interest in strategic research, when Hamel and Prahalad (1994) showed that corporate success was not solely based on a competitive position in the market but is dependent on three stages of success: first, success on building “intellectual leadership” as a competitive advantage through better strategic foresight; second, competitive advantages through realisation and re-directing management and value creation. This is as important as a company’s competitive position in markets where, when it—in the third stage—comes to making profits, of course costs and differentiation advantage are decisive. Strategic convergence foresight is above all a practical challenge to be able to articulate as plausibly and clearly as possible, how and why which technologies, products, industries as well as practices and roles converge as well

¹ Communication and Media Science historically distinguishes between four dominant groups of media with regard to the respective technology. The oldest group is the Primary or Role Media dealing with fundamental media roles (“minstrels”, “prophet”, “priest”, etc.) and institutions such as the “theatre”. Here, public communication takes place without the use of technology. Print or Secondary Media such as “books”, “newspapers” or “magazines” require technology for the production of public communication and culture; electronic or tertiary media such as “cinema”, “records”, “radio” or “television” require additional technology for their reproduction. The new digital networks or Quaternary Media require additional transmission technology and software. The medium is not the “Internet”, which is comparable to radio waves, but specific equipment, upon which services within a framework of communication-generalised expectations exist such as YouTube, Facebook, etc. They do not however differ through their being “social”. All media is social.

as diverge and how converging is to be addressed as an advantage with selective new categories, models and concepts.

Strategic foresight research comes closer to research on the development of media, when media practises are converging, are *inhomogeneously* integrated in the processes of production, allocation, perception and of the use of media for communication (for this understanding of convergence in detail see Winter 2006a). This is particularly true if not only practices are changing but also media-related roles like “producer” or “consumer”. To understand such new roles as “prosumer”, they should be researched as specifically as possible, as I will do here with my reconstruction of the evolving role of “prosumer” in the music industry, as a leading media and culture industry.

Research on convergence strategy, as opposed to pure economics, holds that knowledge of what *will* be important in the future economy is central; like for example, the new knowledge about new options articulated with the new role of a media prosumer in the music economy. A glimpse into history shows how the development of new print media such as sheet music and then electronic media such as the radio, records and television opened up such options as well as substantial new music markets, that were now closer related to innovation and creativity in the music business (Tschmuck 2012).

Even if we only focus on the music industry, we are confronted with a variety of different processes of convergence and divergence on different levels of action: industries, markets, transactions and value creation on the level of practices. In their totality, they all point to the fact that we need to rethink some of our very fundamental economic assumptions. Should we—for example—really assume that the economy should be based on markets as still being the best mechanism for serving the needs of people (as consumers!) and for regulating production and allocation to sustain growth on their demand as consumers—even if they are becoming prosumers (Smith 1976 [1776])? Economic models of innovation and of value creation focus empirical attention on the processes of the commercial production and distribution of their goods and services in markets as well as on increasing opportunities to perceive and to purchase them. It was also assumed—for example—that innovation and the creation of value is a matter only for commercial producers from within the economy (Schumpeter (1997 [1911])). To reduce transaction costs as much as possible it needs—another assumption—only firms (Coase 1988 [1937]). Only firms and commercially oriented value creation, by combining their means of production, will create not only profit but also prosperity—market orientation matters (Porter 2004 [1985])!

Most critics and even economists like M.E. Porter himself, the former high priest of market-oriented value creation, no longer believe in assumptions like that (Porter and Kramer 2006). Today, many ordinary people own smart digital-networked media which allow them to evolve their relations (see Winter 2006b), to create value related to and with music in private and in public (Winter 2012)—without companies (Shirky 2009) for much lower costs. Using these new media as means for activities such as criticising, sharing, producing, commenting, posting, publishing—to name a few—they socially and culturally innovate their life while



Fig. 18.1 Media connectivity (music) communication model (following Winter 2003, 2006a: p. 24)

at the same time they create not only economic but also cultural and social value. This article focuses on the convergence of the roles “consumer” and “producer” which are conceptualised to name very different activities and practices related to the use of media as means of production. Such research seeks to develop a more profound understanding of what these new consumers as prosumers are doing while their value activities are mostly not market-based, but instead happen in new social networks where they not only make but also raise cultural and social capital or innovate their own and their friends’ lives. To understand this, one needs to look at the history of music cultures as *media-constituted* music cultures (see Chap. 2).

Communication and media studies conceptualise music as the overall process of its mediated production, allocation, perception and use (Fig. 18.1). For ordinary people, referred to by music business as consumers, new media in this sense have always been new means to overcome the uncertainties of communication which we do know as the main *functional* problem of mediated communication (Luhmann 2001). To earn money and overcome these uncertainties between people and music or artists, firms have produced ever more commercial media: first print media, then the music specific discs or records, as well as the radio or TV, to narrow the distance between music and people. This can be visualised in the *Media Connectivity of Communication Model* if instead of communication you specify the form of communication: here music. The “M” for media refers to the fact that the different moments, contexts and types of action are first of all uncertain and only interrelated as well as connected or interwoven through medium-related practices, if mediated communication was successful (Fig. 18.1)²

Commercial media production ensures increasing proximity between music production and artists on the one side of the process, and on the other side, fans as consumers—in turn, market profits usually follow. Today, much closer relationships are possible between artists and fans without the intermediation of markets and of music business. Thanks to new digital network media such as *MySpace*, *Spotify* or *SoundCloud*: They and other digital network media drive the transformation of a “recorded music culture”, as a “push” music culture, in which only a few produce for the many, into a new networked “pull” or “on-demand” music culture in which increasingly more people are creating value for the general public in networks where they share, post comments, publish and even produce music by themselves.

²I have examined the various concepts used to differentiate these sub-processes of culture and communication and later value creations as well as the logic driving it in detail elsewhere in length (Winter 2006a, b, 2008).

New media opportunities for value creation and particularly for new market opportunities are no longer exclusively only for companies. The new networked media were not developed for them, but for ordinary people. More and more use them as if they were running a business but without being a business: as prosumers, as people who are not bound by markets but seek to create and to produce much more than any firm until now (see Kaufmann and Winter 2013). The music economy and culture today is mostly transformed by prosumers and their use of new digital network media as their new means of production of music. Therefore, the understanding of this new role is a key challenge for convergence research as well as for new convergence strategies. Chapter 2 starts with this challenge in reconstructing the development of media as the development of means to produce, allocate, perceive and use music as well of related roles. Chapter 3 examines how “prosumers” today reach their scope of action and possibility and how this challenges the economy of music-related value creation. Finally, a dynamic model of media-related value creation is presented and discussed to allow new strategic media convergence foresight. This model, which evolved out of a qualitative research project on the Berlin music economy (Winter 2011b), is used to conclusively explain the dynamics of the convergence related to all roles involved in the creation of music. Berlin-located networks, as empirically shown, are as well a symptom of a converging and simultaneously diverging media economy on its way to a smarter, more inclusive and sustainable value creation. In contrast, we then ask in the conclusion, if we are possibly witnessing the convergence of commercial and of social innovation in a post-capitalist form of value creation in the music economy, and finally if we are seeing a new quality of convergence with new differences on a global level.

18.2 Media Development and Convergence in the History of Music

The music industry was challenged earlier than other industries to respond to challenges posed by the new possibilities of the digital media revolution. Since Shawn Fannig programmed and developed *Napster* for music exchange in 1998, many new digital network media such as *Last.fm* (2002), *MySpace* (2003), *Facebook* (2004), *YouTube* (2005), *Spotify* (2006) or *SoundCloud* (2007) have been established. Their importance for creating value in music can only be understood if they are seen as media to produce communication and culture. Since *Napster*, not only firms and large public organisations have music and media at their disposal but also more and more ordinary people who discover them as their means of creating value for friends and relatives as well as the general public. The manifold, diverse and global consequences of these developments bring about unimaginable changes not only within the legal, technological, economic, social and cultural frameworks or circumstances, but also for the former fixed roles “producer”, “artist” and “fan” or “consumer” as well as for music culture and for the music industry.

Thirty eight interviews³ which were conducted with a variety of selected figures from the Berlin music business, as part of a bigger research project on particular characteristics and future potential and prospects of their value creation, can be used as a guide: Strong impact to develop any future potentials and perspectives is not expected from market players but instead by developing co-operative relationships with artists, but most importantly with music fans—traditionally furthest placed from the process of production in the music business. New ways of using media as means of production and new relationships bring new converging dynamics. From the perspective of an economist they matter, if they do pay.

The history of music and the music business show that seeking strategic foresight in relation to the development of media and the scope of ordinary people's actions has paid off. Those who first understood that publishing works could drastically change live performance culture stood to make a lot of money. Researching strategic foresight is not about making money, but about understanding what an artist, a music teacher, music school or even a society lady might potentially do with the new possibilities in a way that changes their roles as well as their consumption behaviour.

The transformation of music culture through sheet music—for example—was at the time not business based; and those involved had not been a part of the live-performance culture (Grosch 2010). Media and cultural change is initially a sometimes visible change in actions, practices and relationships embedded in the often invisible roles of people. Therefore, a comprehensive understanding of the new role “prosumer” as a result of the convergence of consumers and producers is a prerequisite to convergence strategic foresight.

With regard to the development of media, which is never only an “addition” but system changing (Meyrowitz 1985), new media practices and relationships evolve that overburden existing social, cultural, legal, political or economic institutions as well as cultures like for example “music cultures” as the overall processes that constitute the dominant forms of music in society.

Each historical formation of music culture alters when the conditions of process of music culture or their sub-processes (production, allocation, perception and use) or their relationship change, are substituted, supplemented or invented completely anew, to accomplish something that had not before been possible.

That happens—as will be shown, when a new medium is institutionalised through new media practices, processes and roles, in which the very early ages of music cultures could have been media itself—but completely out of the reach of ordinary people: Before the development and spread of print media, music culture was, from the perspective of media and communication research, made up of “role” or “primary media”. Role carriers as primary public media were providing,

³The interviews took place within a research project conducted by the IJK of the Hanover University of Music, Drama and Media for the Berlin Music Commission, in which a model of dynamics of the Berlin music economy was to be developed, in which concrete value creation potential and perspectives were to be identified and developed—compare Chap. 3.

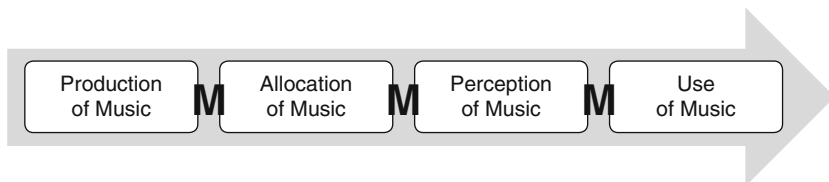


Fig. 18.2 Live performance music media culture

according to their time and society, specific functions (e.g. spreading entertainment such as “rhapsody”, “minstrels”, etc.). People who carried roles with media functions have served as media because expectations were placed on the role and not the person performing that role.

In the ages before print media have been invented, roles constituted a system of live performance culture in the places they were performed. Music could be experienced at the place where it was produced, distributed, perceived and used through role media as a *performative* part of the representational culture of, for example, the feudal system, visualised in the model as the arrow. This model emphasises the bias and linearity of production, distribution, perception and use of music within the oral live performance culture⁴ (Fig. 18.2).

The use of sheet music and later that of music books detached production, distribution, perception and use of music from its representation culture, roles and locations, creating new music opportunities in new spaces in new places, more open to ordinary people. Some became “producers” of sheet music but the most became “consumers”. But dependent on their ability to read and write lyrics, or later to read notes and perform (printed) music, they could even become composers. Those who acknowledged before others that more and more people would become readers and writers, as well as the value of participation and knowledge gained through the *print* media-based cultural changes had strategic foresight. Such people could much better plan and direct value-based activities of production and distribution of print media, dependent upon the reading and writing skills available at the time. Dealing with print media constituted the performance (music) culture of the emerging bourgeoisie. This brought about the existence of not only amateurs as consumers and musicians but also a growing number of professional roles like music teacher, musician or music critic, who in turn opened new spaces for music through *feuilleton*.

This new more diverse commercial print media performance music culture could be influenced by a larger number of people: hobby or professional musicians alike, but for the first time that of ordinary people as consumers who influence production and distribution through their consumption. Now the production as well as the

⁴The differentiation between “oral live music culture”, “performance music culture” and “recorded music culture” as phases of the current transformation of music culture follows Faulstich (2000).

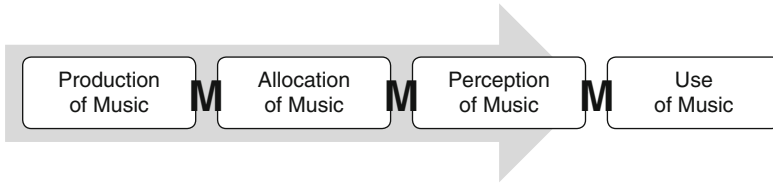


Fig. 18.3 Print media performance music culture

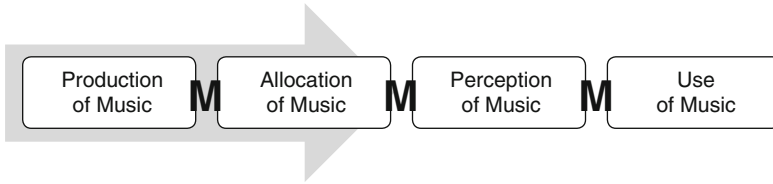


Fig. 18.4 Recorded music media culture (following Winter 2011a: p. 163)

allocation and distribution were beginning to be organised as and by businesses that served the demands of their new different customers with the means of production and distribution at their disposal.

Because production followed that which was of market interest and could also be sold, the music culture also became a little more democratised, while it at the same time incorporated capitalistic rules of production, allocation and of course also the organisation of the perception—which at the other end liberalised and of course privatised the use of media and music (Fig. 18.3).

As might be expected, electronic media such as radio, records and TV expanded music culture with more opportunities of production, allocation, perception and the use of *electronically recorded* music. For the first time, it was possible to hear music without a musician being present and regardless of the location, to experience a live performance. This medium was produced usually at the demand of young people who wanted to open up their scope of experiencing music more easily and in private, by mainly using records. Electronic media enabled greater freedom for choosing the time and location in which to perceive or “listen” to music (Fig. 18.4).

Corporate finance and re-financing activities helped make it possible to finance music culture and create a system in which radio and TV was mostly free of charge at the point of access. Apart from live performance, recorded music culture was the most direct form of media that had ever existed. Its stars, such as The Who or Joan Baez, were appealing not only musically, but often aesthetically, culturally and socially. The fight for freedom of the new media at the time was also a fight for the right to music, which may be hard to understand today. Indeed, who now even remembers the influence of pirate broadcasters on the development of pop music (compare *The Boat That Rocked* 2009)? This fight for free media brought musicians, businesses and consumers together. The participation of Joan Baez in

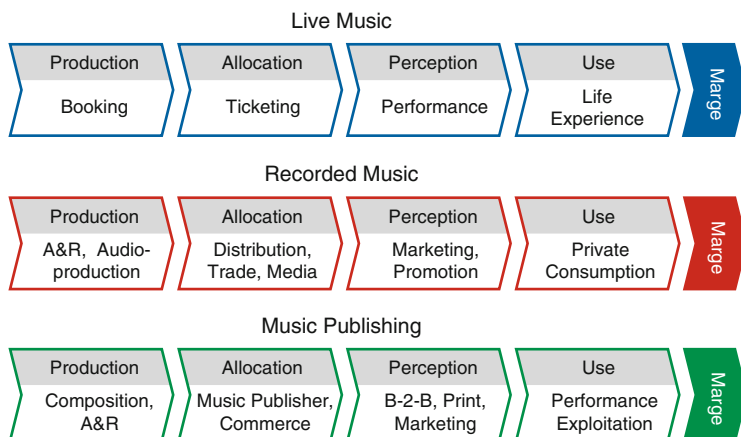


Fig. 18.5 Value creation in the recorded music culture industry

the civil rights movement was a part of a vital and open music culture. Purchasing records of their favourite stars made fans a part of the music culture along with the now three branches of a globally successful music industry (see Fig 18.5)—dominated by record companies (Wikström 2009: p. 49). In their different structure, these three sectors represent all drawn remnants of the history of our musical culture.

The continued commercialization of the overall media world and the growing number of passive media consumers increasingly conflicted with the creative critics and in particular many music consumers. In the late 1970s, as music began to drown under the influence of commercial interests, a new anti-culture began in cities like New York and later in London with the *Do it Yourself* (DIY) Culture. “Don’t hate the media. Be the media”! was the motto. Everybody should produce and distribute fanzines and records themselves to become a part of a mostly artistic anti-culture programme. However, music culture became more of a creative challenge for everyone. This was accompanied by the age of MTV in which pop culture became globalised and MTV the most valuable media brand in the world. Despite innovative formats such as “The Real World” running since 1992, however, MTV has since lost its consumers and has lost its global relevance for music, mainly to digital video networks such as YouTube. How did that happen?

18.3 Music Prosumers and New Media-Networked Value Creation

As was the development of other media unforeseen, so too was that of Napster or YouTube as new digital network media. Nobody expected the socialisation of the means of production, which—especially in the music industry—was met with a lack of comprehension (compare Renner 2004). These new media allow new

relationships, roles, requirements and prosperity opportunities. Until today, too little time and attention have been given to research the potential of digital-networked media as *the* new means of production and the fact that for the first time in history such powerful means are owned and used by ordinary people (Benkler 2006; Potts et al. 2008).

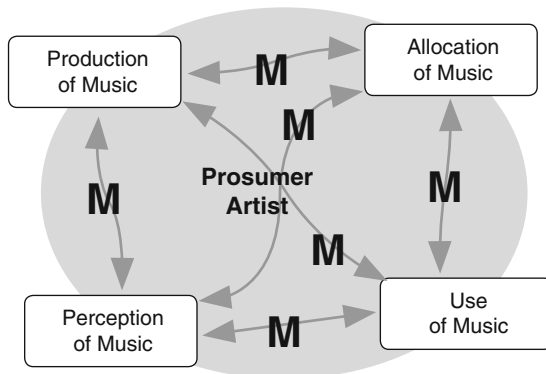
Technologically speaking, new digital network as quaternary media do not only require technology to produce and reproduce music, like electronic media, but also software and transmitting technology to allow connecting and networking. This opens the scope of meaningful, powerful diverse actions in a way as firstly Raymond Williams explained with the new electronic medium TV, when he famously showed that the technological form as such does not in itself make a cultural difference (Williams 1974). A new technological form *allows* people to create new cultural forms and differences which, if it becomes a medium of communication, establish new social relations as a basis for new commercial and of course non-commercial activities.⁵ Napster, as a new network medium, enabled people to connect, to network and many following public activities like commenting, sharing, liking, and publishing—to name only a few. It followed that our “push” culture, made available by only the few who owned media as a means of production, evolved into a “pull” or on-demand music culture,⁶ that challenges anew every moment, context and role related to classical linear value creation of culture or music (compare Winter 2011a).

Strategic foresight on future potentials and perspectives of value creation needs a terminologically and conceptually clear differentiation from the electronic media-based recorded music value creation: The biggest *media* difference is the new “connectivity”. The definition, usually referring to the connection between a computer and a network, now means a comparable network media relationship created between people (compare Winter 2006a; Hepp et al. 2008). The public *and* private institutionalisation of new network media connectivity allows new practices of music production, allocation and of music perception and use. These forms are the new “pull” media cultural forms of the new networked “on-demand” media music culture, made possible by the new media “prosumers” of music, of which only a very few have understood its overall complexity and converging realities. This is why we only see a very limited range of adequate new business models (see in detail Winter 2011a).

⁵ The unfolding of this cultural difference follows the development of a technology into a media in relation to complex processes (Winter & Dürrenberg 2011), that are not easy to comprehend. It is a process of mediation between the developments of a cultural form of a medium within and between the processes of production, allocation, perception and use of, in this example, music. The process will become, as shown in historical reconstruction, more elaborate with the development of every new medium that makes these processes more independent.

⁶ The now common use of the terms “push culture” and “pull culture” or “on-demand culture” stem from James Lull (Lull 2002; 2007 discussed in Winter 2011a; Winter 2011a, b).

Fig. 18.6 Media-networked on-demand music culture



YouTube, *Spotify* or *SoundCloud* allow those involved in the new value creation opportunities of new media connectivity and networking: not just the use of music as reception, but increasingly its distribution and production, created and thereby constituted from prosumers in the new non-linear media pull or media on-demand music culture—which is networked (compare Fig. 18.6).

Because today everyone has these same means at their disposal (as identified by the *TIME* magazine), *YouTube* and other digital-networked media have enabled individuals to become producers, publishers and creators and *TIME* declared “You” in the year 2006 as their *Person of the Year*.

Who are “you”? Definitely not a member of the archetypal “Audience” or “Target Group” or a “consumer”! Neither of these definitions was developed to describe active networked activities of people. A term more often used in this context is “prosumer”. Alvin Toffler first used the term in his book *Future Shock* (1970) and later more closely examined it in the book *The Third Wave* (1980). The saturation of the market leads to a dissipation of borders between producers and consumers. The future, according to him, lies in new forms of collaboration comparable to an architect working for a client trying to build a house. Toffler expected that the spread of prosumerism would necessitate a revision of our economic models, measures and categories with regard to new value creation efforts and possibilities that have become more commonplace today. For him, prosumers are people that withdraw money or tank their cars without help.

One of the first who made a media-specific sense of “prosumers” related to their use of digital network media was Saul Berman in his much circulated White Papers “*Media and Entertainment 2010—Open on the inside, open on the outside: The open media company of the future*”. The challenge for media companies, according to Berman (2004), would be in understanding and being capable of fulfilling the expectations of the varying media-skilled and active clients. As Toffler, he expected that they, in varying degrees, would be increasingly involved in the creative process (ibid. 12). Apart from “traditional passive consumers”, he distinguished between the new media active consumers “contributor”, “producer” and “author”. The future

lay in being able to first get their attention and second to be able to fulfil their expectations.

Prahalad and Ramaswamy (2004) reformulated this complex challenge productively through the concept of the co-creation of companies with their clients as the company's aim. Here they were the first to see the change of a push to a pull strategy with a knowledgeable reference to Napster (*ibid*: 35–37). Although their strategic starting point is the changing role “consumer”, which is no longer what it once was,⁷ but they had not yet conceived the notion of consumers becoming value creation partners with a means of production at their disposal. They postulated managers must think as “consumers” (*ibid*, 155–170) and meet consumers eye to eye to together define value efforts. Consumers in their conceptual frame of reference, however, remain consumers. Their line of thinking was still very much from a corporate perspective. Even Gary Hamel's demand that management innovations were central to strategic reflection changed nothing, although his demand to invent a new Web 2.0 management took network media as its focus into consideration (see Hamel & Green 2007). The best way to understand the new roles of consumers as well as the associated value creation potential and perspectives is through Charlene Li's and Josh Bernoff's idea of a new “groundswell” (2008), because they strategically reflect on what everyday people could make with the new media. Their orientation—from the perspective of a media and management scholar—concerned the basic question of media and communication science: What do people do with media?

For Charlene Li & Josh Bernoff the “groundswell”, also the title of their book, is faintly reminiscent of Tofflers “Third Wave”. The groundswell is almost a type of a huge ocean wave which one has to live with because it is impossible to stop or to anticipate easily because it is caused by things going on in the depth of the sea. In today's world of disruptive transformations, we have learned that media or technological-based groundswells mostly start from ordinary people's new media network activities. The future of reliable predictions will be shaped by multifarious groundswell activities, which in turn makes those ordinary people who use network media, prosumers and co-creators of the future. Crucial for the core issue of the identification of value creation potential is that these co-creators are differentiated, relative to their value creation potential which they conceptualise in their “social techno graphics ladder” (see Fig. 18.7). This ladder—as an instrument—enables comprehensive empirical reconstruction of strategic foresight. Li's & Bernhoff's “social techno graphics ladder” support the media scientific theory that technology is not the decisive factor but the manner of relationship in which it is developed or expanded (*ibid*; 41). However, these relations which they refer to as “connection” are unfortunately not elaborated upon like for example in the definition of digital network media as a new group of quaternary media. Li and Bernoff define “connection” without any reference to new digital network media as (somewhat

⁷ “The most basic change has been a shift in the role of the consumer—from isolated to connected, from unaware to informed, from passive to active.” (Prahalad and Ramaswamy 2004:2).

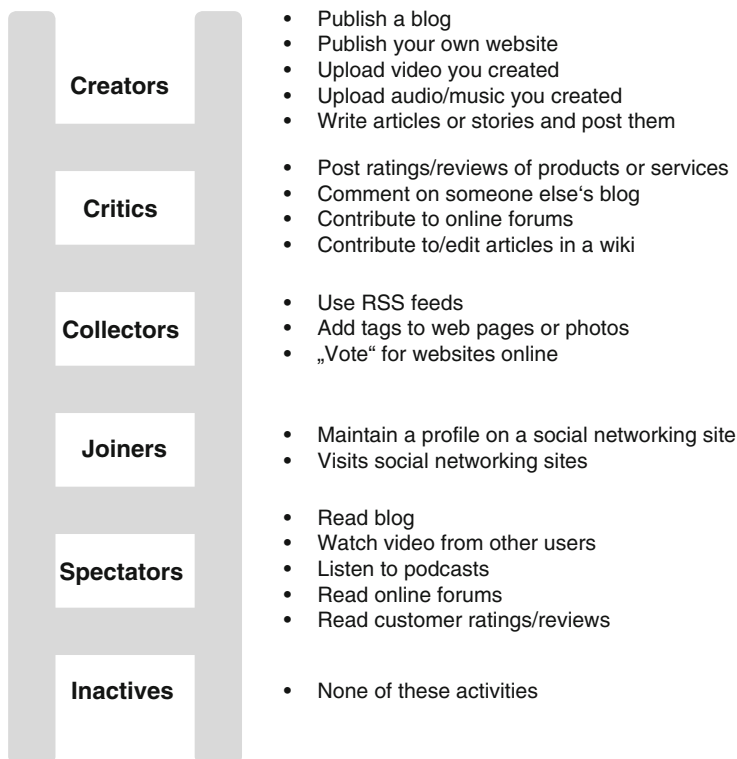


Fig. 18.7 The social techno graphics ladder (Li and Bernoff 2008: p. 43)

imprecisely) “involvement”: “Each step on the ladder represents consumers more involved in the groundswell than the previous steps.” (ibid: 43)

Despite the different role signifiers on the tech-ladder of Li & Bernoff, people—in Li’s and Bernoff’s opinion—remain “consumers”. Their use of the term consumers is unfortunately not completely thought through. The weakness can however be easily corrected. The tech-ladder is a good tool or model to better understand the converging ways in which the role “consumer” is being transformed. First, people climbing the participation or social technocratic ladder are not only consuming, but are investors investing their skills and are therefore mainly prosumers who produce and—for example—consume music. However, there is another problem: The term “social technology” is appropriate as an ability to constitute social relationships. But technology alone cannot constitute social and cultural relationships, but merely the use of them. Another problem is that the term “social” leads to the false presumption that print media and electronic media are different because they are *not* social. The more precise term “digital network media” should therefore be used because of problems posed with both the term “technology” and the term “social” which do not convey an adequate understanding of the complexity of the social, cultural and of course economic causes and effects

which are conveyed in terms like “medium” or “media”. Thirdly, it is impossible to master the undisputed strategic challenge to come to terms with or understand the challenge of convergence if “creators” are understood as “consumers”. The term ignores the specific novelty that Toffler had expected and Berman had in mind and the “tech-ladder” is illustrating: Consumers become “productive”. What two-thirds of the book describes as something that companies *should* do (i.e. listen, energise, help or embrace), prosumers do by using network media to broaden the scope of music life and culture which, of course, helps them to climb the tech-ladder.

Acquisition of cultural skills by using digital network media is comparable to that needed for using print media, reading and writing. It was not the media which started a revolution, but the people who wanted to learn to read and write or already had learned to do so. Nobody expected either at the time. It was not compulsory to learn to read and write. Today, the skills required to use digital network media are cultural skills to create new relationships, new perspectives or even music. Inevitably, these skills are system changing: People who have acquired new digital skills also acquire a new freedom in the long run. They wish to make the freedom associated with these media and the many related cultural skills permanent. Activities with YouTube, Facebook, in combination with Spotify, SoundCloud, etc. already make up a completely new digital media-networked on-demand music culture: Communal playlists, public exchange of music, not as illicit, but as socially desirable behaviour, that make connectivity charged with social and cultural or aesthetic values, making musically based social links visible to others as signs of esteem, etc.

New occupational roles show how ordinary people, as usual as part of media development, develop new roles which integrate former separate aspects and activities. Bastian Lange, for example, describes how for the case of Berlin ordinary people became “Culturepreneurs” (Lange 2007). The boundaries between cultural value creation and economy become less clear. Indications such as that from Tschmuck, that one should go “one step further” (Tschmuck 2011: p. 25), because today “producers of music can be simultaneously consumers and vice versa” (ibid.), are rare.

A project of mine designed to research value creation potential in the Berlin music economy (2011b) showed how dynamics can occur in the context of active prosumers. It would seem that fans, as indicated in the interviews, drive and shape not only virtually but also the “real” commercial music economy as active new forms of value creation occur when not only their network activities but also that of their artists as skilled “artpreneurs” become the driving force not only of their music culture but also of the music economy. Apparently, going up the tech-ladder is also relevant for artists as well as for anyone else within the music economy. To profit from these skill developments one has to learn that this is transforming existing relations in a way that fans, formerly only consumers, can and will become partners in value creation—which will establish another meaningful relationship for both. But still some people in the music economy wish to see prosumers only as market consumers.

Digital network media such as Facebook, Youtube, Twitter or Soundcloud are par for the course for artists, irrespective of their skills. Many have turned their back on the old notion of value creation, not because of a lack of interest in signing good contracts, but due to their ability to create new opportunities such as new markets for themselves by connecting to others with network media. For artists, network activities can be, as we learned, so much more and provide more diverse aspects of value creation activity.

One interviewed Berlin DJ realised an ever increasing economic, social and cultural value in networking with his fans. They help him with their varying means in his overall value creation. Their networking with him is a powerful empirical example for Castells' notion that the potential of new media networks related to markets is that within them almost anything is of value which allows exchange of much more than money, the only medium which allows exchange on markets (Castells 1996, 2003; Benkler 2006; Winter 2006a, b, 2011a).

In new digital media-constituted networks, everything which can be exchanged is of value. This discovery, which unfortunately cannot be elaborated upon here, is of central importance for the further development of strategic foresight and the orientation of future value activities—of prosumers, but also of many new “culture” and “artpreneurs”. It was beneficial in our research project to differentiate between “publishers”, “distributors” and “co-operators”. They made a difference, not merely analytically as different steps on the ladder, but as new media roles that brought about convergence and change in a future of the institutionalised system logic of the commercially constituted recorded music culture. When ordinary people can make something public, which they have never been able to publicise previously, this then integrates something new in a homogeneous way in the music culture publicity system. When people, who are explicitly not part of the market, suddenly begin to distribute, then this of course integrates something new in a homogeneous way in the system of allocating music. And when these people also cooperate with those, who have made this possible for them, then not only do these everyday people become prosumers, but the entire value creation processes and production relationship change—a little more with every piece of cooperation. But it will also be something new with new contradictions and conflicts that will challenge anew.

To be in a position to understand the scope of these small activities, we need a model spanning future value creation to show this convergence dynamic. Even though the activities of prosumers in the network of the electro-DJs make no change in music culture or music market, they do inherently change the value creation of those interviewed in which they present a continually larger and more lucrative part of the music economy that is not impacted by the traditional music market. All of those interviewed assumed that in the future a large part of their fans will definitely in some way increase their future value creation. In addition, because all musicians or artists wanting to increase their skills in dealing with network media expected further new network value creation potential and possibilities, it seems plausible to anticipate that this opportunity (as shown in Fig. 18.8) could be a part of the future reality. This graphic shows how electro-DJs, independent of the main music economy, create publicity through promotional activities in their network and that

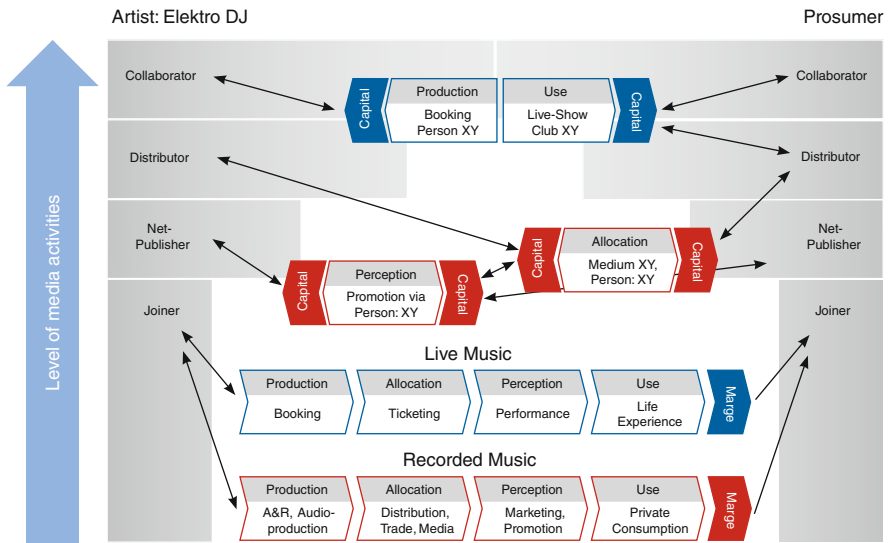


Fig. 18.8 Open-networked value creation (following Winter 2011a)

fans, as prosumers, help the electro DJs achieve this goal by creating publicity for them or sharing tracks that are in turn shared by others:

What makes these activities novel is not that they are happening but that they are increasingly better planned and commercially successful. This can be seen in that the DJ profits greatly from an increase in reputation and profile. He was able to sell more tracks, get booked for more gigs and his fans also play an important role as prosumers by, for example, taking over specific functions. This is shown clearly through the fact that the majority of bookings of the interviewed DJ is no longer done through his agent but by his fans as prosumers. Fans, from all over the world, can ask him if he would be interested in doing a gig in their city because they have seen how other fans have been able to make the organisation of such gigs possible. The advantages of networked economies are obvious. Clearly transaction costs can be reduced and gigs organised more cheaply without a market intermediary. But that is only one advantage of networked economies that we are only now beginning to understand. From the perspective of the prosumer, there could be other advantages of networked economies that are even more important to them than what has been mentioned so far. They have a means of production at their disposal that generally allows them to participate in value activities of musicians, not, however, in the manner of a traditional business figure but as fans of a musician, artist or even of a special club. The networked media-based on-demand music culture already shows a greater scope for potential than every other music culture before.

18.4 Future Convergence: Foresight at Converging Capitalism

New opportunities through converging and diverging processes in networked on-demand music culture(s) must first be developed. We know too little about networked value creation, in which prosumers may possibly play a more important role. It still remains to be seen what forms of capital, other than money (aesthetic capital in the form of virtuosity, social capital in the form of reputation and relationships and naturally cultural capital in the form of knowledge, intuition for trends and cultural differences), will play a role in the future and what sort of system is produced as a result and institutionalised and in what manner this is relevant for the music economy. It is anticipated that music culture will be less frequently structured as a push culture. The more common open and non-linear organisation of production, allocation, perception and use of music will continue to change. Based on the history of the transformations of music culture it can be assumed that ordinary people (especially since they have a means of production and distribution at their disposal and the ability to use them) will increasingly produce, allocate and use their own music culture.

Digital network media have great potential creating possibilities for people, to make media and music a special valuable and meaningful part of their lives, as well as opportunities for companies to be able to sell help—and meaningful related products and services. It is easy to foresee greater success for those providing these services in the future if they support their clients, as prosumers, with their social and culturally innovative endeavours using digital network media. They could encourage prosumers, as owners of their own means of production, to develop and establish their innovations and thus contribute further towards a system of “on-demand music culture” in which production, allocation, perception and use of music that is a more optimal distribution of wealth than it currently is. It might then be possible to realise new and diverse value creation potential and possibilities through openly value media-connected networks on an equal footing and in cooperation with prosumers and musicians or artists from which they are excluded as long as they continue to direct their value creation efforts exclusively towards the market. But today, an only market profit-orientated music business, as a less smart, inclusive and sustainable market industry, is a frontier for the social innovation of many prosumers and artpreneuers (see as an example for more or less successful corporate counter media development strategies, Buschow 2012).

In the long term, this frontier is less of a problem for prosumers than it is for the key figures in the music business. It prevents them from monetising the number and quality of socially innovative prosumers from which they could profit if both the music culture and the music economy could seriously work together towards establishing a more converging as well as diverging economy to create a more competitive economy and civil society. As more consumers become prosumers, companies have to involve themselves with more and more social innovations (Mulgan 2007) and strategies to share value (Porter and Kramer 2006). Many of them will be start-ups and not from the music industry like, for example, those who started funding music through Crowdfunding or helping club owners to establish

clubs in neighbourhoods in which they could, as some do, develop ideas for noise and refuse management. This article hopes to increase the potential for strategic convergence foresight particularly with regard to the new digital network media and the new media role “prosumer” within the context of the evolving music culture and the music industry. The new dynamic of the latter, to the extent it is less about markets than a networked post-capitalist music business, can be explained through the models provided in this article.

Exercise Questions

1. Name the four groups of media usually differentiated in regard to the respective use of technology!
2. Name and explain the three stages in media companies’ competition for the future!
3. What practical challenge is strategic convergence foresight?
4. Name and explain basic economic assumptions and names of scientists related to the function of markets, the role of firms regarding innovation and of transaction costs and of the direction of value creation!
5. Name the four constitutive moments and context of media communication and explain how they relate to successful mediated communication!
6. Name the concepts which refer to the change of direction in the production of music culture related to the development and spread of digital network media!
7. Which group of proactive figures today have had the biggest impact on the transformation of the music culture?
8. What is changing music and media related roles as well as the consumption behaviour of their carriers?
9. What is a prerequisite to convergence strategic foresight?
10. What did those people with strategic convergence foresight have before others in the advent of print media?
11. How did electronic media such as radio, records and TV expand music culture with more opportunities of production, allocation, perception and use of music and how is the new music culture defined?
12. What was the motto of which counter culture evolving from cities like New York and London in the late 1970s when even punk music began to drown under the influence of commercial interests?
13. What, until today, receives too little time and attention in researching the potential of digital networked media?
14. What is the main technological characteristic of digital networked media and what does it allow?
15. Between which groups of consumers does Berman distinguish in the white paper “The open media company of the future” and where does he see the key challenge of the media company of the future?

16. **What strategy changes Prahalad & Ramaswamy anticipate facing Napster first and on what new insight?**
17. **What seemed, until today, the best way to understand the new roles of consumers as well as the associated value creation potential and perspectives?**
18. **What are the two main problems with the “social technology”?**
19. **Why does the concept “consumer” avoid understanding the novelty of the relationship of customers to businesses based on digital network media?**
20. **When, why and how did it come to qualitatively new dynamics in the creation of value in the Berlin music industry?**

Reflexive Questions

1. **Is there any skill or freedom of yourself as a “prosumer” which is not yet but should be permanently institutionalized on a legal base?**
2. **What do you think of a future smarter, more inclusive and sustainable post-capitalistic music economy? Is it only a dream or do you think it will come true? Discuss five pro- and five counter-arguments!**

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Part V

Convergence and Journalism

Andy Kaltenbrunner and Klaus Meier

Chapter Objectives

1. To understand convergence and integration processes in media newsrooms.
2. To be able to analyse different ideas of convergence processes like full integration of different channels in one newsroom, cross-media cooperation or coordination of isolated media platforms.
3. To understand cross-media strategies in newsrooms and on news-desks as a permanent change process for management and journalists.
4. To be able to develop new convergent strategies for traditional print media, news agencies and broadcasting corporations and characterise their potentials and pitfalls.

19.1 Introduction

Keywords such as *convergence* and *cross-media* are symbols of the rapid structural change in today's media and journalism. They serve as vessels for trends, demands, hopes and fears, and are therefore equivocal terms, open to various definitions and interpretations. As early as 1995, when the scientific journal *Convergence* was first published, “convergence” was stigmatised as a “dangerous word”, not only because it may have so many different significances, but also because it involves a “claim”, a statement, namely that convergence is unavoidable (Silverstone 1995, p. 11). To this day, sentences like “Cross-media is the future of journalism” can be found on

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the cover of *How to* books (Jakubetz 2008) or are featured in concepts of journalists' education (Cf. eg. Meier et al. 2012, p. 311). When a so-called *Media Business Academy* in Hamburg announces a film festival in 2009, it is of course titled *Convergence Summit*. The World Association of Newspapers (WAN-IFRA) yearly report on "Trends in Newsrooms" for publishers 2011 once again is mainly focussed on "the wisdom of integrating their print and online platforms" (WAN-IFRA, 2011, p. 7). In 2011, the Australian government itself established a *Convergence Review Committee*, aiming "to examine the operation of media and communication regulation" (Australian government 2012, p. VII). Convergence discussion with wide public participation now seems to enjoy government sanction at the antipodes. *Convergence and cross-media: semper et ubique?*

To comprehend what we are talking about when using terms like *convergence* or *cross-media*, a simple definition might help: According to Jane B. Singer (2004, p. 3), convergence relates to "some combination of technologies, products, staffs and geography amongst the previously distinct provinces of print, television and online media". Thus, it refers to a combination of formerly discrete realms or—if you interpret *cross-media* literally—to an "intertwining of media" (Meier et al. 2012) in digital technology, in corporate groups or markets, in the everyday journalistic work, in contents, their distribution and usage. Lately, ever more cross-linked digital media users or *producers* (a contraction of *producer* and *user*) and user contributions are included into the analysis of convergence (Cf. Quandt and Singer 2009, p. 137–139).

All these aspects are interrelated, but analysis requires them to be considered separately, if their complexity is to be grasped in all its details. In the context of journalism studies, the focus lies on factors relating to journalism in its traditional meaning as an organised self-observation system of society. Although researchers dissect journalism through the prism of various social theories (Cf. eg. Blöbaum 2005; Weßler 2002 p. 32; Shoemaker 1991; Meier 2011 p. 65–69), there are three structural areas that are consistently differentiated between when systematising journalism and which mainly define the analytical framework:

- Organisation
 - Routines/media products
 - Roles
- Thus, this article is composed of

1. The organisation of journalistic work in convergent newsrooms/editorial offices
2. Convergent content when it comes to cross-media storytelling and display/distribution on cross-media platforms and
3. Re-definition of job profiles and training requirements caused by convergence

19.2 Convergence in Newsrooms

Not only in the USA and various other countries (Cf. eg. Singer 2004; García et al. 2009), but also in Germany, Austria and Switzerland, newsroom editorial routine features *cross-media*. As early as 2007, almost every editor-in-chief of a current

events online platform (97 % of 175 interviewees) agreed with the statement that editorial offices disseminate information “no longer through just one, but through various channels of distribution” (Neuberger et al. 2009, p. 247). Key phrases such as *multichannel strategy*, *multiplatform publishing*, *cross-media journalism*, *integrated newsrooms*, *bi- or trimediality* have dominated conferences and strategy papers of editorial managers, publishers and directors for years now (Cf. Meier 2010). Cross-media processes in many newsrooms were slower in daily practice: Only 22 % of journalists in Austria in 2008 were working for more than one platform at least occasionally (Kaltenbrunner et al. 2008, p. 97). Four years later in 2012 the editorial offices of the dailies *Der Standard/derStandard.at* in Vienna and *Tiroler Tageszeitung* in Innsbruck will move to new newsrooms, where they endeavour to enhance and implement their cross-media strategies, or fully integrate their formerly separated print and online newsrooms in the case of *Tiroler Tageszeitung*.

The creation of a joint newsroom for all channels of the Zurich daily *Blick* (belonging to the publishing house *Ringier*) was considered in 2010 an example of good practice in managing a difficult transfer process in times of cost- and staff-cutting and because “The processes of integration are accepted as a permanent struggle for more cross-media understanding and production.” (Stark and Mierzejewska 2012, p. 3)

Convergent newsrooms exploit digitalisation’s technical possibilities to increase their penetration of the current highly competitive news consumer market. The intention is to compensate for the steady losses in print newspapers and public broadcasting, by targeting the younger age bracket and various online groups, neither of which are consumers of traditional news publications. That, at least, is the hope of innovative editors-in-chief and media managers.

As a rule, such newsrooms tend to utilise internal resources, rather than creating new teams or hiring staff to establish new platforms or channels. Nevertheless, journalists often fear that convergences policies may lead to shrinkage of staff budgets. As experience has amply shown, “the newsroom is not a savings program” (Kaltenbrunner 2010, <http://meedia.de/print/der-newsroom-ist-kein-sparprogramm/2010/02/25.html>⁷, download May, 7, 2012) when implementing new forms of cooperation or integration.

But continuous national and international processes of editorial integration have taken place under the constraints of economic crisis after 2008. In 2010, after 15 months of planning and an investment of more than € 11 million into the implementation of a new integrated newsroom, *Ringier* proceeded to cut 15 % of personnel. At the beginning of 2012, having just declared cross-media as the guiding principle for all journalists, the Spanish publishing group *Prisa*, along with its crown jewel—the market leader *El País*—went on to make staff redundant. As the former boss of *El País*, Joaquín Estefanía, stated in a radio discussion on the occasion of the *Press Freedom Day 2012*, it is difficult to insist on convergence if “there are more unemployed people in journalism than in the building industry” (Cadena Ser, 3.5.2012, see: http://www.cadenaser.com/sociedad/audios/diamundial-libertad-prensa-hoy-hoy-2012/csrsrpor/20120503csrsrsoc_3/Aes/).

However, digitalisation of media industry and the modification of journalistic processes take place independently of other, general, economic requirements. Five years ago, Arthur Ochs Sulzberger, publisher of the *New York Times* (NYT), was quoted as follows: “I really don’t know whether we’ll be printing *The Times* in five years, and you know what? I don’t care.” (Avriel 2007). In mid-2009 NYT, accepting a whopping interest rate of 14 %, had to borrow \$ 250 million from the Mexican billionaire Carlos Slim Helú, putting around seven per cent of NYT shares in the hands of his family holding to secure the paper’s survival. The loan was repaid in 2011, and its process of convergence has been kept on course. Sulzberger’s declared target is “to manage the transition from print to internet” (Avriel 2007). During this transition from hard copy to soft copy, the term *cross-media* can be taken literally: Editorial resources of print workflows are shifted towards the internet because of the *intertwining of media* on the news-desk and in integrated newsrooms.

While the editorial staff is learning new processes of gathering, editing and distributing on different platforms *convergent media management* has to define new value chains. Cross-media income, slowly, shifts from traditional sources such as newspaper subscription and ad selling to new digital business models. Germany’s largest print company *Springer-Verlag* with its turnover of more than 3 billion euro in 2011 reported this as a new record mainly because of 40 % growth of income from digital media activities in just one year whereas national print income is still the main contributor to the group’s success but showed a small minus in business volume. The media managements key questions when converging newsrooms is how to convert editorial reputation and shrinking income from traditional media sales to find new revenues cross-media. Different forms of “paywalls” for digital contents have been introduced in large news media such as *The New York Times*. CEOs and CFOs experiment with new cross-media subscription models and need some help of CTOs to understand better the technical dimensions of digitisation and convergence processes. Income from Apps for mobile devices, smart phones and tablet PC is still relatively low—but growing—and one more hope for media companies for relevant future revenues. Managers are challenged not only to find the right fields of activity for their innovation processes but furthermore also to define the adequate speed for change processes and how to divert income and investment to different channels.

Cross-media is incompatible with the traditional structures of editorial offices: Every print department used to work on its own page; every TV or radio department used to work on the programmes they broadcast; every medium used to have its own premises. New models of editorial organisation blow this autonomy out of the water: Cross-border cooperation between departments, programmes, and channels at a news-desk or in a newsroom is to become the working standard. Topics of the moment, no matter how complex, become more readily identifiable and their coverage can be more flexibly planned and put into practice.

In this context, the (English) terms *newsroom* and *news-desk* have become buzzwords of editorial management in Central Europe—especially in dailies, but in news agencies and in broadcasting corporations as well (Cf. Meier 2006; Milz

2007). These terms are utilised and perceived very differently in journalistic practice, though. As early as the day when computers first penetrated the American newsroom, the paradigms of “Editing for Today’s Newsroom” (Stepp 1989) were used to define the methodological requirements. In German-speaking countries, the term *newsroom* is not so much used in reference to room/department layout, but rather to a novel organisational model and to a new way of thinking and acting journalistically. Hereby, quite frequently, there is talk of the “crumbling of walls in people’s minds”.

In the course of digitalisation and of the development of the Internet, the early adopters of editorial processes of convergence in Scandinavia and the UK put the term *newsroom* into the focus of the Europe-wide discussion of the industry, propelling it to the status of a quasi-synonym to multimedia modernity after the turn of the millennium. From then on, the news-desk has been understood to be the control centre of these multimedia editorial processes. Analysis and assessment are difficult however, as minute details differentiate between the numerous news-desk models.

According to an estimate, half of German newspapers had adapted their premises to the new editorial structures and workflows by 2005 (Cf. Landtag NRW 2006, p. 57); this number has probably increased dramatically. Furthermore, news agencies like the German *dpa* (Deutsche Presse Agentur) and *epd* (Evangelischer Pressedienst) or the Austrian *APA* (Austria Presse Agentur) use integrated newsroom concepts (Cf. Meier 2007; Elmer 2010). Broadcasters experiment with newsroom or news-desk ideas in order to better cross-link their media, too. Thus, in 2006, *Saarländischer Rundfunk (SR)* implemented a newsroom serving as a joint planning centre for radio, TV and online editors. Five years later, *SR* states that the concept “has become accepted and is considered best-practice in media innovation” (Saarländischer Rundfunk 2011). Approximately at the same time, public Danish broadcaster *DR* had already moved its central editorial departments into a new tri-media newsroom at *DR Byen*, a newly built, dedicated village in former wetlands on the outskirts of Copenhagen. *Bayerischer Rundfunk* plans to develop its comprehensive, tri-media strategy called “*BR hoch 3*” [“Bavarian Broadcasting to the power 3”] from 2012 (Cf. Lierheimer 2011; for further examples: cf. Meier 2010). Austria’s public broadcaster *ORF* (Österreichischer Rundfunk) is discussing a future tri-media newsroom especially for its news-department, whereas Swiss *SRG* (Schweizerische Radio- und Fernsehgesellschaft) explicitly keeps news-teams of radio, TV and Internet separated but integrated other sectors, e.g. sports, where every journalist is working for all three public platforms now.

The following general definitions stood the test of time because they apply to most models (Cf. Meier 2006, p. 209–210; Lungmus 2007, p. 31). One common characteristic of editorial change projects is their not only *cross-media* but also *cross-department* character. Journalists should no longer think in a platform-oriented (“I have to supply my pages/programs with content”) but rather topic-oriented manner (“What’s the topic of the moment? How should we approach and

research it and in what way should the storytelling be different on different platforms?”).

- The *news-desk* functions as the control centre of coordination and production, where all materials available to the editors flow together. In newspaper offices, this is the place where individual pages of various departments are coordinated and produced in order to become a print product. At this news-desk, the different channels of cross-media production are orchestrated. Depending on the concept, one, two or up to a dozen editors can work at the news-desk.
- The *newsroom* is not simply an open-plan office in its traditional sense: its physical layout supports new editorial concepts of cross-media and cross-department news processing. The walls are torn down between departments and channels; all journalists work in a joint editorial space, conducive to increased cooperation and coordination.
- Occasionally, both concepts are combined and the news-desk becomes the centre of a newsroom.

In an international research project, three models of editorial convergence were defined, based on case studies in Germany, Austria and Spain (Cf. García et al. 2009). By means of this typology and of a matrix of 32 questions that are relevant in convergence processes, journalistic research provides editorial managers with instruments which help to develop their individual newsroom strategy; these instruments are not aimed at creating *the ideal newsroom* which will remain just that: ideal. Instead, said instruments a help for research and analysis as well as very practical planning of future media houses are aimed at:

- **Full integration.** The infrastructure required for multimedia production is located in one single newsroom. The aggregation and processing of information, as well as news dissemination, are steered centrally. In the newsroom, workflows for all distribution channels are defined. Topic-oriented teams (formerly known as departments) are often in charge of all channels. Significantly more than half of journalists work for two or more platforms, and are constantly further educated and trained to that end. Convergence is an explicit corporate target and a long-term process of strategic, economic and journalistic development.
- **Cross-media.** A majority of journalists still work for one distribution platform exclusively. Accordingly, newsrooms and news-desks can remain separated spatially. However, there exists a central overall steering of workflows and contents by coordinators and news managers. Building cross-media teams is possible and being promoted, as are multimedia initiatives by single journalists (and their further skill-honing training). Thus, a fifth of employees need to be multi-skilled as a matter of course.
- **Coordinating independent platforms.** Neither the supply nor the production or distribution of news is affected by the cooperation of different media channels within a company. However, that isn't even a strategic target. Individual interest, if anything, drives single journalists to work on multimedia projects—with no particular management intent. Behind it is the purpose of preserving autonomous units with an edge, without taking the risk of diluting journalistic core competences or abandoning the platforms' specific identities. Nevertheless,

cross-media promotion of products and their contents is common. At any rate, a basic awareness of convergence on the management level and among leading editorial staff is necessary.

Editorial convergence is a process using technological innovation to reach specific targets under particular conditions and, accordingly, every convergence project has its very specific, individual result. To date, the way cross-media newsrooms affect journalistic quality has only rudimentarily been researched. Case studies suggest that the quality of individual titles or platforms can remain stable or even increase, but that media diversity—for instance on a regional level—decreases by merging formerly discrete editorial offices (Cf. Rinsdorf 2011). Journalistic work acquires more velocity and density at the news-desk (Cf. Blöbaum et al. 2011). Factors conducive to cross-media newsroom success are coaching and training for journalists, next to systematic change management (Cf. Meier 2010, p. 103–106).

19.3 Cross-Media in Contents

The notion of *cross-media* features two aspects: organisation and content. On the one hand, cross-media storytelling develops when topics are covered on more than just one distribution channel. On the other hand, the Internet and particularly devices like the *iPad* represent in themselves convergent platforms which enable media intersection and, thus, new, multimedia storytelling.

19.3.1 Cross-Media Storytelling

The requirement of fully integrated newsrooms not to equip all channels simultaneously and equally with contents but rather according to every platform's users' expectations results in pursuing cross-media workflows. Its technical basis is the digital storage of all materials and contents, so as to make them readily accessible—in full, in part and without losses—for copying, adapting, discarding and location- and time-independent usage. Larger topics are to be planned diversely, researched and published on various platforms in different versions (Cf. e. g. Quinn and Filak 2005; Kolodzy 2006; Kretzschmar 2008). This is called “storytelling across media”, a “news-flow across platforms” which complement one another. “Choose the best media to launch a story and the best flow between media” (Meier 2007, p. 7), Lars Jespersen says, editor-in-chief of integrated media company *Nordjyske Medier* in Denmark, which operates one single newsroom for print, TV, radio and Internet.

Which topic suits which platform and the coverage style to be chosen will have to be decided on a case-by-case basis. Some topics are appropriate for TV because they feature tantalising footage. Other topics are better suited to newspaper coverage because complex contexts require explanations. Other topics again are predestined to be published online first, as the news needs to be disseminated

promptly, because they are expected to trigger a discussion among users or, thirdly, because the editors wish their audience to participate in the process of “making the news” (e.g. with eyewitness photos/videos). Altogether, that changes journalistic storytelling and styles in the same way as a single story elicits and picks up users’ feedback and is shifted to another platform.

It has hardly been researched scientifically how cross-media storytelling influences journalistic styles, users’ behaviour and media diversity. According to individual case studies carried out in editorial offices which implemented cross-media newsrooms, most journalists’ (self-) assessment indicates an improvement of the quality of content (Bettels 2005, p. 40–41; Meier 2007). Thus, editorial decisions can be taken more promptly and on a broader basis, putting the focus on topics, rather than on feeding platforms: “I think it is because we are discussing much more with each other what is good journalism, how to do the best stories”, says Bruno Ingemann, Head of News-desk at *Nordjyske Medier* (Quoted from Bettels 2005, p. 40).

19.3.2 Convergent Platforms

The Internet implies the cross-media aspect intrinsically. It can basically be defined as a convergent platform, which combines all conventional and formerly separated media channels. It has become the central hub of text, imagery, video and audio. Additionally, the Internet enables new conduits of user communication and participation. Due to this hyper-mediality, it is pushed into the centre of cross-media strategies and operation methods (Cf. e.g. Jakubetz 2008).

In former times, newly established radio or TV platforms were separated from the traditional channels and were complemented by them (*Riepl’s Law*), whereas the Internet merges all conventional media. The Internet is both a distribution platform and a content platform (Engel and Best 2012, p. 62). It functions as an output channel and archive for classical media (e.g. broadcasters’ live streams and hybrid libraries; e-paper versions of newspapers) and as a multimedia storyteller, by picking up and re-combining elements of traditional media; new forms of presentation, narration and staging of contents are created (Cf. e.g. Meier 2002; Radü 2009). Essentially, that duality also applies to new devices—e.g. smartphones or tablets like the *iPhone* or the *iPad*—which can equally be called cross-media platforms.

Cross-mediality with regard to the content of these new platforms can be analysed and systematised by means of two core attributes that have characterised journalistic construction of reality for a long time: *patterns of coverage* and *forms of presentation* (Cf. Meier 2011, p. 180–192).

- (a) **Patterns of coverage:** *Participative journalism* is a pattern established recently (Cf. Meier 2011, p. 188; Sehl 2011). It integrates users into the process of shaping media reality, while their degree of participation varies: when it comes to *crowd sourcing*, users collaborate with journalists as early as the selection/weighting of topics and investigation. In other models, users’ notes, additions and comments are included only upon or after the publication of the article.

A crowd sourcing project of the British *The Guardian* was widely acclaimed: Its editors left the examination of MPs' expense reports to the users (Cf. <http://mps-expenses.guardian.co.uk>; Andersen 2009). *Process journalism* could become another new pattern of coverage: in contrast to *product journalism* (a final version of an article is released just once), the piece is not “finished”, but to be continued by having journalist and user collaborate (Cf. Meier and Reimer 2011, p. 140; Jarvis 2009). New methods of *data journalism* complement the classical pattern of *precision journalism* (Cf. Meier 2011, p. 187; Meyer 1979; <http://blog.zeit.de/open-data>; <http://www.guardian.co.uk/news/datablog>).

- (b) **Forms of presentation:** Examples of new forms of presentation in online journalism are to be found in great numbers. However, there are challenges and questions which practice and research have yet to answer. For instance: What role should journalism play on social networks like *Twitter* or *Facebook*—representation, moderation (Cf. e.g. Neuberger et al. 2010)? How can text, image and video be combined for a multimedia report in a meaningful way by exploiting the possibilities of the Internet and new devices like the *iPad*?

Especially in this field of cross-mediality, content research is needed urgently:

- Convergent platforms as *distribution platforms*: Will the Internet as a convergent medium be able to replace—at least partly—traditional forms of mass media distribution? For how much longer will traditional, linear channels like print dailies, TV and radio dominate the media spectrum and usage?
- Convergent platforms as *content platforms*: Will journalists/editorial offices as well as users adopt the new patterns of coverage and forms of presentation? If so, how will that change the qualities of content?

19.4 Profile and Training

How does *cross-media*, in terms of organisation and content, impact the job profile and training of journalists? At this point in time, that too is a field that features more questions and challenges than unequivocal answers. But we can identify the trends being discussed in practice and research, some of which have been empirically proven.

Current factual status: Journalism is a profession which essentially manufactures publicness (Cf. e.g. Pöttker, 1998). Journalism involves researching, selecting and presenting topics which are recent, factual and relevant (Cf. Meier 2011, p. 13). From a normative point of view, journalism is assigned the tasks of information, critique and verification. It is thus key to citizens' opinion forming and focuses attention by bundling fragmented topics into comprehensive ones. Traditionally, the journalist's role has been that of a public *gatekeeper*. The image of full-time journalists, who, as a rule, ply their trade in a single media channel of their organisations, represents the traditional job profile that evolved in the nineteenth century and flourished in the second half of the twentieth century (Cf. e.g. Weischenberg et al. 2006, p. 36–41, 202).

This factual status undergoes variance due to manifold developments which impact democracy and the political world (Cf. e.g. Meier 2012; Neuberger 2009). With increasing cross-mediality, the following job profile changes can be observed:

- *Cross-media editorial offices*: In newsrooms and at news-desks new roles evolve and activities become more specialised and differentiated. Thus, quite frequently the Anglo-Saxon differentiation between *editors* and *reporters* is introduced into continental systems: editors are seated at the news-desk; they coordinate and assign; reporters research and write. The leading position shifts from the typical head of department to the head of the news-desk. Coordination tasks and teamwork gain increasing importance (Cf. e.g. Blöbaum et al. 2011; Meier 2011, p. 160–172).
- *Cross-media research and storytelling*: Currently, several models coexist in terms of whether journalists still work chiefly on a single channel (even in cross-media newsrooms) or whether their activity involves occasional or predominant multimedia work (Cf. e.g. García et al. 2009). Reporters doing field research and delivering their text/imagery/video to a newsroom are to be found as well as desk editors who manage the news material. In cross-media teams, specialists who work for a single channel are aware of the requirements applicable to other media platforms. As contents are used several times and production facilities are increasingly easy to operate, technology, composition and organisation rest more and more in the hands of journalists—regardless of whether we are looking at researching and collecting material (photo/audio/video production), processing and design (layout, editing) or distributing (content management systems, social media).
- *Participative journalism*: Phrases and statements like “journalism as an activity” (Picard 2009), “liquid journalism” (Deuze 2008) or “we’re all journalists now” (Scott 2007) no longer consider journalism to be bound to a relevant education and to media organisations, but rather as an activity open to everybody: Individuals or groups increasingly adopt “functions and workflows which formerly belonged to journalists’ and editorial offices’ sphere of activity” (Reimer and Ruppert 2011). Equally, the audience expects professional journalism—whether in print or online—to be credible, factual, independent and competent (Neuberger 2012, p. 43–45). Today, professional journalism is complemented by layman and citizen journalism, but it hasn’t become redundant. There is much evidence—for instance the renaissance of print weeklies—that research, background information and fair and balanced analysis are regaining importance in the journalist’s profile. The moderator role is, however, new to professional journalism, integrating users into media production by commenting and distributing the contents in social networks. This also brings about a new perspective on the active user: that of a partner, as opposed to an enemy of professional journalism.

The designers of cross-media training concepts should regard all the characteristics of cross-mediality mentioned above (Cf. Meier et al. 2012). They also impact almost every dimension of journalistic competence (Cf. overview in Meier 2011, p. 223), whereas skills formerly only marginally considered or not at

all (Cf. e.g. Weischenberg 1990) gain increased prominence: technical skills and design competence (especially the capacity to visualise topics), as well as organisational and conceptual competences, paired with enhanced awareness of multimedia value chains in the newsroom.

Correspondingly, the range of further training on convergence is rich: It ranges from one-day workshops for future amateur video journalists (VJs), which provide them with the know-how of web TV production in just a few hours, to a 1-year Master's programme focusing on data journalism, a joint study offered by the well-known Journalism School of New York's Columbia University and its technical faculty. In an Executive Master's program of Berlin University for Professional Studies, "International Media Innovation Management" is taught to international, handpicked journalists, media managers and researchers in different countries by observing and analysing convergent strategies over a period of two years. In Scandinavia's extraordinarily active institutes for further education—like Denmark's "Update"—workshops on digital journalism in various forms and formats by far exceed half of all courses. At the end of 2011, Poynter Institute's digital university *NewsU* celebrated its 200.000st participant in their webinars and online courses on convergent topics of the future.

Already in 2002, at a conference of *IFRA*, the industry's association, Ulrik Hagerup, a Danish pioneer of very practice-oriented development of cross-media newsrooms, scored with an often-quoted, juicy statement: "Media convergence is like teenage sex. Everybody thinks everybody else is doing it. The few who are actually doing it aren't very good at it." (Medienhaus 2008, http://www.rtr.at/de/ppf/Kurzberichte2007/Konvergenz_im_Newsroom_Newsroom_Convergence.pdf download May 10, 2012)

A decade later, these confused youngsters have grown up, and most of them know from their own experience how to proliferate. Some of them have even found out that it can be fun.

Self-Assessment Questions

1. When it comes to media integration in newsrooms: Which combinations of media and distribution channels might be involved? Give examples. What may be the strategic ideas behind?
2. What is a *news-desk*?
3. Name some media companies you know from personal experience, literature or otherwise which run integrated journalistic operations for different channels in one newsroom.
4. Three models of editorial convergence were defined in an international research project to help management boards to analyse and plan their newsrooms. Name those models. Give a short characterisation.
5. What does "participative journalism" mean? Give examples.

Food for Thought

1. The integrated newsroom increasingly introduces more of the traditional Anglo-Saxon differentiation between *editors* and *reporters* to Central European newsrooms. What, in your opinion, is the reason?
2. Give some examples of successful traditional media operations (e.g. dailies, magazines, TV stations) in your market which have not (yet) introduced extensive cross-media strategies. Suggest possible integration strategies!
3. One simple theory explains that new media have always been separated from traditional channels and complemented by them (“Riepl’s Law”). How and why is the Internet different? Where might it replace traditional forms of mass media distribution?

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The Many Faces of Interactivity in Convergent Media Environments. Assessing Uses and Effects of Interactivity from a User and Management Perspective

20

Birgit Stark

Chapter Objectives

1. To understand the concept of media convergence (dimensions)
2. To understand the concept of interactivity (dimensions and types)
3. To reflect the implementation of interactivity in the case of online newspapers
4. To identify the use and effects of interactive features on news websites (empirical findings)
5. To cover managerial implications to get a picture of the relationship between interactivity and its impact on business value

20.1 Introduction

Without doubt, interactivity is one of the main concepts in convergent media environments. During the late 1980s and early 1990s, interactivity was often named as *the* ultimate buzzword. The past decades have shown an increase in attention paid to interactivity in the scientific literature. How can we explain this popularity?

Interactivity is a characteristic that is often seen as one of the critical differences between the Internet and earlier communication media (Morris and Ogan 1996). As a distinctive feature of the Internet—besides multimediality and hypertextuality—it empowers the audience to have greater control over the process of news production, dissemination, and consumption (Deuze 2003). More generally, interactivity gives more control to the audience and allows for immediate back-and-forth communication. As a result, the traditional one-way directional flow of mass-mediated communication has been overcome. In other words, the idea that audience members

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can become actively involved as contributing participants is at the core of interactivity.

Initial research on the concept of interactivity was embedded in the context of “new media.” Later, the debate was affected by interactive television and nowadays it is shaped by developments in online journalism. In particular, implications of user-generated content for public dialogue and participation are relevant. Scholars argue that online journalism has a significant potential to reinvigorate civic engagement and political participation (Domingo et al. 2008; Jönsson and Örnebring 2011).

Although the concept of interactivity is a topic of extensive inquiry in different contexts, there is still a lack of agreement when it comes to its nature, role, and effects. Different meanings and connotations can be found in different disciplinary discourses. Currently, there is no consensus on how interactivity is defined or how it can be measured. Moreover, research has not been able to figure out how users appropriate the interactive capabilities afforded by diverse kinds of digital media. According to Bucy (2004, 373), “we scarcely know what interactivity *is*, let alone what it *does*, and have scant insight into the conditions in which interactive processes are likely to be consequential for members of a social system”.

Similarly, convergence is often noted as a buzzword, related to different developments in media technology, markets, companies, content, reception, and regulation. Most of the approaches incorporate the notion of a process and stress the technological aspects of developments. From the technological perspective it seems clear that advances in media technologies might change the context of media use as well as provide new functionalities for the user such as the opportunity to increase interactivity. But in reality, the production of interactivity in a converged media environment is not that effortlessly to be realized. Therefore, the question whether media convergence does promote interactivity and audience participation cannot always be supported. Such a technological determinism ignores social factors. An approach which describes how people use and make sense of new interactive tools is more promising.

This motivates a closer look at the utility of interactivity research for the study of online news audience engagement. According to Fortunati et al. (2010), interactivity is a suitable metaphor for online news that has frequently been used to investigate the new proactive role of users. This article therefore reviews literature on both interactivity (and its related concept convergence) as well as online news in the pursuit of three purposes: The first is to provide a short literature review on the development of the concepts of convergence and interactivity. The second is to reflect the implementation of interactivity in the case of online newspapers. This part concentrates on the use and effects of interactive features on news websites by surveying empirical findings. Building on this assessment of existing research, the third part covers managerial implications to get a picture of the relationship between interactivity and its impact on business value in convergent media environment.

20.2 Concepts and Dimensions of Media Convergence

The term “convergence” broadly refers to the merging of formerly distinct media technologies, mainly based on the digitization process. This merging can not only involve devices, content, markets, and networks, but also media consumption. Often the issues are closely related to technological developments, although technological convergence will not necessarily be reflected in the convergence of usage. Lacking a single, agreed-upon definition, convergence has become a multidimensional construct that embraces a host of meanings. Therefore, convergence is used and understood in many different ways. From an analytical perspective, however, all of the approaches incorporate a number of different but intertwined dimensions. As early and current research has shown, the important dimensions **are technological developments, the production of media content for multiple media platforms, organizational and managerial aspects, consumption of media content, and regulatory policy** (e.g., European Commission 1997; Quinn 2005; Dupagne and Garrison 2009; Infotendencias Group 2012).¹

The original discussion of media convergence focused on the technological. According to Pavlik (1996, 132) the term “**technological convergence**” has come to signify the “coming together of all forms of mediated communications in an electronic, digital form driven by computers”. Thus, technological convergence means the “coming together” of formerly distinct electronic devices, networks, or media delivery systems. At the same time, it implies the disappearance of the traditional frontiers between these sectors and the confluence of media platforms where new applications will come into being (e.g., watching television on a cell phone). Moreover, it has led to multimedia information presentation. For example, the Internet allows formerly separate and distinct storytelling media—text, picture, audio, and video—to be combined into a new way of providing information.

These fundamental changes in storytelling are also important aspects in the ongoing discussion about the concept. For example, journalism researchers have focused primarily on “newsroom convergence,” particularly in relation to changes in work routines and organizational structures connected to the production of content across different media platforms. This does not only relate to producing content for multiple media platforms, but also to adapting content and format as well as to creating stories on different platforms. According to Erdal (2011), **cross-media** can be defined as communication or production where two or more media platforms are involved in an integrated way. He points out that convergent journalism has to be analyzed in terms of its organizational strategies, distinguishing between cross-media communication and cross-media production processes.

¹In reaction to convergence, new governance patterns have been emerging. In particular, the traditional separation between telecommunications and the media is no longer essential. Meanwhile, a new, modified common governance pattern for convergent communication markets is emerging. In particular, it accents the confluence of previously separate industry-based laws and regulations (Latzer 2011).

This is supported by different stages of editorial convergence which can be identified within a linear process at the end of which full convergence is reached (Dailey et al. 2005).

From a **management point of view**, the most frequent strategies are alliances, mergers, and partnerships among the different media to create new business value and improve performance. Against this background, convergence is mostly understood as both horizontal and vertical integration of media companies. For example, some cable operators can offer cable and broadcast programming, video-on-demand, Voice-over Internet Protocol, and Internet access in a bundled fashion. Moreover, convergence is usually a corporate management decision when it involves several business units, such as organizational structure, production, distribution, marketing, and human resources (Killebrew 2005). Seen from that perspective, new questions have to be asked: What business models have been identified as applicable for convergence? How can target groups be addressed adequately under the conditions of media change, convergence, and crosslinking? How is production for multiple media platforms conceptualized within the organization? What are the cultural changes for the organization and the employees? (e.g., Huang et al. 2006; Küng 2008; Küng et al. 2008).

Seen from the **user's perspective**, convergence processes have been responsible for diminishing the importance of certain media usage characteristics. In return, new patterns of exposure and media use habits have emerged—often linked to cross-media impacts. Functional added values in new media environments are especially linked to interactivity, multimediality, as well as spatial and temporal flexibility. Flexible, mobile, and customized options offer the chance for self-determined media exposure in high-choice environments. By providing users with more content choices and control over exposure, convergent media may allow people to create personalized information environments and to become highly selective in their consumption. It may also allow people to participate more easily with other users or producers and to produce content with relative ease (see Hasebrink in this book).

From the very beginning, interactivity has been one of the most talked-about features in convergent media environments. Interactivity can be conceptually extended as a defining characteristic of the Internet and a precondition for the convergence process. A converging media landscape opens up an abundant variety of options for interactivity production. The problem is how interactivity is actually implemented. What does it take for interactivity to happen? Users will not automatically find a new website with a forum and start contributing because they have different levels of motivation. Thus, it is not guaranteed that everyone wants to take part and participate. Similarly, user contributions were seen as problematic by professionals because these new possibilities challenged traditional journalistic norms. But how do the strategies of the producers concerning convergence correspond with the attitudes of their audience? In the following sections, different modes of implementation will be described, and their effectiveness will be evaluated.

20.3 Concepts and Dimensions of Interactivity

Interactivity has been defined from different perspectives in diverse fields. Various disciplinary discourses (e.g., sociology, computer science, or media and communication studies) have given diverse meanings to the concept. Moreover, definitions vary in focus (technology, communication processes, or user perception), scope (uni- or multidimensional), and temporal orientation (process-orientated or not).

In communication theory, the origin of the term can be traced back to the **sociological concept of interaction**. There, interaction is defined as “the relationship between two or more people who, in a given situation, mutually adapt their behavior and actions to each other” (Jensen 1998, p. 188). Similarly, Jäckel (1995), who studied the origins of the term, emphasized exchange and mutual influence as key factors. Consequently, many scholars use face-to-face communication as the standard of interactivity and evaluate the interactivity of mediated communication by how closely it simulates face-to-face communication. Numerous definitional models for interactivity refer to this “conversational ideal” (e.g., Rafaeli 1988).

In the context of new communication technology, the term is usually not applied in such a strict sociological sense. Instead, it is frequently related to the **interaction concept of informatics** and defined as a characteristic of the medium. Here, interaction refers to the relationship between people and machines (often called human–computer interaction) (Jensen 1998; Murschetz 2011). In contrast, the **concept of “interaction” in communication and media studies** is often used to refer to the actions of an audience in relation to media content. For example, Horton and Wohl’s (1956) concept of “para-social interaction” describes this relationship between the TV presenter and the viewer. In the past decades, scholars in the mass communication tradition examined the nature of interactivity in computer-mediated communication. As already mentioned, the importance of the concept has grown with the emergence of the World Wide Web, interactive digital television, and online journalism. There, it is merely the media’s potential ability to get in contact with the user that has been conceptualized as interactivity. In doing so, interactivity with the medium and through the medium was seen to take place (synchronous as well as asynchronous communication). In particular, the feedback potential of a medium and the degree to which users can exert an influence on the form or content of mediated communication are critical for the evaluation of interactivity levels (Stark 2006, 24ff.). A majority of research deals with this question and develops analytical instruments for determining different levels of interactivity.

These conceptualizations can be summarized in three principal areas based on different perspectives: the technological properties of a medium (**technology**), the context of communication setting (**communication process**), and **user perception** (Heeter 2000; Kioussis 2002; McMillan and Hwang 2002). According to Murschetz (2011, p. 408), this three-dimensional approach has become the “canonical standard in researching the phenomenon of interactivity.” Each perspective locates the reference point of interactivity differently according to the nature of the participants (e.g., passive or active), the level of user control (e.g., high or low), and the center of control (e.g., human or computer) (McMillan 2006).

This first approach is rooted in Information Systems research and computer theory. Its central focus is on the interaction between humans and the computer itself. The human–computer interaction or man–machine interaction is seen as analogous with communication with people. The second tradition focuses on the communicative, social, and individual dimensions of computer-mediated communications. Interactivity takes place when participants exchange communications. Hence, interactive communication is considered primarily as a two-way communication, stressing the reciprocity of participants. A basic assumption is that users gain more control over the communication process in interactive communications. The third approach focuses on the subjective view of the user. In that tradition, scholars analyze how users perceive and/or experience interactive features or interactive communication situations. Thus, the concept of interactivity is interpreted as a mode of human perception and cognition which centers on the individual experiential process of interactivity (McMillan and Hwang 2002; McMillan 2000).

20.3.1 Types of Interactivity

Based on these different perspectives, researchers have suggested multiple types of interactivity, categorized as a three-dimensional construct of interactivity: **human-to-computer**, **human-to-human**, and **human-to-content** (Jensen 1998; McMillan 2000; McMillan et al. 2008). First, **human-to-computer interactivity**, also known as medium or man–machine interactivity, focuses on the techno-structural properties of human–computer interaction. This type of interactivity may focus on aspects such as navigation, search functions, personalization tools, and hyperlink structures. The ultimate form of human-to-computer interaction is the ability to conduct business online. Second, **human-to-human interactivity**, also known as user-to-user interactivity, interprets interactivity as mode of social interactions between participants. This type of interactivity focuses on ways individuals interact with each other through computers. Typical examples in computer-mediated settings are email links, “tell a friend”, chat sessions, newsgroup forums, subscriber blogs, or reader polls on current topics. Third, **human-to-content interactivity** refers to interaction with the content of computer-mediated communication. On the one hand, users may actually contribute to the website content (e.g., posting text messages in chat rooms or commenting articles). On the other hand, users may also use the opportunity to upload pictures, audio, video, or other elements.

In sum, interactivity is a **multidimensional concept** that stands for different aspects of media characteristics with many implications for mediated communication of all kinds. In surveying the concept, a distinction can be drawn between a focus on functions of features and a focus on users. Levels of interactivity vary across media, usually compared to its ability to facilitate interactions similar to face-to-face communication. However, the standard for what makes a medium, an application, or a website more interactive than another is quite ambiguous. Typically, researchers argue that interactivity “takes place” in several ways: complexity

of choice available, responsiveness to the user, and ease of adding information. These dimensions are added to different interactive media and as distinct elements of websites (e.g., online newspapers, television station websites, and political party websites). Much of the work has concentrated on defining interactivity and on typologizing different interactive media. Conclusions about a general theory are as yet missing in the literature. How important the theory-building process would be shows the following case study about online news audiences.

20.4 Interactivity on Newspaper Websites

Since the first newspapers have started to appear on the World Wide Web around 1995, traditional news organizations have been seeking to establish a sustainable online presence. The companies expand the news experience by incorporating a variety of interactive features, e.g., options such as to comment on stories, to talk back to journalists or editors, and to engage in dialogue with each other in discussion forums. Meanwhile, newer forms of contributing such as reputation systems, micro-blogs, and social networking sites are almost omnipresent.

However, research shows that the potential of interactive online tools to foster an active audience has not always been realized. Particularly, earlier studies from a supply-oriented objective approach discovered that the online news publications have failed to fully take advantage of the unique characteristics of the Internet (Schultz 1999; Massey and Levy 1999; Chan-Olmsted and Park 2000). Meanwhile, positive accounts of news media organizations' implementation of interactivity in form and content exist (see for a detailed overview Steensen 2011). Moreover, these developments were discussed in a broader context, because the landscape of journalism is being reshaped in a variety of ways. Research reinterprets forms of interactivity and opportunities for audience members in terms such as user-generated content, citizen journalism, or empowering tool for citizens (Domingo et al. 2008).

There are several authors who have developed conceptualizations for analyzing interactivity on news websites. For example, Deuze (2003) reinterpreted interactivity dimensions for the design of news websites to **navigational interactivity, adaptive interactivity, and functional interactivity**. Navigational interactivity allows users to navigate a site with hyperlinks and menu bars. Adaptive interactivity allows the users' experience to have consequences on site content, whereas functional interactivity allows the user to communicate with other individuals. Similarly, Chung (2008) described four types of interactive features: **medium, medium/human, human/medium, and human interactive features**. Features representing medium interactivity rely on the technology to allow users to select and to find out choice options. In contrast, medium/human interactive features are features that provide personalized tailing options (usually through push technology). Human/medium interactive features offer options for customized opinions and stories. An example for human interactive features are news enriched with interpersonal communication opportunities. Each distinct presentation style offers

different engagement experiences. As well, Domingo et al. (2008) have developed a new operational concept for a systematic analysis of user participation in news websites. Participatory features (production-related news spaces, commentary and debate spaces, and social network features) were analyzed on the following production stages: **access and observation, selection and filtering, processing and editing, distribution and interpretation.**

Whatever conceptualization is applied, empirical research has shown that journalists are still guarding **the traditional gatekeeping role** and are cautious in adopting user content on their websites (Hermida and Thurmman 2008). Users are allowed to contribute to the content production by submitting photos and videos, and by commenting on stories. However, users are seldom permitted to participate in the selection and filtering of news. It was merely the interpretation stage that was open to some sort of participation. Engagement in the other three stages varied. All in all, users were usually limited to a role as contributors (Domingo et al. 2008). As Jönsson and Örnebring (2011) point out, in mainstream media users are still addressed as users-as-consumers and not as users-as-citizens.

20.5 Use of Interactive Features

Several studies analyze the use of interactive features in order to identify patterns of online newspaper readers' uses of interactive features. These studies come from different countries yet show consistent findings. Usage of newspaper website interactivity has been reported at low levels (in Sweden: Bergström 2008; in Flanders: Beyers 2004; in Finland: Hujanen and Pietikainen 2004; in Germany: Rathmann 2002). Similar user attitudes were found in the USA. Findings showed that interactive features on an online newspaper website are generally used infrequently. In particular, these were features that allow human-to-human communication and the features that allow audiences to express their view—all features that require more (cognitive) effort to be utilized (Chung 2008). Different user characteristics and backgrounds predict the use of specific types of interactive features. In addition to basic demographic variables, perceived Internet skill level, perceived level of credibility of online news, civic involvement, and political engagement can play an important role. According to Chung (2008), politically engaged users and those who perceived online news to be credible were most likely to use all forms of interactive features.

A study of use and appreciation of interactivity on Swedish newspaper websites came to similar results (Larsson 2011). Based on an online survey, the overall findings pointed toward rather low levels of both use and appreciation. The respondents tended not to use various higher forms of interactivity such as human (e.g., commenting on news articles) or human–medium interactive features (e.g., contributing reader news). In contrast, lower forms of interactivity (e.g., clicking or selecting) were used more frequently. However, the overall tendency is one of nonuse rather than one of use. Indirect effects in the context of appreciation could be verified, but levels of appreciation still remain rather low. Hence, the authors

described the average newspaper website visitor as “somewhat jaded and uninterested in the opportunities to interact and contribute provided by the media organizations” (Larsson 2011: 1192).

Further research aims to establish audience interactivity as an intervening factor in the gratification-seeking process. Studies examine how online news audiences are using distinct types of interactive features and try to identify the user’s motivation for visiting online newspaper. Moreover, they explore associations between motivations for using online newspapers and distinct types of interactive features (Chung and Yoo 2008; Yoo 2011).

The empirical findings show diverse correlations between motivations for using online newspapers and making use of the different types of interactive features. Accordingly, various types of interactive features serve different functions. First of all, online newspapers function primarily as tools for information and entertainment rather than for socialization. All three motivation factors are linked to the use of interactive features such as search features, audio/video downloads, or photo galleries. However, the information seeking motivation is not a significant predictor of utilizing characteristics of human/medium interactivity and user-to user communication (e.g., expressing one’s own opinion, submitting news stories, using message boards, or chat functions). Chung and Yoo (2008)² conclude that online news audiences consider online newspapers to serve similar goals than traditional media. Those who already make use of these features are a minority and obviously seem to be the early adopters of that new concept of news. However, distinctive effects of audience interactivity are possible (e.g., medium and human interactivity). According to Yoo (2011, p. 82) “more interactive audiences perceived obtainment of greater gratifications level, which, in turn, affected attitude toward the online newspaper and repeat visit intention.” Thus, audience interactivity can be both a significant effect for gratification-seeking motives and an important cause for gratifications obtained.

20.6 Indirect Effects of Interactivity

Another important strand in the research performed on interactivity from a user perspective is the study of indirect effects of interactive news presentation, e.g., on perceived user satisfaction. In particular, research interest is growing in identifying features that can enhance user satisfaction and loyalty to news websites. However, according to Chung and Nah (2009: 856) “research on the effects of interactivity is sparse and relatively inconclusive.” Such effects have been found to be positive, negative, or both.

²The authors employed an online questionnaire surveying users of a medium-sized newspaper in a Midwestern city. Interactivity is defined as multidimensional construct and is divided into three categories on a continuum (Chung and Yoo 2008).

Primarily, interactivity was considered as a **positive characteristic** of new media (Newhagen and Rafaeli 1996). Early studies have identified satisfaction as one of the most obvious outcomes of interactivity. Rafaeli (1988) mentioned motivation, sense of fun, cognition, and learning as possible further consequences. The general belief is that control over content not only contributes to more positive attitudes toward websites, but also helps users reduce or eliminate unwanted information. According to McMillan (2002), web surfers seem to have more favorable attitudes toward sites that they perceive to be rich with interactive features. Deuze (2003: 214) also notes an indirect positive effect of the “interactive bells and whistles” available on newspaper websites. Therefore, interactive features might contribute to increased information processing and news knowledge (see for an overview Opgenhaffen and d’Haenens 2011).

Chung and Nah (2009) analyzed outcomes of the uses of interactive features and their contribution toward users’ satisfaction with their news consumption experiences. The authors aim to identify associations between different types of interactive presentations and levels of satisfaction. The findings show a robust relationship between the use of various interactive features and perceived satisfaction. In particular, the regression analysis reveals customized features as the positive predictors of perceived satisfaction. Customized features allow users to express their views and voice personal opinions. These features were not only used most frequently but they also produced increased levels of perceived satisfaction. In contrast, opportunities for interpersonal communication (with other users or newsroom personnel) did not cause increased levels of perceived satisfaction. For the authors “it appears that the ability to express views rather than engage in two-way conversation has more intrinsic value to local online community residents” (Chung and Nah 2009, p. 867).³

However, the literature also refers to **negative indirect effects** caused by interactivity (e.g., Gerpott and Wanke 2004; Sundar 2004). An abundance of interactive features could lead to an overstimulation of the user and negative evaluations because these options could overwhelm consumers. According to Jee and Lee (2002), it may overstretch the users’ information-processing capacities due to required higher selection efforts. Hence, several authors suggest a careful balance between too high and too low levels of interactivity (McMillan and Hwang 2002; Rafaeli and Ariel 2007; Larsson 2011).

To sum up, user studies suggest an overwhelming **indifference to interactivity**. The role of audience interactivity in the context of online newspapers seems not to be clear. Results from various studies have shown that online readers tended not to use higher forms of interactivity. Interest in participating is still scarce and varies according to different media usage motives; even positive indirect effects of interactivity still remain rather low. As well, studies relying on interviews with

³In contrast to the findings of Chung (2008), in this study interactive features were used in moderation. According to the authors, such contradictory findings suggest that type and size of community can influence how certain interactive features are used (Chung and Nah 2009: p. 866).

journalists conclude that many journalists still appear cautious when dealing with interactive features (Domingo 2008). Hence, the relationship between journalists and their audience becomes slowly more interactive—online newspapers still seem to be in a stage of “pre-interactivity” (Fortunati et al. 2010). Against this background, what are the implications from a management perspective? Which strategies and practices can be successful?

20.7 Management Implications

From a management perspective, the central assumption is “that increased interactivity will lead to increased likelihood of behaviors such as returning to a website, referring others to the website and purchasing from a website” (McMillan 2002, p. 278). Hence, a positive relationship between different levels of interactivity and the site’s usage and intensity is assumed (Gerpott and Wanke 2004). However, the findings of our literature review show that the assumption that interactive features will definitely lead to direct or indirect positive effects oversimplifies the matter (e.g., Gerpott 2004; Gerpott and Wanke 2004). In contrast, findings imply a differentiated approach to designing the interactivity potentials of websites.

First, media professionals should respect the **needs of their audience** to create appealing and suitable interactive websites. As a consequence, news organizations may seek to understand who their online audiences are and then to subsequently provide specific interactive features according to their audiences’ characteristics and interests. “Thus, the efficient use of interactive features based on the understanding of users’ motivations for visiting online newspapers will help newspaper organizations effectively engage with and retain audience members” (Chung and Yoo 2008, 393). Obviously, providing all forms of interactive features may not be the most effective approach, because different interactive options serve distinct purposes in the news consumption. A solution could be to facilitate different types of interactive features in order to appeal to varying audience members.

Second, the importance of quality news reporting that will in turn build **credibility** of the news organizations is, according to Chung (2008), a profitable strategy. As for long-term goals, online newspapers may seek to **educate their online audiences** about how to use various interactive features, combining appreciation of these features with actual use. For example, Chung and Nah (2009, p. 867) recommended customization features that allow users to participate as sources of information: “Content submissions enable news audiences to participate in the production of news by allowing them to write and submit stories or share photographs.” As a result, news consumers could have more **positive and satisfactory news consumption experiences**.

Similar, Murschetz (2011) describes that interactivity can have significant business values on various levels. For example, interactivity enhances consumer choice and thus perceived consumer value, or interactivity enhances perceived product and service quality and thus consumer satisfaction. Moreover, “by reducing transaction costs in interactive media settings, business firms may gain competitive advantage,

widen their product range through adding more interactive features, offer richer and new content channels to customers, or integrate once passive consumers into the production processes of their ventures in various ways” (Murschetz 2011, p. 410). As a consequence, **consumer trust and loyalty** in the online brand may increase.

In addition, **economic motivations** for participatory journalism should not be neglected. Vujnovic (2011) mentions three economic benefits of user-generated content: **building brand loyalty, boosting website traffic, and remaining competitive**. In particular, against the background of increasing market fragmentation, consumer loyalty to a media brand is crucial in convergent media environments. However, the findings of the study show the ambivalence of that topic: Economic motivations were always discussed with concerns about how to improve journalism, mainly in terms of its democratic social function. “Should user contributions be pursued because of their democratic potential to extend civic participation to ever-larger numbers of people? Or is the key issue whether participatory journalism is good business?” (Vujnovic 2011, p. 151) The interviewees in different countries seemed to indicate that the benefits could be both social and economic. Hence, the best way seems to find a good balance between economic and journalistic motivation for investing in participatory and interactive journalism.

Several authors noticed that there is still confusion and a lot of uncertainty on how to implement and utilize interactivity (e.g., Chung 2007; Schanke Sundet and Ytreberg 2009; Heinonen 2011). For example, Domingo (2011) describes the diversity of **management strategies** through a series of contrasting examples of how journalists handled interactive features. Different newspapers applied different solutions in the various stages of news production. Moreover, the study shows that management strategies for audience contributions are not clearly defined. Appropriate solutions were thus sought by experimenting and continually adapting. Apparently, there is no universal strategy for implementing interactivity. The process is always shaped by local actors and their circumstances influenced by historical practices of a given news organization.

All in all, participatory journalism is not simply a technology-driven process. Rather, it could be described as a complex interaction involving the professional and organizational culture of journalism, particularly the newsroom culture and users’ understanding of the Internet (Domingo et al. 2008). Thus, the development toward a dialogic relationship with the audiences seems to be reinforced by the organizations’ structural changes from online newsrooms. According to Lawson-Borders (2003), a **strategic set of business practices** can be helpful to assess convergence processes. These elements (e.g., communication, commitment, cooperation, or culture) form a sort of “best practices” guide for media outlets (Fisher 2009). Domingo (2011, pp. 94–95) specifies these ideas for the process of developing audience participation. From his point of view, important strategies include having a leader (with the mission of coaching journalists in participation management), having systematic participation channels (that are clear for the users), or involving the audience in UGC management. But it seems to be most important to have an explicit aim in providing interactive opportunities to the users; this means that the motivations behind the strategy shall be clearly defined (Quandt 2012).

Thus, a successful convergence production should be able to meet the demands of the audience and use them accordingly to the production's advantage; in particular, brand loyalty can be strengthened.

Conclusions

The purpose of this article has been to summarize how interactivity is implemented and assessed in converging media environments, in particular, in the case of online news websites. The literature review of the concept of interactivity has identified a broad range of topics from different disciplines. Much of the work has concentrated on defining interactivity and classifying interactive media, but little effort has as yet been directed toward theorizing how interactivity affects the behavior and attitudes of users. A clear picture of the relationship between interactivity and its impact on business value in convergent media environment has not yet emerged.

It seems obvious that the mere availability of interactive features and technologies does not deliver surplus per se because technology may not be the main driving force of developments. From the management perspective, a strategy offering all technically feasible features seems to be not ideal. Hence, assumptions such as "the higher the interactivity on a news website the more positive will be the affective feeling users will experience and the higher the probability that the users will return to the site" are too simple. A mission statement which emphasizes the organizational and institutional contexts of the media organization and the preferences of different types of users seems to be more promising. Certainly, it is important to keep in mind that too many options for interaction might confuse the user, resulting in negative feelings toward the website. As Rafaeli and Ariel (2007, p. 80) state, interactivity's effects are curvilinear. Furthermore, the application of particular interactive features has consequences for the type of journalism produced on the Internet (Deuze 2003).

To adapt news sites to fit the needs of the audience, the identification of newspaper website visitor types, their habits, and their preferences is essential. Communications scholars should engage in a holistic approach in order to understand how audience members use online newspapers. Therefore, future research should examine antecedent (motivations to use interactive features) and outcome (results from using interactive features) variables together. Against the background that user studies suggest an overwhelming indifference to interactivity, the notion of "educating audiences" seems worthwhile. For instance, Chung and Yoo (2011, p. 394) suggest as a long-term goal that news organizations should consider "educating their audiences to new ways of engaging with the news through higher levels of interactivity." In doing so, practitioners "could attract visitors not interested in interaction to take part in higher forms of interactivity, combining appreciation of these features with actual use" (Larsson 2011, p. 1193).

From that point of view, a characterization of convergence as a twofold process seems to be appropriate. According to Jenkins and Deuze (2008), convergence must be understood as both a top-down corporate-driven process and a bottom-up consumer-driven process. “Media companies are learning how to accelerate the flow of media content across delivery channels to expand revenue opportunities, broaden markets and reinforce consumer loyalties and commitments.” However, users are learning how to handle an interactive media environment “to bring the flow of media more fully under their control” (Jenkins and Deuze 2008, p. 6).

Finally, most of the presented studies employed online questionnaires surveying users at a single point of time. Thus, the generalizability is often limited. Random samples of online news audiences and longitudinal studies observing user behavior over a longer period of time may yield more meaningful findings. Furthermore, future use of qualitative data can provide a deeper understanding of users’ motivation and behavior. Taken together, these contributions illustrate the complex relationship between technological capabilities, practices of use, and broader social circumstances. All these factors are playing an important role and should be part of future research.

Questions

1. In which fields or disciplines has interactivity been defined?
2. What different perspectives can be distinguished? Which dimensions and types of interactivity can be found in the literature?
3. What are possible direct or indirect effects of interactive features on newspaper websites? What is the value, i.e., the real benefit, for the user?
4. What are possible values for media organizations to offer a range of interactive options on newspaper websites?
5. Why are users hesitant to participate and interact on newspaper websites?
6. Please discuss the journalist’s relationship with users in convergent media environments. What are the potential problems? In what ways do the changes create tensions and conflict in media organizations?

Reflexive Questions

1. If you were a manager, how could you find a suitable strategy for your website? Please try to develop a business concept based on the assumptions of this article.
2. Do you think participatory journalism could contribute to democratic platforms for civic discourse?

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Convergence and Corporate Social Responsibility: The Need for Using a Networking Concept for Stakeholder Management

21

Anke Trommershausen

Chapter Objectives

In this chapter, you

1. Get an overview of the multiple definitions of convergence, especially in regard to the media industry and the consequences on its structure and organization,
2. Learn about the basic assumptions of stakeholder theory and models of classification of stakeholders and about the relevance of stakeholder management with reference to the corporate social responsibility of convergent media companies,
3. Gain insights into a new networking concept for stakeholder management that is synthesized from a network theory of stakeholder influences and the conception of communication power.

21.1 Introduction

The logic of the network is the most prominent structure in our globalized world. Many functions and processes are organized in networks, which are the new social morphology of society at large (Castells 2000, p. 500). This new logic can also be found in certain industries, in companies, and our individual everyday lives. This network structure is empowered by new communication technologies, which enter different life worlds through specific practices. Network communication enables the access to new and decentralized information which initiates or enhances relationships and which can influence the freedom of action of companies. Ever increasing possibilities to distribute and use information put companies in the global economy under pressure since transparency and accountability are demanded by the

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public. People and their demands or *stakes* in business are multiplying. This is because almost any person could have a stake in a company, since in a (complex) network the number of stakeholders is exponentially increasing. Companies, no matter what industry they are in, are part of this network. Transparency, legitimacy, responsiveness, and competitiveness are just some of the key factors that drive a company to be responsible to its stakeholders. Stakeholders are the most important and powerful individuals that can claim such responsibilities.

Media companies today are facing the same need for legitimacy as any other business. On the one hand most nations and media systems are characterized by a growing number of private media companies (in addition to public service broadcasters). On the other hand we look at oligopolistic convergent players in the global media industry, like Google, Apple, or the global telecoms, who reach far beyond national borders with their products and services. Since their social and cultural impact is relevant on a global scale, it is getting harder to control their business actions by national government(s). Instead, the claim for a global governance, including ever new actors and institutions in trying to rule and govern the global media to make sure they fulfill their core business responsibly is rising. This includes the claim for co- and self-regulatory policies. Corporate Social Responsibility (CSR), being one (strategic) option to meet all the stakeholders' needs, can add to competitiveness and can strengthen the normative idea of a global and mediatized civil society.

More than any other industry the media has been challenged by digital technologies and the fast diffusion of the web 2.0. But the converging of formerly divided industries, business segments, devices, etc. (Wirtz 2009) is just beginning. On the side of the consumer we are looking at a "convergent culture" (Jenkins 2006) reinforcing the cultural globalization as well as individualization (and (re-) localization). This convergent culture can be seen as one major footprint or external effect caused by the globally distributed media company. From the perspective of corporate social responsibility, media companies should be made accountable for these cultural and social externalities.

When looking at global media companies today, we see network companies that are flexibly cooperating in projects (Boltanski et al. 2006) with other companies trying to succeed in the "competition for the future" (Hamel and Prahalad 1996). The relations to stakeholders are at the heart of a successful CSR (e.g., Buchholtz and Carroll 2012; Freeman et al. 2010; Crane and Matten 2010). But how is CSR and specifically stakeholder management challenged, when the stakeholders are organized in networks rather than in homogenous groups (e.g., German Telekom, IBM Innovation Jams)¹? It is first and foremost the quality of these relations, and

¹"In a world where innovation is global, multidisciplinary, and open, you need to bring different minds and different perspectives together to discover new solutions to long-standing problems. Therein lies the essence of collaborative innovation. IBM's Jams and other Web 2.0 collaborative mediums are opening up tremendous possibilities for collaborative innovation—ways of working across industries, disciplines, and national borders." (IBM 2012) [www]

the embeddedness and contexts of stakeholders that can give implications for the strategic stakeholder management in convergent media companies.

Despite the elaborated stakeholder theory, this chapter is pointing to a new understanding of a networked stakeholder management in the convergent media company, taking into account specific dimensions of social networks in stakeholder theory (Rowley 1997) and the idea of gaining communication power (Castells 2009, 2011). This new understanding will be identified as a crucial part in CSR.

The next section will take a closer look at convergence and highlight its consequences on the structure and organization of stakeholders of media companies. In the third section I will give a short overview of stakeholder theory and its high relevance in CSR. In section four I will introduce a network theory of stakeholder influences “beyond dyadic ties” (Rowley 1997), complemented with the idea of constituting and holding “communication power” (Castells 2009, 2011) in networks. This chapter is based on a literature review and a hermeneutic method, approaching the topic from an interdisciplinary point of view (media studies, management, social theory). The aim is to contribute to theory in convergence and media management.

21.2 Convergence in the Media

Focusing on networked stakeholder management, the question one needs to consider is why such a focus is useful? It is highly relevant because of the convergent ecology of the media we have been experiencing ever since the Internet entered the scene of mass communication. *Convergence* has become a multifunctional and yet blurry concept. First, in this context convergence describes a process rather than a fact or status of technologies, industries, companies, etc. Secondly, it signals that many structures, processes, actors, practices, values, and norms are in flux. Known and unknown components are regrouping for a short amount of time. Literally, to converge means to “merge” or “to come from other places to meet in a particular place” (Cambridge Advanced Learner’s Dictionary, [www]). This chapter is addressing the convergence in the media initiated by digitalization and web 2.0 (the second Internet phase, Küng et al. 2008a, p. 130).²

21.2.1 Multifaceted Definitions of “Convergence”

For the media, Küng et al. (2008) distinguish a threefold definition of convergence. First is the network-focused definition, which is mostly understood as the “information superhighway,” aiming at connecting people with any kind of media through one cable or rather an interrelation of cables. This definition is mostly

²For the purpose of this chapter I am focusing on this second era, because it challenged and is still challenging media organizations and their business models (Küng et al. 2008a, p. 125).

based on the growing digital transmission bandwidths in which video, voice, data, etc. are converging. Second is the product-related definition of convergence, which is focusing on the devices on which convergent media can be used (e.g., the iPhone or the growing number of tablet PCs with integrated phone cards). Third come the sector-focused definitions, which are focusing on the process of merging of whole sectors. “These view convergence as the technologically driven fusing of the content (i.e., media), computing (i.e., information technology) and communications (i.e., telecoms and broadcast distribution) industries into a new (. . .) sector.” (Küng et al. 2008b, p. 37). This can be seen in the commonly used **3C-Model of Convergence** (Communication, Computing, Content) (ibid., p. 37, Flew 2008, p. 3, Wirtz 2009, p. 45).³ These definitions get us closer to the question of how the industry and its companies are affected by convergence.

Meikle and Young (2012) present a twofold understanding of what convergent media firms are. “The first of these describes the ongoing processes of consolidation and expansion through which global media firms become larger, more integrated, and more networked. The second sense describes the ways in which media firms are adopting and adapting the potential of the technological convergence (. . .)” (ibid., p. 35). On the one hand changing industry structure is characterized by mergers and acquisitions and alliances. These organizations grow globally and are more horizontally integrated. Since their own competencies are not sufficient to “compete for the future” (Hamel and Prahalad 1996), they cooperate on a global scale with other organizations to bundle competencies into new products and services to stay competitive in the convergent media market. In doing so, the structure of ownership is very relevant to power, control, and influence on this market (Castells 2009, p. 74).⁴ Because of these interrelationships the industry is getting more and more organized in networks. Taking this first sense into account it is very obvious that horizontally integrated companies are growing into network companies (Castells 2002, p. 67) and that the number and the structure of stakeholders is growing and is getting more complex.

On the other hand Meikle and Young (2012) understand convergence in the sense how media firms adopt and adapt the new opportunities brought by technological innovations. Media companies either incorporate new technologies into their traditional core business or go further with these new technologies and broaden the scope of their business by expanding the business model to new services and products. In the first scenario, Meikle and Young (2012) name the BBC, as sticking to its core business but also integrating new channels and services

³ Besides this rather practical classification of convergence, Küng et al. 2008 offer a very good overview of economic theories exploring and explaining how convergence works (e.g., neoclassical theory, business economics, non-neoclassical approaches, etc., p. 17).

⁴ Castells identifies the most powerful and relevant interrelationships in an oligopolistic market between Time Warner, Disney, Bertelsmann, NBC, Universal, Viacom CBS and News Corporation, adding that Apple, Microsoft, Yahoo!, and Google (Castells 2009, p. 74) also play major roles in the game of pursuing partnerships, joint ventures, and alliances.

for distribution. In the second scenario, they use Apple as an example of starting out as simply a hardware provider but then connecting with iTunes and enbranching into a new market. Either way, new actors enter the scene and most of the times the project-oriented cooperations are scheduled for a short amount of time, before gathering new partners for another project.

Wirtz (2009) suggests that there needs to be a differentiation in the scope of convergence; identifying convergence of products, business segments, whole companies, and finally the whole industry (*ibid.*, p. 49). The further convergent processes reach, the higher the aggregation level: one could say, the higher the number of stakeholders involved. Most of the formerly separated industries of telecommunication (communication, conduit), IT (computing), and media (content)—TIM—do cooperate with some kind of other industry to provide the products and services the market is asking for. This means, that many of these traditional companies need to restructure.

21.2.2 From Hierarchies to Networks

Bar and Simard (2006) name the process of restructuring “from hierarchies to network firms.” Looking back at industrial history, the change from the Fordist firm to the network firm became necessary, when more flexibility was asked to better adjust to the competitive environment (*ibid.*, p. 352). This is also true for media companies that are often going through a process of *creative destruction*, before restructuring and re-ordering their processes, people, and management to regain their competitiveness (e.g., German Telekom after privatization and integration of IT and media).

Regaining competitiveness is often connected to lowering transaction costs. Digital networks on the company level can reinforce processes that lower costs, because they enhance a structure “beyond hierarchies and markets” (*ibid.*, p. 355). But even though many processes are organized in networks today, they still include hierarchical or market-based transactions.⁵ However, today hybrids of hierarchy and markets are often found, as well as a new kind of governance structure: the **network**. “Because networks allow a distinct form of economic governance, transaction cost economics and its focus on dyadic relationship (Williamson 1996) is ill-suited to the study of network organizations (Powell 1990).” (Bar and Simard 2006, p. 355). This is *ill suited* because long-term relationships in networks are mostly based on trust and goodwill in multisided relationships, rather than on (dyadic)

⁵ Lowering transaction costs can't just be pinned down to one single mechanism, since sometimes transactions are focused around highly specific products, so there needs to be a greater amount and specificity of information to lower uncertainty (hierarchy). When centering transactions around products of low degree of specificity, the market and prices are the right choices (Williamson 1996). The three mechanisms of governance (market, hierarchy, and networks) are never found as a unique mechanisms, but more likely as mixed with each other. (see also Jürgens 2006).

contracts, authority, or episodic relationships in the market. Implementing digital network media in a network structure of involved actors can have a tremendously high and positive effect on lowering transaction costs.⁶ So there is also a twofold understanding of networks in the media industry: First, the media company of the future needs to be open to cooperations, projects, new competitors and a strategy located between new consumer experiences and the new possibilities of innovative technologies, (IBM 2004, p. 6) in order to compete and to succeed in a quickly changing competitive environment. Secondly, the network is lively predominant and reinforced on the process and action level by the growing implementation of digital network media. This implementation is not only opening up new strategic opportunities but is also capable of reducing transaction costs. Relationships are not only dyadic anymore but multiple, which means that stakeholders communicate and connect among themselves as well as with the company.

21.3 Stakeholder Management and Corporate Social Responsibility

When talking about convergent media companies we actually talk about the network company. “The major organizational transformation of media that we observe is the formation of global networks of interlocked multimedia businesses organized around partnerships.” (Castells 2009, p. 72). Relationships to any given stakeholder are more and more organized through mediated-networked structures, founded on communication “beyond dyadic ties” (Rowley 1997). The following section will give a short overview of stakeholder management, its crucial role for corporate social responsibility in the convergent media company, and the challenges arising from the network structure.

21.3.1 The Stakeholder View of the Firm

A *stakeholder* is “any individual or group who can affect or is affected by the actions, decisions, policies, practices, or goals of the organization.” (Freeman 1984, p. 25).⁷ Ever since Edward R. Freeman published his book “Strategic management:

⁶ Even though Bar and Simard (2006) point out that usage of new media could also result in more hierarchies or more markets and not necessarily in more networks, it becomes obvious when looking at the media industry today, that the network is rather dominant.

⁷ Freeman questioned the sole value creation for shareholders and outlined that stakeholder theory develops out of four ideas, or rather deficits that need to be considered when trying to define what a firm or company is. First, every business decision always has an ethical implication (separation fallacy) which means that no business decision can be made without considering ethical questions (integration thesis). Further there are central questions for a company that need to be answered, in regard to who is affected or harmed (open question argument) by its products and services. Finally,

A stakeholder approach” (1984), stakeholder theory has been critically discussed in strategic management and economic theory (Freeman et al. 2010, pp. 10–18).

Stakeholder theory has developed simultaneously with the changing views of the firm, introducing the production view, the managerial view and finally the stakeholder view of the firm, with the rising relevance and complexity of stakeholders (Freeman 1984). Despite these changes in the stakeholder model, the firm is still located at the center of such models, implicating that it has the power, the knowledge, and the control to name and to relate to stakeholders. We also know many category sets of how to name and differentiate stakeholders, e.g. primary (market) and secondary (nonmarket) (Buchholtz and Carroll 2012), internal and external (Freeman 1984), as well as primary and secondary social and nonsocial stakeholders (Wheeler and Sillanpää 1997). These classifications help to identify and classify the stakeholders of the firm in static ways, implicating that there is a defined way to respond to them. In addition to these classifications, Mitchel et al. (1997) offer a typology of stakeholder attributes that enable one to decide how legitimate, powerful, and urgent their claims might be. Again, we are looking at a very well-informed firm at the center, acting as a rational agent (Mitchel et al. 1997), who decides on how to respond to stakeholders on the basis of the managements’ perception of these stakes.⁸ The responses of the focal firm to stakeholders’ claims are conceptualized in a dyadic structure, not taking into account, that there might be connections among stakeholders.

In addition, there is a *descriptive*, *instrumental*, and *normative* value of the stakeholder approach to the firm (Post et al. 2002), presupposing that the firm can take advantages of such values and keep their stakeholders under control. Besides these classifications of stakeholders, there are different approaches to stakeholder management that can be named: strategic, multifiduciary, and the synthesis approach (Goodpaster 1991). The strategic approach only takes stakeholders into account when they are promising to bring value to their shareholders, whereas the multifiduciary approach goes beyond just strategic obligations and views stakeholders as human beings who are taken ethically serious. “Paradoxically, the former appears to yield business without ethics and the latter appears to yield ethics without business.” (ibid., p. 53). That is why Goodpaster suggests a *synthesis approach* to stakeholder management (ibid., pp. 55-59), combining both strategic and ethical issues. When looking at media companies it is first and foremost the synthesis approach that suits the *duality of media goods* the best (Karmasin and Winter 2002, p. 32): the media (especially private media organizations) not only have to make a profit but also must build up social capital along with meeting their cultural and social obligation (ibid., p. 32). Overall, stakeholder management seems

there is the responsibility principle, saying that “most people, most of the time, want to, and do, accept responsibility for the effects of their actions to other” (Freeman et al. 2010, p. 6).

⁸On the basis of this perception Mitchell et al. (1997) build a classification of latent (dominant, discretionary, demanding), expectant (dominant, dependent, dangerous), definitive, and non-stakeholders (pp. 874–879).

to be an omniscient tool, presupposing to be in the position of deciding on how to identify, classify, and respond to the numerous stakeholders.

21.3.2 Stakeholder Management and CSR

In regard to Freeman's four-sided idea of why stakeholder management is necessary (see footnote 7), he claims that "If [...] [stakeholder theory] is to solve the problem of the ethics of capitalism, it must show how a business could be managed to take full account of its effects on and responsibilities towards stakeholders." (Freeman et al. 2010, p. 9). This is very true for media companies, especially those that are privately or partly privately organized, e.g., BBC, Google, Apple, or the global telecoms. Convergent media affect their stakeholders in new ways, especially because they totally change the way how people relate to each other and how their symbolic culture is constituted in their everyday lives. One option to respond to these new influences and to *solve the problem of ethics and capitalism* is the "business ethics approach" (Buchholtz and Carroll 2012, pp. 22–23) to the relationship between *business and society*. This makes CSR very relevant to the overall strategy of convergent media companies.

Convergent media are still located in the duality between economic and cultural goods. They have certain obligations towards their stakeholders, even more, since their *social footprint* is different from what we know of traditional mass media. Convergent media do not only set the agenda and influence public opinion, but they also influence the way we "work, live, love, and relate" to each other, to places and institutions (Kluth 2008). Legitimacy is not a prerequisite by law or their public institutionalization (license fee payers), but the license to operate is guaranteed directly by their stakeholders. The demand for transparency and accountability of media firms is growing. The claim to act responsibly is also reinforced by governments and policy makers asking for more self- and co-regulatory measures in global media organizations. So out of the many definitions of CSR, I refer to Carrol's *CSR-pyramid* (1991, 1998): "In this view, a four-part conceptualization of CSR included the idea that the corporation has not only economic and legal obligations, but ethical and discretionary (philanthropic) responsibilities as well." (1991, p. 40). This translates into the dictum: make a profit, obey the law, be ethical, and be a good corporate citizen (ibid., p. 43). With regard to relevant stakeholders of media companies I would like to emphasize the very specific "be ethical" and "be a good corporate citizen" in regard to the production, distribution, and usage of convergent media to and by stakeholders (Winter 2006). This ethical responsibility can be seen in the cultural and communicative impact of media companies on how ordinary people create their own symbolic cultures (Williams 1958/2011) and their own ways of communication in their everyday lives.

21.3.3 The Socially Relevant Impact of Convergent Media on Communication and Culture

The means to create such new communication and cultures are offered by convergent media firms and their products and services. That is why I am suggesting that convergent media companies are responsible for a *communicative and cultural footprint* (Trommershausen 2011). This communication and culture is based on communicative relationships “beyond dyadic ties” (Rowley 1997), is related to “mass self-communication” (Castells 2009, p. 55), and is based on pull- rather than push-communication. It is also based on peer-to-peer communication in networks, on a self-directed constitution of cultural and social identity patterns taking advantages of co-creative and distributive processes in the network society. This fundamental change is just as true for primary and secondary stakeholders of the firm, challenging basic assumptions in stakeholder management. So the networked structure of how stakeholders relate to each other and to the media company is new and needs to be taken into account in stakeholder management. One of the most relevant implications of such new preconditions is that the relationships with stakeholders are becoming more complex, more discursive, and multimodal. The quality, the understanding of social embeddedness and contexts of such stakeholder networks and relationship is becoming crucial in a business ethics approach trying to succeed in the relationships between business and society. One can agree, when Freeman points out, that despite understanding stakeholders just as rational and opportunistic actors (e.g., agency theory), “it doesn’t make any sense to talk about business or ethics without talking about human beings. We need to make this explicit because there is a dangerous counterrevolution going on in business schools.” (Freeman 2008: 163).

21.4 A Networking Concept for Stakeholder Management in Corporate Social Responsibility

When thinking of stakeholders as human beings, the approach to stakeholder management should be rather relational than rational. Relationships are mediated by communication and communication continues to be increasingly organized in multimedia networks.

The high relevance of social relations, especially in business, can be stressed with Granovetter’s (1985) argument of *social embeddedness*. Locating his view on embeddedness either in an under- or an oversocialized perspective of economic action, he sticks to the central question in social theory, of “how behavior and institutions are affected by social relations (. . .).” (ibid., p. 481). This is a very relevant question when trying to relate to stakeholders as “human beings” (Freeman

2008, p. 163). Granovetter's main argument is that any economic behavior has a social component to it.⁹ Social embeddedness of economic actions can influence or even reverse economic goals and outcomes. It has the power to reinforce trust and to prohibit malfeasance in economic relationships: "The embeddedness argument stresses [...] the role of concrete personal relations and structures (or "networks") of such relations in generating trust and discouraging malfeasance." (Granovetter 1985, p. 490).¹⁰ The importance of social relations is also rooted in the fact that trust is a prerequisite for doing business. So no matter if the conceptualization of doing business is founded on hierarchies, markets, or networks, social embeddedness is always given and trust is a main prerequisite.

Because of social embeddedness and the growing importance of *trust* in networks I will introduce in this section a networking concept of stakeholder management that is focusing on the structure (social embeddedness) of stakeholder networks and the position of the focal organization in such networks. This positioning allows one to make assumptions about how convergent media companies can relate and respond to stakeholders. Rowley (1997) introduced his network theory of stakeholder influences in 1997. Using his conception as a starting point, I will also adopt selected aspects of Castells' concept of *communication power* (2009, 2011). These two approaches can explain how networks function in a network society, how power is constituted in them, who holds the power, and what competences and characteristics for network power are necessary. Doing so, I will be able to conclude that convergent media companies need to redefine their self-conception of how to think about the relationships to their stakeholders. This can foster corporate social responsibility, which is aiming at being able to take "full accounts of the effects on and responsibility for stakeholders" (Freeman et al. 2010, p. 9).

21.4.1 Stakeholders' Influences¹¹

Rowley (1997) considers the multiple and interdependent interactions that simultaneously exist in stakeholder environments (ibid., p. 887). Stakeholders don't only relate in "dyadic ties" to the company, but in multiple relationships, also relating to other stakeholders within the network structure. "Since stakeholder relationships do not occur in a vacuum of dyadic ties, but rather in a network of influences, a firm's stakeholders are likely to have direct relationships with one another." (ibid., p. 890). He is thus focusing on the structural characteristics of an organizations' network of relationships, also stating that the organization itself can be seen as part of a

⁹ This can be seen in congruence with Freeman's separation fallacy, that any economic behavior or decision can't be evaluated without its ethical implications.

¹⁰ Granovetter (1985) is especially criticizing the new intuitional economy, founded on the irrational idea of an atomized and rational individual in an utilitarian sense (p. 484). This can also be seen in congruence with Freeman, stating that stakeholder management is mostly about human beings rather than about just self-interested and opportunistic actors.

¹¹ Rowley 1997

stakeholder network for other organizations. His major critique of traditional stakeholder management is that “Stakeholder theory development has centered around two related streams: (1) defining the stakeholder concept and (2) classifying stakeholders into categories that provide an understanding of individual stakeholder relationships.” (ibid., p. 889). His main goal is to contribute to how companies can respond to their stakeholders in a network environment. “(…) although existing research provides classifications of the different types of stakeholder influences, it does not explain how firms react to these influences.” (ibid., p. 889). That is why Rowley (1997) considers the question of how organizations respond to stakeholder pressures (ibid., p. 888). He “argue[s] that the density of the stakeholder network surrounding an organization and the organization’s centrality in the network influences its degree of resistance to stakeholder demands.” (ibid., p. 888). In other words one could say that certain criteria or competences and characteristics of the network influence the degree of power of the firm to meet or to turn down stakeholder’s stakes. Finally, Rowley presents four possibilities for the firm to respond to its stakeholders. He introduces the criteria of density and centrality of and in networks which will be discussed in the light of Castells’ idea of *communication power*.

21.4.2 Density of and Centrality in Stakeholder Networks

Let’s have a closer look at the density of and the centrality in stakeholder networks¹²:

Density of the network describes the degree of connectedness of the actors in the network. The denser the structure of relations is, the more an organization is able to resist institutional pressures. Density relates to the whole network describing the “relative number of ties in the network that link actors together (…).” (ibid., p. 896). With a high connectedness in place relational networks constitute and transfer “institutional myths between organizations” (ibid., p. 897), because values are diffusing across networks when these networks give the opportunity for the coordination and the exchange of information between its members (ibid., p. 897).

Two dimensions of *density* are relevant when making assumptions about the responding behavior of organizations towards stakeholder networks. First, the more relationships are in place and the higher the degree of connectedness in and of networks is, the more efficient communication will be. As the high degree of relationships lowers the chances of communicative isolation within the networks its efficiency grows. Missing a high degree of connectedness means that chances of communicative isolation of parts of the network is more likely. Then subgroups form and are not included in the overall network, which lowers its effectiveness.

¹² Rowley (1997) points out that “The purpose of network analysis is to examine relational systems in which actors dwell and to determine how the nature of relationship structures impacts behaviors.” (p. 893). This is why it is helpful to develop a network theory in stakeholder management.

Secondly, “(…) the consequence of dense network structures is the diffusion of norms across the network. Through extensive ties between network members, actors form patterns of exchange and produce shared behavioral expectations.” (ibid., p. 897). So with growing numbers of interorganizational relationships the behaviors start to assimilate across networks and the sharing of behavioral expectations becomes more likely. If stakeholder groups succeed in building up efficient communication structures and even build a common idea of behavioral expectations, norms and values, the likelihood of a powerful response by the focal organization decreases, since the stakeholder network has the means to put pressures on organizations and lead them to conformity (Rowley 1997).

While *density* characterizes the whole network, the criterion of *centrality* relates to the position of a single actor in relation to the other members of the network. In regard to its power, Rowley identifies an informal power not to be understood as an attribute but rather as a relational and interaction related feature. Three types of centrality can be named: “degree,” “closeness,” and “betweenness centrality” are measures of an actor’s number of direct ties to other actors, of his independent access to others and his control over other actors, respectively.” (ibid., p. 898). The degree of centrality relates to the degree of connectedness of that single actor. Closeness centrality “defines an actor’s ability to access independently all other members of the network.” (ibid., p. 899). So the independent access to different points in the network is combined with the efficiency of communication. “Betweenness centrality measures the frequency with which an actor falls on the geodesic paths between pairs of other actors.” (Freeman 1979, in Rowley 1997, p. 899). Rowley identifies betweenness centrality of the organization as the most relevant when wanting to make assumptions about its resistance to stakeholder pressures. “The focal organization’s betweenness centrality—the extent to which it acts as an intermediary between its stakeholders—is a significant factor influencing how much the organization will resist stakeholder pressures” (ibid., p. 900). This amplifies the hypothesis that the company is not necessarily always in the ‘center’ of stakeholder groups, as implicated in traditional stakeholder theory. Included in this assumption is that with a good betweenness centrality the organization can act as a gatekeeper in what information is communicated within the network. Finally, “As (…) a focal organization’s centrality increases, its ability to resist stakeholder pressures increases.” (ibid., p. 900). Table 21.1 shows the different options of organizations to respond to stakeholders in regard to *centrality* and *density* of the network.

Overall the stakeholder network can be seen in regard to its density for stakeholders and in regard to its betweenness centrality of the firm as a source of power for both actor groups (ibid., p. 900f). *Power that is mediated through communication is thus a central dimension in most stakeholder networks today, more often empowered by Web 2.0 tools and technologies.*

Table 21.1 A structural classification of stakeholder influences: organizational responses to stakeholder pressures, Rowley 1997, p. 901

		Centrality of the focal Organization	
		High	Low
Density of the stakeholder network	High	Compromiser	Subordinate
	Low	Commander	Solitarian

21.4.3 Communication Power Through Mass Self-Communication

Castells calls this new kind of communication (in addition to interpersonal communication and traditional mass communication) *mass self-communication*: “it is mass communication because it can potentially reach a global audience, as in the posting of a video on YouTube, a blog with RSS linked to a number of web sources, or a message to a massive e-mail list. At the same time, it is self-communication because the production of the message is self-generated, the definition of the potential receivers is self-directed, and the retrieval of specific messages or content from the WWW and electronic communication networks is self-selected.” (Castells 2009, p. 55; also Castells 2011 p. 779). This new kind of communication, which is also highly relevant in stakeholder networks, relates to major shifts and changes in the distribution of *communication power*. First of all, new possibilities of technological transformation (technological convergence), secondly, the change of the organizational and institutional structure of communication (convergence of the industry), thirdly, a cultural convergence based on “the parallel development of a global culture and multiple identity cultures; and the simultaneous rise of individualism and communalism as two opposing, yet equally powerful, cultural patterns that characterize our world.” (convergence culture) (Castells 2009: 56). Every transformation “represent[s] the expression of the social relationships, ultimately power relationships, that underlie the evolution of the multimodal communication system.” (ibid., p. 57).

Castells locates power in these communicative relationships saying that power in the network society is communication power. “*Power* is the most fundamental process in society, since society is defined around values and institutions, and what is valued and institutionalized is defined by power relationships.” (ibid., 10). This directly applies to stakeholder management and its network structure. Density, centrality, and communication power are crucial for a successful stakeholder management. “Discourses frame the options of what networks can or cannot do. In the network society, discourses are generated, diffused, fought over, internalized, and ultimately embodies in human action, in the socialized communication realm (. . .)” (ibid., p. 53). Power is network specific, depending on the dominant discourse to be stabilized in the network. Assuming that the network is the major structural logic in the network society plus the possibilities of communication—and especially of self mass-communication—the question is, who holds, generates or processes power? This is a relevant question, since Rowley has already pointed out that many factors decide on whether the company is the focal, individual, and

powerful agent in the network, holding or generating such power. To answer this question I will focus on the *network-making power*, as defined by Castells.¹³ This specific form of power relates to Rowley's criteria of density and centrality.

21.4.4 Network-Making Power

“Network-making power is the capacity to set up and program a network, (...)” (Castells 2011, p. 781). Network-making power depends on two abilities: (1) the ability to constitute networks and to program (discourses) them, meaning to assign specific goals for the network (also re-programming them) and (2) the ability “to connect and ensure the cooperation of different networks by sharing common goals and combining resources, while fending off competition from other networks by setting up strategic cooperation.” (Castells 2009, p. 45), Actors having the first ability are identified and named as “*programmers*,” those having the second ability are “*switchers*.” Both are social actors, mostly acting at the intersections between other social actors, which make them a network themselves, an actor-network focusing on a project or interest. Programs do differ in each network, because the goals set are different as well as the processes and standards followed to reach the set goals. “Therefore power relationships at the network level have to be identified and understood in terms specific to each network.” (Castells 2009, p. 46). The programmers also need access to other communication institutions, like the mass media. The traditional media are important in order to make the programs transparent and influence others to program their network in the desired way. “In other words, the process of communication in society, and the organizations and networks that enact this process of communication, are the key fields where programming projects are formed (...). They are the fields of power in the network society.” (ibid., p. 46). Castells locates these *programmers* mostly in the multimedia and mass communication networks, incarnated in personalities in the oligopolistic media corporations like Lary Page or Marc Zuckerberg (Castells 2011, p. 782). But even though these networks are very powerful because of their programming ability, the possibility of the constitution of *counter-power* is likely. This means that stakeholders could enact as counter powers, using the same sources of power (programming and switching), to gain network-making power. “However, once in cyberspace, people may have all kinds

¹³ Castells differentiates four distinct forms of power: *networking power*, that is characterized by the mechanism of inclusion. Such power is exercised via exclusion from the network; *network power*, which operates on agreed rules and norms in a network. Power is exercised by the power of the standards of the network over its components (2009, p. 43). The *networked power* relates to the fact that each network has its own rules and standards, but that this power is not absolute, meaning it depends on the connection to other networks influencing and such exercising power over other networks (e.g., the network society is highly dependable on the dynamics in the network of the global (financial) markets (ibid., p. 44). Finally, network making-power, which will be elaborated in more detail.

of ideas, including challenging corporate power, dismantling government authority, (. . .).” (ibid., p. 782).

21.4.5 Communication Power in a Networking Concept for Stakeholder Management

The programming of Castells’ definition of the network-making power applies to what Rowley prescribes to one attribute of density. Relational networks with a high degree of connectedness are “fundamental elements forcing organizations toward conformity, since institutional values are diffused across networks.” (Rowley 1997, p. 896). The more the power of programming rises the more relational and the higher the degree of connectedness within the network is. Also the “diffusion of norms” and the development of “shared behavioral expectations” relates to the programming of networks, finally leading to “behaviors becom[ing] more similar across the network” (ibid., p. 897). The power of programming lies in the shared expectations toward reaching the set goals of a network. This is true for the convergent media company-networks as being stakeholders to each other as well as in relation to other stakeholder networks. It also applies in the same logic to counter-power.¹⁴ One could state in regard to the relation between convergent media companies and their stakeholders: Network density increases, the more and the better the programming is network specific, being based on common ideas, visions, projects, and behavioral expectations.

Despite the power of *programming* networks, it is the ability of *switching* that constitutes a source of power, by controlling the connecting points between various strategic networks (Castells 2009, p. 46). The ones being in these positions are the “switchers,” e.g., connections between media networks and NGO networks. In the context of the network society, power is distributed over several networks, saying that there is no power elite, since no single actor can control all the programming and switching processes. When referring to Rowley (1997), the ability to switch applies to the second attribute of network density as well as to the criterion of centrality. In regard to density, Rowley states that the higher the degree of connectedness in the network is, the more efficient the communication is in it, because “By virtue of having many ties, the network structure facilitates information exchange among all its regions. In sparsely connected networks some sections of the network may become isolated, or segregated cliques develop, restricting communication between groups and actors final” (ibid., p. 897). So being positioned and connected at the right intersections and to “ensure the cooperation of different networks” (Castells 2009, p. 45) relates to the high degree of connectedness of the network.

Switching also relates to the criterion of centrality. Centrality characterizes the position of a social actor in the network, saying that informal power “comes from

¹⁴ “A central characteristic of the network society is that both the dynamics of domination and the resistance to domination rely on network formation and network strategies of offense and defense.” (Castells 2009, p. 49).

actor's positions in the actual patterns of interactions that define a social network." (Rowley 1997, p. 898). Further, all three attributes of centrality (degree, closeness, and betweenness) apply to what Castells' calls switching. It's about the number of relationships, the ability to access independently all other members of the network or how often an actor functions as an intermediary between pairs of actors, and whether such actors have control over other actor's access to various regions of the network. Overall, the contribution and compatibility of Castells' communication power with Rowley's classification of responding roles of the company shows that stakeholder relationships need to be thought in the sense of communication networks constituting power through certain sources of power (programming and switching) closely related to the density and centrality of networks.

"Therefore, network-making power in the communication realms is characterized by the action of multimedia corporate networks, including business and government that interact with networked users who both consume media products and create their own culture. Networks interact with networks in the shared process of network making." (Castells 2011, p. 782). In regard to Rowley's classification, the role of the *commander*, *composer*, *solitarian*, or *subordinate* (convergent media organization, see Table 21.1) strongly depends on owning the ability to *program* and to *switch*, as applying in the same way to any stakeholder network, such as consumer networks or employee networks. In Castells' understanding, the role of the convergent media organization (centrality of the focal organization) and the role of the stakeholders (density of stakeholder networks) are interchangeable, since all groups and processes in the network society are organized in networks and there is no power elite. With Castells' concept of *communication power*, the assumptions about the position of the 'focal' organization moves further because the organizations themselves are "actor-networks" that are trying to obtain network-making power. For this goal they not necessarily need to be at the center, but need the ability of programming, switching and a high degree of density. The same applies to all the stakeholder networks in their effort for network-making power.

Conclusion

This chapter explained why in the context of corporate social responsibility stakeholder management in convergent media organizations needs to be understood and conceptualized in new ways. Starting with the convergence of the industry and varying degrees of convergence on the company level, it became obvious, that the "open media company of the future" (IBM 2004) is cooperating with many other media businesses to be able to "compete for the future" (Hamel and Prahalad 1996). These interorganizational networks thus lead to a higher number and complexity of stakeholders (on a global as well as on a local scale) organizing relationships *beyond dyadic ties*. Consequently relating to stakeholders has been identified as a major strategic function to master the intersection of business and society. Following the ethical responsibilities of corporations as named in the CSR-pyramid (Carroll 1991, 1998), this responsibility can mostly be seen in the communicative and cultural footprint convergent

media organizations leave in society. This specific impact on society needs to be taken into account when considering stakeholder responsibilities. Instead of listing certain responsibilities, this chapter focused on the conceptual understanding of how the structure of relationships between convergent media organizations and their stakeholders (as well as among themselves) can be understood. For this reason Rowley's (1997) conception of a network theory of stakeholder influences has been combined with Castells' understanding of communication power, synthesizing a networking concept for stakeholder management. This meets the fact that most social relationships are mediated by communication and more often today by digital network media. So this new understanding presented here is a starting point for further research concerning basic concepts and assumptions in stakeholder management. Convergent media companies are nonhierarchical, but organized in networks. Power in the relationships with stakeholders, to hold the role of the "commander" can only be gained, when understanding the new sources of communication power: programming and switching. Competences such as managing at the intersections, knowing the relevant networks and their programs, being able to build networks with network specific programs, and a profound understanding of intercultural intersections (especially in global media companies) are just some of the competences a manager in a networked stakeholder environment needs. Relating to stakeholders means meeting the ethical claim of taking responsibility for the cultural and communicative impact convergent media have in our everyday lives. This means taking the new morphology of the network society seriously into account when managing the media in a convergent environment.

Exercise Questions

1. What is the 3C-Model of convergence?
2. Why does the number and complexity of stakeholders increase in the convergent environment of the media?
3. What are the main assumptions in the concepts of identification and classification of stakeholders in regard to the firm and its management?
4. Why is the synthesis approach to stakeholder management best suited for media companies?
5. Why needs the corporate social responsibility of convergent media companies to be understood as corporate responsibility for communication and culture?
6. What's the definition of the CSR-pyramid?
7. What does density and centrality mean in stakeholder networks?
8. Which two major abilities are crucial for the network-making power in Castells' concept of communication power?
9. Why is it important for managers to understand the criteria of density, centrality and the abilities of programming and switching?
10. What does social theory implicate for the competencies needed in stakeholder management and for an approach to CSR in convergent media companies?

Reflexive Questions

1. Many traditional mass media companies (print, online, radio, TV) have been organized in hierarchical structures, due to a high specificity of products. Many times they were also vertically integrated. What examples of such media companies do you know, that struggle with the process of convergence and need to (re-)structure into a network with other companies to regain competitiveness in the convergent environment?
2. In regard to the abilities of *programming* and *switching* of networks as well as their relevance in regard to *density* and *centrality*, what other competencies might managers need in the future?
3. What examples can you think of when picturing ‘communication power’ in the context of ‘mass self-communication’? Think of the possibility of counter-power and try to give examples from the arena of global politics.

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Chapter Objectives

The objectives of the chapter are as follows:

1. To situate the main dimensions of media governance within the context of media convergence.
2. To contextualise media convergence within the transformations of globalisation, policymaking, and cultural change.
3. To explain the purpose of studying media governance as a way of understanding the multiple and complex factors that meet in the configuration of the communicative spaces of democracy.

22.1 Introduction

Convergence signals a new state of media landscapes around the world. New technologies become increasingly versatile and integrated, so that communications in general, from telecommunications to computer terminals and from televisions to the Internet, can be used in connection with each other, through each other, and because of each other. This means, for example, that there is no broadband connection without telecommunication structures and no wireless Internet without mobile phones, ipads, and overall technologies of reception, such as computers. Moreover, it means that established media, such as television screens, encompass new media, as they are ‘transformed’ into Internet portals or perform functions of storage media.

Technologies, however, are not the only element that converges in the current transformations taking place at world scale. Discourses of security (Sarikakis 2006)

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and crises, or of piracy for instance, have enhanced a process of multiple convergences involving, apart from technology, major actors in the world politics, transforming the territorial organisation of the planet, and creating new challenging conditions for regulation, culture, and democracy. The transforming scenarios accompanying technological convergence demand new forms of reflection on world communications and power.

Still, technology is not the cause or the sole origin of such a major shift. In practice, the *idea* of technological change precedes and sometimes even dictates policymaking in the media field (Sarikakis 2001). The fact that the debates around new media have been framed predominantly technocratically, rather than socially, demonstrates how powerful ‘myths’ are. As Mosco (2004) argues, it is the technological, digital, and sublime upon which normative frames of regulation for the global Information Society are designed. The myths surrounding technological breakthroughs seem to repeat themselves across the ages of modernity, promising ‘revolution’, emancipation, liberation (ibid). Yet, the citizen as the main recipient of the effects of policy is effectively removed from the centre of politics. As technological development is not an accidental event, but rather a social process, it has major consequences at the social, cultural, and economic levels. These can be addressed with appropriate regulation. Indeed, the regulation of media becomes crucial in cementing change and normalising their transformation. The direction regulation may take, that is, which changes it settles down and which ones it challenges, is subject to a number of conditions and depends on who the influential actors are in policymaking, what the dominant ideas are, how wide the range of legitimate routes is, and which interests may prevail. Hence, the regulatory field is a space of power struggle and debate, tension, and intention. Regulation, therefore, is not a neutral process.

This chapter discusses challenges to the regulation of the media in the public interest. It explores the ways in which the process of convergence is transforming paradigms of media governance and in particular how these changes challenge notions of citizenship and democracy.

22.2 Media and Governance

As boundaries—technological, geographical, and even those of time—become blurred, everyday experience and management of the media change. The convergence of telecommunications and computing technologies has brought about the technological ‘revolution’, and information superhighways are providing the infrastructure for a global interconnectedness (Sarikakis and Thussu 2006: p. 3). In this context, ‘Information’ earned the status of a key strategic resource for the global economy which means that regulating the media does not equal simply regulating the media objects per se, but also the issues surrounding them.

Here, it is important to briefly review the meaning of media governance in these new contexts. For a start, the concept of “governance” refers to forms of steering,

managing, and directing. In political sciences and particularly the study of European integration, “governance studies” emphasise the exercise of authority in the EU system and in particular a drift of authority away from government (Rosamond 2000: p. 109). ‘Governance’ is a meta-theoretical term, which entails references to the complexity and multilevel involvement of actors, institutions, and principles that shape a particular area of public life and, in our case, media and communications. Governance refers to the political *process* of decision-making and its formal and informal structures, within which this process takes place, and to spatio-temporal dispersions that go beyond the clearly defined spaces of “government”. We prefer to remain with the definition offered by Sandholtz and Stone Sweet (1998) that best encapsulates the political function of this phenomenon, that is, governance is understood as the process and sum of institutional functions and the creation of policy regimes through regulation.

The study of Governance brings to the fore the complexities of decision-making processes, and the conditions related to the exercise of power. The concept offers the possibility of considering extensively a wide range of institutions involved in policymaking. Governance also involves complex and non-hierarchical participation of several actors negotiating at distinct levels. Governance therefore can be studied on three different levels: (1) the macro-level refers to the role of international relations and international organisations, state constellations, multi-state agreements, transnational corporations, etc.; (2) the meso-level involves states and governments as well as regional authorities; (3) and the micro-level relates to everyday practices, codes of conduct, voluntary codes, and forms of self-regulation. Armstrong and Bulmer (1998) see institutions as “normative vessels” in which ideas occupy a very important position in policymaking or, as Rosamond (2000: 119) proposes, as actors that “perform a guidance function” and construct social reality. Regulating the media is, therefore, crucial in cementing change and normalising practices.

The study of media governance is relatively recent (Donges 2007). Historically, debates around media regulation shifted towards governance at around the time of the two World Summits on the Information Society both, in Geneva 2003 and in Tunis 2005. Global media transformations have helped consolidate studies on the interaction between systems, actors, ideas, and discourses. Therefore, it can be argued that media governance is strongly linked to the global changes at macro- and micro-levels. Raboy (2004) and Sarikakis (2002, 2004) pioneered also the introduction of the term to communication and media studies in their work on global and international communication policy. In their work, governance was approached as a field of interaction of power and actors involved in international policymaking on a multileveled constellation. Their works explored supranational institutions like the European Parliament (Sarikakis 2002, 2004) governments and global actors, such as civil society (Raboy 2004) and ideological dispositions. Today, the study of media governance includes normative debates around what constitutes “good governance” (Donges 2007; O Siochru and Girard 2002; Price 2002; Puppis 2008; Burch 2004).

As the multifaceted roles of media in everyday life shape democratic culture, the ways in which media are controlled are important. Their expansion into public spheres across borders and their role as facilitators or shapers of public sphere practices demand that we take a closer look. However, prioritising a technocratic normative frame, within which much of media policy has been shaped in the past two decades, has meant that less attention has been given to keep citizens inside the equation of policy.

22.3 Convergence of Technologies, Actors, and Politics: Policy Implications

The ‘hardware’ of communication technologies is partly steered through the governance of infrastructures, such as the installation of optic cable for broadband and Terrestrial Digital Television. It is also governed by global trade agreements that regulate access to key raw materials, for instance, lithium, necessary for the creation of modern batteries. Moreover, it is also governed by technological availability, itself, dependent on market and political actors that regulate the circulation of technologies in hardware or software, and intellectual property issues around them. This includes a major transformation of the ecosystem of devices: apparition of new gadgets like tablets, hybrid devices like mobile phones with cameras, e-book readers, and tablets, or for example, the proliferation of software platforms (web 2.0). This new ecosystem creates new spaces of social interaction that include networking activities and p2p exchanges, collective production of content, and mutation of advertising forms.

The ‘software’ of communication technologies also converges. The process of digitisation, which includes a major *convergence* of *interconnected* devices and a *software-isation* of telecommunications, facilitates the mediation of financial relations and transactions through new technologies. This changes the roles of more infrastructures available and new contents development; providers see the opportunities and adapt, creating new routes of transmission. The convergence of software and protocols has allowed the homogenisation of markets at world scale, the access to remote control devices, and access to remote data, while the gathering of big pools of personal information for police, security, medical, or consumption aims crosses any imagined boundary creating a scene of permanent visibility. But ultimately, hardware and software and the routes of transmission can be interchangeable.

As technologies are converging, the “place” of policy becomes less “fixed” and more complex to follow. For instance, everyday “settings” of social media technologies concern users/citizens directly. Social media applications reveal to various publics users’ geo-location alongside their personal data. Questions about technical standards or technological knowledge must be considered for their impact on information and democratic praxis, and human rights, such as freedom of expression or association, anonymity, or privacy.

Other experiences of augmented reality, the streaming consumption of online products, or cross-media entertainment productions present challenges to existing laws. Consumption of cultural goods based on several devices, which act simultaneously and/or consecutively, raises new questions about the circulation of the material consumed, particularly when the user becomes an integral part of the process of production. In this case, authorship and intellectual property are not easily traceable or identifiable. Moreover many would argue that copyright in the digital world is an obsolete market and legal mechanism. The argument is fundamental: there are three main conditions for copyright regulation: the materiality of works, their originality, and the identification of the author (Phillips 2009; Grad 2003). However, the production and consumption of virtual goods through online platforms (like iTunes or Netflix) challenge the materiality of the copyrighted goods. On the other hand, the capacity of the users to create and publish remixed and mashed up materials challenges the limits of originality. Finally, the tension between the owner of the intellectual rights of cross-media products and the user/generator of content challenges any assumptions about identified authorship (Rodriguez-Amat and Sarikakis 2012). This is an example of how the convergence of technologies runs parallel to certain cultural transformations involved in the making and consumption of cultural products.

A way of responding to these challenges is the ‘Convergence of policies’, which means that media policies, as ‘solutions to problems’, tend to be similar, based on the common—or a dominant—definition of a policy ‘problem’. For example: “Digital Convergence requires policy convergence and the willingness to adapt regulatory frameworks where needed so that they are consistent with the emerging digital economy” (European Communities 2006: p. 3). The literature describes four types of policy convergence (Bennett 1991): (1) ‘emulation’ where in one country is copied what is done in another, as in the case when in several countries the British model of Public Broadcast Service is emulated; (2) ‘elite networking’, in which international communities define policies directions that are later implemented in countries, as in the case of G8 or G20 decisions that are adopted at a national level; (3) ‘harmonisation’ which is an EU approach and describes the process by which commonly agreed directives ‘harmonise’ members states’ national policies; and (4) ‘penetration’ where external actors and interests enter the domestic policymaking process.

Globalisation and technological convergence extend beyond the jurisdiction of the nation state whose role in policymaking is changing. Communication Issues have ceased to be purely ‘national’ and demand solutions that often cross borders of local institutions. An example is when global media corporations negotiate with governments as in the recent cases of conflict between German law and Google Street View. This conflict led the Global Company to negotiate with the German Government in several occasions leading ultimately to implement a ‘voluntary data protection code’ (O’Brien 2010 and BBC 2010). Another example is that of the case of the Hollywood majors negotiations with the Catalan Government (Rolfe 2011) or the Government of Quebec (Coupal 2010) about the provision of dubbed copies of the films in local languages. Moreover, social media cross borders: although

Facebook, for example, is located in Palo Alto (California) and abides by the federal law of this state, its activities are global. Issues raised by these activities, such as questions of privacy or protection of children from grooming and bullying online, are considered in the comprehensive Programme of Safer Internet of the European Union. With its Safer Internet Centres spread over the 30 European countries and a multi-stakeholder approach, the programme “aims at empowering and protecting children and young people online by awareness raising initiatives and by fighting illegal and harmful online content and conduct” (EIS 2012a). A recent example of policy is the Strategy for a Better Internet for Children, a plan set “to give children the digital skills and tools they need fully and safely to benefit from the digital world”, and “aims to unlock the potential of the market for interactive, creative and educational content online” (EIS 2012b). Such a policy brings together the European Commission, the Member States, as well as the mobile phone operators, handset manufacturers, and providers of social networking services. Facebook among other social media has not adhered to the EU guidelines fully in relation to the protection of children (EC 2012: p. 12; Fox 2012) which indicates the challenges of regulating a global media industry and the inadequacies of self-regulation, in this case of the social media industries.

Or to give a different example, the protection of cultural production vis-a-vis the market domination by the Hollywood movie industry is a long-standing and still important policy concern for all actors involved. With technological convergence, the argument for content quotas that ringfence certain percentages of broadcast time for ‘domestic’ productions is challenged as redundant in the era of infinite space for all tastes. This debate has concerned international negotiation rounds, such as the General Agreement Trade Services (GATS 2012) and the World Trade Organization (WTO 2012) rounds with certain impact on the audio-visual industries.

Regulatory practices are said to lie in the hands of several actors. For instance, the organisers of the World Summit on the Information Society in 2003 and 2005 raised a mode of participation of non-state actors to unprecedented levels including besides governments, UN bodies, other international organisations, non-governmental organisations, private sector, civil society, and media (Hintz 2009: p. 115). This phenomenon is called multi-stakeholderism and means that a plethora of actors participate in the policymaking process. It implies a more equitable and open system of decision-making and is the dominant model of global governance today. The most broad in coverage and scope model of governance is the Internet Governance Forum (IGF) which, derived from the World Summit on Information Society in Tunis 2005, is a space for multi-stakeholder policy dialogue. The IGF mandate is, for example, “to foster the sustainability, robustness, security, stability and development of the Internet” by discussing public policy issues of Internet Governance; “to facilitate the exchange of information and best practices, and in this regard make full use of the expertise of the academic, scientific and technical communities”; as well as “to interface with appropriate intergovernmental organizations and other institutions on matters under their purview” (WSIS Tunis 2005). The IGF attracts around 2000 participants attending it physically or remotely participating every year and it is being hosted in all corners of the world: Athens,

2006; Rio de Janeiro, 2007; Hyderabad, 2008; Sharm el Sheikh, 2009; Vilnius, 2010; Nairobi, 2011; and Baku, 2012. States, international organisations such as the Council of Europe, and also Google and Facebook participate in debates about issues affecting societies in relation to the Internet. Despite the impressive organisation and high number of participants, it would be a mistake to assume that all participants negotiate on the same basis of power. As this is not a policymaking forum, ultimately, policy decisions are shaped by elite actors.

Hence, although the concept of multi-stakeholderism implies equity in the process of decision-making, institutions participating in the process of media policy converge in pools of unequal responsibility and negotiation. Policy transfer is, for instance, a form of policymaking that transcends state institutions. International alliances by influential *forces* (other states or coalition of corporations, but also regional organisations) mediate changes at the national level. Governance on European Union (EU) level is formed through the participation of governments, civil society, European (supranational) Parliament, and the private sector. The EU is one such international actor of great importance to global policy that “affect other ‘third’ countries as well as member states, or regional organisations such as the North-American Free Trade Agreement (NAFTA) and the Mercado Común del Sur (MERCOSUR) and organisations such as the World Trade Organisation (WTO) and World Bank and other organisations” (Sarikakis 2013, p. 13). The process of Europeanisation, that is the ‘convergence’ of legal frameworks and their harmonisation, requires and depends on the participation of the nation state. Here, various established and other actors participate. The European Parliament sets an example of an accountable body outside the nation state (Sarikakis 2009).

However organisations, such as the European Roundtable of Industrialists (ERT), the Business Roundtable (BRT), Motion Picture Association of America (MPAA), or the Global Business Dialogue on electronic commerce (GBDe), produce policy agendas based on the principles of private interests. At an international level, the state functions as a unit of reference. Policies now take place in *de-nationalised* spaces that shape the function of communication globally (Chakravarty and Sarikakis 2006). The case of the Anti-Counterfeit Trade Agreement (ACTA) is an example of such dynamic. The document was initially drafted and negotiated by Japan and the USA in 2006, and later Canada and the European Commission, the European countries, as well as Switzerland incorporated in 2007 to the preliminary talks; and in June 2008 official negotiations started with Australia, Mexico, Morocco, New Zealand, Republic of Korea, and Singapore. However, participating countries in the drafting of the document are not the same that signed it. Moreover, the Agreement defines the Acta Committee in its article 36 (ACTA 2012): an independent body formed by the representation of the signing state but that does not depend on any broader institution except itself (Sarikakis et al. 2013).

The long process of definition of the ACTA Agreement and its global range as well as the progressive transformation of several national Intellectual Property regimes worldwide are part of a global discourse related to the problem of piracy and the illegal consumption of protected works on the Internet. In the last decades,

global discourses about and practices of piracy, security, and theft or financial and political crisis have justified particular strong regulatory decisions. In many cases the resulting conditions put democracy under pressure. The state of exception allows the implementation of policies which are not always in line with established principles of communication rights. In 2007, the Organization for Security and Co-operation in Europe (OSCE) described that almost half of its 56 member states imposed legal liability for journalists who obtain classified information. Banisar (2008/2009) observed that a significant trend in the use of state secret laws is “to penalise whistle-blowers and journalists who publish information of public interest”. The classic works by Ellul (1973) and Herman and Chomsky (1988) on propaganda have shown that the close relation between media and power has been related to, at least, three forms of control exerted over the media: structural control, control over diffused content, and control as the planning of content to be published. The case of structural control is probably the most widespread form because it exerts its power creating conditions of ownership, access, or licence of the means of communication. Influence is not exerted over the content but over who earns the right to communicate or the right to receive information. The first form of structural control refers to the control exerted over the ownership of the media: public or private media, monopolistic or pluralistic spaces, and the degree of concentration in the media ownership are forms of analysing how media are controlled. Another form of structural control can be exerted through the forms of access to media: is it a public access service, does it demand direct or indirect tax, is it directly paid by the user, or only certain professionals can access this information. Media can be controlled by deciding who accesses them. The third type of structural control is the license. It refers to the conditions under which one can participate in the common/public communicative spaces; for instance, the use of electromagnetic waves—either for mobile, television, radio broadcasting, or Ham radio—is regulated in many countries. Not everybody can freely use any frequency except when it is under the explicit permission (licence) of the authority. These three forms are common mechanisms of defining public communicated spaces.

On the other hand, media can be controlled by interfering on the content of what is published. This is what is usually known as censorship before publication. This is probably the most unpopular form of exercise of intervention. However, regulatory systems still maintain some decision mechanisms over content, so that *unlawful* material can be taken down from public space. Sometimes, a form of censorship may be applied without the need for state intervention, when for example media exercise self-censorship or when there is pressure to do so: for instance, youtube may withdraw alleged offensive or copyrighted content. Similarly, Facebook claims to pay attention to both users’ comments and judiciary authorities.

Finally, the third form of control mentioned above is the process of ‘designing’ content to be published. This form is often enacted in the press rooms and official speeches, because it is omissions, what is left out. This is a form of exerting influence: the public presentation of new laws leaving out particular details, or avoiding to mention information in a press release generates a routine of public communication that does not reach the information intentionally absent in the

institutional message. This is a form of control based on the decision of what will enter the public domain and what not.

These several examples of convergence at multiple levels show how the progressive blurring of the boundaries between production and consumption of media products, services, contents, DIY-culture on the Internet, self-disclosure on social media, as well as products by ‘amateurs’ forms the constellation of a whole (sub) culture. Cultural transformation generates a content-based media industry, which is fundamental in the functioning of social media business models, such as Facebook. But it also enhances practices and understandings that create a sense of common experiences, common ‘fate’, and common concerns.

22.4 Cultural Convergences

To assume that policy consists of ‘rational’ actors pursuing ‘rational’ goals, alone, would ignore the immense role ideas, discourses, and ‘ways of doing’ play in the governance of communications. In other words, cultural shifts are part and parcel of the shift in policy paradigms in the media. Culture is at the core of political representation and cultural recognition of citizens in the production, circulation, and consumption of media. Culture is a fundamental component in global media governance: traditionally, and predominantly in broadcasting policies, it is around debates on culture and identity where claims for the recognition of difference among human societies, in contrast to the universalising tendencies of the market, take place. This dilemma is found in protectionist approaches towards national film making or broadcasting. Cultural convergences emerge in the ways in which ideas about social cohesion and protection of identity are enmeshed in resistances to homogenising effects of a ‘global’ culture. The duality between local cultural practices of protection and the global dynamics of cultural standardisation intersects with debates about whether it is possible—or indeed desirable—to intervene and to what extent. These are the historically persistent dilemmas about nationalistic processes of domestic homogenisation as a form of protection, as a response to global cultural imperialism. On the one hand, this complexity is translated into permanent deceptive dilemmas: xenophobic politics often abuses the discourse of the protection of national identity as a mechanism of social exclusion of the domestic cultural and social minorities. On the other hand, neo-liberal discourses promote a form of cultural *laissez-faire* that turns cultural freedom into facets of cultural relativism. The struggle between the extreme notions of absolutism and relativism is reflected in communications as a ‘push and pull’ tendency in the normative framing of decisions. For example, regulation, such as special taxes, may be framed as a necessary step for the protection of national industries or national identity. At the same time, another piece of policy on the liberalisation of media markets may be framed around the freedom of individuals to ‘choose’ their media. In both cases, it is important to ask who benefits from these measures and what is their impact for the citizens, and in particular those social

groups that occupy vulnerable positions in society, such as children, low socioeconomic classes, women, ethnic or linguistic minorities, and so forth.

The ways in which communication technologies are governed within this context define and regularise integrated markets and audiences while constructing nodes of concentrated economic and political power (Chakravarty and Sarikakis 2006). Infrastructures, inventions, and the extension of technologies worldwide are not neutral. A major cultural metamorphosis defines new spaces of struggle and negotiation between operative forms of established institutions and new styles of governance that can empower the user, the consumer, and the citizen. But the media play also a role as social mechanisms of control and taming social behaviour; their role as interfaces between the public and private spheres of social life triggers also major questions concerning the regulation and the transformations of the perception of privacy and identity. A closer look shows that whereas technologies are global, they are not equally owned or equally shared. The expansion of technologies demands infrastructures and investment, but also expertise and applicability. The spatial interconnections that overcome the traditional states actors in a network of power nodes form specific geographies that are characterised by their position in decision-making, production, and consumption of cultural goods. These spatial organisations are harmonised with the spread of decision-making power nodes of global urban centres and have worldwide ramifications (Sarikakis 2012). For example, the political centres of Brussels, Washington, and Montevideo demonstrate that the kinds of actors geographically concentrated and situated and the kinds of political and economic policy output of these centres are strategically connected (ibid). A lot can be concluded from the study of the positioning of these actors, whether governmental or non-governmental organisations, lobbies, or international actors. Convergence takes place as a particular hierarchical world order that embeds disparities in regulatory interests: for example, while geographies of invention aim to organise a system of intellectual property regimes that favour exports *and* worldwide protection of the exportable creations, and geographies of development aim to establish forms of protection that allow the domestic growth of own technologies. The enhancement of technological rights such as the free universal access to broadband or access to information are not only regulations that channel and further technological development, but also set regulatory frames that may address social equalities and differences.

The Impact of Convergences: Some Conclusions

This chapter has shown that neither technological evolution is neutral nor that it is the source of all forms of convergence concerning the communicative spaces. After a short revision of the concepts of governance and media governance the chapter has provided examples, cases, and sources to map several forms of convergence that involve the media. After all, media governance not only describes the conditions under which the convergence of media takes place but also identifies how often disconnected regulatory frames, processes, and

institutional functions combine to define communicative spaces and forms of citizen participation and democracy.

After reviewing the meaning of media governance in the literature, the chapter has identified several levels of convergence that involve the media and communicative spaces: hardware and software of communication technologies are transformed simultaneously in a complex process of digitisation and ecosystem of devices and platforms. The text has shown that such aspects of media convergence also provoke the loss of fixity of policies and the difficulty of tracing them. Similarly, current regulatory frames are challenged as is the case of intellectual property laws in the contexts of cross-media productions or user-generated contents.

One of the forms of responding to this new state of media has been the convergence of policies, that is, the implementation of similar policies in different scenarios and the harmonisation of, for instance, regulatory frames between countries. Convergence of policies includes also the need of policies that cross national borders.

The global scene of these agreements and the phenomenon of multi-stakeholderism increase the complexity of media governance and the process of policy definition and decision-making. The chapter has described some of the deriving inequalities and how there is a tendency to *de-nationalise* policymaking challenging the conditions of legitimacy for resulting regulatory frames.

Furthermore, the presence of global discourses such as the crisis, piracy, or security frames the tendencies in policymaking at a global scale and generates states of exception that may be used to justify policies that can eventually curb the democratic purpose of the media regulation. Within this context, the chapter also described briefly the three main mechanisms of control exerted over the media: two referring to the content as the control over the diffused (censorship) and the control over what is published and a third form of control over the structure of the media.

The multiple forms of convergence described have to be related to a broader cultural process of cultural convergence. Regulation over the media involves the consideration of the cultural transformation and the dilemmas between global and local culture, and industries, the protection or the liberalisation of the cultural markets. The governance of these relations involves the practices, regulation, and ideas that define the conditions for the shaping of public spaces, where ultimately democracy and citizenship emerge.

Add Questions for Further Reading

Media Governance

1. How does the study of Media Governance contribute to the understanding of media?
2. What does a normative approach to Media Governance mean?
3. What are the fundamental undiscussed assumptions of Media Governance?

Local-Global Media Policies

1. Look for, at least, three new policies involving the media that have been recently implemented in your country.
2. Check if there are similar policies in other countries, and explore the differences between them.
3. How do you explain the similarities and the differences between the two countries?

Questions for Reflection

1. The chapter has referred to Convergence of media, of technologies, and of policies. To what extent do you think that these global phenomena could generate divergences, too?
2. To what extent do you think that the new communicative systems could transform fundamental notions of social categorisation, such as gender, the nation, or the institutions of the State and Political parties?
3. Some authors have discussed the effectiveness of the propaganda models described in this chapter by referring to the capacity of users to critically read the new media. Give some examples of these authors and elaborate the dimensions of this debate.

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Part VI

Future Outlook

New Competencies for the Future: How Changes and Trends In Media Convergence Demand New Skills From The Workforce

23

Sandra Diehl, Matthias Karmasin, Andrea Leopold,
and Isabell Koinig

Chapter Objectives

1. To understand the concept (and forms) of convergence.
2. To comprehend how the “learning organization” has come to substitute traditional organizational concepts.
3. To determine the new challenges and risks management is confronted with.
4. To identify sources triggering changes in various areas.
5. To estimate the dimensions of change in different areas.
6. To provide solutions as to how to handle change (change management, learning organization)

23.1 Introduction

There is nothing wrong with change, if it is in the right direction
(Winston Churchill, 1874–1965)

In a world of constant change and progress, business management must not stop but is in need for subsequent adaptation. In general, “management is conceptualized as a business administration discipline that identifies and describes strategic and operational phenomena and problems in the leadership of media enterprises. At the same time, it is an applied science that is intended to provide assistance to the business practice regarding the leadership of media enterprises. [It] covers all the goal-oriented activities of planning, organization and control within the framework of the creation and distribution processes for information or entertainment content in media enterprises” (Wirtz, 2011: 5–15). These alterations are primarily brought

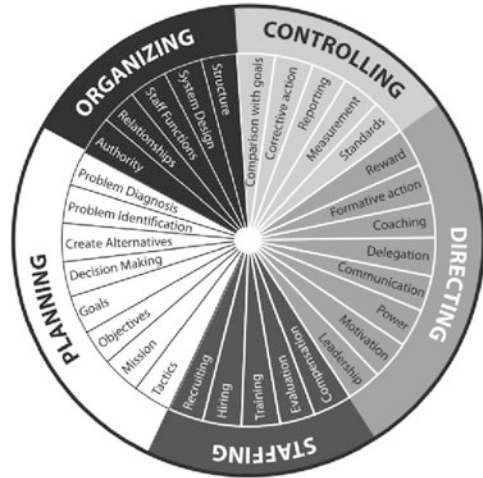
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about by convergence, which covers different areas and can be best tackled in its complexity by use of change management, meaning all efforts and resources dedicated towards meeting the new requirements of convergent business and media environments (Karmasin and Winter 2000).

What Is Convergence?. Before taking a closer look at new trends in converging business environments it is necessary to first define the term. For our project we perceive convergence as a phenomenon resulting from the overlapping and merging of different media forms and functions that once operated separately. Hence, convergence can take a variety of forms for it concerns media, businesses/industries, technologies, as well as content. (1) **Convergence of media** refers to the merging of formerly independent technologies and devices, resulting in new services such as mobile TV, mobile Internet, Internet TV, Internet radio, or “connected TV”. (2) **Convergence of businesses** implies that firms and industries operating in different economic areas decide on cooperating and collaborating, thus leaving their original fields of expertise. Thereby, these cross-functional operations are characterized by varying degrees of intensity, duration, and targets/goals. (3) **Convergence of technologies**, with the most prominent examples being Unified Messaging (UM) and Unified Communications (UC), integrates different communication forms (such as e-mails, text, or fax messages) into one “unified” form which can be processed and accessed by a variety of devices (e.g., smartphones or e-mail clients) independent of location. (4) **Convergence of content** means that media content is not only used in different media channels but is also adapted to different media environments and their requirements respectively. For example, news is being published on different platforms, such as the Internet or on TV and the radio (Karmasin and Winter 2000). Thus, convergence can be said to have far-reaching implications on various areas of our lives, “changing the way we create, consume, learn and interact with each other” (Jenkins 2006).

What Is Management?. In order to comprehend manager’s core competencies and tasks in convergent times, principal management functions need to be briefly mentioned, which still present today’s standard and generally serve as a starting point: (1) Planning, (2) Organizing, (3) Staffing, (4) Directing/Leading, and (5) Controlling (Koontz and O’Donnell 1955; Wehrich and Koontz 1993; Isaacs and McAllister 2005; see Fig. 23.1). Tasks like Coordination and Decision-Making are not listed separately but are understood as meta-functions which occur at all stages mentioned above. Together, these functions also make up the classical management process, which is characterized by an interrelation of all phases (Schreyögg and Koch 2007: 9f.). This abstract management concept is extended by other components (“patterns”) in practice (empirical studies on the topic: Carlson (1951), Koontz and O’Donnell (1955) and Mintzberg (1975), Pondy (1988), Thomson et al. (2000), Sherwood and Stimmel (2002), McCalley (2011). Patterns are manifold: (1) open-ended tasks, (2) fragmented work routines, (3) oral communication, (4) networking, and (5) ambiguous decisions (Schreyögg and Koch 2007: p. 14).

Fig. 23.1 Management functions (Isaacs and McAllister 2005: p. 2)



23.2 Current and Future Trends Due To Convergence

23.2.1 Technological and Communication Trends

Technological infrastructures experience a rapid growth, especially in the area of communication technologies, which is mirrored by rising broad band Internet usage rates and an increasing dissemination in mobile communication devices (Internationale Delphi Studie 2009: p. 16). These two trends become especially important in convergent media environments, where technological devices are in need of continually being adapted to changing environments and contexts. These innovations have fostered ecological and economical advancements and are thus said to have far-reaching implications on business' working cultures. Conditioned by the development of new technical infrastructures and services, such as wireless technologies and convergent platforms, workplace conditions are doomed to change. Web 2.0 technologies have started to find their way into business practices and can be said to have a lasting impact on business value. They can take various forms—from wikis, social networks, and blogs to virtual worlds and podcasts—and are perceived to considerably improve professional collaboration and communication (Andriole 2010: p. 67), allowing for a multichannel communication with diverse target groups.

Convergent communication solutions allow for the application across a variety of fields, like knowledge management and customer relationship management amongst others, benefitting both internal and external communication processes (Andriole 2010: p. 67). In this context, network communication is worth mentioning which requires a connected approach to communication. But not every communication form suits every environment, making it necessary to determine and select

the most appropriate channel to target each individual group. Nonetheless, innovations have resulted in increased amounts of communication, reaching further unknown dimensions, as well as more individualistic and interactive communication patterns (Schmutzer 2010).

New media differ from traditional forms in that they are technology-immanent, meaning based on technology (e.g., software; Schelhowe 2007). Hence, for users some technical background knowledge becomes inevitable to ease their navigation (Zorn 2011: p. 192; Roth-Ebner 2012). On grounds of this characteristic, also media's character is changed, as users are enabled to transform and edit (digital) media content (Zorn 2011: p. 176), leading it to become characterized by a high degree of participation (Roth-Ebner 2012). As these editing processes go unrecognized most times, recipients are asked to evaluate the information they encounter with care. Therefore, these new media forms require people to develop new competencies: the need to distinguish between relevant and irrelevant information (selection), combine data in a meaningful way (production), enable and get access to essential content (usage), as well as rate information (evaluation; Zorn 2011: p. 187).

These new communication trends have led a new role to emerge: a **media literacy practitioner (MLP)**. Media literacy (referred to as media competencies in our text to draw a consistent picture about management competencies) is based on the awareness that media is characterized by technological boundaries and standards. According to Schachtner (2010), new-age media competency, which is already required by today's labor market, is conditioned by 4 (+1) dimensions:

- Instrumental dimension (the appropriate usage of new technologies)
- Adoptive dimension (the qualified usage of different applications)
- Reflexive dimension (the critical reflection upon media as well as media content)
- Contrastive dimension (the integration of media usage into everyday life)
- Communicative, cooperative, and transcultural dimension

The last dimension is of particular interest to the profession, as managers are asked to determine how the opportunities brought about by convergence and new (information and communication) technologies can be best deployed for their work. Thereby, the biggest challenge lies in finding appropriate ways of dealing with convergent communication and media environments. To make use of these opportunities, specialized competencies are required, which MLPs are meant to fulfill (Roth-Ebner 2012). They need to be aware of how new media channels are utilized for communicating with different shareholder groups, while at the same time keeping in mind which information can (or cannot) be released to individual members. Moreover, they are required to be familiar with new regulations in terms of data security and privacy and have to do some educational work in this area, pointing out threats and potentials respectively (Zorn 2011: p. 175). In this context, MLPs' tasks do not only center on present developments, but it is also up to them to foresee future trends and challenges in advance.

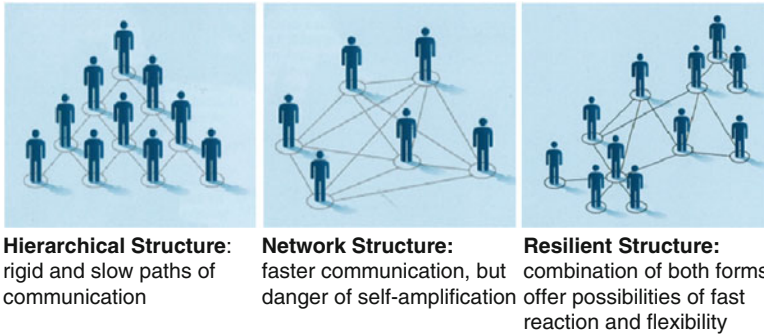


Fig. 23.2 Development of company structures (Zukunftsinstitut 2012: p. 23)

23.2.2 Organizational and Future Business Trends

Business environments are undergoing rapid changes and are required to adjust to alterations of all kind (social, environmental, ecological, and technical) in shorter amounts of time. As a consequence, **change management** is meant to offer some guidance for restructuring organizations at their core. The term refers to “the coordination of a structured period of transition from situation A to situation B in order to achieve lasting change within an organization” (BNET Business Dictionary). Future trends in organizational communication incorporate various challenges, such as organizational development. Thereby company representatives will function as “agent coaches” for the organization as a whole and for its staff in particular, where their duties will involve mentoring. This means that companies are “coaching” their own employees (independent of their hierarchical positions), including leaders, teams, and individual workers, also with regard to intercultural work environments (Schreyögg and Koch 2007: pp. 275–278). Organizations are thereby responding to a huge amount of complexities brought about by transformations that pertain to issues like connectivity, time, and place, leading to a divided notion of the workplace, which consists of a “home-office” and a “mobile-office” (Internationale Delphi Studie 2009: p. 66). Combining those two locations might prove to be problematic for managers and leaders, who are confronted with new tasks demanding skills and qualifications they do not possess yet (Doppler and Lauterburg 2008: 44f.; Krainer 2012).

Moreover, companies’ infrastructures become more fragmented and **project-oriented work**, which is temporarily and task-oriented, gains in importance. This also requires existing organizational (hierarchical) structures to be broken down and become rearranged. As illustrated in Fig. 23.2, **hierarchical structures**, which are marked by slow communication processes due to a rigid path procedure, are dismantled. They are substituted by either **network structures**, which enable smoother communication but hold the risk of self-amplification, or **resilient structures**, which present a combination of both hierarchical and network

structures. The last example can be regarded as an ideal state, as it allows for fast and flexible reactions—a particularly valuable skill in the era of convergence (Zukunftsinstitut 2012: p. 23, see also Herstein Institute for Management and Leadership 2012b).

As traditional, densely structured organizations are not able to keep up pace with today's requirements, hierarchies prove to be inefficient and are subject to remodeling. Therefore, information exchange between different levels of leadership becomes crucial (Doppler and Lauterburg 2008: pp. 44–56). This is made obvious in various ways: external staff is hired and group work predominates (Schreyögg and Koch 2007: p. 275). Project internal work can be organized in form of teams (employers from different areas, hierarchical levels, and even different operating areas; Schneider and Barsoux 2003: pp. 216–252), core teams (teams established within teams, which are in charge of strategic decisions or tasks; Kutschker and Schmid 2008: p. 639), and workshops or conferences (these events serve as places where employees gather, exchange information, start innovative processes, and give presentations to target groups; Kutschker and Schmid 2008: p. 639). Those new forms are meant to compensate for the weaknesses of individual organizational forms and staff as well as make project work a fixed component in firms' organizational structures. Thereby, it is not limited to inferior levels within companies' hierarchies, but even affects superior levels, stressing the importance of this technique and saving businesses a considerable amount of time. Project teams further organize their own leadership, serve as a prerequisite for innovation and individual learning and especially foster the values of the younger generation (Doppler and Lauterburg 2008: 133f.). An increased level of productivity is also noteworthy: A team leader is able to delegate six to eight self-regulating teams consisting of six to eight workers each, thus supervising a total of about 50 individuals. If only one single person were in charge of the whole process, this extensive leadership could not be realized (Doppler and Lauterburg 2008: p. 134).

23.3 Management Competencies in Convergent Business Environments

In general, management activities can take three forms: (1) **Agenda Setting** (the development of a basic framework for activities); (2) **Network Building** (the establishment of a contact network), and (3) **Execution** (the realization and execution of strategies; Kotter 1982). During managerial work, duties are not only task-focused but they are also influenced by several variables, e.g., external forces and work-process components. For instance, demands are duties that managers' prestigious positions include. Constraints concern restrictions of all kinds, may they be internal (e.g., budget limitations) or external (e.g., technological boundaries). Choices allow for some freedom in terms of decision-making (Stewart 1982).

Roles	Description
Interpersonal Role	Figurehead: represents business to internal and external shareholders
	Leader: advises and motivates employees
	Liaison: establishes and maintains a network with shareholders
Informational Role	Monitor: collects and distributes information
	Disseminator: transmits and interprets information
	Spokesperson: distributes information to the outside world
Decisional Role	Entrepreneur: initiates and implements change
	Disturbance Handler: takes care of conflicts and problems
	Resource Allocator: distributes tasks financial means
	Negotiator: represents company in negotiations

Fig. 23.3 Management roles according to Mintzberg (1980: 92f.)

23.3.1 Classical Management Competencies

Based on the core management functions, Mintzberg (1980: 92f.) developed several interpersonal categories. To be precise, he defined ten management roles, which he again subdivided into three categories: (1) interpersonal role, (2) informational role, and (3) decisional role (see Fig. 23.3).

New roles emerge as a result of convergence and, thus, three new managerial roles need to be added to the above model: technological scouts, Media Literacy Practitioners, and change managers. **Technology or technological scouts** fulfill the role of stimulating innovation in the technical/technological realm. Thereby, their duty involves identifying a need for adaptation or innovation, raising attention for and stimulating the implementation of new technologies as well as facilitating the changes brought about through technological progress (Rohrbeck et al. 2006). As discussed before, the technological and content-related usage of media is up to the **Media Literacy Practitioner (MLP)**, who operates at the edge of both technological scout and change manager. This is the case as this role is technologically savvy and well informed as to the chances and threats (new, convergent) media and communication services hold; at the same time, this role's duties center on monitoring present and future trends and embrace potentials at an early stage. **Change managers'** tasks are also very complex: they play "a key role in operating the centralized part of the business change process, including assessing new Requests for Change (RFCs), allocating impact assessors, coordinating Impact Assessment Review Meetings and keeping Quality Officers informed. The Change Manager is also responsible for proposing the allocation of impact assessed Requests for Change to projects [and] updates the Project Portfolio, creating new projects as necessary, and allocating all of the reviewed RFCs" (Quality Management Department 2011).

The 10 (+3) management roles are meant to extend and specify the 5 traditional management functions, whereby different roles can be assigned to each individual function. Thereby, the two "modern" roles are more complex than their traditional counterparts and are assigned to numerous levels (see Fig. 23.4):

Management functions	Roles
Planning	Entrepreneur
	Monitor
	Resource Allocator
	Technology Scout
	Change Manager
Organizing	Media Literacy Practitioner
	Resource Allocator
	Liaison
Directing	Technology Scout
	Change Manager
	Liaison
	Disseminator
Staffing	Disturbance Handler
	Technology Scout
	Change Manager
	Leader
	Technology Scout
Controlling	Change Manager
	Monitor
	Technology Scout
	Change Manager
	Media Literacy Practitioner

Fig. 23.4 Management roles on different levels (see Schreyögg and Koch 2007: 18f.)

According to these management functions and roles, managers further need to possess several core qualifications and competencies to fulfill diverse and complex tasks. In his studies, Katz (1974) identified three major skills to fulfill managerial duties, which are still valid today: technical competencies, human competencies, and conceptual competencies.

Technical or Functional Competencies refer to knowledge about management processes as well as their methods and application. In sum, they are best characterized as problem-solving know-how (Brinckmann 2007).

Human or Social Competencies mean the ability to effectively cooperate with people of all kinds, and involve showing empathy, developing compromises, and, more essentially, intercultural understanding. This social process takes place on various levels and concerns colleagues, staff, leaders, and varying shareholders, whereby communication processes are always structured and coordinated (Schreyögg and Koch 2007: 24f.; Brinckmann 2007).

Conceptual Competencies involve the translation of complex problems into simple, well-structured pieces of information that enable a proper handling of the situation (Schreyögg and Koch 2007: p. 25; Brinckmann 2007). In this context, keywords concern structuring abilities, multiple perspectives, interdependence, and a general ability to learn.

23.3.2 Contemporary Management Competencies

Ever changing workplace environments and conditions require managers to adjust but often present an obstacle that is hard to overcome, especially for older, less technically advanced employees. In this context, the terms Digital Natives and Digital Immigrants come to mind. People belonging to the prior group, also commonly used as a substitute for the technologically savvy Net Generation (Bennett et al. 2008: p. 775), have been surrounded by as well as embedded in technology for the largest parts of their lives. The latter group, by contrast, is not familiar with those technological advancements and needs to break new ground by taking up and adapting to innovations in order to succeed in their professional (and personal) domains.

23.3.2.1 Technological Competencies

Technological competencies expand the traditional three competencies mentioned above: whereas technical skills only refer to organizational know-how, their technological counterpart means the application and use of technological equipment, including software and hardware. Knowledge about and skills in the technological domain will continue to take on greater significance as experts assume that by 2020, 95 % of the adult population in Europe and the USA will use the Internet both actively and on a regular basis. Yet, in order to realize this trend, the so-called “digital divide”—the borderline separating technically advanced from more or less technically illiterate people—needs to be overcome (Internationale Delphi Studie 2009: p. 14). This should be achieved by means of enabling access to new technologies, facilitating products’ broad band capacities and encouraging and fostering online competencies on all management and at all age levels (Internationale Delphi Studie 2009: p. 14). It might be even necessary to offer some tutoring, whether in form of online or offline classes, to create an understanding for the new and complex, yet already commonly established workplace environments. This might be especially important for older members of the management team, who should be enabled to keep up pace with their younger colleagues.

However, it is no longer only a professional obligation for managers and staff on all levels to be technically up to date and capable, but it has been turned into a necessary tool for people’s personal/private lives as well (Internationale Delphi Studie 2009: p. 65). Becoming literate in media is essential in that the ability to deal with and respond to the requirements of new and convergent media channels and environments will become a core qualification for managing the complex dynamics of everyday life, allowing for equal possibilities when participating in social life (Internationale Delphi Studie 2009: p. 15). A central role in enabling those qualifications is assigned to different parties, such as politics, science, and the economy as well as citizens themselves (International Delphi Studie 2010: p. 21; Krainer 2012).

Nonetheless, while mobile and wireless technology has eased working processes it simultaneously raised issues in terms of IT (Information Technology) security

(Internationale Delphi Studie 2009: p. 15). Especially devices that use unsecured networks and open connections pose a threat to (electronic and digital) business operations. One prominent example is Unified Communications (UC; see Sect. 3.4.), which is based on Internet Protocol (IP) and Session Initiation Protocol (SIP)—both of them characterized as open networks. Thereby, security risks particularly arise from document exchanges during e-conferencing activities and further concern hack attacks, viruses, and worms (Schmutzer 2010).

These outside hazards need to be carefully monitored and cautiously watched in order to prevent the emergence of possible security flaws (Internationale Delphi Studie 2009: p. 15). Potential trends of counteracting security problems are, for example, safe e-signatures and secured e-mail communication (Internationale Delphi Studie 2009: p. 15). Long-lasting implications cannot be estimated yet but require completely new security concepts. Therefore, the current infrastructure needs to be adapted accordingly in order to fit the demand of future technological trends, which affect a variety of dimensions, such as secure access and digital archiving, the early detection of hack and virus attacks, as well as sensitive spam filters (Internationale Delphi Studie 2010: p. 72). Managers need to fulfill the role of **(technological) scouts**, which can be regarded as an additional role to Mintzberg's categories, combining yet expanding elements of the Monitor and the Entrepreneur.

23.3.2.2 Communication and Media Competencies

Communication and media competencies can be perceived as parts of human competencies but also occur on the conceptual and technical level. In general, mobile communications and the like are categorized as emerging media, pointing to all communication enabling technologies (Gephart 2004). Following Rice and Gattiker (2001) the following four criteria are characteristic of this specific media form: (1) communication structure, (2) embedment in network connections, (3) existence of communication/information resources, and (4) digitalized content (Rice and Gattiker 2001). In the workplace setting, emerging media “refers to those applications, technologies, and devices that support digital interactions with the organization, members of the organization, or customers” (Bott et al. 2010: p. 6). Several studies produced proof of emerging technologies' supportive function in business performances. For instance, a management that opts for implementing new technologies, also offering support and maintenance services, through for instance CIOs (Chief Information Officer), is perceived as competent by employees (Syvajarvi et al. 2005).

Emergent media is supported by convergence, particularly including all technological innovation that has taken place within the last few years, leading to considerable and far-reaching changes in businesses communication environments, which are characterized by condensed communication and fewer messaging devices. In this context, Unified Messaging (UM) and Unified Communications (UC) present the most viable and effective examples, together with another phenomenon, namely Cloud Computing. These communication forms present present-day standards and are expected to be continually subject to innovation and further development.

Unified Messaging and Unified Communications. Unified Messaging (UM) refers to the integration of different services into one consistent form and, for instance, provides one single mailbox for all kinds of messages (e-mail, fax, voice mail, and text messages) that can be retrieved from different access points (e.g., a laptop or smartphone; Furht 2000). Unified Communications (UC) expand this concept and “integrate traditional and novel communication media (speech, text, video) and devices (phone, computer) with presence information and further collaboration features” (Riemer and Taing 2009: p. 326). Consequently, UC services almost equal an omnipresent digital desk (Internationale Delphi Studie 2011: 96ff.), offering a variety of benefits to businesses: they allow for managed communication, community building, increased reachability, and reduced travel expenses while connecting different communication devices at the same time (Evans 2004: p. 311). In that, they are best understood as “an enabling platform to improve business processes and employee productivity” (Computer Economics Report 2011: p. 4). For managers in particular, supervision and control can be practiced by use of these technologies, enabling them to network with staff, create their own image, and convey credibility, too (Doppler and Lauterburg 2008: pp. 44–56).

Cloud Computing. Another means that is meant to ease access to work-related documents and services is Cloud Computing. Following the U.S. National Institute of Standards and Technology (NIST), the term conceptualizes “a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction” (2011: p. 6). This option has already been taken up by numerous technical enterprises, such as Apple, Microsoft, and Hewlett Packard, which have started to offer these solutions as part of their standard communication and storage packages. Thus, they have jumped on the bandwagon in terms of future-oriented communication for also *The Delphi Study on the Future of Communication in 2030* paints a bright and promising picture for cloud services: It predicts that access to cloud services will become a habit amongst staff, assuming a significant shift to occur, with both business and private practices predominantly taking place online (Internationale Delphi Studie 2009: p. 156). Similarly, according to Ver.di, a German service union, workers are predicted to heavily rely on Cloud services by 2020, qualifying them as “Cloud Workers” (Ver.di 2012). For instance, also Austrian universities utilize cloud services in form of Novell ifolders for employees. Thereby data is centrally stored on university servers and can be accessed from all mobile devices and access points, the only requirement being an active Internet connection. A similar service is offered by Dropbox, which is often used by Austrian students free of charge. In 2011/2012, also Vodafone, one of the world’s largest telecommunications companies, launched a similar service: Vodafone Cloud, a multiplatform service for smartphones, tablets, and PCs. This service, however, is also particularly suitable for enterprises, allowing them to improve customer and service relations (in combination with Vodafone Locate, a service developed to enhance employer efficiency; Vodafone 2012).

23.3.2.3 Intercultural Competencies

Due to project-related work, companies have started to expand their business operations not only to foreign countries but also to other business segments. The enlargement of firms' areas of operation is conditioned and supported by various developments, such as political deregulation tendencies, cooperation and integration trends, as well as the emergence of new competitors, technological advancements, and other socio-ecological and sociocultural tides (Kutschker and Schmid 2008: p. 182). The global and converging economy, with shifting and blurring state boundaries, brings about significant alterations in communication practices (Doppler and Lauterburg 2008: p. 56). As companies decide on engaging in business relations within foreign territories or establishing settlements abroad, intercultural competencies, as part of the classical human competencies, gain in importance (Internationale Delphi Studie 2011) and can be considered to be key factors for successful international business communications. At times, firms even opt for setting up international teams composed of staff from different cultural backgrounds. Since people's norms, attitudes, as well as values are deeply rooted in their cultural backgrounds (Apfelthaler 2000: p. 199), problems of varying kind are expected to arise. Intercultural differences stem from various sources: leadership implementation, different decision-making procedures, and communication styles, interpersonal communication patterns, as well as individualistic and collectivistic perceptions (Doppler and Lauterburg 2008: p. 58). For example, conflicts or miscommunication might occur as workers from low-context and high-context cultures respond differently to their superiors; or react differently towards their tasks as interactive processes are cognitively conditioned, shaped by their national cultures' value manifestation (Crane and Matten 2010: 303f.).

Therefore, international cooperations need to be managed with care, whereby conflicts need to be addressed right away to guarantee for smooth and proper work procedures. Both parties involved should not lose sight of the crucial fact that successful communication requirements are twofold: (1) participants should maintain their autonomy while, at the same time, (2) they are required to show (mutual) respect and understanding towards their partners by accepting compromises (Doppler and Lauterburg 2008: 58). This dual tactic aims at eliminating both prejudices and misunderstandings in advance to ensure a harmonious interoperability between people from different cultural and national backgrounds.

23.3.2.4 Ethical and Social Competencies

Business ethics also extend the traditional human competencies requested of managers and look at how firms engage in relationships with their various environments. Thus, they intend to secure that business practices are properly executed in order to avoid harmful behaviors towards stakeholders (Crane and Matten 2010: 4ff.). While in early times communication efforts only have been directed towards external groups, in today's world internal stakeholders—that is, firms' employees—are attributed a higher degree of importance, since they present businesses' most valuable assets (aka "human resources"). It is them, whose loyalty matters most to businesses, as numerous studies have demonstrated workforces'

attitudes and behaviors to be crucial to a firm's success (Greening and Turban 2000; Cropanzano et al. 2001; Zappala and Cronin 2002).

Employees do not only show appreciation for the benefits they receive on behalf of their employers (Rupp et al. 2006), but their loyalty is also (positively) shaped by their businesses' social and environmental activities, leading to increased productivity, a more positive work environment (Murray 2008) as well as a higher organizational commitment (Imran et al. 2010: 2797). As a consequence, firm-employee relations are repeatedly addressed (Crane and Matten 2010: 293f.) and in an attempt to win employees for their cause, firms have started to rely on their workforce's participation (and association; Crane and Matten 2010: p. 310). This presents a necessary move as to obtaining a maximum degree of satisfaction amongst employees. Stawiski et al. (2010) recommend getting this particular group of stakeholders directly involved in the choice of corporate and social activities, which primarily evolve around transparency, sustainability, responsiveness, and accountability (Silberhorn and Warren 2007: p. 361).

Participating Employees. Employees' involvement can take two main forms, namely financial participation (cooperation) and operational participation (delegation, information, or consultation; Kaler 1999). While these concepts have not received much attention yet, they will begin to gain a foothold in the future as part of the learning organization, together with employees working conditions, which need to be addressed as they play into workers' productivity. In detail, this means that workers have the right to work in safe, clean, as well as healthy professional settings (Crane and Matten 2010: p. 313), covered under firms' health, safety, and environmental (HSE) policies: "HSE issues [...] become increasingly relevant in the context of new risks, most commonly in the form of new diseases [visual impairment, postural deformity, increased levels of stress, burn-out and their psychosomatic effects] and new technologies" (Crane and Matten 2010: p. 313).

Especially the latter is responsible for having altered the boundaries separating the public sphere of work and the private sphere of the home: "Not only has the development of communications technology been affected by the pre-existing organization of domestic space but [new electronic devices] for example, can be seen to have played a significant part in rewriting the relations between the domestic and public spheres" (Morley and Silverstone 1990: p. 13). In this context, one aspect that commonly falls short is referred to as work-life balance, meaning "the lack of conflict or interference between work and family roles" (Frone 2003: p. 145). The necessity to achieve a fair balance between private and professional lives is repeatedly pointed out, whereby the two major players responsible for reaching this goal are the economic sector and citizens themselves (Internationale Delphi Studie 2010: p. 63).

Presence at Work. Yet, a fair balance is hardly achieved but influenced by two trends: excessive working hours which are often contrasted with flexible working hours. Spending long hours at work is said to have a negative (and concerning) effect on workers' health, both mental and physical (Simpson 2000), taking the

form of illnesses, such as stress and burnout and their accompanying effects. Flexible working schedules are said to grant employees more freedom in terms of organizing their work, and are especially beneficial to parents' careers, permitting them to make arrangement that allow them to work as well as fulfill their parental duties at the same time (Crane and Matten 2010: p. 315). Since workers' dedication is essential to a firm's success, flexible working hours can benefit both parties: employees are more content with their situation whilst companies are able to compete on the national and global market due to their staff's excellence, motivation, and dedication (Hayman 2009). In an attempt to grant their employees sufficient time for relaxation, companies take drastic measures to ensure a healthy work-life balance. For example, Volkswagen decided to turn off its e-mail servers during the holidays. Therefore, the company made "the arrangement servers stop routing emails 30 min after the end of employees' shifts, and then start again 30 min before they return to work" (BBC 2011). Similar steps were taken by Henkel and Atos, a French technology service provider.

From a management perspective, nonetheless, flexible working hours are somehow problematic: managers and employees are not present at the same time and in the same place, making the use and coordination of electronic media channels indispensable to successful business execution (Doppler and Lauterburg 2008: p. 50).

Legal Actions. Following a German Federation of Trade Unions' study, working on weekends has become the norm for employees, with only one third of workers not being required to work on Saturdays or Sundays. This concerning trend comes at the expense of a balanced and healthy family life (DGB 2012). As a result, the German Minister for Employment, Ursula von der Leyern, wants to legally govern work time and recreational time. She sets out to expand existing employment legislation regulations so workers are given a chance to get their minds off work when at home (ORF News 2012). She thereby keeps their psychical well-being in mind, which has not been addressed by regulations yet. This idea is taken up by the German Federation of Trade Unions (Deutscher Gewerkschaftsbund, DGB), which mandates the government to implement an Antistress Act that regulates employees' reachability outside their working hours (ORF News 2012). This is a necessary measure since according to a German study, 88 per cent of employees take calls outside their working hours (BITKOM 2010). A counterargument uttered by employers (Bundesvereinigung der Deutschen Arbeitgeber Verbände, BDA) is this regulation, however, could also bring about a limitation of workers' motivations.

All the examples given above pertain that (1) classical management competencies (technical, human, and conceptual competencies) still pertain but need to be adapted and expanded by use of the competencies discussed above. (2) These management competencies do not exist by themselves but converge, whereby boundaries blur, and possibly bring to mind the term "convergence of competencies".

23.4 Opportunities and Threats

Technological inventions are characterized by various advantages, including access from mobile devices and the storage of both private and professional data at low costs (Internationale Delphi Studie 2009: 155f.), but also bear some considerable risks. Together with shifts in traditional distribution models, **technological challenges** mainly exist in the areas of data security, long-term archiving, and privacy issues (Internationale Delphi Studie 2009: 155f.). Even though these developments have increased and eased work performances, they have brought about new problems as well: privacy issues primarily accrue as companies are enabled to monitor their employees around the clock (Crane and Matten 2010: 303f.). Observational activities concern four main areas, namely physical privacy (e.g., installing surveillance devices in recreational rooms), social privacy (e.g., keeping track of workers' online activities by use of going through their page history), informational privacy (e.g., the release of private data to third parties), and psychological privacy (e.g., implementing behavioral policies that dictate employees' behavior; Simms 1994). Especially computer-supported work has precipitated new forms of monitoring employees (Ottensmeyer and Heroux 1991), allowing companies not only to follow up their work results and outcomes, but also their nonwork-related activities. It is even considered as a justified and legitimate move, conditioned by companies' fears of employees abusing "company time" (Crane and Matten 2010: p. 306). Nevertheless, while firms are apprehensive of their workforces getting distracted and being tempted to use valuable time for nonbusiness-related concerns while at work, employees are far more affected in their private lives, since new technologies have led private and public spheres to converge even more.

A potential managerial threat is represented by what David (1994) labels **Path Dependence**. This concept describes organizational processes, which are solely based on past and established decisions. Managers are unwilling to deviate from reliable paths, although they might not be contemporary anymore. By neglecting innovation and progress, a worst-case scenario would involve businesses' lock-in states, which only allows for a reproduction of patterns (David 1994). Hence, it is recommended for companies and managers to remain open-minded, flexible, and innovative.

The need for adaptation clearly cannot be neglected. Trends might sound hard to overcome and even dangerous at times; however, they present new chances that should be taken. Three important shifts come to mind: (1) Opportunities for the management exist, yet old and traditional values, such as pride about long-term work experiences, are hard to be overcome. They are not contemporary anymore and, more importantly, keep new possibilities in disguise (Doppler and Lauterburg 2008: 126–129). (2) Established concepts of order are also broken up and need to be reworked, whereby a shift in focus occurs: the goal serves as a starting point as opposed to the path that leads there (Doppler and Lauterburg 2008: p. 126). (3) Socializing practices have become a major point of criticism (Doppler and Lauterburg 2008: p. 126). The older generation, who was taught to behave humble

and disciplined in a professional setting right from the start, often clashes with their younger colleagues, who are more creative and persistent when it comes to achieving goals and need to be “tamed” to fit the requirements of working life.

In order to pay tribute to changing conditions and transforming environments, change management offers the potential to guide and aid companies in implementing new trends and patterns in convergent surroundings.

23.5 Change Management: A Solution to Convergent Environments

Organizational work is structured according to certain preestablished (formal and informal) patterns. These structures offer security and are, thus, useful guidelines in business management. However, as environmental conditions change and services and businesses converge, a new pattern needs to be established (Schreyögg and Koch 2007: p. 362). Convergent environments call for new managerial characters, who have to detach themselves from the system and rather set out to function as “architects” of these systems themselves (Doppler and Lauterburg 2008: 129f.). This goes hand in hand with the “learning organization”, meaning a constant adaptation of organizational structures to ever changing environments and conditions (Doppler and Lauterburg 2008: 130f.). In this case, it further acts as a coach, fostering autonomy and sovereignty amongst its employees (Doppler and Lauterburg 2008: 131ff.).

Change management follows one of three different approaches, which depend upon organizations’ perceptions and images (Schreyögg and Koch 2007: 362f.): (1) **Change by objectives** is the classical pattern that aims at putting objectives into practice. A common goal is defined, which employees can only reach if they work together. Often it is backed by incentive schemes. (2) **Behavioral change management** involves attitudinal measures used to achieve change in organizations, for example the motivation of employees to master new challenges (meaningfulness, self-motivation, and their own contribution to change) or to proceed against the “resistance to change” (Lawrence 1954). This can be caused by individual reasons such as fear of losing security and a debasement of the situation or it is caused by organizational reasons such as the redistribution of competencies and power. (3) **Change by organizational learning** (see also Argyris and Schön 1974, 1996) is understood as a continuing process that presupposes flexibility in terms of both cognitive and normative structures. This process can also be applied to knowledge management. Levitt and March (1988) and Huber (1991), for example, distinguish between learning by experience (learning by doing, results of experiments etc.), learning by communicating (getting insight into knowledge/experiences of other companies and making it useful to the own firm, best practice, classical learning situation), learning by assimilation of new knowledge through experts, acquisition of other companies, and learning by generating new knowledge when exchanging knowledge within the company (internal communication).

As already pointed out, team and project work will be attributed a higher degree of importance in the area of convergence in the near future. According to Lewin

(1958), group work benefits individuals, as they are willing to be open-minded and accept contradictions. Key rules to activate group members concern (1) active participation in change (by use of extensive information), (2) group structures to enhance dealing with change, (3) cooperation amongst participants (self-assurance), and (4) stripping down old habits. The last point led to the development of Lewin's process model (1958: 210f.), which consists of three components: Unfreezing, Moving, and Freezing.

As changes are taking place at a more rapid pace, the learning organization has led to the notion that the only accepted routine consists of change (Schreyögg and Koch 2007: p. 386). In order to meet this requirement, two concepts could be consulted: (1) The Ba-Concept (Japanese for "place") centers on around creating the right context or space (not necessarily physical) for interaction within groups and offers a forum where values are shared as well as convictions and experiences are exchanged and acquired. As a result, knowledge is gathered and collectively shared (Nonaka and Konno 1998: 40ff.). To offer this room to employees and managers alike, new technologies (e.g., Cloud Computing, Unified Communications) should be utilized. (2) The COP (Concept of Practice) presents a spontaneous gathering once a problem surfaces that is meant to be solved. Intrinsic motivation is the driving force behind this informal meeting, which crosses both borders and cultures and does not originate out of the company's formal structure (Wenger and Snyder 2000; Brown and Duguid 2001).

23.6 Future Outlook

The trends discussed before do not present any utopic and far-fetched scenario but are already supported by future development analyses. According to a recent study, which surveyed the organizational role of 300 managers and project leaders in Austria, Germany, and Switzerland, the profession is predicted to undergo some drastic changes within the next few years. It takes up some of the roles and competencies attributed to convergence given above (see Fig. 23.3), such as the emerging complexity of the managerial position, the rising importance of teamwork, as well as the dismantlement of traditional hierarchies (Hernstein Institute for Management and Leadership 2012a).

Through these shifts in responsibilities, certain managerial roles need to be adapted and expanded (Fig. 23.4). For instance, the communicator role is said to become more important as companies make stakeholder interactions, both internal and external, their priorities. Schreyögg and Koch (2007: p. 14) already stressed the necessity of this role, since 70–90 % of managerial time is used for interaction, taking the form of telephone calls, meeting, etc. The change manager's role further alludes to the potential the concept of Change Management holds to meet the requirements of convergent trends, professions, and environments (Figs. 23.5 and 23.6).

Due to significant changes in workplace environments, new competencies and skills are required, from both the workforce and managers. A more concrete picture is drawn by a recent study, published under the title *Future Work Skills 2020*. This

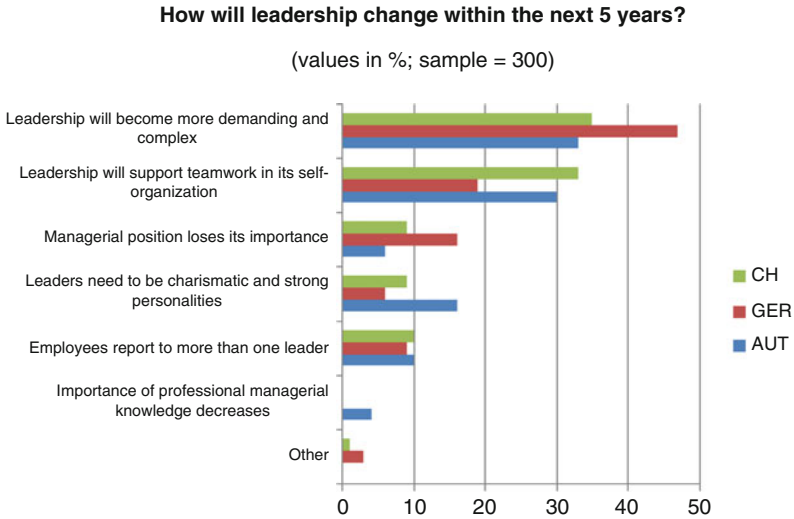


Fig. 23.5 Development of managerial competencies (cf. Hernstein Institute for Management and Leadership 2012a)



Fig. 23.6 Managerial role perceptions (cf. Hernstein Institute for Management and Leadership 2012a)

research conducted by the Institute for the Future (IFTF; in corporation with the Apollo Research Institute) indicates some major trends, affecting not only future workplace interactions, but also individual behavior and leadership skills. In total, ten new skills are identified, which will become essential due to numerous driving forces, as indicated in Fig. 23.7:

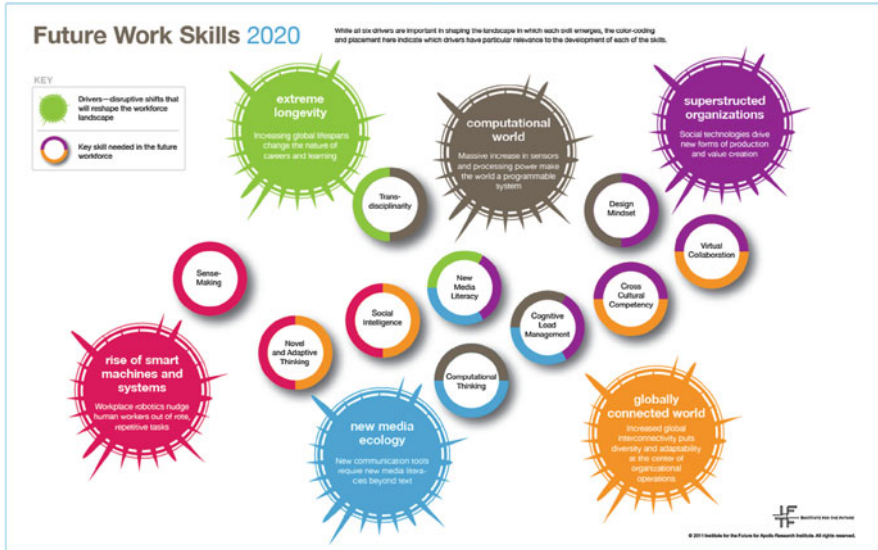


Fig. 23.7 Future work skills 2010 (Apollo Research Institute 2012)

Six external developments have led contemporary workplace requirements to change: (1) the rise of smart machines and systems; (2) an extreme longevity, with extremely high life expectancies; (3) the new media ecology, which basically refers to all forms of converged communication; (4) the computational world; (5) the globally connected world; and (6) superstructured organizations, whereby new forms of value creation and production originate (Apollo Research Institute 2012). All these trends require new competencies, of which the following ten are of vital interest to future workplace settings:

1. Sense Making:	Filtering out deeper meaning
2. Novel and Adaptive Thinking:	Entertaining openness towards new and innovative solutions
3. Social Intelligence:	Directly interacting with other people via different media channels
4. New Media Literacy:	Critically evaluating and reflecting upon media content from numerous and diverse sources
5. Transdisciplinarity:	Allowing for multiple-discipline approaches
6. Computational Thinking:	Translating complex data into comprehensive reasoning
7. Cognitive Load Management:	Separating relevant from irrelevant information while maximizing output
8. Design Mindset:	Developing, planning as well as optimizing processes and tasks
9. Cross-Cultural Competency:	Co-operating across national and cultural boundaries
10. Virtual Collaboration:	Leading and working together with team-members by use of virtual platforms (Apollo Research Institute, 2012).

The above elaboration is far from being complete. Limitations clearly exist as the technologies and competencies pointed out in this text fit the current requirements. However, since changes are often unpredicted, surprising, and faster than ever imagined this book chapter does not present permanent solutions. The future studies consulted do also not provide fixed answers but try to draw attention to already identified trends; however, some developments might not have been taken up yet.

Exercise Questions

1. How is convergence defined?
2. On which levels does convergence take place?
3. How is management defined?
4. How is the management profession affected by trends of convergence?
5. Which management roles (classical competencies) are most affected by convergence? How do they correspond to different management functions?
6. Which competencies become more important in an arena of convergence? Discuss two selected areas in more detail.
7. Which services are gaining in importance in the area of communication and media competencies?
8. Which considerations become more significant in the area of social and ethical competencies?
9. Discuss some of the opportunities and threats brought about by convergence.
10. How does change management affect the area of convergence?
11. How is leadership predicted to change in the near future?
12. Which roles will managers play in the future?

Reflexive Questions

1. Think about your daily routine as a child. How does your current daily routine differ from your routine back then? Which of these changes can be attributed to convergence?
2. Try to remember some of your practical (field) experiences. Which media were the most important communication channels? How were they utilized by managers themselves?
3. If you held a management position, how would you communicate with different stakeholders? Give examples.
4. In terms of information disclosure, would you guarantee transparency of information, meaning all employees receive the same material? If yes/no, why?

5. Illustrate a change manager's or technology scout's tasks by using an example.
6. Image you were living in the year 2025. What will communication be like? Which roles will managers have to fulfill?
7. Discuss how media competencies influence managers' leadership abilities? Why do they matter?

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