C
The social use of the mobile communications system

The analysis of the social use of the mobile communications system investigates how its channel characteristics are translated into everyday life and social action, because every new medium shapes and controls the scale and scope of human relationship and interaction due to its special physical configurations and capacities.

Although mobile data communications in general and mobile media content in particular have not been widely adopted yet, mobile voice communications has become an essential element in the lives of people around the world. Studies on the appropriation of **mobile voice communications and mobile messaging** into everyday life and their impact on various forms of social networks are conducted and used to form a general sociology of the mobile phone.[1)] Since these considerations may serve as **indicators for the development of mobile media adoption**, the discussion of the social use of the mobile communication system – next to system characteristics and usage reasons - is another important, demand-oriented element for the analysis of the **strategic options for mobile media provision**. Therefore, this chapter outlines the structural dimensions of mobile communications use in social networks, mobile users identity and community representation within them (C-1) and behavioral dimensions on communication and media consumption patterns that may be reinforced or changed due to mobile communications use (C-2).

The importance of the social use and appropriation of the media is also supported from a historical perspective. MARVIN (1988) and CAREY (1992) argue that the media is never more or less than the history of its uses.[2)] Media are "constructed complexes of habits, beliefs, and procedures embedded in elaborate cultural codes of communication."[3)] Thus, new media includes the use of new communications technology for old or new purposes, new ways of using old technologies, and new structures of social relations. In order to assess some of these changes and their relevance for mobile media provision, social network analysis and elements of the cultural studies approach are framing considerations about the social use of mobile communications.

1 See Geser (2002).
2 See Marvin (1988), p. 8; Carey (1992), p. 70.
3 Marvin (1988), p. 8.

1
Social networks and mobile communications use

Mobile communications is one additional means of communication in social networks. The study of social networks has been identified as new paradigm to describe and analyze **interpersonal relationships in the network society.** CASTELLS (1997) describes the rise of the network society that is characterized by a pervasive, interconnected, and diverse media system,[4] which will further develop with portable, ubiquitous, location-sensitive, intercommunicating devices and their instant access possibilities to the media and ICTs.

For further assessment of the role of mobile communications in social networks RHEINGOLD (2002) identifies **three relevant social scientific areas of observations:**

1) on the level of the individual personality, where cognitive and identity-related issues emerge;
2) on the level of society, where values and power structures are influenced; and
3) on the level of immediate social network formation, where place and community issues emerge.[5]

These areas are taken into account in the following discussion of the concepts of identity (C-1.2) and community (C-1.3) in social networks (C-1.1) and their development under the influence of mobile communications.

1.1
Social network analysis

WELLMAN (1996, 2002) suggests that complex social networks emerge as a **dominant form of social organization**. In his view our social systems are developing from hierarchically arranged, bounded groups into network structures.[6] Mobile voice and data communications can influence social network formation and development with regard to the person-centricity of relations (C-1.11) as well as the intensity of relationships in social networks (C-1.12).

1.1.1
Emergence of personalized social networks

The direct connection to a person via a mobile phone not only affects the personalization potentials of mobile media content but also the personal relationships of users. The Internet supports large numbers of transitory relationships in multiple networks. These networks are evolving with the portability of devices, mobility of users, and increasingly personalized services. Together with evo-

4 See Castells (1997), p. 1.
5 See Rheingold (2002), p. 25.
6 See Wellman et al. (1996); Wellman (2002); Wellman, Boase, and Chen (2002).

lutions in mobile communications, they shift the emphasis from place-to-place connectivity to **person-to-person connectivity** and emerging personalized social networks.[7] WELLMAN, QUAN-HAASE, BOASE & CHEN (2002) describe what they call a fundamental transformation in the nature of community:

> "This [wireless connectivity] facilitates personalized communication. The person becomes the target of communication. We call a person and not a place. The person is the node to which communication is directed. […] The person has become the portal. […] Each person is a switchboard between ties and networks. People remain connected, but as individuals, rather than being rooted in the home bases of work unit and household. Each person operates a separate personal community network and switches rapidly among multiple sub-networks."[8]

Since the definition of presence within a social network becomes uncoupled from location, mobile phones evolve into "portable places of intimacy".[9] Mobile devices enable a form of networked individualism, being in immediate and direct contact with one's social networks and shifting rapidly between them. According to **Reed's Law**, a network that enhances social networks multiplies even more rapidly as the number of different human groups that can use the network.[10]

Reed's law offers a **new focus for media companies** to actively use personalized social networks. When the person becomes the portal and a potential distributor with mobile and ubiquitous forms of communications, the individual audience member receives a greater weight for media companies. This new role of personalized networks can become incorporated in design strategies of mobile media content and services.

1.1.2 *Mobile communication relationships in social networks*

Person-to-person connectivity can affect the intensity of relationships and the roles users take in social networks. Mobile communications and mobile services allow for **more intensive forms** of social interaction and instrumentality in social networks. Messaging services such as SMS are used for taking part in social activities, to connect, signal and manage membership in social networks.[11] It supports the sharing of experiences and emotions more immediately and allows for the development of stronger in-group ties.[12] Mobile media's capabilities of ubiquitous always-on and on-demand access to information are one element in

7 See Wellman (2002), p. 94; Wellman, Boase, and Chen (2002), p. 160.
8 Wellman et al. (2002), pp. 5; 12; 13.
9 Rheingold (2002), p. 4. See also Geser (2002), pp. 36.
10 See Rheingold (2002), p. xv. Reed's law can be seen as an analogy to Moore's law.
11 See Geser (2002), p. 15; Pedersen, Nysveen, and Thorbjørnsen (2003), p. 3.
12 See Ling (2002), p. 21.

this evolving relationship structure of social networks under the influence of mobile communications.

Research on young people's social practices using mobile communications shows that phone-mediated interactions are viewed as **forms of gift giving**.[13] TAYLOR & HARPER (2003) suggest that the design of new media should consider the ceremonial aspects of mobile gift exchanges and related questions on obligations of reciprocity. Exchanging mobile content is a **means to express relationships in social networks**; it demonstrates ties or rivalries among peers. Mobile communication becomes a legitimate and morally sanctioned mechanism through which young people manage their relationships.[14] Mobile media offers should consider these gift giving exchanges in their mobile content design.

Mobile communications also increases users' opportunities to demonstrate participation in several social networks **maintaining different roles**.[15] When taking a role becomes independent from a person's physical presence at a specific place, previously sequential role involvement can evolve into diachronic role engagement.[16] Mobile media, in that regard, can support users to **meet their information needs** while switching and in order to manage the roles they are taking.

The frequency of contact when relationships and roles are managed and maintained more intensely and the existence of a ubiquitous communications network that supports to be in perpetual contact with (personal) social networks do not invariably mean that there is more or **better discourse and understanding** between social network members. MYERSON (2001) argues that, to the contrary, mobile communications achievements contrast with understanding and discourse. He uses concepts of Habermas and Heidegger in order to discuss the **shortcomings of mobile communications for personal relationships**.

Under the assumption that the vision of a mobile society is about instant, ubiquitous access to exactly the right information to suit immediate needs, mobile communications supports the **acceleration of people's pursuit of their individual goals**. Myerson argues that Habermas' notion of communicative rationality, on the other hand, is not about the competitive pursuit of the individual's own aims and interests, but about the achievement of shared understanding.[17] Understanding, according to Habermas, is the key to true communication; communicative action is the use of language with an orientation to reaching understanding.[18] Mobile communications, however, supports people's communication for the purpose of satisfying other wants. Yet, in Habermas' distinction between pursuing a goal and seeking to communicate, communication means to make a desire understood, not to pursue its immediate fulfillment.[19] Mobile

13 See Taylor and Harper (2003).
14 See Taylor and Harper (2003), p. 24.
15 See Pedersen, Nysveen, and Thorbjørnsen (2003), p. 16; Meckel (2005).
16 See Geser (2002), p. 15; Groebel (2005).
17 See Habermas (1995), pp. 28. Habermas distinguishes 'communicative rationality' from 'instrumental rationality', which aims at pursuing a goal.
18 See Habermas (1995), pp. 385; Myerson (2001), p. 23.
19 See Myerson (2001), p. 27.

communications as an exchange of messages lacks the engagement with meaning and ultimately understanding as well according to Habermas. Mobilization then only seeks to improve ordinary (imperfect) communication by **giving it new channels and speeding up the response time**.[20)]

Along similar lines, Myerson argues that Heidegger's understanding of communication as a discourse is not met by mobile communications, either.[21)] Discourse, in opposition to talk, is in Heidegger's view the way we articulate the intelligibility of being-in-the-world.[22)] It is not for the purpose of transmitting messages or getting things done more effectively.

As a consequence, mobile communications' **intensification of communication and messaging in social networks** does not have to invariably be evaluated positively nor does more communication necessarily lead to better communication. This view is also compatible with SILVERSTONE's (2003) argument that **connectedness is not to be confused with closeness.**[23)] For mobile media, one potential consequence from this perceived superficiality may be that a broad variety of mobile content is better suited than in-depth content in order to handle many different roles and situations.

1.2 Mobile identity in social networks

TURKLE (1998) suggests that using new technologies always has subjective effects and can change the perception we have of our identity.[24)] The use of the mobile phone has evolved from emergency use to routine cases and from specific instrumental to more expressive communications.[25)] There is an increase in **socio-emotional functions of mobile communications** that affects the way we perceive and present ourselves in social networks. Identity representation in social networks is one dimension which is affected by mobile communications (C-1.21). It will be argued that mobile communications can support self-identity as conceptualized by GIDDEN'S (1991) and can add to narratives of the self (C-1.22). These observations are essential for the media due to their relevance in the formation of social identities, social relations, and communities.[26)]

20 See Myerson (2001), p. 50.
21 See Heidegger (1962), p. 204, quoted after Myerson (2001), p. 57.
22 See Heidegger (1962), p. 204, quoted after Myerson (2001), p. 71.
23 See Silverstone (2004), pp.381. This argument is part of his concept of 'proper distance' which is depicted in the cited article.
24 See Turkle (1998), p. 376.
25 See Geser (2002), p. 9.
26 Even from an anthropological point of view mass media are at once cultural artifacts, social activities, aesthetic forms, and historical developments where issues of control over self-representation and expression arise, see Spitulnik (1993).

1.2.1
Self-identity, multiple and collective identities and mobile communications use

The concept of identity in mobile environments contrasts with identity concepts that are developed for virtual worlds of the Internet. In MUDs and chat rooms, users are playing and experimenting with their identities. They use **multiple identities** and representations that are shielded by the (perceived) anonymity the Internet can offer. TURKLE (1998) analyzes the creation of identity in the culture of simulation. She observes that the boundaries of the real and the virtual, the alive and the inanimate, the unified and the multiple selves are blurring in the patterns of everyday life. In real time communities of the cyberspace, users create their multiple selves by moving at the threshold between the real and the virtual.[27] Users create and experiment with their selves in different windows, embracing different roles and different genders and seamlessly move between these identities. Identity as a repertoire of different roles has existed before the emergence of the Internet. However, social groups in real life can exert stricter controls and this can make fast role changing more difficult. In cyberspace, taking multiple virtual identities is connected with less effort.

In mobile communications, role changing is becoming easier as well. Yet, the mobile identity is very closely related to the real world identity. Therefore, Turkle's concept of multiple identities is not very suited to describe identity formation and management in mobile communication. Mobile communications and its use have a lot to do with self-perception and influence on how others should perceive the self. GIDDEN'S (1991) concept of **self-identity** proves to be a useful approach for the analysis of the socio-psychological phenomena that are connected to the **mobile identity.** In his concept of self-identity, the self is reflexively understood by the individual in terms of his or her biography. The identity of the self has to be routinely created and sustained in the reflexive activities of the individual.[28] A person's identity, therefore, is not to be found in behavior nor in the reactions of others, but in the capacity to keep a particular narrative going.

Another identity concept, the **collective identity**, that emerged from the analysis of the network society and that focuses on national identities is not as well suited to the context of mobile communications. CASTELLS' (1997) notion of identity is the process of the construction of meaning on the basis of a cultural attribute or a related set of cultural attributes.[29] He also argues that identities involve a process of self-construction and individuation, however in the context of distinguishing identity from roles and role sets; identities are stronger sources of meaning than roles. In the network society, meaning is organized around a

27 See Turkle (1998), pp. 10.
28 See Giddens (1991), pp. 52. Earlier sociological research on the social construction of the self include Mead (1934); Goffman (1959). Also in consumer behavior research the self-expressive use of brands is used as an explanatory concept of consumer attitudes and product consumption, based on the brand's personality associations and self and situation congruity, see Aaker (1997); Reed II (2002).

primary identity that is self-sustaining across time and space; the focus of Castells' formulation of identity is hereby collective rather than individual identity.[30)]

CASTELLS (1997) questions Giddens theoretical characterization of identity-building in the network society. He argues that identity grows from communal resistance as new primacy of identity politics in the network society. However, the systematic disjunction between the local and the global in the network society is not as present in mobile communications situations as in Internet communications; the identity construction process as described by Giddens can therefore shed interesting light on the phenomena of mobile identities.

Self-identity is an interesting concept in the discussion of mobile communications, because mobile communications' use can offer means to support the **creation of narratives**. The mobile communication behavior of youth illustrates the construction of self-narratives. As we will see, SMS communication behavior, for example, shows evidence of the strong correlation of identity representation among peers and friends. As mobile media evolves, more advanced content applications may take similar roles. Figure C-1 gives an overview of mobile identity aspects and their potential implications for mobile media. They will be discussed in the following chapters.

1.2.2
Mobile communications supported narratives of the self

Elements from the concept of self-identity such as the creation of narratives of the self can be used to analyze the socio-psychological phenomena that are connected with a mobile identity construct. Self-identity is constituted by the **reflexive ordering of self-narratives**. Narratives of the self are stories by means of which self-identity is reflexively understood, both by the individual concerned and by others.[31)] Mediated experience is influencing both self-identity and the organization of social relations. SILVERSTONE & HADDON (1998) argue that it is media and ICTs' distinctively reflexive role in everyday life to display who and what we are through the involvement in consumption.[32)] Therefore, also mobile communications' use is related to self-perception and to **influence on how others**

29 See Castells (1997), p. 6. Castells differentiates three processes of identity building in the network society that lead to different outcomes in constituting societies: legitimizing identity generates a civil society; identity for resistance leads to the formation of communities; and project identity produces subjects. The main potential source of social change in the network society may lie in project identities that are constructed around collective agents of social transformation, see Castells (1997), pp. 67.

30 See Castells (1997), p. 7. In virtual communities, the choice of names may give some evidence that collective identities are not as important as the individual identity. Nicknames as essential part of the personality and the reputation in a virtual community are often chosen in relation to an aspect of the self or related to the medium, but seldomly related to collectives such as nationalities, see Bechar-Israeli (1995). For our further discussion, the individual identity will, thus, be focused.

31 See Giddens (1991), pp. 243; Mason-Schrock suggests that narrative constructions of a 'true self' by transsexuals may provide resources for fashionable plausible self-narratives, see Mason-Schrock (1996).

32 See Silverstone and Haddon (1998), p. 64.

Aspects of the self-identity (Giddens, 1991)		Aspects of the mobile identity	Potential implications for mobile media
Creation of self-narrative	Reflexively understood by individual	• SMS and MMS as means for identity expression • Performative value of mobile phones	• Mobile media content as social currency
	Social network narrative	• Importance of personal and direct relations within core members of the social network • Mobile 'gift exchange' via SMS and MMS	• Mobile media content as means to demonstrate membership
Life politics	Lifestyle representation	• Linguistic characteristics express membership and demonstrate intimateness	• Mobile media brand community around involving content • Mobile user typologies segmented via lifestyle criteria
	Dilemmas of the self	• Role management and social etiquette in public spaces	• Importance of variety of mobile media over depth of mobile content to handle potential dilemmas of the self

Figure C-1: Aspects of the mobile identity and potential implications for mobile media use

should perceive the self. COHEN & WAKEFIELD (2003) argue that mobile phones as objects that are carried on or near the body become closely involved with the process of self-conscious display; they interpret, for instance, incorporating a digital camera into the personal object sphere as a **remake of the self in day-to-day life.**

The influence of (mediated) communications on self and external perception is also supported by previous communications research. WATZLAWICK, BEAVIN, BAVELAS & JACKSON (1967) formulate in a **tentative axiom of communication** that any communication implies a commitment and thereby defines the relationship between the communicants. This means that a communication not only conveys information, but it also imposes behavior at the same time, and it is a statement about self perception, perception of the other and perception of the other's perception of oneself.[33)] In 1959 GOFFMAN observed that people even **improvise public performances** as a way of constructing an identity.[34)] In the case of mobile communications, some mobile phone users exploit the presence of third parties as an opportunity to display themselves by **stage phoning**, e.g. to captive audiences in trains.[35)] The public display of mobile phone use can also fulfill other social functions such as legitimizing solitude.[36)] The **performative value of the**

33 See Watzlawick, Beavin Bavelas, and Jackson (1967), pp. 51.
34 See Goffman (1959).
35 See Plant (2000), p. 49.

mobile phone suggests that mobile media content and services should enable some elements of public demonstration.[37] MMS-based services can offer more potential in this regard than current SMS due to its picture and moving image capabilities. PEDERSEN, NYSVEEN & THORBJØRNSEN (2003) show that multimedia messaging services influence identity expression; according to their study results the adoption of MMS is also more influenced by expressiveness and enjoyment than usefulness.[38] This sheds some light on the social character of MMS. When MMS become a more frequently used messaging means for media companies, MMS may be able to deliver where WAP failed, because they allow for more emotional rather than instrumental use due to the **power of images**[39].

Other research on the adoption of mobile services in everyday life contexts emphasizes the importance of **non-utilitarian motivational factors** in mobile service adoption and use.[40] In particular, the motive of self-expression seems to influence service adoption.[41] The analysis of mobile messaging behavior offers first insights into the construction of self-identity. The empirical evidence on mobile communications use is limited; a number of studies, often based on ethnographic research, have been conducted on SMS communication and messaging behavior, but hypotheses are often based on anecdotal evidence. However, in order to set the path for the development of a **sociology of the mobile phone** GESER (2002) suggests that a preliminary synthesis of research on SMS behavior may be fruitful for more generalized theoretical arguments.[42]

In a study on SMS behavior of young people between the ages of 14 and 18, HOEFLICH, STEUBER & ROESSLER (2000) find that SMS messages play a more important role for young people than mobile voice messages or e-mail. First results give evidence of

1) the preeminence of personal and direct communications over mobility as a reason to use mobile communications, and
2) the importance of the self-identity in existing social networks.

Ad 1: The first argument is supported by results that identify **home as the location where SMS communication is often initiated**, a finding that underscores the influence of personalization over the benefits of mobility for mobile communications usage.[43] A supportive argument for the importance of the 'real' instead of virtual identity is that most SMS communication is often conducted within **small groups of people** that already belong to the social network of a person. The exchange of SMS is usually reduced to a core set of people. Numbers in studies

36 Plant (2000), p. 42.
37 See Taylor and Harper (2003), p. 29.
38 See Pedersen, Nysveen, and Thorbjørnsen (2003).
39 See Frey (1999).
40 See Leung and Wei (2000); Cohen and Wakeford (2003). Leung & Wei identify the gratifications of mobile phones to be 'fashion/status', 'affection/sociability', 'relaxation', 'mobility', 'immediate access', 'instrumentality', and 'reassurance'. Domestication research presents similar findings, but stresses the importance of self-expressiveness.
41 See Pedersen and Nysveen (2003).
42 See Geser (2002), p. 8.
43 See Hoeflich (2001).

range from predominantly one to three regular SMS exchange partners,[44] often partner and best friend, usually not family members.[45] Research on the sociology of the (fixed-line) telephone already revealed that the telephone is mainly used to care for relationships to already known people and within the geographical neighborhood.[46] Moreover, SMS communication often resembles **quasi-oral communications**. The beginning and ending formulas of SMS are rather short or they do not exist at all, neither in dialogic SMS exchange nor in initial contact SMS sending.[47] This further suggests that mobile communication and messaging relationships are kept with a known set of people. Caller IDs can also give evidence of the sender when they are already stored in the receiver's handset.

Ad 2: Contributions to narratives of the self that individuals offer as part of their self-awareness and self-description to third parties may be found in the choice of linguistic aspects of SMS communications. In mobile messaging, **linguistic characteristics** are a form of meta communication and a means of relationship management. This is due to the utilization of graphostilistic means such as smileys; hybridizations of written and oral language; different syntax conventions, e.g. consequent use of lower-case letters; and ellipses, e.g. the colloquial deletion of vowels or verbs.[48] **User-created communication genres** of abbreviations and shared content creation are used to express social and personal identity in social networks. Multimedia messaging with its ability to include pictures and short audio and video clips is providing users with even more means to create messages and content in form of specific communication genres on mobile devices for identity expression.[49]

In sum, mobile communications is a **powerful reminder of connectedness** within social networks;[50] mobile messaging behavior, the choice of people it is directed at, as well as its linguistic nature provide the first insights into the possible processes of self-narration and self-identity construction. With the advent of more mobile media options, new media-related pieces offer opportunities to become integrated in the messaging exchange processes of mobile users. KELLY (2005) underlines the role of mobile content and services as **'social currency'**, especially in youth culture.[51] Implications for the design of mobile content and services include that they have elements of self-expression to give users access to social capital by using mobile services.

44 See Schlobinski et al. (2001), p. 28; Rheingold (2002), p. 5.
45 See Hoeflich, Steuber, and Roessler (2000), p. 11.
46 See Dordick (1989), p. 226; Lange (1989a), p. 37. This is also suggested to be a difference to e-mailing which is more often addressed to formerly unknown people, see Duerscheid (2002); however, Wellman acknowledges the importance of local mail with people living within a 50km radius that complements telephone and face-to-face contact, see Wellman, Boase, and Chen (2002), p. 92.
47 See Schlobinski et al. (2001), p. 23; Doering (2002); Duerscheid (2002), p. 17.
48 See Schlobinski et al. (2001); Doering (2002).
49 See Pedersen, Nysveen, and Thorbjørnsen (2003).
50 See Geser (2002), p. 10.
51 See Kelly (2005).

1.2.3
Life politics and mobile communications

The discussion of mobile phone handset personalization (see B-1.21) and the success of ringtone and screen saver download (see A-1.21) already give indications that lifestyle is an essential dimension in mobile media use. The lifestyle component is also essential in Gidden's argumentation on life politics.

GIDDENS (1991) arguments on self-identity result in the concept of **life politics** that he defines as a politics of choice and a politics of lifestyle. He describes a lifestyle as a more or less integrated set of practices which an individual embraces, not only because such practices fulfill utilitarian needs, but because they give **material form to a particular narrative of self-identity.**[52] The narrative of self-identity has to be shaped, altered and reflexively sustained in relation to rapidly changing circumstances of social life. The openness of social life today and the pluralization of contexts make lifestyle choices increasingly important in the constitution of self-identity.[53] MCLUHAN (2001) sees clothing already as an extension of the skin and as a means of defining the self socially.[54] Mobile phones as an intrinsic part of young people's lifestyles can, thus, be viewed as an extension of the self as well.

For teenagers, the search for identity is a key aspect of their lives. The need for autonomy, identity, and a sense of belonging are related to the way they explain their fashion tastes, from clothes over music to sports preferences.[55] The mobile phone as a fashion accessory is becoming an essential element in the identity construction in the distinct teenage lifestyle. Also among college students, new technology is a fashion or status statement; the adoption of new media technologies can project certain social identities. New media technologies are used to make status distinction and to **express membership in well-defined status groups.**[56] In their analysis of gratifications of pager use, LEUNG & WEI (1998) find sociability the strongest intrinsic motive. An essential characteristic of the adopters is that they want to make a statement of being stylish and fashionable, and they want to feel connected to their peer networks.[57] Icons and ring-tones to physically personalize mobile phones are also meant to be displayed and to **demonstrate membership and status in social networks.**[58]

Young people as one particular mobile communications (socio-demographic) user segment also serve as **lead users** for mobile data communications in many ways. FUNK (2001) argues that Japan is so far ahead of the West concerning mobile data use, because Japanese mobile operators have focused on young peo-

52 See Giddens (1991), p. 81. Giddens acknowledges that lifestyle choices tend to be segmental for the individual; a lifestyle sector concerns a time-space 'slice' of an individual's overall activities, see Giddens (1991).
53 See Giddens (1991), p. 5.
54 See McLuhan (2001), p. 119.
55 See Wee (1999).
56 See Leung (1998); Tuomi (2002), p. 18.
57 See Leung and Wei (1998).
58 See Rheingold (2002), p. 26.

ple as their main target group from the very beginning whereas mobile operators in Europe and the US first targeted business customers (see A-2.32). From the perspective of the history of the telephone, this assumption seemed to be a natural analogy: early adopters of the telephone tended to be commercial and professional communities that adopted the new means of communication.[59] However, in the mobile (voice) communications market there is a very high diffusion of **new groups of customers who were previously underserved or non-existent** – young people with personal access to communications that limits parental control. Their needs and demands for mobile data communications may be very different from those of business customers which makes extrapolations from the past rather uncertain. The politics of choice and the politics of lifestyle may, therefore, play a more important role, indeed.

The **lifestyle variable** as a central element in consumption decisions is also acknowledged by consumer and media research. Lifestyle is subsumed as a subcategory of psychographic consumer segmentation criteria that attracts interest among consumer researchers. In a move toward an experiential view of consumer research the lifestyle concept includes more explicit considerations on the symbolic, hedonic, and aesthetic criteria of consumption.[60] Media companies, e.g. TV channels, already use lifestyle as a segmentation criteria in order to build **audience typologies**.[61]

However, lifestyle choices can impose difficulties on mobile customers as well. The narrative of the self-identity is inherently fragile in an environment with changing meanings of distance and location and with central importance allocated to the mediated experience. Giddens analyzes the involved tensions and difficulties by understanding them as **dilemmas of the self**:[62]

- The *unification versus fragmentation dilemma* concerns protecting and reconstructing the narrative of self-identity in the face of diversifying contexts of interaction. Mobile communications enforces the fragmentation process, because mobile users can take different roles in a given context, e.g. taking a private call in a business situation or vice versa.
- The *powerlessness versus appropriation dilemma* describes the individual who experiences feelings of powerlessness in time-space distanciations of the social universe. Mobile communications may have counteractive effects, because it tends to provide more power in local activities and mediated experiences within the time-space distanciations of social networks. On the other hand, LING (2002) argues that "forced eavesdropping"[63] may threaten the identity when the forced eavesdroppers feel embarrassment for others, based

59 See Aronson (1981), p. 28; de Sola Pool et al. (1981), p. 131; Silverstone critically remarks that early adopters are individuals with a clearly defined personal agenda when it comes to new technologies. What they may see as exciting hard- or software can be reasons for dissatisfaction with later users, see Silverstone and Haddon (1998), p. 57.
60 See Holbrook and Hirschmann (1982).
61 See Hartmann and Neuwoehner (1999).
62 See Giddens (1991), pp. 187.
63 Ling (2002), p. 8; Geser speaks of the 'colonization' of public space and institutional settings by private communication, see Geser (2002), pp. 42.

on the reflexive process of identification with the soon to be embarrassed person.
- The *authority versus uncertainty dilemma* describes circumstances in which there are no final authorities and the reflexive project of the self must steer the way between commitment and uncertainty. Mobile communications tends to also support choices in the absence of a final authority, because the communications network can be used to mobilize social network resources. Due to a lack of collectively developed routines the complexity of managing two sets of social contexts during private conversations in public spaces can impose uncertainty and discomfort on a person.[64)]
- The *personalized versus commodified experience dilemma* is influenced by the standardizing effects of commodity capitalism. Processes of individuation have to be understood in light of the struggles against the commodified influences. Mobile content has potential to support this process of individuation, for example when the public demonstration of mobile content serves as a means to show identification with a media brand.

The lifestyle aspect that is anchored in Gidden's concept of life politics has been the focus of this chapter. Mobile communications adds new dimensions to the politics of choice and of lifestyle that can be experienced both as an enriching component as well as a contribution to dilemmas of the self. Within this **portfolio of lifestyle choices of consumers**, mobile media contents and services can become an additional piece.

1.3 Mobile communities in social networks

Although mobile voice, messaging, and media strengthens the self-identity construction, the **meaning and feedback on self-narratives of identity unfold in communities**. TAYLOR & HARPER (2001; 2003) find that particularly young people use mobile phones to demonstrate participation in social networks and communities and to **define the boundaries of their social networks.**[65)] A certain linguistic subculture for mobile messaging can, for instance, be used as 'restricted code'.[66)] Concerning the relationship of new communication technologies and communities TUOMI (2002) argues that knowledge and meaning of technology is grounded in communities that reproduce existing social practice.[67)] In his argument, new communities and new technological practices can emerge based on **increasing specialization or on combinations of existing** resources. Media companies that form imagined communities around their content and serve as community platforms for users on the Internet may use both re-combinations of re-

64 See Ling (2002), p. 20.
65 See Taylor and Harper (2001); Taylor and Harper (2003).
66 See Geser (2002), p. 14.
67 See Tuomi (2002), p. 6.

sources as well as increased content specialization to reach out further to their audiences and community members.

For the discussion of mobile communities the changing nature of community is of particular interest. It is one out of three aspects that INNIS (1951) identifies for changes in communication technology on culture: (1) altering the structure of interests (the things thought about), (2) changing the character of symbols (the things thought with), and (3) changing the nature of community (the arena in which thought developed).[68] Mobile communities can apply to different arenas, from communities of interest to communities of peers (C-1.31), and they can allow for a new form of ad hoc formation (C-1.32) which may evolve into a **community management option for media companies**.

1.3.1
Communities of peers and communities of interest

Mobile communities can unite anonymous members that share a common interest or they can equip an existing community of peers with new communication tools (see Figure C-2). BRINT (2002) offers a very useful **reconstruction of the community concept** that can be used to distinguish mobile community types. Brint's typology is based on identifying structurally distinct subtypes of community using a small number of partitioning variables. The existential basis of relationship among community members divides geographic and choice-based communities. For mobile communications this is an important distinction, because many mobile communities, unlike virtual communities on the Web, can be tied to location. However, even more interesting is the second partition in Brint's model that depicts the primary reason for interaction and differentiates **activity-based and belief-based communities**.[69] Members of activity-based groups share a common interest. Mobile communities around celebrities can serve as a good example for activity-based mobile communities that are characterized by rather weak ties.[70] Belief-based groups, on the other hand, are **communities of peers** or 'imagined communities' in which members are not in face-to-face contact with each other. Mobile buddy lists may serve as an example for belief-based mobile communities. They generally exert a stronger pressure on members to participate in the community and to conform to prescribed norms and values.

Whereas members in belief-based mobile communities may place emphasis on the exchange of self-generated content, **activity-based mobile communities can become organized by media companies** around those media brands that accomplish to raise high involvement with their audience.

68 Quoted from Carey (1992), p. 160.
69 See Brint (2001), pp. 10.
70 Peer-to-peer communities can be classified as activity-based communities. In the Napster community, for instance, the personality representations comprised information about the connection type as a basis for other users to make a value judgment; it often contained wrong information about the connection type in order to discourage other users from downloading, see Poblocki (2001). The weak ties between members pose specific challenges to (mobile) community management due free-riding problems, see Adar and Huberman (2000); Feldmann (2005b).

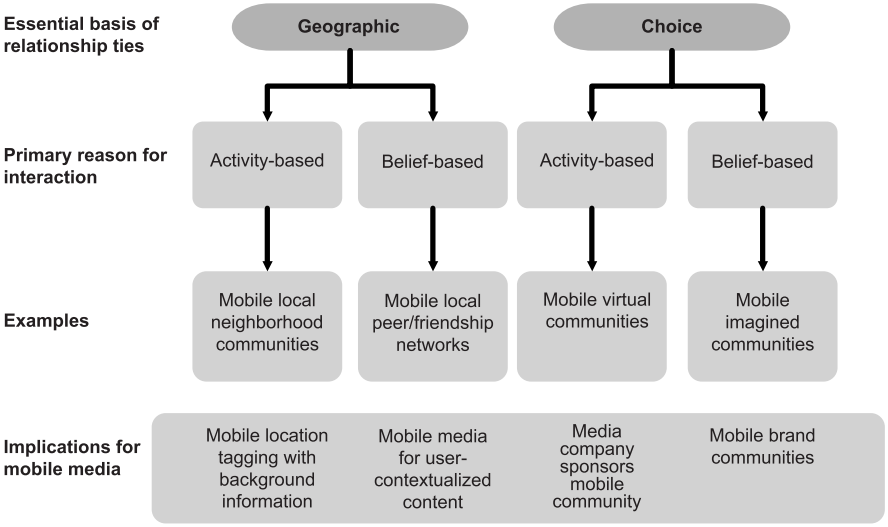

Figure C-2: Activity- and belief-based mobile communities

As mobile communications becomes a new communication form for existing social networks such as personal relationships or community media, geographic proximity increases in importance as compared to online communities where the independence of location of community members is among the defining characteristics.[71] **Location-based information retrieval and creation**, for example tagging locations with remarks and comments, can provide personal relevance, in particular if the people who are posting the information are known and trusted sources. **Mobile buddy lists** have been referred to as closed mobile community models between friends who trust the recommendations of their peers as opposed to anyone else.[72] Distinguishing criteria of mobile communities of peers may be described as concentrated in space, with relatively frequent interaction, and a significant amount of face-to-face contact.[73] As a consequence, the ties between community members can be a lot stronger than in (online) communities of interest.

In communities of interest, relationships can develop on the basis of shared interests;[74] they often evolve around brands. **Brand communities** are specialized, non-geographically bound communities, based on a structured set of social relations among admirers of a brand.[75] They support the social construc-

71 On community media under the influence of online communities see for example Hollander (2000).
72 See France et al. (2001).
73 These variables are among a list of subtypes of communities developed by Brint (2001). As such, mobile communities of peers come close to characteristics of Durkheim's conceptualization of communities that feature among other variables dense and demanding social ties, small group size, and perceptions of similarity with expressive style and way of life.
74 See Hoeflich (1995); Wellman et al. (1996).

tion of brands and contribute to a broadening of consumer brand loyalty. Media companies have gained expertise in building brand communities around their content since the first subscriber base of a newspaper emerged. The Internet has broadened the possibilities for **media brand community management**. Online media content, for instance, is embedded in a social, economic, and organizational environment that is shaped and characterized by the community members.[76] The creation of value in online media brand communities, therefore, strongly relies on the content and participation of the community members.

The provision of mobile communities of interest is an interesting development for media companies since the use of mobile personal devices allow users a deepening involvement with specific groups of other users. Media companies have, for example, the option to **sponsor mobile communities** that form around entertainment celebrities, popular media formats, or new releases in the book, music, or film industries. Mobile music services in particular manage to gather dedicated communities around music and artists. Content in these mobile communities can involve music gossip news, song dedications and personal interaction, song snippet promotional campaigns, or music recommendations from favorite artists. Media companies can **outsource the mobile community management** to application service providers who are entering the mobile marketing markets as new players. In the US, the new player Upoc forms mobile communities of interest in Manhattan.[77] In Upoc's model there are three distinct ways in setting up a mobile community, secret, private, or public. Whereas private groups can restrict memberships and secret groups are not even listed and only known to their members, public groups can be sponsored by (media) companies. The incentives for the community members to opt into these communities are free mobile content such as alerts, ring-tones, or coupons for purchasing at certain locations. Media companies, on the other hand, use the mobile community as **promotional platform** and in part as a new market research tool to reach targeted audience members. With regard to the common rejection of telephone direct marketing in the US, however, mobile market research ambitions should be evaluated and used very carefully, if at all.

Mobile communities of interest exert weaker ties on their members than mobile communities of peers. Yet, one way to expand their scope may become the **strategic use of the social networks** of the community members. Media companies who have interest in distributing their mobile promotional contents can take advantage of mobile communities when they make their mobile contents available for sharing between mobile devices and when they provide messaging opportunities for comments so that mobile customers can use **mobile content as part of their self-identity construction** within their social networks.

75 See Muniz and O'Guinn (2001).
76 See Hummel and Lechner (2001).
77 See Rheingold (2002), pp. 165.

1.3.2
Mobile ad hoc community formation

Mobile communications also enables a new model of community formation that takes advantage of **physical proximity and ubiquitous connectedness** to information and communication infrastructure and that influences social etiquette as well as public social and political participation.

Mobile ad hoc social networks are a new form of communities made possible by the combination of computation, communication, reputation, and location-awareness. The notion of mobile ad hoc information systems describes a decentralized and self-organizing network of autonomous mobile devices that interact as peers based on physical proximity.[78] Personal area networks are a special class of ad hoc networks and a potential sphere for the formation of mobile ad hoc communities when mobile devices will take part in people's everyday social interactions. "**Impromptu collaboration**"[79] can arise at the intersection of these technological advances that may promote social relationships among co-located persons during chance encounters. The social context of mobile ad hoc communities is different from online communities because of the short distances of the **community members who are aware of each other**. Time becomes a critical resource in an ad hoc community, too, due to requirements of physical presence and challenges of unexpected interruptions.

In such a model, the **personal media sphere** can become an element of an ad hoc self-organizing mesh network within geographic proximity and provide as well as receive Internet connectivity.[80] Mobile devices could not only share bandwidth but also content and messages. However, automatic exchange of data raises complex issues of privacy and trust. It would require some kind of distributed reputation system as well as a system that prevents spying and monitoring or gaining access to confidential personal data. The design of ad hoc communities, therefore, has to consider how to reward access rights to data and functionality or to group entities such as a set of individuals who are friends.[81]

RHEINGOLD (2002) describes some social applications of mobile ad hoc networking. His notion of '**smart mobs**' refers to swarming tactics enabled by mobile phones that support the coordination of dispersed groups. Loosely linked networks distribute alerts, forward messages, even webcast digital video. Individual group members remain dispersed until mobile communications draws them to converge on a specific location from all directions. Wireless communications and mobile social networks have been used particularly in **urban political conflict**. These network-structured communications hold potential for both enabling democratic forms of decision-making, but also malevolent out-

78 See Kortuem et al. (2001).
79 Kortuem et al. (2001), p. 3.
80 See Rheingold (2002), pp. 170; Proem, for example, is a peer-to-peer computing platform for mobile ad hoc networks that enables face-to-face collaboration, see Kortuem (2002). 7DS is a peer-to-peer sharing system that enables the exchange of data among peers that are not connected to the Internet, e.g. for caching popular content, see Papadopouli and Schulzrinne (2001).
81 See Kortuem (2002); Reichwald, Fremuth, and Ney (2002).

comes.[82] The **role of the media** in such cooperative action may be to change the threshold for collective action by information exchanges that may affect the either-or decision to join a collective action.[83]

2
Communication and media consumption patterns and mobile communications use

Mobile communications not only influences the structure and different relationship layers of social networks; it also affects communication patterns and it may affect media consumption patterns. The way mobile communications is appropriated into everyday life (C-2.1) poses new questions on the areas of tension between habituation and impulsiveness (C-2.2), it reorganizes relationships with regard to power and control (C-2.3), and it enables innovative, decentralized uses that may drive innovation processes from a bottom-up rather than a top-down approach (C-2.4).

According to CAREY (1992), communication studies must answer how changes in communication technology influence what we can concretely create and apprehend.[84] The social process needs to be examined, wherein symbolic forms are created, apprehended, and used. **Cultural studies theory as a theoretical framework** thereby reflects the use and contents of media in the light of the conditions of everyday life at the micro-level of personal and household experience. It contradicts technological determinism, but looks for clues to the future of communication in social and cultural fundamentals and trends.[85]

2.1
Appropriation of mobile communications into everyday life

The mobilization of the phone is not only a technological process, but more importantly a cultural one. Technology diffusion is the aggregate outcome of individual choices to adopt new technologies. This can be described as a social and cultural process with an emphasis on appropriation in everyday life.[86] In this sense, the cultural studies tradition emphasizes **media use as a reflection of a particular socio-cultural context** and as a process of giving meaning to cultural products and experiences in everyday life. Cultural studies do not attempt to predict human behavior; rather they attempt to diagnose human meanings.[87]

82 See Rheingold (2002), pp. 158.
83 See Rheingold (2002), p. 175.
84 See Carey (1992), p. 31.
85 See McQuail (1999), p. 14.
86 See for example Beck (1989); Silverstone and Haddon (1998); McQuail (2000), pp. 367; Myerson (2001), p. 7; Mansell and Steinmueller (2002), p. 104.
87 See Carey (1992), p. 56; Carey distinguishes cultural studies from Max Weber's notion of 'cultural science' which attempts to provide a phenomenology of industrial science and an analysis of the patterns of dominance and authority typical of such societies. The term studies is more humble than the term science that includes not only taxonomic senses in the interpretation of Thomas Kuhn, but also honorific senses that may confuse the analysis, see Carey (1992), p. 96.

The objectives of cultural studies are, thus, to understand the meanings that audience members have placed on media experience in the process of situation-specific media use.[88)]

It has been argued that the assessment of the social use of mobile communications may be best analyzed with the **uses and gratifications approach**.[89)] It focuses on the question of what functions different media types such as the newspaper or television fulfill in the consumers' personal life; in other words it asks what people do with the media ('active audience'), contrasting the previous media effect research paradigm that asked what the media does to the people. BERG & KIEFER (1996) name **five functional uses of media brands**: information, entertainment, education, consultation, and aesthetic enjoyment. Complementary categories drawn from the uses- and-gratifications research comprise identity-formation, social cohesion and integration, and social interaction that can be further distinguished into relaxation, fantasy inspiration, habituation, or escapism.[90)] Uses and gratifications studies have been extended to analyze diverse technologies and services such as telephone,[91)] VCR,[92)] e-mail,[93)] online media,[94)] pager,[95)] and mobile phones.[96)] **Unique gratifications that have been found for mobile phone use** are 'fashion/status' and 'immediate access'. However, the uses and gratifications approach assumes that audience members know about the uses and gratifications of the media. Yet, there is no way to verify independently whether these perceived motivations and gratifications apply or not. Functionalist theory is, therefore, often criticized because of its circularity. Moreover, audience motivational theory provides formal models - such as the expectancy-value model of media gratifications sought and obtained -, but it is not easy to translate into a sharp **empirical tool**.[97)]

Doubts about the contributions that this approach can deliver have already been cast in relation to online usage and can be applied to mobile communications use as well. TASCHE (1999), for example, questions whether the uses and

88 See Carey (1992), pp. 60; McQuail (2000), p. 367. The inability to comprehend what others are saying is, according to Carey, the imperative failure of modern social sciences.

89 See Leung and Wei (2000); for the rationale of uses and gratifications research see Katz & Foulkes (1962), p. 377, quoted after Jaeckel (1999), p. 71; Blumler and Katz (1974); Elliott (1974); Rosengren (1974). Palmgreen (1985) differentiates three phases of gratifications research, the operationalization phase which describes orientation, relief, and entertainment functions of the media; a transition phase in which an insufficient differentiation of individual and aggregate functions is criticized; and an establishment phase that integrates gratifications research with behavioral intention, see Palmgreen (1985). The uses-and-gratification approach is also accused of finalism. The subsequent paradigm shift and the development of the dynamic-transactional approach derives from the intention to replace the finalistic gratifications research and the causal media effect theory, see Frueh and Schoenbach (1982).

90 See McQuail (2000), p. 387.

91 See Nobe (1989).

92 See Rubin and Bantz (1989).

93 See Dimmick, Kline, and Stafford (2000).

94 See Lin (2002).

95 See Leung and Wei (1998).

96 See Leung and Wei (2000).

97 See McQuail (2000), pp. 78; 390. McQuail acknowledges that from the point of view of audience theory the uses and gratifications research has shed light on the nature of audience demands and is helpful for providing the media with guidelines for developing new media services, see McQuail (2000), pp.373.

gratifications approach is sustainable for explanations of online usage. He also quotes the **danger of circularity in gratifications research** where the perceptions of needs and their satisfaction depend on asking questions to the same individual. Also, factors of social desirability and the assumption that users are conscious about the motives for media usage contribute to his doubts.

Research on **new users' perceptions of the applicability of mobile communications** to their life supports the doubts that they may know best about uses and gratifications of a new medium. It is very common that users anticipate instrumental reasons, for instance safety reasons or business-related reasons, as motives for the adoption of communication technology. However, both the landline telephone as well as the mobile phone are widely used for purposes of sociability.[98] PALEN, SALZMAN & YOUNGS (2000) find in their empirical research that new users typically have a **poor understanding of how mobile telephony works and how it affects activities and communication practices**.[99] Therefore, the cultural studies approach is preferred for the following discussion of mobile communications appropriation and its potential consequences for mobile media use.

2.2
Impulsive use of habituation patterns

The space-time related characteristics of the mobile communications system (see B-3.11; B-3.12) allow for impulsiveness that, on first sight, may contradict the largely habituated use of the media (C-2.21). However, **impulsive access to trusted sources of information and entertainment** may serve new audience needs (C-2.22).

2.2.1
Habituation patterns in media use

Time budgets that users dedicate to different media channels are always changing to some extent. Yet, media use is anchored in daily routines and habituated consumption patterns.[100] **Media time budgets** for traditional media display relatively stable patterns of use. In Germany, for example, the time budgets that the average user spends on print and broadcast media offers has remained similar over the past decade with some shifts towards a heavier usage of television and radio.[101] The time spent online, however, is increasing. Users spent 107 minutes per day online in 2001 versus 76 minutes per day in 1997.[102] Hereby, users often visit online media presences of established offline media brands, because they

98 See Fischer (1992); Geser (2002), p. 8.
99 See Palen, Salzman, and Youngs (2000).
100 Media use is the individual allocation of time to a media. It can be differentiated into point of time, time budget, and content, see Wilke (1992), p. 257. Beyond the issue how much time people spend on and with the media a problem is to ascertain depth of use, see Stempel III and Stewart (2000), p. 544. On the process of habit formation see Wathieu (1997).
101 See Berg and Kiefer (2002).
102 See Ridder (2002), p.124.

attribute particular **Internet competence to online media from traditional media sources.**[103] Controversial data and arguments on the effects of online use on traditional media use[104] still questions whether online media use is substituting for or complementing established media distribution channels. COLE & ROBINSON (2002), LIN (2002), and GERHARDS & KLINGLER (2003) suggest that a supplementary function of online media - ranging from interactive information retrieval to one-to-one interpersonal, group, and mass communication modes – is not related to any reduction of traditional media use.[105] NIE & ERBRING (2002), on the other hand, find evidence for a displacement hypothesis. The time spent online is spent less with traditional media and interpersonal communications.[106] Recent media time budget studies are increasingly paying attention to the phenomena of **parallel media use.**[107]

Mobile media use, however, may not compete with traditional or online media, but with **face-to-face encounters**. RHEINGOLD (2002) observes:

> "While the Internet competes with television and with face-to-face communication in the home and workplace, smart mob technologies compete with attention to other people who are present in public places and with the users' own idle time between home and work."[108]

The questions that are interesting in the light of mobile media use concern the role of traditional and online media use for mobile media and vice versa. A question that has not been addressed yet is whether Internet experience has any effect on the likelihood of the adoption of mobile media services. Heterogeneous behavior even among experienced Internet users with regard to service adoption does not suggest a linear correlation between years spent online and the formation of other habits.[109] However, **familiarity with browsing and searching** may influence the probability to try mobile data services offered in mobile portals. On the other hand, mobile data users in Japan are largely unfamiliar with the Internet which does not suggest a strong correlation, either.[110]

Moreover, the usage situations of the Internet and potential mobile media offers are substantially different.[111] For example, a mobile data communications session is often restricted to two to five minutes; the **mobile attention span** is less than ten minutes whereas time spent online is at a much higher level and it is in-

103 See Ridder (2002), p. 126.
104 See Stipp (2000).
105 See Cole and Robinson (2002); Lin (2002); Gerhards and Klingler (2003), p. 127. To the contrary, Cole & Robinson find evidence for more reading of books, video game playing, and music listening among Internet users.
106 See Nie and Erbring (2002).
107 See Lange (1989a), p. 24; Cole (2004).
108 Rheingold (2002), p. 193.
109 An assessment of the habituation process of experienced online use in Germany suggests two distinct basic user categories, an active dynamic user type and a selective reluctant user type. They differ among other things in PC experience, private and professional motivations of online use and they use online media with different objectives in mind. Online media portals have specific importance for the selective reluctant users who is looking for orientation, see Oehmichen and Schroeter (2002).
110 See Funk (2004), pp 103.

creasing.[112] GESER (2002), however, criticizes that this quantitative perspective on number of minutes of use does not suffice to provide information on: (1) usage intensity which refers to how often mobile services are used; (2) usage breadth referring to the number of visited services; and (3) usage variety measuring the different situations in which mobile services are used.[113] In all of these areas, more research is needed.

2.2.2
Impulse behavior versus habituation in mobile communications

Impulsiveness and habituation do not have to be mutually exclusive concepts. Mobile communications provides opportunities to combine both behavioral modes and to create an **area of overlap** for media use. It, thus, adds a new dimension to media consumption patterns that serves new needs and may attract new audiences.

From the point of view of consumer behavior research KROEBER-RIEHL/WEINBERG (1999) subsume the **concept of impulsivity** under consumer decisions with low cognitive control. In this category, they distinguish habitualized from impulsive consumption decisions. Impulse buying is defined as reactive behavior and often involves emotions as well as an immediate action response to a stimulus.[114] More specifically, impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. It tends to disrupt the consumers' behavior stream. Empirical research shows that these impulses vary in perceived intensity. The mobilization of the phone and its new data capabilities allow consumers to immediately follow an impulse when they wish to communicate or retrieve information or entertainment services. **Clues from the physical surroundings** such as billboards or advertisements for new media product launches in shop-windows, or even stationary uses such as reading a magazine in the bath tub allow for immediate mobile media access and use.

For a more detailed analysis of situations in which impulsive use of mobile media can become relevant, four broad classifications on the nature and significance of impulse buying[115] can be drawn from STERN (1962) and transferred onto mobile media use:

(1) *Pure impulse use* is breaking with habitual patterns. SMS codes in magazine advertisements that allow the user to order samples can serve as one example for pure impulse use.

111 Traditional and online media use is already different. Findings on the use of Internet newspapers indicate that reading patterns on the Internet strongly differ from those in the physical world. Reading Internet newspapers is usually more functional and goal oriented and it is concentrated on weekdays, see Dans (2000). This may indicate that mobile media usage will fulfill other needs than traditional and online media as well.

112 See Feldmann (2001b); Funk (2001b), p. 56; Dean (2002); Kelly (2005).

113 See Geser (2002), p. 7.

114 See Kroeber-Riehl and Weinberg (1999), pp. 398; Rook (1987).

115 See Stern (1962).

(2) *Reminder impulse use* concerns information with which the mobile user had prior experience. The use of navigation services in Japan gives evidence of the reminder impulsive nature of mobile data usage. FUNK (2002) reports that train schedule services are used complementarily via PC and cell phone. Peak traffic for PC usage occurs at noon and 5pm. The mobile peak is near midnight when people are checking the latest train to see if they have time for a last drink. Mobile services are used more often at nights and on weekends when many people are away from their PCs in offices and homes.[116)]

(3) *Suggestion [by seller] impulse use* depicts the rational or functional use of mobile information and services. Physical world clues can inspire impulsive decisions on mobile data communications use such as billboards or in-store kiosks. The inspiration from locations or events comes close to Baudrillards definition of hyperreal media, generating desire for consumption by manipulating the simulation of the moment.[117)]

(4) *Planned [by user] impulse use* can be inspired by presentations in buying locations such as music stores. Mobile users have the choice to intentionally roam shopping locations in order to look for inspirations and purchase online with their mobile device in case of price advantages online. Mobile devices can also be used as a tool for trading mobile media files. Opportunities for small and immediate transactions based on physical proximity can create new spot markets in media content.[118)]

The use of mobile text messages already provides some evidence on impulsive use of mobile communications. The character of SMS texts is rather fleeting; they are generally not stored, contrary to e-mails or letters. A high tolerance for SMS typing mistakes, for example, underscores the fleetness of the message system.[119)] However, while immediate access gratifications are quoted among the most significant motives for mobile phone use,[120)] rather stable and routinized communicative patterns prevail also with mobile technology.[121)] A survey on i-mode users' **ringtone purchasing habits** reveals that 20.5 percent of respondents change ringtones after half a month, 30.6 percent within a month, and 25.3 percent after two or three months. Youngsters and female respondents tend to change their ringtones more frequently.[122)] For potential mobile media usage this may signal that the existing habituated media use may become pervasive as well.

In sum, the ubiquitous always-on and on-demand feature of mobile communications supports impulsive behavior regarding access to communications, information retrieval, and information interaction and processing.[123)] Although it

116 See Funk (2002b), p. 6.
117 See Baudrillard (1995).
118 This argument goes back to Plant (2000), pp. 74.
119 See Duerscheid (2002).
120 See Leung and Wei (2000).
121 See Geser (2002), p. 16.
122 See N.N. (2003b).

contrasts media use behavior that mostly forms habituation patterns impulsive use can enforce the audience-media brand relationship via multiple touch points in **situations where media access and use has not been possible before.** Yet, until now there is no evidence that cellular media use has any potential of developing habitualized communications patterns. It rather allows for impulsive use of established media use patterns. Therefore, **fast access and efficient navigation tools** may become far more important for mobile media offers than efforts to establish regular cell media usage such as daily news alerts.

2.3
Changing politics of power and control

Next to the space-time related characteristics of mobile communications there is the personal communication sphere (see B-3.13) that undergoes changes in power and control. Personal communication and Internet appliances such as mobile phones that are used in both private and public spaces shift control over content consumption to 'personal screens'. According to ZERDICK (1990) socio-psychological factors of the power and control related to telephone use can also influence the **evaluation of new services.**[124] Against this background, new mobile content and services can be seen in the context of changing power geometrics as well.

2.3.1
Shifts of power and control in private spaces

MARVIN (1989) argues that since communication patterns always express social patterning, any perceived shift in communication strengthens or weakens familiar structures of association. New media alters **real and perceived social distances** between groups, making some groups more accessible and other groups less so.[125] Mobile communications is empowering in the sense that it enlarges the range of options available to individuals and social groups. On the other hand it **increases social control**, because it raises expectations of connectedness. The pressures to accept or reject, or to modify a new technology such as mobile communications can come from the conflicts between domestic and public values, e.g. in the case of young people from the competing claims of parents and peer groups.[126]

A new communication technology such as the mobile phone can, for example, introduce disruption into the security of familiar routines and rituals.[127] Mobile communications devices provide household members who share newspaper, ra-

123 See Geisselbrecht and Fotschki (2002), p. 238; Geser (2002), p. 46; Reichwald, Fremuth, and Ney (2002), p. 528.
124 See Zerdick (1990), p. 11.
125 See Marvin (1988), p. 234.
126 See Silverstone and Haddon (1998), p. 65; Carey (2005).
127 See Silverstone and Haddon (1998), p. 64; France et al. (2001).

dio and TV sets, and often also PCs with a new means of individual and personal communication and content access. ITO & DAISUKE (2001) have coined the term **power-geometrics** with respect to the impact of the mobile phone in the home. The family as a social system can be affected and potentially weakened on a normative and cognitive level. Young people can circumvent the control of their parents when they use their mobile phone instead of the family fixed-line connection. Thereby, personal communications is individually received and not influenced by the presence of other family members. The mutual knowledge about each other's communication network decline.[128] Teens can communicate without the embarrassment of revealing their peer relationships; or when other family members are already asleep; and without the monitoring of parents and siblings.[129] With regard to media consumption a shift can potentially be perceived **from household screens such as the TV screen to personal screens such as mobile phone screens.** It may also explain mobile users' early devotion to adult content formats for mobile media.

New forms of communication put communities like the family under stress, because contacts between its members and outsiders become difficult to supervise. Using two mobile handsets for different personal relationships, for example, avoids problems in situations where mobile phone use needs to be explained or is being controlled.[130] Often, energetic efforts are made to limit opportunities for new instruments of communication to **create new secrets and to protect the old ones** they put at risk.[131] The reconfiguration of patterns of use, therefore, involves both regulation and re-regulation in households as well as the management of conflicts over access and use.[132] One example in parent-child relationships is how children make trade-offs about how to spend their allowance and how they use messaging and future mobile media services.

In other areas of personal relationships mobile communications also **widens the social sphere**. SMS communication, for example, supports the initiation phase of interpersonal relations without the risk of embarrassment.[133] Texting is perceived as a means to communicate about feelings and thoughts without having to voice them. For teenagers, in particular, this is an essential asset of SMS and it is used for initiating, sustaining, and managing personal relationships, e.g. to constitute a co-presence with a loved one. This increase in control over communication relationships is also described as 'Cyrano de Bergerac'-phenomena of SMS.[134] GROEBEL (2005) argues that mobile media services can add **new dimensions to emotional communications** when, for instance, mobile music can be transmitted during a conversation or sent to a loved one and hence opens new dimensions of mood management.[135]

128 See Plant (2000), p. 59; Geser (2002), pp. 32; Rheingold (2002), p. 4.
129 See Ito and Daisuke (2001), p. 9.
130 See Plant (2000), p. 55.
131 See Marvin (1988), pp. 69.
132 See Silverstone and Haddon (1998), p. 69.
133 See Geser (2002), p. 22.
134 See Plant (2000), p. 57; Ito and Daisuke (2001), p 11.
135 See Groebel (2005).

2.3.2
Shifts of power and control in public spaces

Mobile media use in public spaces can be a lot less intrusive than mobile voice communication that can incur a social cost in public spaces among an anonymous crowd. Power is shifted towards the individual who can significantly intrude into the privacy spheres of third parties that are present. Not only the conversations, also the ringing of mobile phones are **changing the sonic environment** and alter the background noises in public places.[136] There is a wide array of impersonating tones and melodies that disrupt and irritate people, because an incoming call provokes a sense of urgency[137] and often more than one person within a public place feels compelled to answer when a phone is ringing. **Mobile audio and video applications** that are used without headsets will further contribute to a sonic intrusion of the public sphere. But mobile voice telephony, indeed, creates a lot more dysfunctional results. Public use of the mobile phone leaves people within earshot powerless to intervene and forces them to eavesdrop. GOFFMAN (1966) explains the difficulties to overhear just one side of a conversation with boundary-maintaining tendencies that neither fully admit nor fully exclude third parties.[138] Mobile communications use in public also conflicts with proprieties of presence[139] towards the person who is calling, because telephone conversations in themselves already display inherent hybrid characteristics between intimacy and distance.[140] As a result, there are **conflicts of social spaces** and it is the user's decision to honor the norms of the physical space or the norms of the conversational space.[141] Similar conflicts can arise with **pushed mobile media delivery**. It can be an unwelcome threat which interrupts activity or it can result in turning away from the communication partner in the real-world environment.

Mobile communications, thus, requires new management skills of social interaction in public spaces. LING (2003) describes **disengagement rituals** that help people extracting themselves from the pre-existing social situation to answer a mobile call and manage front and back channel interaction.[142] PLANT (2000) identifies three options upon the receipt of a public call: flight, suspension, and persistence. People either absent themselves from their social situation, they stop current activities, or they stay put and engaged with the actual world as far as possible.[143] All three responses leave people present at that time abandoned and the etiquette of handling these situations is becoming an important social skill.

136 Plant (2000), pp. 29; Ling (2002), p. 7.
137 McLuhan (2001), pp. 268.
138 Quoted after Plant (2000), p. 47.
139 See Marvin (1988), pp. 87.
140 See Zerdick (1990), p. 11.
141 See Palen, Salzman, and Youngs (2000).
142 See Ling (2002), p. 11.
143 See Plant (2000), p. 31.

Social etiquette in public spaces disapproves, for example, of listening too loudly to music as expressed by signs in public transportation that ask passengers to be conscious of the volume of their walkmen. It is therefore surprising that there is not more resistance against public telephone conversation. Certain locations have already been deemed inappropriate for mobile use; **'no mobile' policies** have been introduced in hospitals, air planes, theatres, some restaurants and even in quiet cars in trains.[144] The purpose of mobile phone usage other than telephony, for example data usage, are **more discreet and inoffensive**. Mobile media use may counteract some of the described social cost since its consumption can be insulated from third parties.

2.3.3 *Tele-presence and de-communication*

With rising expectations on **tele-communicative omnipresence** through mobile communications, ubiquitous availability and connectedness can also turn into a burden for the individual.[145] The active choice to resist and the ability to neglect these expectations emerge into **new signs of power and control**.

De-communication describes the possibility of periodically withdrawing from the mobile communication system. It is expressed by the capability to resist the omnipresence of mobile communications and create zones of communicative absence (see B-3.22).[146] ZERDICK (1990) also coins the term 'selected aloofness' in the readiness to initiate or accept telephone communication.[147] Whereas the option of reaching others anytime and anyplace is evaluated positively, the opposite case to be available for everybody anytime anyplace is evaluated ambivalently to negatively. The former symbolizes influence, control, and power. The latter is not a symbol of power. To the contrary, access barriers such as, e.g., a secretariat are usually seen as a symbol of power.[148]

Mobile data communications can, on the other hand, be **actively used to de-communicate**. People in urban settings traditionally use mobile media in the wider definition (see I-2) to evade interaction with surrounding strangers, for instance reading a newspaper, using a walkman, or engaging in mobile messaging and mobile service applications. Thus, mobile phones contribute to the strategy of individuals to **defend private space in public**, a rational behavior that is not only socially accepted but sometimes also socially desirable.[149]

Mobile media delivery, for example location-based services, on the other hand provide a lot more information on the **movements of users in public spaces**. When voice calls are incoming, users have the choice to give information about the context that may be intentionally false.[150] PLANT (2000) observes an in-

144 See Plant (2000), p. 36.
145 On the distribution of power between caller and receiver see Baumgarten (1989), p. 195; Hoeflich (1989), p. 206; Lange (1989a), p. 33.
146 See Zerdick et al. (2000), p. 220.
147 See Zerdick (1990), p. 15.
148 See Zerdick (1990), pp. 15.
149 See Geser (2002), p. 10; Feldmann and Zerdick (2004), p.26.

clination to lie about location, feelings and intention that is made easier by the use of mobile phones. With mobile data, on the other hand, de-communication in public spaces can add new information on users' roaming habits (see also E-2.11).

2.4 Micro-coordination, collective action, and user-driven innovation in mobile communications

The discussion of the social dimensions of mobile communications use already shows some potential implications for the use of mobile media. Social use that develops specifically in the mobile communications system, however, may provide the most **innovative reasons to embed mobile media into everyday life**. In addition to further developments of habituation, power, and control patterns, mobile communications also supports the formation of new communication patterns. Micro-coordination (C-2.41) and collective action (C-2.42) are not new concepts in themselves but develop into unique functions and usage reasons for mobile communications (C-2.43) and may unfold relevance for the properties of and the provision of mobile media (see Figure C-3); they will be discussed in the following chapters. According to MARVIN (1989), new uses based on novel technological properties and new social groups that form audiences can serve as **indicator for the dawn of a new medium**:

> "When audiences become organized around these uses, the history of a new medium begins. […] Here, the focus of communication is shifted from the instrument to the drama in which existing groups perpetually negotiate power, authority, representation, and knowledge with whatever resources are available. New media intrude on these negotiations by providing new platforms on which old groups confront one another."[151)]

Hence, these emerging social uses of mobile communications can be followed as potential indicators if mobile media evolves into a new medium.

2.4.1 *Micro-coordination with mobile communications*

It has been argued that mobile media serves as an ingredient in a number of lifestyle choices. When the mobile device is not used for consumption or social network interaction processes, **instrumental functions** can gain in importance next to the socio-emotional functions of mobile data communications. Mobile media use in this scenario is only initiated by the mobile device. LING & YTTRI (2002) describe instrumental functions of mobile phones as **micro-coordination**. SMS are a popular tool used for the micro-coordination of leisure activities.[152)] Mobile

150 See Geser (2002), p. 26.
151 Marvin (1988), p. 5.

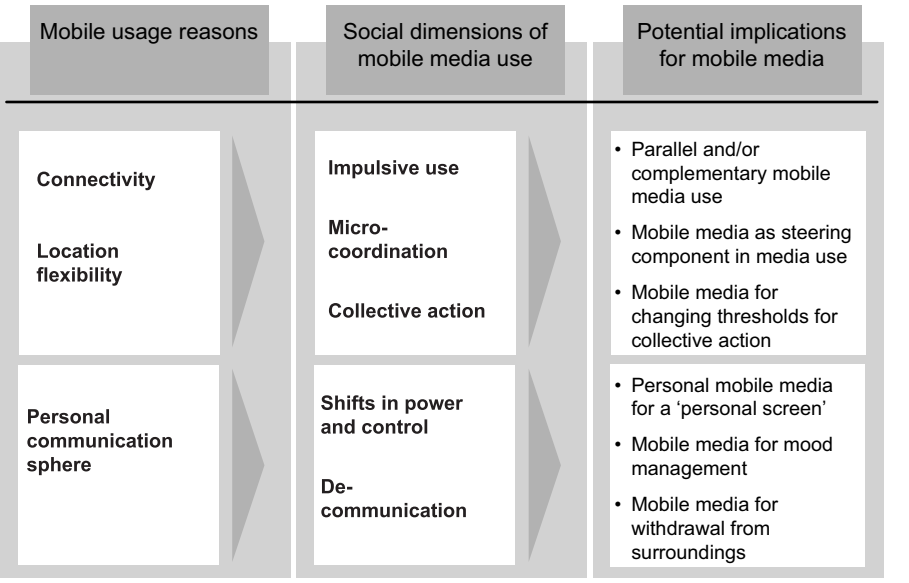

Figure C-3: Potential implications of the social use of mobile communications for the provision of mobile media

phones allow one to flexibly arrange and rearrange schedules specifically en route, to give real time updates on social events, and to maintain a social and emotional band with peers via SMS communication.[153)] It not only reveals information about the embeddedness of a person within a social network, but about **changing norms and lifestyles.** Timeliness is loosing value as a virtue; the new vice is to forget the mobile phone or let the battery die. The option of micro-coordination with mobile phones reduces the need for temporal planning and shifts the focus from ex-ante agreements to a more current and ad hoc coordination or 'approximeeting'. Scheduling becomes a constant stream of negotiations and reconfigurations.[154)] However, this lack of commitment to the appointment in mobile sociability may lead in the long term to a loss of efficiency rather than a gain of efficiency.

Micro-coordination may also extend to **interactions within the physical space** as well as virtual spaces. Ubiquitous computing, smart locations, and digital cities are beginning to turn the mobile phone into a remote control for the physical space.[155)] But also hybrid models for mobile media delivery such as GPRS/DVB-T models (see B-2.32) take advantage of the micro-coordinating

152 See France et al. (2001).
153 See Hoeflich, Steuber, and Roessler (2000), pp. 13; Schlobinski et al. (2001), p. 26.
154 See Plant (2000), p. 64; Townsend (2000); Horx (2001), p. 103; Geser speaks of a deregulation of agendas, see Geser (2002), p. 23.
155 See Rheingold (2002), p. 28; Groebel (2005). Spy cams that control property such as the entrance of a house can already be transmitted on a mobile phone, see Pogue (February 27, 2003).

point-to-point function of the mobile phone. With regard to the mobile phone as the **"connective tissue"**[156] **between offline, online, and on-air media** offers, the mobile phone can serve as functionally interdependent between the use of different media. Audiences can use the mobile communications system to initiate a media consumption via a different device and transmitted via another than the cellular network.

2.4.2
Collective action via mobile communications

Mobile communications is yet another network technology with capabilities to assemble groups of people with common interests to **participate in the creation and use of common resources**. Among teenagers, for example, mobile phones are often used collaboratively in that they share messages and contents and engage in collaborative action with co-present teenagers.[157] **Ad hoc social network formation** and interaction in mobile communities allows for instantaneous collective action which may be designed through mobile voice, messaging or contents.

Wireless devices enable people to act together in new ways and in situations where collective action was not possible before.[158] These situations can comprise both social control and means of resistance. Many-to-many mobile communications empower cooperative bands of intercommunicants, for example in urban spaces. Here tactics of **distributed control and lateral cooperation** create new leverages.[159] Decentralized communications within groups offer potential for informal organization and also empower users to circumvent prescribed rulings.[160] RHEINGOLD (2002) remarks on the **role of the media for 'the power of the mobile many'**:

> "Mobile media that can augment the informal, mostly unconscious information exchanges that take place within the interaction order or affect the size or location of the audience for these changes, have the potential to change the threshold for collective action."[161]

Collective action and ad hoc community formation can be based on a form of **collective intelligence**. LÉVY (1997) defines collective intelligence as an intelligence that is distributed, perpetually created, coordinated in real time, and that is effectively mobilizing competences. Its grounds and objectives are mutual recognition.[162] Decentralized self-organization supported via mobile devices can become astonishingly intelligent. It is in this perception of connecting and com-

156 Kelly (2005), p.112.
157 See Weilenmann and Larsson (2000).
158 See Rheingold (2002), p. xviii.
159 See Rheingold (2002), p. 156.
160 See Geser (2002), p. 32.
161 Rheingold (2002), p. 175.
162 See Lévy (1997), p. 29.

municating in social networks that RHEINGOLD (2002) speaks of collective intelligence.[163] This collective intelligence that emerges from collective action can be used to create new means and forms of communication and may spark innovative uses of mobile communications.

Also real world entertainment formats that promote collective action **combined with mobile ad hoc coordination** can emerge as new promotional tools for media companies. Local radio stations, for instance, often engage in fun activities within their communities to attract attention from (potential) listeners. For them, real world activities such as scavenger hunts that get combined with mobile ad hoc coordination[164] can be used for sweepstake activities. Device-to-device communications via peer-to-peer networks is another option that links social networks into cooperative ventures.[165] GESER (2002) critically remarks, however, that relationships become more bilateral and individualized with mobile communications. Thus, he concludes that mobile phones are not potent instruments for a fast build-up of large-scale collectivities and collective actions.[166] Yet, for mobile media, ad hoc sharing and the collective use of content, for example in relation to entertainment content such as mobile multiplayer games, can provide new means for collaborative use.

2.4.3
User-contextualized content and user-driven innovation

User-generated and **user-contextualized content** (see A-2.32) is an interesting area for mobile communications, both in the context of creating a self-narrative of the mobile identity and gaining a reputation in mobile communities.[167] A host of new digital appliances encourages users to create their own digital content such as digital images, web sites, sounds, and film sequences. In Japan, people who create personal media files such as digital images, text or video can post this content directly on the Web from a mobile phone.[168] On the other hand Japanese mobile users are also building **mobile websites** with personal contents that can be accessed via a mobile phone. Magic Island, for example, is a popular provider of mobile homepage creation services.[169]

More importantly however, software and technologies that enable users to contextualize (or manipulate) professionally produced content are gaining in popu-

163 See Rheingold (2002), p. 179.
164 See Feldmann (2001b).
165 See Rheingold (2002), pp. 76 .
166 See Geser (2002), p. 31.
167 The decomposition of the traditional separation between consuming audiences and producing media content providers under the influence of new ICTs may contribute to realize the demands of Brecht's (1967) radio theory. Enzensberger (1970) calls these participation possibilities and further collective production and self-organization capabilities (then of electronic media) emancipated media usage versus traditional repressive media usage, see Brecht (1992); Enzensberger (1997).
168 See Funk (2001b), p. 30; Rheingold (2002), p. 169
169 See Funk (2001b), p. 30; Funk even suggests to regard the percentage of i-mode subscribers who are creating and maintaining i-mode sites as a measure of i-mode's popularity rather than the total number of subscribers.

larity. The most popular function of **mobile map services** in Japan, for example, is sending maps in mail messages. Clicking on an icon automatically creates a homepage for the map and integrates the link into the mobile message. Setting up meeting places is a popular application for this service. Users pay 200 Yen a month for this ability; simple maps of the different providers are offered for free.[170)]

Facilities that allow users to impact programming in traditional media are, for example, fast forward or replay functions in video programming that transfer value from the programming provider to the viewer.[171)] Online media offers many opportunities to contextualize content, for example online newspaper articles that can be commented on and sent to third parties. In mobile communications **sending branded media content contextualized with a personal message** may become a successful proposition. They could be embedded in mobile blogging applications. Weblogs are a form of collaborative publishing where editorial content is commented and linked into a personal context of the user. Blogs are self-published web-surfing diaries that link to favourite sites and include commentary on the mentioned sites. The power of blogging lies in **reframing issues**. A message gains authority by the power of the media, but bloggers act as intermediaries in reframing the contents for different publics.[172)] The blogging sub-culture that has been created in the Internet is already extended on mobile platforms. Mobile users can use their cell phones to immediately add new postings to their weblog. Mobile phones hereby offer an innovative function of **audiologs**, i.e. voice SMS that can be posted on the weblog as MP3 file.[173)] Other forms of **mobile collaborative publishing** may emerge with the proliferation of mobile ad hoc communities.

A higher degree of **selection and modification possibilities** for mobile data communications transfers power to the user who can decide what actual level of participation she prefers.[174)] With open access to contents and users' ability to freely change and contextualize it, opportunities for innovations driven by users can emerge.[175)] LESSIG (2001) considers a subtext of the advertisement from Apple Computer, "Rip, mix, burn", to explain how digital technology can enable people to become part of the creative process and innovate.[176)] Reputational gains are quoted by HARHOFF ET AL. (2000) and TUOMI (2002) as incentive for users to innovate and to freely reveal their innovations which supports arguments on

170 See Funk (2002b), p. 9.
171 See Benkler (1998), p. 193.
172 See Rheingold (2002), p. 121.
173 See Gongolsky (May 20, 2003).
174 The level of participation can be related to the notion of interactivity. Goertz (1995) definition of interactivity for the media is useful in this context. Interactivity in his understanding is dependent on the degree of selection possibilities, modification possibilities, and linearity. The higher the values of these parameter the higher is the degree of interactivity, see Goertz (1995), p. 485.
175 Consumer empowerment requires firms to give up some control over key marketing variables in exchange for an increased degree of consumer responsiveness, see Wathieu and Zoglio (2001). Integrating the customer into the development process is practiced by a number of firms that are already taking advantage of potential users' innovative capabilities. New ICTs are adding capabilities, e.g. web-based methods, for customer input into product development processes, see Dahan and Hauser (2001). Mobile communications can also complement traditional market research. Mobile community platform providers, e.g., are using mobile communications and their mobile community members for product testing of their commercial clients.
176 See Lessig (2001), p. 9.

the relevance of the construction of the self-identity within social networks. Also RHEINGOLD (2002) is convinced that people who are using mobile phones, pervasive computing and location-aware technologies will eventually invent new forms of social interaction including entertainment, commerce, communion, and conflict.[177] One small example from SMS communication is the array of new acronyms that creative SMS users produce and that they share similar to a secret code among their friends.[178] A critical issue for **mobile user-driven innovations** for mobile data communications concerns the design of mobile operator's pricing plans; they should encourage experimentation by users in order to reap the benefits of positive feedback effects.[179]

When mobile data communications confers power on consumers to create, publish, broadcast and debate their own point of view, mobile users challenge mass media content and content dissemination.[180] On the other hand, media companies can aim at **turning user innovativeness into an opportunity**. The possibilities for such a win-win situation lie in the expansion of their cross-media strategies and the integration of traditional and online media with mobile content and mobile communications options (see D-4.13).

For media companies and their approach to integrate mobile communications platforms into their strategies at audience and advertising markets, the observations on the characteristics as well as the social use of the mobile communication system are **relevant parameters in the design of mobile media contents, formats, content-related communities,** and the integration of mobile media with their existing media content. These challenges and opportunities for cross-media extensions are the subject of the discussion in the following chapter.

177 See Rheingold (2002), p. 182.
178 See Duerscheid (2002).
179 See Funk (2001b), p. 68.
180 See Rheingold (2002), p. 197.