Chapter 8
The Digital Phase of the Sociopolitical Development of Society: Basic Characteristics of Digital Media as Information and Communication Technologies of a New Generation

Asiyat K. Botasheva ⓘ**, Svetlana V. Anufrienko** ⓘ**, Marina H. Alkhazova** ⓘ**, Anna S. Konstantinova** ⓘ**, and Larisa B. Ezdekova** ⓘ

8.1 Introduction

The founders of the "theory of the information society" made a great contribution to the study of the influence of information technologies on the socioeconomic and political space of the functioning of society. Masuda (1980), who owns the main concept of the information society, methodologically substantiated the essence, and role of information flows. Comprehension of the transition of societies to computerization and the use of the latest technologies and knowledge was, according to the scientist, a powerful driving force behind the overall social and political transformation. In this sense, it is legitimate to talk about the information aspect as an important component of a developed society.

Bell, the creator of the theory of post-industrial society (Bell, 1996), reflects on the informatization of modern society and singles out the key role of knowledge. The scholar assumes that the general social nature of post-industrial society produces a denial of industrial society, and a special type of communication acts as a completely new stage in the organization of social relationships, dictating the course of the historical development of mankind. It's also interesting that Bell saw the information society as classless.

A. K. Botasheva · S. V. Anufrienko (✉) · M. H. Alkhazova · A. S. Konstantinova · L. B. Ezdekova
Pyatigorsk State University, Pyatigorsk, Russia
e-mail: ssidorova@list.ru

Understanding the flows of postmodernism forced the classic Baudrillard (1981) to pay attention to the symbolic meaning of signs transmitted not only through information contacts but also by the specialized activities of individuals aimed at a special type of communication through advertising, gadgets, and the infrastructure of the city (smart cities). The scholar also describes the uniqueness of information tracking of the organization's attendance, sociopolitical preferences, etc. Another proponent of the postmodern paradigm and the theory of symbolic interactionism, Lyotard (1984), paid attention to the morphology of performativity and marketability (demand for knowledge as a commodity).

Toffler (2017) introduced into the scientific circulation new multidimensional concepts "the third wave of civilization" and "information age", the meanings of which are mainly focused on understanding the information and space ages, global village, and the era of electronics. At the same time, the scientist focuses not on wealth but on the monopoly on information and media, which was rightly considered an important political and economic resource of our time. Subsequently, the assumptions of scientists regarding the universal character of information, based on the analytical and predictive method, were used in the theory of "digitalization of society" and taken as a basis in building the foundation of the study of the modern political and socioeconomic space from the point of view of the influence of new media, which focuses the consumer's attention on the necessary messages and images to them. Thus, Neumann (2018) notes the specifics of communicative relations in the era of digital media and believes that even the service sector can become materialized information; they are based on applied discoveries and are subject to the logic of information processing, as a product of a certain mental activity. Consequently, modern researchers are completely correct in the assumption that information must be viewed from the point of view of capital, a potential source of wealth.

The works of Henry and Lamb (2020), Kruikemeier (2014), Schillemans and Pierre (2019), and others were also useful for this study; they demonstrate that the authors are focused on investigating the problems and risks of using digital media in the interests of politics and economics actors.

The growing phenomenon of digital media, which does not have a stable term yet, arouses unflagging interest in the scientific community. That is why in the works of scientists one can find different models of understanding of such phenomena as new media, social media, digital media, Internet media, online media, cyber-media, mobile media, global media, multimedia, etc.

Thus, modern studies of digital media are interesting for scientific thought. Scientists give conceptual assessments and touch upon in their works a variety of areas of the functioning of new media. Researchers offer a whole range of theoretical and applied innovative ways of using information technologies in the context of the formation of modern reality.

But despite a large number of works on the research topic, it can't be said that the digital media sphere has been studied deeply enough. Thus, there are no basic characteristics of digital media, and there are no research imperatives for the changed nature of media communications after the emergence of digital media.

8.2 Materials and Methods

The purpose of the study is to analyze the activities of digital media in the context of identifying the changed nature of media communications after the emergence of digital media. In this connection, the tasks of the research include:

– Identification of the main and basic characteristics of "digital media";
– Identification of changes in the nature of media communications under the influence of digital media;
– Analysis of the possibilities of new media in the digital phase of the development of society for subjects of digitalization;
– The formulation of the demand for new elements of research by science.

The study of the digital phase of the state of society, the specifics, and basic characteristics of digital media in the era of information and communication technologies of the new generation required the use of conceptual assessments in the course of interpretive, phenomenological, and hermeneutic analysis. Summarizing this kind of approach, it can be considered that the object of research, as a complex phenomenon, is in all respects associated with various aspects of society. The interdisciplinary approach, coupled with the structural and functional analysis of digital media, is universal for identifying the structural differences between old and new media, identifying the main characteristics and features of the functioning of new Internet technologies, which are used in modern media. The internal integrativeness of the theories of the representatives of the Frankfurt school makes it possible to clearly identify the models and factors of the existing connection between the media and society.

8.3 Results

In modern society, the socioeconomic and political spheres can't exist outside the information space. Moreover, there is a tendency toward an increase in the role of new media in not only broadcasting but also in the modeling and construction of information. The use of information resources and technologies blurs the boundaries between the originally biological principle of humans (anthropological space) and the artificial nature of new technologies. At the same time, the change in traditional priorities is so closely intertwined with information technology that the connection between society and the mass media has become integral. At the same time, the growing number of impersonal economic agents focused on benefits becomes an objective characteristic of a digitalized society.

The term "digitalization" means, in direct translation, "digital"—"digit" and the suffix "-ization" implies a "process": "the process of transferring analog data into the digital space", "digitalization process", "digitization", "digital technologies", etc. Today, it is impossible to confine to one definition, because the phenomenon

of "digitalization" is a multifaceted phenomenon that incorporates processes arising from the interdependence of the socioeconomic state of society and the development of information technologies.

So what is digitalization? Trying to answer this question, scholars intuitively find synonymous concepts: "information society" (Masuda, 1980), "post-industrial society" (Bell, 1996), "postmodernism" (Baudrillard, 1981) (Lyotard, 1984), "information age", "third wave civilization" (Toffler, 2017), and others.

The world, in which we live today, is equal to the priority of digital media. These are products and market segments that allow and ensure the integrity of the digital phase of the state of society. But "digitalization" isn't only the introduction of digital devices into the everyday life of society; it's an attitude toward the active involvement of members of society in interaction with digital technologies. Therefore, new generation media play an important role in the development of digitalization. Content from media sources can often be generated by members of the community, popularized by unrestricted content relaying between members, and not censored before publication.

First of all, let's try to understand the meaning of digital media. As the researchers believe, they include online technologies, including social networks (Wolf & Archer, 2012). The distinctive features of digital media from "old" media are also obvious. This is, first, the efficiency caused by the high speed of data on the network. Second, the ability to use open sources and insider information. Third, in digital media, the message is addressed to the user, not the public. It is very important that the user have the opportunity to operate with information in various areas.

Manovich (2011) identifies five basic principles of the nature of new media. This is, first, the mediated style of communication with the discrete presentation of information. It can be said that the content (graphic, sound) is broken down into separate points and pixels. The author draws an analogy with the indirect communication method inherent in computer programming while writing small and self-sufficient modules precedes the creation of large programs.

Second, the resource of digital coding of the material, while the media product becomes the object of algorithmic operations and mathematical functions. For example, the algorithm for creating a photo has different functions: from changing the color or contrast to completely changing all the outlines.

The third principle becomes possible if the first two are summed up. As a result, it turns out that a media product from scratch can be made, relying on automation, using ready-made templates, and algorithms (which should free the worker at the machine from many routine operations).

Fourth, mutability is the principle of digital media. A new media object—for example, a website—isn't something fundamentally created for centuries, but it can serve a person in different (potentially endless) versions. Traditionally, a human creator functioned in the old media. He established visual contact or manually eliminated interference, collected text, visual, and audio elements. On the contrary, in digital media information can be stored in digital form for a long time; media elements have a separate identity and can be controlled by the program (Manovich, 2013).

So, digital media is a single production and communication process that provides forms of information perception. For example, after the invention of iPod, podcasting became popular among users, providing distribution, receipt, and assimilation of information downloaded from the Internet. In the future, consumers will have another innovation—"cross-media", meaning retransmission of the message in a free and instant form, and the ability to simultaneously use different media.

In the conditions of a developed information society, which has brought break-through information technologies into the world of media, it is of fundamental importance to divide the media into traditional and electronic, or old and new. Therefore, convergence processes stimulate the transformation of the old into the so-called digital media. It's postulated that technological progress has an impact on the communicator and the recipient, because the process of collecting, establishing mutual contacts, etc.—forcing all types of media to make adjustments to the structure of their activities.

Hypothetically, the products of using digital media can be very diverse: e-commerce; games: online and mobile; websites and mobile applications; anima-tion; social media; videos of different aspects; augmented reality; data collection, data analytics, and virtual reality; data visualization; various location-based services, on-demand computing; interactive storytelling; online databases, etc.

All of them have several key features that have led to general social characteristics of a qualitative change in their functions. We are talking about accessibility, high mobility, and lack of direct communication, which makes it possible to anonymously provide false information, the ability to experiment with forms of perception, influence the consciousness of an unlimited audience, experiment with the capabilities of the media, and construct "quasi-communication" and virtual reality.

Digital media can be applied in such areas as entertainment; various kinds of technologies; e-commerce, bidding, and sales; noncommercial content; health services; services in the area of education; marketing and advertising; while information is provided online by the government; government services; sport; environment; interactive television; publishing services, etc.

As Orihuela rightly believes (Orihuela, 2008) that new improved technologies introduce an imbalance in the activities of traditional media, which need to adapt and retrain with new communication formats, master new grammar, and a new style of communication with the consumer now.

Today, a passive viewer has already become a rare consumer, and an active user, who is interested in gamification, has his preferences while searching for informational content, and often independently produces social communication. And, which is also important, this process takes place in all strata of society. Thus, the process of communication isn't a frequent case; therefore, it doesn't end up with the consumer. From this moment, the consumer has the opportunity at the pre-communicative stage to choose, purposefully seek, and independently decide on the content of information. Each subject can write, speak, and shoot. Consequently, new categories of recipients are emerging, they have the opportunity to participate in all phases of information creation, and even create their media.

The modern agenda, which may be political and socioeconomic, can no longer be formed without the use of information technologies. Digital media makes extensive use of visualization, 3D graphics, graphic design, interactive maps, tags, podcasts, etc. The Internet is equally important for industrial, social, and economic development. These are all kinds of blogs and websites, as well as news programs in an interactive form, which implies feedback.

As a result, media brands that produce a certain kind of content, for example, information coverage of environmental problems, the life of nature, political events, novelties in the area of robotics, etc., or working in the area of journalism, can achieve such results when information exchange is successfully implemented.

Finally, the media format is changing dramatically, giving way to electronic formats: Netflix, Facebook, or Instagram. It's not surprising that in the digital phase of the development of society, successful economists predict: "digital changes will be large and it's necessary to invest in technology" (Rosell et al., 2016).

On the other hand, the theory of Lippmann (2016) doesn't lose its relevance in the digital phase of the development of society; he formulated the idea of a "pseudo-environment" formed by the same digital media when a person is not able to verify the reliability of information and is forced to trust it.

Digital media can create an artificial, false picture of the world in the mind of an individual; due to this, the picture isn't a reflection of the reality taking place in the world, but a formal construct, which successfully masks reality. It should be also noted that the nature of manipulation involves a double effect. The first concludes in the open phase of broadcasting information, the second is in a parallel "encoded" signal designed to cause those actions, behavior, opinions, or feelings that are needed by the manipulator. Of course, the maximum success of marketing, political, or other manipulation is facilitated by the incompetence of the individual or groups in a particular issue, which allows the manipulator to successfully penetrate consciousness.

An important factor is also the traditionally high level of public confidence in Internet forums when there is an illusion of objectivity and independence of statements. Young audience is especially receptive; it is initially inclined to trust the statements of peers, whose communication is replete with specific vocabulary, accompanied by a youth style of dialogue and conducted in a certain manner. Therefore, it's quite natural that blogging platforms that allow keeping diaries, which make it possible to express ideas and thoughts almost anonymously, are very popular platforms among young people.

Manipulation to shape a specific customer response or agenda has become ubiquitous. In this case, the objective reflection of facts is pushed into the background, and the tasks of managing mass perception with the help of fictional events, facts, and processes come to the fore. Moreover, modern Internet technologies make it possible to use computer graphics to create fake news, where it is impossible to distinguish truth from lies without careful specialized expertise.

8.4   Conclusion

Moving on to the conclusions, the authors can safely state that the classic type of public communication, which signified newspaper circulation, radio, and television signals, is outdated. Previously, the recipient was passive, and the public texts were based on the work of a reporter who rushed headlong to the editorial office to the typewriter until other eyewitnesses of the event were ahead. Now the usual production "workshop" of information has become new digital technologies, multimedia editions, which provide ideal matrices of multivariate symbolization mechanisms. Thus, the interactivity and hypertext link that appeared at the end of the twentieth—beginning of the twenty-first centuries gave certain advantages to "new media", and the ability to transform the information area.

Let us build the following chain of transformation of media communications under the influence of digital media, because some points arise from this moment:

- the user actively declares himself as a full participant in the communication process;
- the content of information has begun to express the individuality of the author and the media as a whole;
- multimedia has become a form of a universal language of communication available to most;
- digital media brought the understanding that "here and now" is the key to a user, who values his time and invests it;
- hypertext has become a new alphabet and grammar.

So, we have studied the main characteristics of digital media, as a set of various information flows invented by mankind in the course of technical, cultural, and historical development. First of all, it's the predominant visual character of digital media, which refers to television, advertising, films, and books. The authors also include all electronic means, which are based on digital codes: the Internet, computer games, pocket PCs, smartphones, e-books, and dialogue television. Secondly, it's the ability to leave comments in an interactive format. Providing a similar variation are tablets, mobile phones, and computers, where web blogs are created, which can additionally be used to communicate with other blogs, websites, and different media similar in a combination of text, image, and interests.

As a result, subjects of digitalization have the opportunity to do the following:

(1)   use various information resources and media capabilities as a tool for building the desired content;
(2)   organize connections between individuals for the cooperation of large masses, where the ease and simplicity of the organization can make the potential audience limitless.

It is important to note the increased possibilities of using various online resources as a tool for creating not only local networks but also their content. As a result, new norms and institutions of information interactions can be used as an effective way

of communication between individuals, for cooperation and socialization of large masses, because the ease of use of social networks makes the potential audience limitless. There also appeared the opportunity to generate and change the content of information in any direction: in the area of advertising; in the area of industry and business; in the area of medicine and education; in the area of forming a perspective of a negative or positive political image, etc., depending on the aim of the original message.

It is expedient to focus separately on the relevance of new elements of research in the area of science. So, virtual social networks began to act as an addition and expansion of the individual's behavioral practices. From this moment, they can dictate fashion, behavior, political, and other preferences of a modern person, up to interference with its physical and mental state. This fact is usually interpreted as a psychological influence, but it was said about the possibilities of a more cardinal influence on the consciousness of an individual, who is becoming—every year—increasingly dependent on virtual space and virtual images. The authors also assume the relevance of a further scientific understanding of such elements of the novelty of their research as the impact on the sociopolitical behavior of a person and his psychological state of two parallels—online and offline life, which is associated, first, with the leveling of morality and manifestations of a deviant behavior in virtual communication and, second, with the ability of subjects of digitalization to develop and implant the necessary identities in society.

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