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'DISCURSIVITY' OF DIGITAL MEDIA: A THEORETICAL CONCEPT OF CONTEMPORARY DIGITAL MEDIA AND ITS TRADITION IN THE HISTORY OF COMMUNICATION

Abstract: *This article approaches the theory of media aiming at the presentation of models for current developments of digital media. The emerging functions of digital media can be described with the concepts 'convergence' and 'discursivity' from the perspective of the history of research of media and recent theories of media with the overarching philosophical concepts that frame models of digital media in the 20th and 21st century. The concept of 'convergence' is considered to be a part of the quality of discursivity of digital media. This concept will be shown in current applications of digital media arguing that 'convergence' is an implicit historical phenomenon of any medium and the concept of communication itself can be traced back to the discipline rhetoric. With the models we will show that 'discursivity' of digital media involves three levels for the digitally encoded communication (contents, user, media) for discourse, which takes place in digital media.*

Keywords: *digital media, discursivity, convergence, rhetoric, communication*

Introduction

The concept of the 'medium' we use today in modern languages is not associated with the Latin term 'medius' in the Roman culture. As a teacher of the oldest discipline of communication, rhetoric, Quintilian mentions in the *Institutio Oratoria* (1.2.18.) that the future orator must live in the middle of the light of the public ('in media rei publicae luce vivendum est'):

Ante omnia futurus orator, cui in maxima celebritate et in media rei publicae luce vivendum est, adsuescat iam a tenero non reformidare homines neque illa solitaria et velut umbratica vita	It is above all things necessary that our future orator, who will have to live in the utmost publicity and in the broad daylight of public life, should become accustomed from his childhood to move in
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palescere.

society without fear and habituated to a life far removed from that of the pale student, the solitary and recluse. (Tr. Butler)

The post-classical Latin term *mediator* was used especially in ecclesiastic Latin. It occurs in the *Vulgate* (Gal. 3.20.), in the sentence “Mediator autem unius non est. Deus autem unus est” for the translation of the Greek “ὁ δὲ μεσίτης ἑνὸς οὐκ ἔστιν, ὁ δὲ θεὸς εἷς ἐστίν.”) (*A Latin Dictionary* 2018: n. pag.). For the contemporary use of the word, *media* as plural of *medium* is in the *Dictionary of Media and Communications* defined as 1. any means of transmitting information, and 2. various forms, devices, and systems that make up mass communications considered as a whole, including newspapers, magazines, radio stations, television channels, and websites (2009: 192). In *New Media. A Critical Introduction* the following was stated:

“For some sixty years the word ‘media’, the plural of ‘medium’, has been used as a singular collective term, as in ‘the media’ (Williams 1976: 169). When we have studied the media we usually, and fairly safely, have had in mind ‘communication media’ and the specialized and separate institutions and organizations in which people worked: print media and the press, photography, advertising, cinema, broadcasting (radio and television), publishing, and so on. The term also referred to the cultural and material products of those institutions (the distinct forms and genres of news, road movies, soap operas which took the material forms of newspapers, paperback books, films, tapes, discs” (2009: 9).

How do media act as means of communication? Besides the concept of ‘convergence’, we will use the concept of ‘discursivity’ as heuristic theoretical tools for digital media. If we follow the main theory of convergence, digital media have the tendency to fuse and merge separated media, while employing digitalization in a process, which also has an impact on the presentation of the contents. We employ here the overarching concept of ‘discursivity’ for (a.) the general faculty and application of a discourse and for (b.) the specific communicative quality of a potentially in every direction drifting activity and, when not regulated, any undirected movement. While ‘discursivity’ is a potentially ubiquitous faculty to form

discourses, 'convergence' is a diachronically existing historical phenomenon for the re-formation of media. 'Convergence' can be understood as a selection of movements within the realm of the 'discursivity' of digital media. In contemporary French philosophy, the term 'discursivité' is employed for the comparisons of gestures, spoken and written language. In this vein, in the entry *Philosophies du Langage* in the *Encyclopaedia Universalis*, Cometti and Ricoeur wrote that, in the case of gestural systems, the comparison concerns the character of discursivity common to oral language and written language: "Dans le cas des systèmes gestuels, la comparaison porte sur le caractère de discursivité commun au langage oral et au langage écrit" (2018: 7). The contemporary theory of the convergence of media is most commonly used to describe general features applicable to all media. According to the *Dictionary of Media and Communications*, 'convergence' has two areas of meaning: 'Convergence' is the "erosion of traditional distinctions among media due to concentration of ownership, globalization, and audience fragmentation" and the "process by which formerly separate technologies such as television and the telephone are brought together by a common technological base (digitization) or a common industrial strategy. The Internet is a perfect example of technological convergence" (2009: 77-78). While the first definition refers to economic processes, the second one describes the technological process. In the *Dictionary of Media and Communications*, convergence theory is described as the "view that all media are constantly undergoing convergence" (2009: 78). In the *Introduction* of his book *Convergence Culture Where Old and New Media Collide* (2006), Jenkins stated that 'convergence' applies not only to multimedia technology but also to culture, industry, and socialization:

"By convergence, I mean the flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behavior of media audiences who will go almost anywhere in search of the kinds of entertainment experiences they want. Convergence is a word that manages to describe technological, industrial, cultural, and social changes depending on who's speaking and what they think they are talking about" (2006: 2-3).

Jenkins speaks here about the media audiences, who change their places in order to perceive 'entertainment', and the changes in the technological, industrial, cultural, and social areas as the phenomena of convergence that depend on the speakers and their thinking about the topics of their talks in a discourse about convergence. Jenkins considers convergence to be a phenomenon which is present in the mediated discourse. In the traditional philosophical use of the concept 'discourse', which linguistically is a loanword of the Latin verb *discurrere* for 'to run off in different directions', it refers to all potentially realizable statements about a topic. According to *A Latin Dictionary* by Lewis and Short, *discursus* as a noun derived from *discurrere* mostly occurs in post-classical Latin texts and in Late Latin its meaning changes to 'a conversation' and 'discourse' (2018: n. pag.). In his *Institutio Oratoria* (1.12.10.), the teacher of rhetoric Quintilian employs the term *discursus* for the activity of running around of playing children:

Et patientior est laboris natura pueris quam iuuenibus. videlicet, ut corpora infantium nec casus, quo in terram totiens deferuntur, tam graviter adfligit nec illa per manus et genua reptatio nec post breve tempus continui lusus et totius diei discursus, quia pondus illis abest nec sese ipsi gravant: sic animi quoque, credo, quia minore conatu moventur nec suo nisu studiis insistunt, sed formandos se tantummodo praestant, non similiter fatigantur.

Just as small children suffer less damage from their frequent falls, from their crawling on hands and knees and, a little later, from their incessant play and their running about from morn till eve, because they are so light in weight and have so little to carry, even so their minds are less susceptible of fatigue, because their activity calls for less effort and application to study demands no exertion of their own, since they are merely so much plastic material to be moulded by the teacher. (Tr. Butler)

Cicero employed the term *communicatio* for 'making common', 'imparting', and 'communicating' in public life in expressions like "largitio et communicatio civitatis" (Balb. 13.31.); we can assume that the concept of communication is a rhetorical one. The term *communicatio* is used for a figure of speech equivalent to the Greek term *anacoenosis* (ἀνακοίνωσις) for the appeal to the audience for their opinion (Cicero, *De Oratore* 3.53.204.; Quintilian, *Institutio Oratoria* 9.1.30.; 9.2.20.

and 23.) (*A Latin Dictionary* 2018: n. pag.). This figure of the *communication* is an example of 'convergence' in the medium of the human voice for the spoken and rhetorically formed human language in a speech. This participation of the audience in a speech in the framework of the discipline rhetoric is the first application of the concept of communication in a theoretical context of 'discursivity' of rhetorical speech. It creates a situation of communication from one to many participants comparable to traditional and broadcasting mass media in a single direction of communication from one source to many receivers. The discipline rhetoric was *logos/speech-centered* even after the decline of its classical age, while the concept of 'discourse' developed in Europe in the post-classical time to a scholastic dialectical form and a way of expressing ideas in written and spoken form among philosophers in post-medieval Europe. Most strikingly, Foucault identified discourse as an institutionalized form of power, which allows a person to participate from the inside or from the outside in the French original book *L'Ordre du Discours* (1971) and in the English translation of the lecture *The Discourse on Language* (1972):

Il y a chez beaucoup, je pense, un pareil désir de n'avoir pas à commencer, un pareil désir de se retrouver, l'entrée de jeu, de l'autre côté du discours, sans avoir eu à considérer de l'extérieur ce qu'il pouvait avoir de singulier, de redoutable, de maléfique peut-être. A ce vœu si commun, l'institution répond sur le mode ironique, puisqu'elle rend les commencements solennels, puisqu'elle les en toure d'un cercle d'attention et de silence, et qu'elle leur impose, comme pour les signaler de plus loin, des formes ritualisées (1971: 8-9).

A good many people, I imagine, harbour a similar desire to be freed from the obligation to begin, a similar desire to find themselves, right from the outside, on the other side of discourse, without having to strand outside it, pondering its particular, fearsome, and even devilish features. To this all too common feeling, institutions have an ironic reply, for they solemnise beginnings, surround them with a circle of silent attention, in order that they can be distinguished from far off, they impose ritual forms upon them (1972: 215).

The discourse as an abstract form of communicating (and in Foucault's approach also as a form of communicating power) can be considered as an overarching framework of communication. In the discourse, the phenomenon of

convergence is a formal process of the communication. Its opposite direction, divergence, means, in terms of media, that previously merged media are separated and become isolated in different places in this process. As for the theoretical foundations of mediated communication, the concept of the 'discourse' is helpful, since it entails movements like 'convergence'. Discourse is the formal representation of the mediated discourse. Foucault spoke about the institutions, which rule the discourse using *ritualized forms* (*formes ritualisées*). In the *Oxford English Dictionary* the contemporary meaning of 'discourse' is defined as 'written or spoken communication or debate', a 'formal discussion of a topic in speech or writing', and in linguistics as 'connected series of utterances' and 'a text or conversation' in the tradition of the philosophical and rhetorical disciplines (2018: n. pag.).

As for digital media, the conceptual framework of their communication as convergence is based on the linguistic representation of a word for movements: The verb *convergo* has the meaning 'to incline together'. It refers to any process of movement and was used in Late Latin in the expression "*punctus quo cuncta convergunt*" by Isidore (Orig. 3.12.1.) for a movement in one direction in geometry (*A Latin Dictionary*: n. pag.). On the contrary, we have seen that *discurro* is used for a movement in any direction. *Divergere* is a Neolatin term equivalent to the English loanword 'diverge' (*Latdict Dictionary* 2018: n. pag.). *Divergere* and *convergere* derive from *vergo*, which is related to the Pokorny *etymon* 1154 *uer-*, *uer-g-* with the meanings 'to turn' and 'wrench' (*Pokorny's Masterlist* 2018: n. pag.). These linguistic meanings demonstrate that the conceptual research framework for communication employs concepts for directed movement. As for the concept of 'discourse', it entails the processes of 'convergence' and 'divergence'. As a practically employed term, only 'convergence' is used as a meta-concept of research about media communication.

The Digital and the Code in the Media Theory before the Emergence of Digital Media

With the occurrence of new mass media in the 20th century, an adequate theory describing how they work was needed for the adaptation to the new media. Shannon and

Weaver's theory of mathematical communication matched this need with a theory for media, which transmit information by electricity and signals. Shannon and Weaver's model of mediated communication entailed basically 'sender', 'receiver', and 'channel'. In *A Mathematical Theory of Communication* (1948), Shannon distinguished 'information', 'source', 'message', 'transmitter', 'signal', 'receiver', 'destination', and 'noise' (1948: 2). The medium as a means of communication from one sending source to many receivers became the topic of research of mass media studies, which not only aimed at the theory of the technical aspects but also focused on the social and cultural impacts of the mass media. In *A Mathematical Theory of Communication*, Shannon employed the concept of the code for 'channel'. As for the 'transmitter', "which operates on the message in some way to produce a signal suitable for transmission over the channel", Shannon mentions the example of telegraphy, where "we have an encoding operation which produces a sequence of dots, dashes and spaces on the channel corresponding to the message" (1948: 2). According to Shannon, the "different speech functions must be sampled, compressed, quantized and encoded, and finally interleaved properly to construct the signal. Vocoder systems, television and frequency modulation are other examples of complex operations applied to the message to obtain the signal" for the digital representation of analog signals in a multiplex PCM system (1948: 2). The digitally encoded information is mentioned by Shannon, when he raised the questions 'How is an information source to be described mathematically, and how much information in bits per second is produced in a given source?':

"The main point at issue is the effect of statistical knowledge about the source in reducing the required capacity of the channel, by the use of proper encoding of the information. In telegraphy, for example, the messages to be transmitted consist of sequences of letters. These sequences, however, are not completely random. In general, they form sentences and have the statistical structure of, say, English. The letter E occurs more frequently than Q, the sequence TH more frequently than XP, etc. The existence of this structure allows one to make a saving in time (or channel capacity) by properly encoding the message sequences into signal sequences. This is already done to a limited extent in telegraphy by using the shortest channel symbol, a dot, for the most common English letter E; while the

infrequent letters, Q, X, Z are represented by longer sequences of dots and dashes" (1948: 5).

In *Closing Statement: Linguistics and Poetics* (1960) Jakobson used the concept of the code for linguistic communication. As elements of linguistic communication, Jakobson here mentioned the 'addresser', 'addressee', 'context', 'message', 'contact', and 'code' (1960: 357). In the second half of the 20th century, when digital technology was on the verge to becoming a mass phenomenon, media scientist McLuhan and Fiore in *The Medium is the Massage* (1967) suggested that a medium is an extension of a human faculty:

"All media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the message. Any understanding of social and cultural change is impossible without a knowledge of the way media work as environments. All media are extensions of some human faculty — psychic or physical" (1967: 26).

According to the chronological timeline of communication theories in the *Encyclopedia of Communication Theory* (2009), the media theory expanded in the first half of the 1970s: Noelle-Neumann proposed the approach to understanding public opinion known as the 'spiral of silence' of minorities, McCombs and Shaw's agenda setting theory elicited "a decades-long interest in ways that the media and audiences shape the public agenda of important issues", and Gerbner began research on 'cultural indicators' and investigations of media impacts on culture and the development of 'cultivation theory', while at the same time the U.S. Surgeon General's 1972 reported on television violence (2009: lxiii).

Which is the human faculty we can consider to be an extension of the digital media as stated by McLuhan and Fiore? Is it the memorizing and copying function of the brain as a means storing encoded information with the tendency to have information ubiquitously available? Examples would be the email we send to any receiver or the digital image we take with a digital camera or a mobile device as memorized copies. The creation of virtual digital worlds, the designed interfaces of social media, and

the animation of digital materials are copies without the original, *simulacra* in digital codes without any representative function. In *Simulacres et Simulation* (1981), Baudrillard described simulation as a process opposite to representation:

Telle est la simulation, en ce qu'elle s'oppose à la représentation. Celle-ci part du principe d'équivalence du signe et du réel (même si cette équivalence est utopique, c'est un axiome fondamental). La simulation part à l'inverse de l'utopie du principe d'équivalence, part de la négation radicale du signe comme valeur, part du signe comme réversion et mise à mort de toute référence. Alors que la représentation tente d'absorber la simulation en l'interprétant comme fausse représentation, la simulation enveloppe tout l'édifice de la représentation lui-même comme simulacra (1981:16).

Such is the simulation, inasmuch as it is opposed to representation. This is based on the principle of equivalence between sign and reality (even if this equivalence is utopian, it is a fundamental axiom). The simulation begins with the utopia of the principle of equivalence of the radical negation of the sign as a value and of the sign as a reversion and the killing of all references. While the representation attempts to absorb the simulation by interpreting it as a false representation, the simulation envelops the entire edifice of the representation itself as a simulacrum.

For Baudrillard, a simulation has neither a semiotic reference as a sign with a meaning it signifies as a reference object, nor a reality and truth of its own; the simulacrum is a construct without any reference or the value to be real. The 'simulacrum theory' emerging from Baudrillard's essay represents a view "claiming that the media simulate reality and in so doing impart the sense that they are indistinguishable from reality. In effect, audiences end up not being able to distinguish between reality and media simulations (called *simulacra*)" (Danesi 2009: 271). According to the chronological account of the development of communication theory in the *Encyclopedia of Communication Theory*, in the first half of the 1980s an awareness of the communication theory of a rational discourse in the 'public sphere' presented by the philosopher Habermas emerged among U.S.-American communication scholars (2009: lxvi). Media response theories continued to develop; Donohew and Palmgreen introduced their activation theory of communication

exposure in the early 80s. Fish introduced the idea of 'interpretive communities' of a text in *Is There a Text in This Class? The Authority of Interpretive Communities* in 1980. During the second half of the 1980s, an increasing attention was given to global communication, and at the end of the decade, Beck proposed a critical paradigm of 'globalization' (2009: lxvi). The emergence of the internet as a means of digital communication for wide distances and the World Wide Web as one of its applications enables an increasing number of users to join the digital media since the middle of the 1990s.

The Digital and the Code in Media Theory after the Emergence of Digital Media

As stated by Dijk, characteristics of the digital media are the digital code, multimodality, and interactivity (2004: 146-148). The question 'What is Digital Media?' the *Centre For Digital Media* in Vancouver answers as follows:

"Digital Media is a blend of technology and content, and building digital media products requires teams of professionals with diverse skills, including technical skills, artistic skills, analytical and production coordination skills. All of these skills need to be balanced on a team, with all team members focused on creating the best user experience" (2017: n. pag.).

The *Centre For Digital Media* mentions as digital media products applications of eCommerce, games, websites, mobile applications, animations, social media, video, augmented reality, virtual reality, data visualization, location-based services, and interactive storytelling (2017: n. pag.). From the 1990s onwards, media research responded to the increasing number of applications of the digital media with studies about the range of digital applications. When the computer became the central device for the use of communication and opening device for the digital space, the terms 'cyberspace' and 'virtuality' were employed for computer-mediated communication. During the first half of the 1990s new communications technologies gave rise to the study of 'virtual relationships', while the internet was already used by research communities (*Encyclopedia of Communication Theory*. 2009: lxvii). Walther presented the social information processing theory of computer-mediated

communication (CMC) in 1992. Rheingold published his book *The Virtual Community: Homesteading on the Electronic Frontier* (1993), with a focus on the new technologies of digital cultures in the cyberspace. In 1999, Van Dijk published *The Network Society* in Dutch, with the title *De Netwerkmaatschappij*. In 1995, Poster announced the arrival of the 'second media age', arguing that new electronic media like the internet and virtual reality allow calling the contemporary time a 'second media age' in contrast to the 'first media age' with the traditional media and the broadcast media. In the second half of the 1990s, new developments in media brought about shifts in the theoretical scholarship (*Encyclopedia of Communication Theory*. 2009: lxvii). Reeves and Nass introduced the media equation theory suggesting that people treat media like persons. After 2000 DeGrazia, Tunstall, and van Elteren raised the awareness of the Americanization of media (*Encyclopedia of Communication Theory*. 2009: lxviii). Van Dijk stated in *The Network Society. Social Aspects of New Media* that "the most recent technical communications revolution is characterized by the introduction of digital artificial memories, and digital transmission and reproduction. The term 'digital revolution' is appropriate in this context" (2005: 6). Van Dijk here also states that the

"digital code is a technical media characteristic only defining the form of new media operations. However, it has great substantial consequences for communication. Digital code means that in using computer technology, every item of information and communication can be transformed and transmitted in the form of strings of ones and zeros called bytes, with every single 1 and 0 being a bit. This artificial code replaces the natural codes of the analogue creation and transmission of items of information and communication" (2005: 6).

Not only the traditional and the broadcast media can be implemented into the digital media. The oldest medium of communication, the human voice, is a means of digital communication. The practice of the discipline of persuasive communication associated with the human voice as its main medium takes also place as applied rhetoric in the environment of digital media. Eyman in *Digital Rhetoric: Theory, Method, Practice* (2015) in the chapter *Digital Rhetoric and Contemporary*

Rhetorical Theory stated that “the literature that draws on contemporary rhetorical theory—from Foucault, to Derrida, to Covino, to Deleuze and Guattari—to inform digital texts, new media, systems, networks, and digitally mediated organizations is vast” (2015: n. pag.). Eyman uses the concept of the ‘rhetorical situation’, the *kairos*, which was first described in classical Greek rhetorical treatises. As for the relation between ‘digital rhetoric’ and ‘digital identity’, Eyman stated that

“identity has been a concern for digital rhetoric since the advent of networking technologies, and quite a few scholars have theorized how digital space complicates, facilitates, or subverts the very notion of individual identity. Specifically important to digital rhetoric are ‘networks’ with nodes and links, protocol, and networked publics: “If the interface is the location and text most often addressed as the focal point of digital rhetoric investigations, it is the access to the network that such interfaces provide that has most fundamentally changed the way that digital texts use and enact digital rhetoric practices and principles” (2015: n. pag.).

Eyman uses the concepts of ‘energy flow’ referring indirectly to the classical concept of ‘*enargeia*’ (‘*ἐνέργεια*’) in the Greek terminology of rhetoric, and ‘material cycling’: “The circulation of materials occurs in the use, remix, and appropriation of digital texts, and the energy that drives this circulation comes from the rhetorical activity of digital bricoleurs, often operating within particular social networks (in ecological terms, these are communities that inhabit specific ecosystems)” (2015: n. pag.).

On the verge of the emergence of the internet as a mass medium, Sloterdijk wrote in the *Critique of Cynical Reason* (1987) that the identity of the human is a Western phenomenon in the chapter *Critique of the Illusion of Privacy*:

“The mania for “identity” seems to be the deepest of the unconscious programmings, so deeply buried that it evades even attentive reflection for a long time. A formal somebody, as bearer of our social identifications, is, so to speak, programmed into us. It guarantees in almost every aspect the priority of what is alien over what is one's own. Where “I” seem to be, others always went before me in order to automatize me through socialization” (1987: 73).

With the emergence of 'social media' as a special type of the digital media, the borders between the zones of the private and the public sphere become blurred. This is one of the most obvious phenomena of the life in the digital age, which puts an end to the Greek cultural heritage of the value of the distinction between privacy and public life. Habermas, as a contemporary philosopher, represents the tradition of such classical conceptions of the private and the public sphere. In 2014, in the *Feuilleton* of the *Frankfurter Rundschau*, Habermas described the internet as a medium of the 'distraction' and 'dispelling' of the public, while in the time before the emergence of the internet the attention of the public was concentrated on politically important questions in the mass media as regulators:

"After the inventions of *writing* and *printing*, *digital* communication represents the third great innovation on the media plane. With their introduction, these three media forms have enabled an ever growing number of people to access an ever growing mass of information. These are made to be increasingly lasting, more easily. With the last step represented by Internet we are confronted with a sort of 'activation' in which readers themselves become authors. Yet, this in itself does not automatically result in progress on the level of the public sphere. (...) The classical public sphere stemmed from the fact that the attention of an anonymous public was "concentrated" on a few politically important questions that had to be regulated. This is what the web does *not* know how to produce. On the contrary, the web actually distracts and dispels." (14/15 June 2014: n. pag.)

In Habermas' opinion, the contents of the internet is neither limited to a selection of questions nor able to establish a regulation like the media of the classical 'public sphere', in which the roles of the producing writer/author and the receiving readers are no longer separated, an effect Habermas calls 'activation'. It can be argued that the loss of a strict distinction between author and reader and the merging of the private and the public sphere, which takes place in the social media, is a part of the phenomenon of 'convergence' of digital media. This process blurs the lines between participants of both spheres, for example, a privately using individual person and a user who is actually part of a corporate organization.

Digital Coding and Discursivity: Models of Media and their Technology and Examples in Digital Mass Media

Sharing a common digital code is the specific quality of the digital media. This quality is the condition for their ability to build a common discourse as a media unit and to allow users to participate in discourses, which are technically based on the exchanged code in digital communication. Among the various types of media, digital media share a common coding of the information. After the emergence of the digitalization, which allowed the implementation of digital coding for many digital media devices, the digitalized information can circulate discursively among these devices and even among the non-digital media, which absorb their information. These media have the ability to establish discourses within the range of the digital mode of communication. The intrinsic ability of digital media is that they are able (and we can call this again a phenomenon of 'convergence') to encode more than one medium as a copy or simulate as simulacra more than one medium; they can encode writing, sounds, and voices as well as articulated language, still images, and moving images. The 'discursivity' of digital media depends on the condition of access. Access to digital media is possible via modems of telephone circuits, broadband, Wi-Fi, satellite technology, and cellular telephone technology. The convergence of the digital media allows the implementation of functions of older analog audio, visual, and audiovisual media. Purely digital media like blogs maintained by individual persons, website presentations of organizations, platforms with streaming media, videos, live streaming via cameras and webcams, webcasts reaching multiple viewers simultaneously, and podcasts for music emerged from the tradition of broadcasting media communicating in one direction. Interactive discourses in digital media applications in the tradition of reciprocal communication are discussion forums, chats, social media applications, and media using voice and audiovisual applications as well as digital telephone technology.

'Discursivity' of the digital media relies on the convergence of previously existing media. The process of embedding media can be described as an economic principle, which allows an ongoing process of communication.

Type of Medium	Human → bodily media	Human → craft- supported media	Technical → media / Broadcasting media	New media / Digital media
Function of Media	Communi- cating	Recording	Communi- cating and recording	Communi- cating and recording
Means of Communication	Physical mediated communi- cation	Symbolically mediated communi- cation	Technically mediated communi- cation	Digitally mediated communi- cation
Examples	Sensually perceivable media from human bodily faculties (voice, gestures and mimic expressions)	Writing Graphic forms and images	Photography Film Telegraph Radio Television Fax Video	Internet Digital devices

Table 1 - 'Convergence' as Process of Embedding Media
as a Principle of Communication

The classical sender-receiver model by Shannon and Weaver can be used as the basis for a communication model of the digital media with a sender, a channel, and a receiver. In contrast to models of traditional media with a flow of information in one direction, the digital media allow multiple flows of information in many directions and exchange between the functions of sender and receiver. The *conditio sine qua non* is the digitally encoded format of the contents and its communication in a digital media network, which is discursive, i.e. allows contents to move in various directions. The more intense this discursivity and the ability to communicate contents to a wider audience are, the stronger the tendency of the digital medium to act as a mass medium communicating contents to a mass audience is present (cf. the example of sending a private email and uploading a video to *Youtube*).

<p>Participant(s) of the Discourse as Sender(s) / Receiver(s) (Shannon 'source'; Jakobson 'addresser')</p>	<p>Discursivity of the users</p>
<p>↕</p>	<p>↕</p>
<p>Contents of the Discourse in a Digitally Encoded Format (Shannon 'information' / 'message', 'transmitter' / 'signal'; Jakobson 'message')</p>	<p>Discursivity of the contents</p>
<p>Discursive Digital Media Network (Jakobson 'context', 'contact', and 'code')</p>	<p>Discursivity of the media</p>
<p>↕</p>	<p>↕</p>
<p>Participant(s) of the Discourse as Receiver(s) / Sender(s) (in a potentially endless number) (Shannon 'receiver' / 'destination'; Jakobson 'addresser')</p>	<p>Discursivity of the users</p>

Table 2 - Communication Model of Digital Media

'Discursivity' involves three levels of the digitally mediated communication of (1) the digital content, (2) the users who participate in the digitally mediated discourse, and (3) the digital media:

1. The level of the digital contents is equipped with the function to move in different directions within the digitally mediated discourse. At this level, the digital/digitalized contents are communicated within the framework of digital communication.
2. The level of the users who formulate their discourses is the level of digitally mediated human communication of the user-created and interactively communicated contents.
3. The level of the media as digital means of communication allows the digitally mediated discourse to take place and frame its paths.

What is communicated in digital media as mediated contents? How do digital media communicate their contents? As for the formation of the digital contents in media, we can distinguish as semiotic aspects the 'presentation', the 'representation' and the 'simulation' of contents:

Semiotic Mode of Contents	Description	Example
Presentation	Present existence of contents	Writing in <i>E-Mail</i>
Representation	Contents as the meaningful existence of representative carrier(s) of meaning	<i>Icon, Emoji</i>
Simulation	Presence of not in reality existing and not-representing contents	<i>Virtual Reality</i>

Table 3 - 'Presentation', 'Representation', and 'Simulation' as Semiotic Aspects of Digital Contents

Discourse and Discursivity of Digital Media beyond Interactivity of Digital Media

Dijk defines interactivity as "a sequence of action and reaction" at the most elementary level of the "possibility of establishing two-sided or multilateral communication", the second level of "synchronicity", the third level of the extension of "control exercised by the interacting parties", and the fourth level of "acting and reacting with an understanding of meanings and contexts by all interactors involved" (2004: 147-148). 'Discursivity' serves as a concept, which can support the description of the particular features of digital media in an advanced state of the art, where concepts like 'interactivity' and 'multimediality' refer to the communicative technical capacity of the media, but lack to refer to overarching and general communicative actions. As for the *status quo* of technical applications of digital media, it is possible to have traditional and established format and disciplines of communication implemented in it: Human bodily communication can be

practiced in audio-visual digital media. Providers of mass media communication have websites and online platforms for the presentation of contents in audio-visual formats. Traditional and analog mass media like printed books, journals, other types of documents, and analog recordings of music can be stored in digital media. Broadcasting of TV, radio, and video can be accomplished technically in digital media. The discourse of the digital media entails all potential statements that can be made about the topic. This discourse does not rely on digital media. The 'discursivity' of digital media is their ability to produce a forming discourse.

Coding in digital media concerns not only one medium but a variety of media. Coding a digitalized code is a part of the overarching digital form. The coding is kept in the transmission process. It is not altered as long as the content is digitally circulated. 'Digital content' is the overarching concept of what is communicable in digital media. 'Convergence' is the principle, which allows the embedding of human discourse in all digital media that share the digital code. With the feature of 'multimediality', it enables the users to communicate contents which consist of more than one medium. Interactivity of the participating communicators is not a technical feature but needed for the performance of a discourse, in which more than one person is engaged. Emails, social media like *WhatsApp* and *Facebook*, and instant chats of websites are examples. In *Introduction: Social Media Discourse, (Dis)Identification and Diversities*, Leppanen, Kytola, Westinen, and Peuronen distinguish between asynchronous and synchronous digital discourse – the asynchronous digital discourse is a

“discourse that is not necessarily produced on the spur of the moment but that can involve different degrees of planning and revising, and that is technically available for later viewing for an undefined period. Its asynchronous nature may lead to more complex rhetorical, stylistic and content crafting than is typical in synchronous digital discourse” (2017: 18).

Discourse as human communication can have both the structure of interpersonal communication or of meditated mass media communication. Discourse as a monologic communication in the digital media is performed with one or many receivers. Discourse as the interactive form of communication in the digital

media can be performed with one participant communicating to many or many participants communicating to one or many participants. The 'discursivity' of the digital media is the underlying function of providing the technical devices for interactive communication across a wide range of digital media with digitally coded contents with multimedia features.

Media convergence is not a phenomenon unique to the digital media emerging in the last decades of the 20th century. In the history of media, convergence as the absorption of an older medium in a newer one is not a phenomenon of the digital media. As an economic principle of efficient communication, it can be traced to the ancient discipline of rhetoric and its figure of 'communication' (*communicatio*), which is the appeal to the audience for their opinion as an interactive exchange formulating a dialogue with the audience in the speech. As for the convergence of speech as a dialogue anticipating the interactivity of communicative exchange in the digital media, the written dialogues of Plato can be mentioned as examples, which opened a long tradition of European philosophical writings in a dialectical or discursive format. The Baroque culture with the concept of the '*Gesamtkunstwerk*', a complete work of art consisting of many parts, such as the opera or the emblem books with a composition of written texts and images in one meaningful piece of art, is an example of the époque of modernity. The creation of art objects, which refer to more than one medium of perception, was present after WWII in multimedia installations that implement digital contents of computers in artifices.

Conclusion

In the paper, we presented 'discursivity' as a theoretical concept of contemporary digital media with a tradition in the history of communication in order to describe the specific communicative situation of digital media. While 'discursivity' is a concept which analytically describes the contextual feature of a relatively new media format, the digital media, this theoretical concept stems from a long tradition in the scholarly disciplines of communication. We showed that 'discursivity' of the digital media takes place at the three levels of the digital content, the users participating in the digitally mediated discourse, and the digital media. Any medium has the capacity to function as a

means of 'discursivity', if its content is formal and communicable. The specific medium for communication as means and tool defines and limits the framework of its discourse due to its specific features of 'discursivity'. Writing is limited to written language, a visual medium is limited to visual contents, and a medium for audio formats is limited to the presentation of sound. Multimedia composites fuse contents from different channels, but in a digitalized form such composites share the same basic code. As an addition to Foucault's identification of the discourse as an institutionalized form of power, we can state that 'discursivity' is the specific quality of the digital media to shape a form which expresses power as the relationship between communicating entities in a digital environment.

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