











ChatGPT, LaMDA, and the Hype Around Communicative AI: The Automation of Communication as a Field of Research in Media and Communication Studies

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Abstract

The aim of this article is to more precisely define the field of research on the automation of communication, which is still only vaguely discernible. The central thesis argues that to be able to fully grasp the transformation of the media environment associated with the automation of communication, our view must be broadened from a preoccupation with direct interactions between humans and machines to societal communication. This more widely targeted question asks how the dynamics of societal communication change when communicative artificial intelligence—in short: communicative AI—is integrated into aspects of societal communication. To this end, we recommend an approach that follows the tradition of figurational sociology.

Keywords: automation of communication, artificial intelligence, communicative AI, algorithms, agency, communication, figuration

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Introduction

Current media coverage surrounding ChatGPT, LaMDA, and Luminous has brought questions about the automation of communication into the mainstream: Artificially intelligent media are no longer merely mediating instances of communication, but are themselves becoming communicative participants. This has generated broad public discussion about these systems and the challenges they bring to fields such as education, public discourse, and journalistic production.¹ In light of this intensifying discussion, researchers who have been working on the topic for a longer time warn against blindly embracing the hype.²

As media and communications researchers, we don't want to ignore these warnings and want to avoid getting caught up by the hyperbole. Nevertheless, communication technologies such as ChatGPT, LaMDA, and Luminous need to be taken seriously as they genuinely represent a new step in the automation of communication—a process that is nevertheless persistent and opens up a great deal of further discussion. The role played by bots and algorithmic personalization on social media platforms in the spread of fake news and hate speech, for example, have inspired fervent academic discussion (i.e., Lazer et al., 2018). Systems such as Amazon Alexa, Google Assistant, Microsoft Cortana, or Apple Siri have existed for nearly a decade forcing us to question our thinking about human communication and agency (i.e., Guzman, 2015). Questions of automation have been addressed further in discussions about news production (i.e., Thurman et al., 2019), surveillance capitalism (i.e., Zuboff, 2019) and data colonialism (i.e., Couldry & Mejías, 2019).

In principle, the automation of communication has a much longer history than recent public discussions might imply and can affect all areas of social life. However, it is particularly important where *societal* communication is concerned, as can be illustrated in the example of journalism. Here, the automation of communication plays a dual role: internally, for example, when journalistic working practices change as a result of the automated production and distribution of content (Carlson, 2018; Diakopoulos, 2019), and externally, when content created in this way becomes part of the public discussion (Graefe & Bohlken, 2020; Volcic & Andrejevic, 2023).

These examples indicate that automated communication systems have become part of our media environment and are thereby appropriated in specific ways in various societal domains, such as public discourse, journalism, politics, and education. This development poses considerable challenges (Fortunati & Edwards, 2020): empirically, in terms of how automated communication can be researched, and theoretically, in that the fundamental concepts of *agency*, *media*, and *communication* are dramatically altered.

With this article we want to define the automation of communication as a research area in more detail. Our main thesis is that if we are ever going to comprehensively deal with the transformation of our media environment associated with the automation of

1. This is exemplified by a simple GoogleTrends analysis, which shows increasing interest in ChatGPT worldwide from November 27, 2022, with a peak on February 12, 2023. Retrieved March 10, 2023, from <https://trends.google.de/trends/explore?q=ChatGPT>

2. As an example, among others, reference can be made in this regard to a discussion between Emily M. Bender and Casey Fiesler. Retrieved March 10, 2023, from <https://web.archive.org/web/20230303074525/https://www.radicalai.org/chatgpt-limitations>

communication, we have to address our investigation more broadly from investigating the *direct interaction of humans and machines* to *societal communication*. In broadening our view, we are compelled to ask how the dynamics of societal communication change when ChatGPT, LaMDA, Luminous, and comparable technologies become an integral part of it.

To support this reasoning, we first take a closer look at the automation of communication as a phenomenon. Against this background, we engage with the notion of *communicative AI*, which we believe can operate as a “sensitizing concept” (Blumer, 1954, p. 7) that directs us to the true breadth and depth of the phenomenon. Subsequently, we show how a figurational approach can be used to analyze automated automation as part of societal communication and connect the discussion to already existing “definitive concepts” (Blumer, 1954, p. 7) familiar to media and communication studies.

The Automation of Communication: An Emerging Subject in Media and Communication Studies

It would certainly be a misconception to assume that the automation of communication is only a subject of the most recent media and communications research. If we look historically at the emergence of today’s digital systems of automated communication, we can see that they are closely interconnected with cybernetics (Turner, 2006), and identify links to media and communication theory from as far back as the 1970s. Cybernetics has always addressed questions of (communicative) automation, albeit through a primarily technical lens (i.e., Bibby et al., 1975). At the same time a rapprochement between cybernetics and the social sciences took place only to a limited extent. One of the reasons for this restraint was that the mathematical theory of communication present in the early cybernetic discussion (Baecker, 1997, p. 11), stood in contrast to social science’s interests that have tended to focus on meaning and understanding.³ This also applies to the “post-discipline” (Waisbord, 2019, p. 1) of media and communication studies⁴: Even in James R. Beniger’s *The Control Revolution*, the automation of communication remained a rather marginal topic (1986, pp. 304–307). This was contrasted by research in informatics, where the potential of automating communications was an important research topic very early on, inspired in large part by *The Computer as Communications Device*, a 1968 article by J. C. R. Licklider and Robert W. Taylor. This discussion, for example, about the Turing Test or Weizenbaum’s (1966) ELIZA, took place largely outside the purview of media and communication studies (i.e., Searle, 1980) and was only really addressed as a historical discussion after systems of automated communication became a more widespread phenomenon (Natale, 2021b). There are very few exceptions (Gunkel, 2012).

In a coarse simplification—sometimes necessary in the context of reconstruction—we can describe media and communication studies’ increasing interest in questions of

3. This is exemplified by the analysis of the dominant communication theorists until the end of the 1980s (Beniger, 1990).

4. Silvio Waisbord uses the term “post-disciplinary” to summarize that for media and communication studies “disciplinary boundaries are fluid” and that it is an “intellectually open enterprise rather than a traditional endeavor interested in defining and patrolling epistemological boundaries” (131) (2019, pp. 127, 131); see also Livingstone, 2009; McQuail & Deuze, 2020.

automated communication as having taken place along three steps toward addressing digital communication. Temporally speaking, there are various overlaps between them, although their distinction makes sense in that they each stand for different discursive contexts in scholarly thinking about automation in relation to communication.

In the *first stage*, media and communication studies turned to digital communication by asking how communication itself and social relationships change when media become digital. The dominant concept in media and communication studies became that of “computer-mediated communication” (CMC) (Chesebro & Bonsall, 1989; Jones, 1998) and scientific interests turned to person-computer interaction (Cathcart & Gumpert, 1985; Morris & Ogan, 1996) as well as the growth of online relationships and communities (Baym, 1994; Wellman et al., 1996). This research on transforming communications was related to more general discussions about an emerging information society (see, among others, Castells, 2000; Mattelart, 2003). Later, media and communication studies research into digital communications turned to broader questions such as the “mediatization of society” (Hepp & Krotz, 2014; Hjarvard, 2013; Lundby, 2014). In all these cases, however, the automation of communication remained a marginal topic, addressed by only a small number of scientists or those working at the fringes of the discipline (i.e., Steels & Kaplan, 2000).

In the *second stage*, questions of digital data and their (societal) contexts of use and exploitation came to the fore—parallel to the fact that technology companies and state actors increasingly discovered the potential of digital data as a commodity or a resource (Zuboff, 2019). The core of the discussion was, at first, a critical engagement with *big data* as an economic, social, and cultural resource (Andrejevic, 2014; Crawford et al., 2014; Gitelman, 2013), which then led to a critique of the progressing datafication of society (Dencik & Kaun, 2020; Flensburg & Lomborg, 2021; van Dijck, 2014). Here, there was also a stronger rapprochement between media and communication studies and science and technology studies, where, for example, expert systems and artificial intelligence had already been closely studied for much longer (i.e., Star & Ruhleder, 1996; Suchman, 1987). This led to, among other things, so-called critical data studies that sat at the intersection of media and communication studies, sociology, and science and technology studies (Burns et al., 2019; Dalton & Thatcher, 2014; Hepp et al., 2022; Iliadis & Russo, 2016; Kitchin, 2014). In contexts like these, discussions have focused on the influence of datafied “platforms” (van Dijck et al., 2018), the need for their “regulation” (Hofmann et al., 2017), “surveillance capitalism” (Zuboff, 2019), “deep mediatization” (Hepp, 2020b), and “data colonialism” (Couldry & Mejías, 2019). Questions of automation have always played and continue to play a role in this discussion about datafication—but less in the sense of automating *communication* than in the sense of automating *data processing*.

In the *third stage* of research on digital communication this turn takes place toward the *forms* of communicative automation. As mentioned above, there were early precursors to this discussion (Gunkel, 2012; for an overview: Richards et al., 2022); however, the foundation of journals such as *Human-Machine Communication* (Fortunati & Edwards, 2020) or a corresponding interest group in the International Communication Association were exemplary for increasing the discursive momentum. A broad discussion took place to clarify the field of human-machine communication (HMC), as well as an institutionalization of the research landscape (Fortunati & Edwards, 2021; Guzman, 2018; Guzman et al., 2023). Nevertheless, it is important to keep in mind that the preoccupation with the automation

of communication in media and communication studies goes beyond the institutionalizing power of HMC, and continues to address questions around topics such as “robot journalism” (Carlson, 2015), “social bots” (Gehl & Bakardjieva, 2016), the “automation of communicative labor” (J. Reeves, 2016), “algorithmic content moderation” (Gorwa et al., 2020) or “automated media” (Andrejevic, 2020; Napoli, 2014).

In a sense, one can say that there are not only genealogical interrelations between the three stages of engagement with the automation of communication in media and communication studies, but that this refers to a general characteristic of digital communication: If one understands algorithms for their ability “to act when triggered without any regular human intervention or oversight” (Gillespie, 2014, p. 170), automation—generally understood as the machine-autonomous achievement of specific goals for action—has been a key aspect of software-based media from the beginning. Digitization, datafication, and algorithmization represent both the conditions of possibility and the need for automatic communication processes. However, what then is technical in automation can vary considerably, ranging from simple scripts with determinate steps (i.e., linear algorithms in informatics terms), on which many social bots are based (cf. Veale & Cook, 2018), to complex technical machine learning systems (cf. Heuer et al., 2021).

The crucial point is that we are dealing with the automation of *communication* and not, for example, with forms of automation such as product manufacturing processes where robotic systems build things. The automation of communication is based on digital traces as inherent byproducts of datafication. These have a *materiality of their own* that is far more opaque than that of automation by locally placed material-machine systems such as manufacturing robots (Burrell, 2016). This has significant consequences for various forms of automated communication processes (Esposito, 2017, p. 251): For all their heterogeneity—for example, in health care, justice, politics, journalism, everyday practice, science, the public sector, or education—it is a materiality that refers to the globalized digital infrastructures of today’s automated communication systems (Crawford, 2021). Accordingly, the three stages do not simply mean that the last one represents increasing hype or interest, but that a broad view of the automation of communication seems all the more necessary.

Broadening the Perspective: Moving From the Individual to the Societal

Initially, and in the trajectory of computer-mediated communication, media and communication studies approached the phenomenon of automated communication mainly from the perspective of the individual (i.e., the question of how individuals deal with automated systems, what agency they attribute to them, or what form of agency can be theoretically distinguished from them). This can be illustrated by publications from the 2010s that were particularly influential to the discussion: Robert W. Gehl and Maria Bakardjieva, for example, develop the perspective in their essay on social bots when they described that they are “intended to present a self, to pose as an alter-ego, as a subject with personal biography, stock of knowledge, emotions and body, as a social counterpart, as someone like me, the user, with whom I could build a social relationship” (2016, p. 2). In the same period, Andrea Guzman defined the field of human-machine-communication more intently as “the creation of meaning between human and machine” (2018, p. 3).

Looking at these texts now, they seem particularly concerned with direct interaction between humans and machines, as well as with the agency that automated systems may or may not have or that is attributed to them. This is also apparent in more media-psychology-oriented approaches such as CASA research (“Computers-Are-Social-Actors”). At its core, the CASA paradigm holds that the moment computers or other technical systems look, communicate, or act like a person, people respond to them as if they were “real” people (Lee & Nass, 2010; Nass et al., 2006). The CASA approach can be traced to Byron Reeves and Clifford Nass’ text (1996), in which they addressed the “media equation”; that is, the tendency of users to put new media on a par with natural persons and places. CASA research has led to important findings; for example, on the perception of the communication qualities of automated systems (Edwards et al., 2014), on the relationship norms of humans toward Twitter bots (Li & Li, 2014), or on the anthropomorphism of smartphones (Wang, 2017). However, when it comes to expanding CASA research, the discussion is less focused on going beyond the individual-machine relationship and more on how we appropriately frame it: The argument is that if a person appropriates new systems of automated communication today (for example, an Artificial Companion), he or she will apply not only scripts that are familiar from their interactions with humans, but also those from interaction with machines (Gambino et al., 2020). Such arguments fundamentally expand the CASA approach but remain trapped in the relationship between individual and machine.

From our point of view, we should go a step further and broaden the perspective beyond the direct interaction of humans and machines when addressing issues of automated communication. It is apparent from the example of social bots that focusing solely on the direct interaction of humans and machines does not do justice to the phenomenon. Although direct interaction between humans and bots is undoubtedly a relevant topic (Ferrara et al., 2016; Varol et al., 2018), as is the question of how bots can be empirically determined (Cresci, 2020; Martini et al., 2021), research that focuses on the role of bots in public communication points to dynamics that go further. Florian Muhle (2022), for example, points out that the significance of Twitter bots is less their *direct* interaction with humans but, rather, their *indirect* influence on communication processes: Bots on Twitter primarily attempt to “exploit the amplification potential of the service to reach the broad journalistically manufactured public” (Muhle, 2022, p. 48). In other words, traffic is generated by the bots’ retweets, whereby the platform’s algorithms assign a higher relevance to certain hashtags, tweets, or accounts than to others. In this way, bots generate “public resonance” (Fürst, 2017, p. 4). In many cases, this is aimed at journalists to influence their attitudes toward certain people and topics and, as a consequence, coverage in journalistic media.⁵

Against this background, the automation of communication is to be seen both in greater depth and breadth than has often been the case. The *depth* of the phenomenon arises from the fact that the automation of communication impacts the “hybrid media system” (Chadwick, 2017) and its overall communication dynamics. Automated systems are entangled with communications across various levels through which, for example, the publics of

5. This broader view is also addressed by informatics research into human-computer interaction under the notion of tertiary users—that is, users who do not interact directly with the system but “who are affected by the introduction of the system or influence its purchase” (Alsos & Svanæs, 2011, p. 85).

online platforms and journalistic publics are placed in a dynamic relationship. However, communication dynamics can also be thought of even more broadly if we keep in mind that the data generated in automated communication become the basis for more extensive automations as is the case, for example, with automated decision-making and how this is assessed and evaluated by humans (Araujo et al., 2020; Carlson, 2018; Zarsky, 2015). The *breadth* of automated communication results from the diversity of its different technologies such as artificial companions (Pfadenhauer & Lehmann, 2022), chat bots (Beattie et al., 2020), news bots (Lokot & Diakopoulos, 2016), social bots (Keller & Klinger, 2019), work bots (Loosen & Solbach, 2020), as well as a diverse range of emerging systems.

In order to grasp this depth and breadth, we should take the automation of communication more seriously in relation to its overarching, societal character. This means not stopping at the communicative relationship between individual humans and machines but expanding our view to the role played by automation in *societal* communication. It is this perspective that we would like to assert as necessary when examining the concept of communicative AI.

Communicative AI: A Sensitizing Concept

As the last two sections outline, the automation of communication is still a relatively young and dynamic field of research. In recent years there have been a range of conceptual proposals for how this should be done. For example, references are made to “automated media” (Andrejevic, 2020), “communicative robots” (Hepp, 2020a), or “media agents” (Gambino et al., 2020). Increasingly, however, the term “communicative AI” has become established in the international research discussion (e.g. Dehnert & Mongeau, 2022; Guzman & Lewis, 2020; Natale, 2021b; Schäfer & Wessler, 2020; Stenbom et al., 2021). Andrea Guzman and Seth Lewis, who originally proposed the term, define communicative AI as “technologies designed to carry out specific tasks within the communication process that were formerly associated with humans” (2020, p. 3), a definition also shared by Agnes Stenbom et al. (2021, p. 1), and Marco Dehnert and Paul Mongeau (2022, p. 3). Mike Schäfer and Hartmut Wessler lean toward such an understanding but argue that these technologies should be understood “no longer just as mediators of communication between people, but as communicators” (2020, p. 311).

All of these proposals emphasize the communicative aspect but remain generic in the sense that they outline a specific genre of media and communication technologies without analytically reflecting both their commonality and distinction from others. For example, Guzman and Lewis’s (2020) definition raises the question of whether all automation in the communication process—including editing videos or automated translations—should be called communicative AI. In the other publications quoted above it remains unclear to what extent the term *artificial intelligence* in communicative AI is merely a buzzword—and thus a reference to the current hype around ChatGPT and similar systems—or if it is intended to refer to specific technologies such as machine learning, or what further implications are associated with it. Against this background, we propose a definition of communicative AI based on three criteria.

Communicative AI

- (1) is based on various forms of automation designed for the central purpose of communication,
- (2) is embedded within digital infrastructures, and
- (3) is entangled with human practices.

Each of these three points require further explanation, especially if we think of them not simply in terms of societal communication.

The first point looks toward a nexus that Elena Esposito already pointed out a few years ago in an article on what she calls “artificial communication.” By contrast to the discussion about the Turing Test, she emphasizes that the crucial point in “artificial communication” is not “that the machine is able to think but that it is able to communicate” (2017, p. 250; see also Esposito, 2022, pp. 14–16). This argument is an important intellectual step in that it points us to the *communicative construction* of the concept of artificial intelligence in communicative AI. Media and communications studies in particular show that the human attribution of *intelligence* to technical systems is a variable construct and does not depend on whether or not it is based on, for example, machine learning (Natale, 2021b, pp. 68–86). For example, Weizenbaum’s ELIZA, developed in the 1960s, can already be understood as communicative AI because it was able to communicate with people in an automated way which then led to the attribution of *intelligence* to it, even if ELIZA was a chat program based on simple scripts (Natale, 2019; Weizenbaum, 1966). Twitter bots, which are also often based on simple scripts, are likewise communicative AI according to this understanding because they are programmed for the purpose of communication and develop their own communication dynamics. Embracing systems like these into the notion of communicative AI is helpful because it sensitizes us as media and communications researchers to consider the issue of *constructing* attributions of intelligence to simpler systems as well. From a media and communication studies’ point of view, defining artificial intelligence is not so much a determination along certain technical characteristics (e.g., Mühlhoff, 2019), but a question of communicative construction including the attribution of intelligence, which is always a contested process (Bareis & Katzenbach, 2021). Such processes of construction refer to the dominant understandings of being human in a *societal* context, which typically means the capability of doing something similar to humans (e.g., Guzman, 2020), possibly including affective and emotional qualities (Beattie et al., 2020; Ling & Björling, 2020).

The second point requires just as much explanation: the embedding of communicative AI within technical infrastructures. This highlights the need to distinguish between the interface between communicative AI and its users and the underlying structures behind it. Kate Crawford and Vladan Joler (2018) have illustrated this through a rich visualization using Alexa as an example. This artificial companion operates—like Google Assistant, Microsoft Cortana, or Apple Siri—through the infrastructure of the internet, without which they would not be functional. Similarly, social bots rely on the infrastructure of platforms such as Twitter, which pre-structure communication to an extent that bots can replicate human actors comparatively easily (Gehl & Bakardjieva, 2016). In this respect, we can say that many systems of communicative AI constitute media within media as they rely on existing “infrastructural platforms” (van Dijck et al., 2018, p. 11; van Dijck et al., 2019,

p. 9) as media. The materiality of communicative AI concerns not only the primary system of automated communication, but also the materiality of the infrastructures in which this is embedded: the technical networks and server farms (Constantinides et al., 2018, p. 381). These infrastructures secure necessary data storage and processing, while simultaneously drawing communicative AI into the structures of surveillance capitalism and data colonialism (Turow, 2021). Furthermore, these infrastructures are associated with extensive “planetary costs” (Crawford, 2021) (i.e., the socio-ecological consequences of, among other things, the extraordinarily high levels of energy consumption required for the operation of digital infrastructures; Brevini, 2021; Kannengießler, 2020). If we see communicative AI in the realm of societal communication, it is important to also consider those less visible elements *as infrastructures*.

The third point—entanglement with human practice—highlights the importance of understanding that the processing of these systems cannot be understood beyond human practice. The notion of entanglement, which has gained currency through Science and Technology Studies, derives in particular from the work of Karen Barad (2007), who developed it as an analytical concept. As Susan Scott and Wanda Orlikowski (2014, pp. 881–882) argue, “the entanglement of matter and meaning is produced in practice within specific phenomena.” They go on to explain that this means questioning the notion of predefined categories such as subject and object or human and nonhuman and emphasizing that such differences are constituted in the process of their relationalization:

To be entangled is not simply to be intertwined with another, as in the joining of separate entities, but to lack an independent, discrete, self-contained existence. Existence is not an individual affair. Individuals do not pre-exist their interactions; rather, individuals emerge through and as part of their entangled intra-relating.” (Barad, 2007, p. ix)

Understood in this way, the concept of entanglement is associated with a certain approach to the materiality of automated media, which strongly emphasizes their processual and relational constitution—especially in distinction to concepts seen in actor-network theory that emphasize the permanence of society in matter (Latour, 1991). More specific to the object of communicative AI, this means focusing on the coming together of matter and meaning in human practice. Materiality then becomes graspable in a double form of the technical on the one hand and the corporeality of practice on the other (Pfadenhauer & Grenz, 2017). This understanding of practices overcomes the reductionism found in some forms of practice theory (Reckwitz, 2002) by taking relationality—human beings’ inevitable relatedness—into account. Yet, a focus on entanglement with human practice is also important if one wants to capture the technologies of communicative AI in more detail. For example, models for speech recognition are built on the basis of large datasets obtained via human practice online.

To sum up: If we define communicative AI in the ways outlined above, this is not simply a buzzword representing the current hype around ChatGPT, LaMDA, and similar systems, but can act as a *sensitizing concept* in Herbert Blumer’s sense of the term. Following Blumer, the establishment of a sensitizing concept offers “a general sense of reference and guidance in approaching empirical instances” (Blumer, 1954, p. 7). In this sense,

communicative AI draws our attention to a certain “family resemblance” (Wittgenstein, 1971) that various examples of automated communication systems share, opening up a guiding orientation, they illustrate what their breadth and depth exactly mean and why a societal perspective matters. The challenge of any sensitizing concept is, however, that it cannot be empirically operationalized without difficulty. This is the point at which “definitive concepts” (Blumer, 1954, p. 7) gain importance; that is, concepts that can be empirically operationalized. But, how exactly should we proceed with this if we want to grasp automated communication as a part of societal communication? Certainly, different answers to this question are possible; the answer we want to propose is that of a figurational approach.

Agency Between the Individual and the Machine: Taking a Figurational Approach

A figurational approach⁶ seems to us particularly suitable for researching communicative AI from a societal perspective for two reasons. First, this approach does not create a contradiction between the individual and society. Society is not understood as a discrete object that surrounds humans, but as something that emerges *from* humans—all the while, the individual is produced by society. In this sense, speaking of the individual and of society is a matter of perspective, or, as Norbert Elias put it, “the concept ‘individual’ refers to interdependent people in the singular, and the concept ‘society’ refers to interdependent people in the plural” (1978, p. 125). Second, a figurational approach is particularly focused on questions of change and transformation. One of its dominant questions relates to how societies are structurally transformed, and the role of technologies in this process is an important subject of study (Elias, 1995). The main, “conceptual tool” (Elias, 1978, p. 130) used to address such nexuses is that of the *figuration*, which we can understand as a bridging concept directed toward the definitive conceptualizations necessary.

Speaking of figurations and refigurations is quite common, especially in social science research on artificial intelligence. In her analysis of “human-machine reconfigurations,” Lucy Suchman (2012, p. 227), for example, takes up arguments by Donna Haraway (1997, p. 11; emphasis added) and characterizes technologies as a “*materialized figuration* that bring together assemblages of stuff and meaning into more or less stable arrangements.” Sarah Kember (1998) also considers communication technologies as constituting parts of figurations, while Hubert Knoblauch and Martina Löw (2017) address them in terms of the refiguration of spaces.

Put simply, figurations are “processes of interweaving” (Elias, 1978, p. 130) of interdependent people such as a group, community, or organization. From a media and communications perspective, we can consider any figuration as a *communicative* one: It is communicative practices through which meanings are ascribed (in) figurations, and these practices are increasingly mediated. Family members, for example, may be spatially separated but connected through multimodal communication via (cell) phone, email, and exchanges on digital platforms, which maintains the everyday-world dynamics of familial relationships. Organizations are also held together as figurations using databases,

6. On process sociology, which is strongly influenced by Norbert Elias, cf. Baur & Ernst, 2011; Dunne, 2009; Morrow, 2009.

communication through an intranet, and printed flyers and other media for internal and external communication. Individuals are involved in these figurations through the roles and positions they occupy in their respective actor constellations. Conducting media and communications research using a figurational approach makes it possible to connect the perspectives of the individual and society and reflect on how the practices of their construction are closely entangled with media.

There are three basic characteristics that constitute a figuration and can be connected to established “definitive concepts” in media and communication studies (cf. Couldry & Hepp, 2016, pp. 66–67; Hepp, 2020b, pp. 100–113; Hepp & Hasebrink, 2018). The structural basis of every figuration is, first, an *actor constellation*, a network of actors who are interconnected in a certain balance of power and through interrelated communicative practices. Second, every figuration is characterized by a *frame of relevance* that guides the practices of its actors and their mutual orientation toward each other. This frame of relevance defines the action orientation of the actors involved and the specificity of the figuration. Third, figurations are constantly rearticulated in *communicative practices* that are interwoven with other social practices. These practices are typically entangled with a media ensemble.

A special theoretical feature of a figurational approach is that it opens up a way of thinking about the agency of communicative AI at all levels of the social scale, combining the perspective of the individual and its interactional relations by understanding figurations such as organizations and communities as collective actors. Figurations, of which communicative AI becomes a part, can then be understood as *hybrid figurations*. Hybrid here does not mean a dissolution of the boundary between human and machine, as can be seen in the imaginary of the cyborg (Berscheid et al., 2019; Britton & Semaan, 2017; Haraway, 1991); hybrid here refers to a unique “supra-individual” (Schimank, 2010, p. 327) agency of the overall figuration that develops in the coming together of human and machine.

This can be illustrated by the example of a newsroom where journalists use automated communication systems such as Quill from Narrative Science, ChatGPT from OpenAI, or Luminous from Aleph Alpha. A newsroom using these systems for “automating the news” (Diakopoulos, 2019) has a different agency than newsrooms without them. Research in media and communication studies is then concerned with the question of what is special about this hybrid agency and how it differs from other forms of supra-individual agency. It is also concerned with related challenges; for example, questions about authorship and the accountability of journalistic communications (Lewis et al., 2019; Montal & Reich, 2017), as well as the emergence of coping strategies for journalists that might begin to feel disconnected from technological developments (Min & Fink, 2021).

Such a figurational approach avoids dissolving the conceptual boundary between the agency of humans and machines, as has been proposed in some of the research on human-machine interaction (Banks & de Graaf, 2020). Our argument for maintaining such a boundary is an empirical one, since precisely this kind of separation is deeply embedded in everyday life. In the everyday practice of people, the question of what counts as machine-automated and what counts as human-authentic seemingly persists (Pfadenhauer & Grenz, 2017, p. 226). Similar demarcations between human and machine are made in law: The legal classification of automated systems focuses on the simple solution of attributing system behavior to natural or legal persons who developed, programmed, or implemented a

system (Schulz & Schmees, 2022). Putting it metaphorically, there are no formal or accepted methods of serving a subpoena to a communicative AI.

With a figurational approach, understanding contradicting positions in the discussion about the agency of humans and machines within automated communication as different *perspectives of analysis* is rendered more straightforward. Constructivist-based theories such as social phenomenology, communicative constructivism, or systems theory, on the one hand, emphasize that machines are to be described as an objectification of human action and that the agency attributed to them is a *projection* of human actors or a *personification* of their expectations (Esposito, 2022; Knoblauch, 2020; Lindemann, 2016; Muhle, 2016; Pfadenhauer, 2015). Approaches from new materialism such as actor-network theory, or extended action theory, on the other hand, emphasize the idea of *distributed* or *shared agency* between humans and machines (Bellacasa, 2017; Gunkel, 2018a; Hanson, 2009).

Both approaches to theorizing can be understood as different perspectives on hybrid figurations: From the internal perspective of a hybrid figuration—that is: from the point of view of the people involved in it—it is a matter of *projections* and *personalized expectations* in regard to communicative AI. To take up once more the example of the newsroom, journalists do indeed project agency onto systems of automated communication when they speak of a certain system “writing a story,” and they “forget” in such phrases that this happens on the basis of scripts and data that they themselves have entered into the system (Caswell & Dörr, 2018). From an external perspective (i.e., from an overall view of hybrid figurations by an observer), it is also true that this newsroom as an organizational unit possesses a different kind of *shared agency* than one without: Certain content could be published more quickly and systems of automation secure space for other kinds of journalistic work such as follow-up research and in-depth articles (Young & Hermida, 2015).

A figurational approach allows us to see not only communicative AI in terms of broader societal nexuses and to move beyond the narrow focus on the interaction between individual humans and machines, it also allows us to connect to existing concepts of media and communication studies, despite its current novelty. A view of communication is then developed that keeps its distance from technically induced transfer models and focuses on meaningful, social construction of which automated communication is a part.

At this point it is worth referring to James Carey (2009), who warned against reducing communication to defining it as the transfer of information (and its effects). Carey points out that communication should be understood as a form of symbolic reality construction (p. 19). We can see parallels when we argue for directing our attention to the various hybrid figurations of automated communication and their role in communicatively constructing society. However, Carey also pointed out that as scientists we are always confronted with the question of whether the concepts we use to grasp reality (still) correspond to how this reality is actually constructed in communication (p. 24). This also concerns the concept of communication itself, which seems to be questioned when machines automate it. But, from our point of view, this represents a misplaced response to the challenge, falling back as it does into simple transferal understandings of communication by simply explaining the machine as an actor more or less identical to the human. We now need to face this challenge to the concept of communication (i.e., Fortunati & Edwards, 2020; Guzman & Lewis, 2020;

Hepp & Loosen, 2023; Natale, 2021a). But, we also need the readiness for more complex answers than the simple equation of humans and machines.

Conclusion: Resisting the Hype Through Research

We began this article by looking at the hype around ChatGPT and other automated communication systems that are now entering the public consciousness and generating fertile academic discussion. For all the diversity of the “post-discipline” (Waisbord, 2019) and in light of earlier approaches (Gunkel, 2012), it is fair to say that our engagement with automation represents a third stage of research into digital communications. While we bask in the nascent hype and the academy’s enthusiasm to embrace the discussion, as researchers it is always important to approach new phenomena reflexively. We agree that caution should be applied in the sense that, from the point of view of media and communication studies, it is important to not simply adopt the discourse from the tech companies verbatim. From our point of view, however, we should take note of the hype *insofar* as it may stand for a fundamental change in the ways we all communicate: Its automation is becoming an increasingly widespread phenomenon, and this will invariably be accompanied by changes in the ways we construct our realities.

This means, however, that the automation of communication is to be approached differently than from the limiting perspective of the interaction between individual humans and machines. We see the concept of communicative AI as a useful tool or wave upon which we might be able to sensitize ourselves to a concept requiring deeper reflection. While this increases scientific attention to automated communication, we are at the same time engaged in a discussion about what an appropriate approach might be if we are to accomplish a societal perspective on automated communication. Against this background, we have proposed a figurational approach as one such possibility.

Equipped in this way, our task is to resist the hype on the surface by *critically* examining the growth of automated communication. This means that we accept the need to question existing concepts in the field of media and communications—agency, communication, and media—and ask whether or to what extent they are still useful in a world where communication is increasingly automated by machines. At the same time, however, we should be careful not to lose sight of the boundaries that are still part of ongoing processes of societal communication. Specifically, this concerns an equation of human and machine agency or the insinuation that systems of automated communication construct meaning for themselves. These thought games can certainly sensitize us to the opportunities and risks that the increasing use of automated communication may bring and are helpful in this respect. But, it remains an empirical question to investigate what, in terms of automated communication, are the constructions we observe as part of the everyday. From our point of view, then, it is a matter of investigating the construction of reality that changes with the automation of communication and then, on this basis, working toward the further development of the scientific, conceptual apparatus. A possible point of departure, in our view, is the figurational approach.

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