



CHAPTER 3

The Narrative Space of the Internet

Not only does the concrete, imagined, or “generalized other” (Mead, 1934, p. 154) play a part in the stories which we tell in and via the internet, as discussed in Chap. 2, but also the media context in which we locate our stories or which serves as a reference point for our stories. As early as 1998, American media scholar Henry Jenkins argued that the digital media open up “new spaces for storytelling” (1998, para. 7). Ola Erstad and James von Wertsch flesh out this proposition by pointing to the functionality of digital media for narrating and how they have already found their expression in language:

Information and communication technologies can be used for producing and consuming narratives in a whole new way by people around the world. ... By using terms like my(space), you(tube) or face(book) we see combinations of the personal expression and the mediational means used in an integrated way. (2008, p. 32)

This chapter scrutinizes the structural characteristics of digital media to the extent that they are relevant for storytelling, that is for the production of stories in and via the internet. To this end it is necessary to analyse the essence of objects and media in depth, which will also touch upon questions of space and time. In this sense, links are established to the remarks on space and time in Chap. 2, which can now be specified in relation to digital media. In order to do justice to the complexity of digital narrative spaces, the argumentation will sometimes have to sheer off from the topic of narrating.

3.1 THE SOCIOCULTURAL CHARGE OF MEDIA

The question as to what a medium is is answered using the concept of the object following Roland Barthes (1988) as well as Mihaly Csikszentmihalyi and Eugene Rochberg-Halton (1981). Media can be classified as man-made objects, contrasting with objects which have not undergone a manufacturing process, as we often assume is the case for objects found in nature, at least when we speak of “natural things” (1958, p. 150) in Hannah Arendt’s terms. Arendt explains that “those things are natural which are not ‘made’ but grow by themselves into whatever they become” (1958, p. 150), in contrast to cultural things or cultural objects, which are the subject of the discussion at hand.

According to Barthes, objects, that is manufactured objects, are “subject to norms of fabrication and of quality ... a certain notion of the object is reproduced ... in millions of copies,” such as ideas about measuring time and rationalizing life with the help of a watch (1988, p. 181).

The incorporation of ideas in the manufacturing process and in the manufactured object means that both the process and the product are endowed with a sociocultural charge; in other words, they become meaning-full. As meaning, for Barthes, is “always more or less mixed up with language,” he regards objects as “structured systems of signs” as well (1988, p. 180). Objects are not only used to do something, for example “to act upon the world” (1988, p. 181), they are also used to communicate something (1988, p. 182). Barthes illustrates his proposition with the help of a fountain pen, which is not only used for writing but also “parades a certain sense of wealth, of simplicity, of seriousness, of whimsicality” (1988, p. 182).

Barthes’ theoretical remarks on the object are close to Csikszentmihalyi and Rochberg-Halton’s approach, which describes objects as “ow[ing] their very physical existence to the attention and intention of their maker” (1981, p. 14). Objects and the human subject are linked to each other in very many ways. Objects owe their existence to “human intentionality” (1981, p. 14), on the one hand, in order to give meaning to the existence of these actors and, on the other hand, through their embodiment of these intentions. As Csikszentmihalyi and Rochberg-Halton explain, objects have “an extremely important role to play in human affairs” (1981, p. 14); they provide the following examples to illustrate this point: “It is difficult to imagine a king without a throne, a judge without a bench, or a distinguished professor without a chair” (1981, p. 15). In contrast to Barthes,

in proposing that objects have a social role as well, Csikszentmihalyi and Rochberg-Halton emphasize that they can act as elements of the “generalized other” (1981, p. 51) along the lines of George H. Mead. As already mentioned, Mead understands this term to mean “the attitudes of the organized social group to which he [the individual] belongs” (1934, p. 155). These attitudes become all the more relevant when individuals themselves take them on as their own attitudes and interact with them. Both Csikszentmihalyi and Rochberg-Halton as well as Mead posit that objects confront the subject with social processes, challenging the subject to come to grips with these processes, as I will flesh out in Chap. 4 with the stories of network actors and bloggers. To underline the point once again, the “generalized other” (Mead, 1934, p. 154) appears not only in the guise of human subjects but also in the form of the objects they have produced.

It is inexplicable to me, however, why Barthes as well as Csikszentmihalyi and Rochberg-Halton limit the notion of objects to material things. Manufactured objects feeding on the intentions, ideas, and imagination of their manufacturers can be conceived of just as easily as immaterial products. Thus, melodies, rituals, and stories can also be dubbed objects on the grounds of their genesis. Csikszentmihalyi and Rochberg-Halton themselves provide examples for this assumption when they assign objects social roles as nowadays the throne, bench, or chair is often only symbolic in nature.

This extended concept of an object as being, potentially, material and immaterial provides the foundations for my attempt to define digital media as specific objects. This extension then allows me to identify digital media, which consist of material and immaterial elements, as objects.

My notion of an object as developed following Barthes as well as Csikszentmihalyi and Rochberg-Halton is also linked to the concept of media proposed by media theorist Marshall McLuhan. McLuhan summarizes his notion of media in the following well-known quotation: “The medium is the message” (1964, pp. 7ff.). The “message” of any medium is “the change of scale or pace or pattern that it [the medium] introduces into human affairs” (1964, p. 8). The invention of the automobile, for example (the McLuhanian concept of media also includes technology as a medium), expedited the idea of mobility, automation, the idea of being freed from physical labour, the documentary, the idea of archiving knowledge, the internet, including the idea of bodiless presence. McLuhan underlines the message of media as being, above all, the extension of our

senses (1964, p. 4): for example, a telescope is an extension of the sense of sight, or hearing aids and loudspeakers are extensions of the sense of hearing. The incorporation of ideas in the construction and configuration of media turns them into objects as defined at the outset. McLuhan points out that every medium “is given another medium as ‘content.’ The content of a movie is a novel or a play or an opera” (1964, p. 18). Digital media have narratives, amongst others, as their content; narratives, in turn, have the medium of language as their content.

The McLuhanian concept of media breaks away from the “conventional response” that “it is how they are used that counts” (1964, p. 18). When, more importantly, he intimates that this effect is “quite independent of the freight or content” (1964, p. 8), it seems as though he would ascribe absolute autonomy to media. He negates this impression, however, when he posits that “no medium has its meaning or existence alone, but only in constant interplay with other media” (1964, p. 26). Transferred to the subject matter of this book, this means that the meaning of digital media and the meaning of media-based or media-related stories alike are constituted through the interplay between media, here between digital media and stories in and via the net.

Furthermore, the McLuhanian notion of media contrasts with the concept of media presented by Stefan Weber (2001, p. 22) with recourse to Reinhard Margreiter’s (1999) article on reality and mediality. According to Weber, “a medium has to include aspects of the middle, the means, the mediation, and the mediated in order to be a medium in the sense used by media studies” (2001, p. 20).¹ Viewing the medium as the middle signifies that it is located between sender and receiver. When media are described as means, they are defined as carriers of information; the aspect of mediation emphasizes the transportation of information or knowledge and the rules regulating that transportation, and the aspect of the mediated indicates the freight which is transported (Weber, 2001, pp. 24ff.).

The aforementioned aspects may represent facets of media but McLuhan would suggest that their essence is not limited to these facets. Media are not simply in the middle, between sender and receiver; they themselves are senders in line with the proposition that “the medium is the message.” For this reason, they are not only the means either; they themselves embody content. Moreover, the concepts of mediation and the mediated imply something fixed, giving the impression that a certain content is

¹ All quotations from German publications were translated into English for this book.

transported from A to B unchanged, thereby not making sufficient allowance for the interaction between media as well as between media and the subject. Weber recognizes the limiting implications of the concepts of mediation and the mediated, acknowledging that the transformation of input/output is ultimately contingent (2001, p. 26) without, however, abandoning the concepts of mediation and the mediated.

For McLuhan, the interplay with other media mentioned earlier, for example between technical artefacts and content, is decisive for the constitution of meaning for both media (1964, p. 26). Communication studies scholar Irene Neverla argues along similar lines when she describes media from a constructivist perspective as being neither “a naïve means for [defining] an expansion of meaning nor a technocratic instrument to configure the world” (Neverla, 1998, p. 28). Her definition reads thus: “The medium is an expression of the synthesis of human being and machine; it is socialized nature” (1998, p. 28).

Using the concept of the object explained earlier with reference to Barthes as well as Csikszentmihalyi and Rochberg-Halton coupled with McLuhan’s notion of media is justification enough for characterizing the internet as a narrative space and for showing that, here too, there is a connection between the narrative and space, as I attempted to demonstrate in Chap. 2, both in general terms and by giving the examples of washing places and coffee houses. Digital media constitute themselves in the interaction between material and immaterial technical conditions and cultural codes in the form of ideas, rules, and norms as the product of narrating, only to morph into a housing for narrating which also creates a framework for narrating via the internet. We can capture the essence of narrative space in the internet with a hybrid spatial concept which focuses on spaces as technical and cultural mixtures whose component parts are “mutually dependent, permeate each other, and can be transformed into one another” (Maresch & Werber, 2002, p. 13).

Like every space, the narrative space of the internet co-writes thoughts and narratives, regardless of whether they unfold in this space or in relation to this space. It inspires, spurs on, broadens conceptual horizons, and defines its boundaries, for example by limiting the amount of text like on Twitter, where tweets used to only have 140 characters and now have a maximum of 280 characters. A part of the lives of increasing numbers of people plays out in the context of these possibilities and limitations. In Csikszentmihalyi and Rochberg-Halton’s words, “to understand what people are and what they might become, one must understand what goes

on between people and things” (1981, p. 1). This requirement is the central theme of this chapter. The following analysis of the structural characteristics of digital media which the narrating subject is confronted with in the internet should help to illuminate the meaning of a relatively new object for present-day subjects and their stories.

3.2 THE STRUCTURAL CHARACTERISTICS OF DIGITAL MEDIA

The notion of structural characteristics alludes to the intentions or the cultural codes which flow into digital media in the process of being created and which are realized in the interplay with narratives in and via virtual space. I do not claim to cover all structural characteristics but only those with obvious implications relevant to narrating. Neither do I claim that digital media differ fundamentally from other types of media on the basis of these characteristics. On the contrary: Many of them emerged to a greater or lesser extent as characteristics of print or audiovisual media. However, the form and intensity of these characteristics do differ in the context of digital media, which is why digital media can also be referred to as new media.

3.2.1 *Interconnectedness*

Michael Andritzky and Thomas Hauer define interconnectedness as an “elementary property of all higher systems” (2002, p. 13) which has always had an impact on the historical development of human community. The principle of interconnectedness is taken from nature, where networks appear in the form of mycelia (fungal networks), spider’s webs, or neuronal networks in the cerebral cortex, and so on. One of the first transfers of the principle of interconnectedness from nature to culture was the technique of plaiting and weaving mats and carpets, which Gottfried Semper defines as the proto-technique of construction work (1860/2004, pp. 247ff.). The woven products were once used to construct the internal and external walls and roofs of buildings, as testified by documents on Chinese architecture going back to 2698 B.C. Semper describes their function as follows:

The interior domestic furnishings are movable, usually actual carpets hung on the walls, or wholly latticework or wooden panels fastened together with hinges which can be set up as desired. Sometimes they are fixed screens that allude to the character of these carpets and Spanish walls. (1860/2004, p. 257)

Networks are multifunctional; they protect and provide structure. They contain and connect; one can also get caught up in them. If nothing else, because of this multifunctionality, interconnectedness has become a “cultural technology of the first magnitude” (Böhme, 2004, p. 26) which one of the most recent networks is also based on, the internet.

Digital interconnectedness is present on four levels in the internet (Schmidt, 2009, p. 177; Weber, 2001, p. 20):

1. In the digitally assisted relationships between network actors (social level)
2. In the linking of digital building blocks of text (textual level)
3. In the linking up of individual digital devices (technical level)
4. In the relationship between network actors and computers (techno-social level)

This division into levels is for analytic purposes as frequently the different levels are interconnected. The interconnectedness between actors or between texts is not conceivable without a computer network, for example. Material things and immaterial phenomena can be interconnected as can be material and immaterial entities (Böhme, 2004, p. 17). Hypertext is one frequently discussed product of the interconnectedness between the different levels. Hypertexts arise by clicking on anchor elements, underlined texts or images which call up a new page (Bolter, 1997, p. 43) that is related content-wise to the previous building block of text. Ted Nelson coined the term hypertext in the mid-1960s with reference to “non-sequential writing/reading” (Yoo, 2007, p. 40). Modern visions of hypertexts as global archives only became possible after computer networks had been developed (2007, p. 42). The World Wide Web, which arrived on the scene in the early 1990s, brought about a hypertext explosion in Hyon-Jao Yoo’s words (2007, p. 43). With the help of the World Wide Web’s connection protocol, any number of text fragments can be combined to create a new text. If these building blocks of text include narratives, very many different narratives can arise out of one narrative or out

of a narrative fragment, thus representing individual–collective products. Technical, textual, and social levels come into play when hypertexts emerge.

Böhme describes how interconnectedness is a specific way of organizing space (2004, p. 25) which, in general terms, includes the following elements: threads, knots, and the spaces in between. Weber suggests that the threads of digital networks can be “material or immaterial, technical or thematic, visible or invisible in nature” (2001, p. 71), describing them as thick or thin, strong or fragile, major strands or secondary connections. Digital threads can be interpreted as the fibre-optic cables which transport the data, as the strands of discussions, threads, and links (2001, p. 69).

Admittedly threads alone, even in great numbers, do not constitute a net; that requires them to be ordered and organized. In digital space, this happens when the threads intersect and are connected with each other. When at least two threads are connected, a knot is the result; many knots create a network (Weber, 2001, p. 72). Computer-related knots are hosts, servers, or individual computers whereas social knots are formed by the network actors and textual knots by the individual texts (2001, p. 72). Knots are always places of contact, transformation, and exchange (2001, p. 72).

Knots and threads set themselves apart from something, namely from the non-network (Böhme, 2004, pp. 21–22; Krämer, 1997, p. 99). Hartmut Böhme points out that nets are defined as nets because they do not cover entire surfaces but set themselves apart from what is in between, the so-called interstices (2004, p. 21). What is this in-between? Böhme acknowledges that the in-between is linguistically elusive. For him, it has something incommensurable, expressionless, chaotic, and amorphous about it (2004, p. 22). If the network represents order, the in-between represents the disorder surrounding the order which threatens it time and again (2004, p. 22). Communicative aspects of disorder in digital networks could be posts from network actors which are off topic, or also flaming and cyberbullying; technical aspects of disorder could be computer viruses or web attacks. Both kinds of disorder threaten the organization and operation of the net, which tries to protect itself from this disorder with the help of rules and specific programs. For me, the question remains as to whether the in-between should not simply be seen as a hole that individuals falls into either when there is no access to digital networks, or when they do not fit into the structure of the internet. The former is touched on by the concept of the digital divide, which refers to groups of people who are excluded from virtual spaces due to a lack of economic,

linguistic, or technical resources. The latter can happen when the rules of the internet are broken, or when an individual's posts are ignored (Schmidt, 2009, p. 181).

All of the aforementioned groups—individuals who are not represented, those who are not heard, or those who are excluded for not adopting the rules—can cause upheaval, which creates a kind of disorder from Böhme's perspective. In this respect, my interpretation of the in-between as a hole does not, in principle, contradict the interpretation of the in-between as a location of disorder.

Böhme suggests that threads, knots, and the in-between result in a net which can be organized on a hierarchical or heterarchical basis (2004, p. 21). Hierarchical networks are linear in construction, like a TV network, whereas heterarchical networks are generated interactively without a central instance, like biological networks. The internet has both hierarchical links, for example between server and user, and heterarchical links, for example, in principle, between the actors in digital networks, as long as they are not playing a special administrative role.

In the next section, I will attempt to specify the implications of interconnectedness for narrating in and via the internet. These implications are also interconnected such that the one can often only be explained in relation to another. This means that redundancies are not entirely avoidable. The analysis is limited to the heterarchical elements of digital networks.

3.2.1.1 *Reciprocity*

Heterarchical digital networks are characterized by horizontal relationships, creating the prerequisite for the norm of reciprocity, or for the alternation between give and take (Frerichs & Wiemert, 2002, p. 36). Giving and taking in the context of digitally assisted narrating can mean that one individual tells a story and the Others react to the narrative by adding comments or their own narratives. It can also happen that they become co-narrators, as illustrated in the following case of an online discussion entitled "The Rose," which took place in the *Netlog* network in April 2010. A network actor told the story of a beggarwoman, who, one day, was given a rose, rather than a coin, by a poet walking by; she kissed the poet's hand, stood up, and did not return to her spot for a week (*Netlog*, 2010). The poet's interpretation of the beggarwoman's absence was that the rose had been a gift for her heart which the woman could live off for a week. Other network actors (predominantly male migrants) joined in and turned the story into one about the value of material and immaterial gifts. Initiated by the ensuing deliberations on whether women should be

dependent on gifts in order to be able to survive, or whether they should rather find a man to take care of them, the story turned, once again, into one about the relationship between men and women and, finally, into a story about the self-concept of men. In the process of narrating, everybody participating in the narrative was involved in give and take by turns; they passed the ball from one to another, took up the ideas of Others, and added their own thoughts and experiences. The principle of reciprocity is realized in this narrative by linking the social logic of barter with the logic of social cooperation in the development of multiple narratives (Messner, 1997, p. 46). This link also points to interdependencies. The action of storytelling is geared towards getting something in return: attention, acknowledgement, comments, contradictions, and other stories.

3.2.1.2 *Heterogeneity and multiplicity*

The principle of reciprocity can only work when the digital network features heterogeneity and multiplicity. Nothing could be given if all that was on offer was more of the same. Giving the same as what has been received is taboo, at least in Western cultures. If I am given a vase on my birthday, I cannot give back exactly the same vase on that person's birthday; I would at least have to give them a different vase, if not something completely different (Frerichs & Wiemert, 2002, p. 37). Give and take in the context of digital narrating also builds on diversity. In their Otherness, the Others are in demand as a source of new impulses. This is facilitated in digital networks in which people of different ages and genders from different social and geographical backgrounds come together, more so than in networks restricted by locality, nationality, or milieu.

3.2.1.3 *Openness*

A further requirement for reciprocity in digital networks is that the threads and knots are permeable so that narrators can be inspired by new impulses and so that their narratives encourage connectivity.

According to network expert Dirk Messner, heterarchical networks have loose links (1997, p. 45) or, as Petra Frerichs and Heike Wiemert would have it, "weak ties," which signalize permeability and openness (2002, p. 25). Loose links mean that the narrative space of the internet permits any number of connections between texts, allowing network actors to decide what and how much they want to tell as well as whether and how they will react to the narratives of Others. Hartmut Böhme argues that loose links are open to the unexpected, the contingent, and the novel (2004, p. 32).

3.2.1.4 *Dynamics*

Böhme suggests that the openness of narrative space in the internet as described earlier gives it the character of a building site (2004, p. 33). This is illustrated when, for example, narratives about the Self, in the form of individual profiles, trigger unexpected reactions, or when the narrative projects initiated by individuals are unpredictable because it is uncertain who will add which building block of text when the story is retold. In Böhme's eyes, narratives unfold in an autopoietic and evolutionary manner (2004, p. 19). The connections between the different levels of technology, individual, and text are instable, that is tentative and dynamic. That puts digital networks, as Böhme would have it, in a position to process errors, disorders, and crises (2004, p. 23). Digital networks evolve in such dynamic contexts which allow engagement with disorders; they take on a dynamic identity which does not feed on fixed points but rather on constantly changing links (2004, p. 23).

The implications of interconnectedness can be encapsulated in a metaphorical concept which Gilles Deleuze and Félix Guattari (1980/1987) formulate in the introduction to their book, namely that of the rhizome. The term comes from biology and describes a subterranean stem that permanently renews itself by sending out roots and shoots from its nodes. Deleuze and Guattari use the term to characterize decentralized, heterarchical social and cultural processes which are entangled with each other and which, through this entanglement, change and renew themselves. They describe how a rhizome can "be broken, shattered at a given spot, but it will start up again on one of its old lines, or on new lines" (1980/1987, p. 10), just like online narratives can be abandoned or interrupted in their narrative space only to be taken up again and refined in another narrative space or at another point in time.

As different processes or living entities are caught up with one other, or form a rhizome, as Deleuze and Guattari put it, a shift occurs between deterritorialization and reterritorialization, which the authors exemplify with the relationship between an orchid and a wasp:

The orchid deterritorializes by forming an image, a tracing of a wasp; but the wasp reterritorializes on that image. The wasp is nevertheless deterritorialized, becoming a piece in the orchid's reproductive apparatus. But it reterritorializes the orchid by transporting its pollen. (1980/1987, p. 11)

Forming a rhizome in digital networks is about capturing codes in the form of narrative impulses, taking over and changing codes, passing on codes, and receiving them again. The process of forming a rhizome encapsulates all of the implications of interconnectedness, reciprocity, multiplicity, openness, and dynamics. Deleuze and Guattari explain how these implications result in “a veritable becoming, a becoming-wasp of the orchid and a becoming-orchid of the wasp” (1980/1987, p. 11). In this context, they result in a becoming-narrative, a becoming-narrator, even a becoming-medium. The one and the other becoming are entangled with each other.

Rhizomes differ from arborescent systems as the latter are hierarchical. A tree is like an organization in which “an element only receives information from a higher unit” according to Deleuze and Guattari (1980/1987, p. 18). In rhizomes, in contrast, there are no predetermined connections; rather, they form “an acentered, nonhierarchical, non-signifying system without a General” (1980/1987, p. 23).

3.2.2 *Interactivity*

Interactivity is another structural feature of digital media, and one which I have incorporated in my observations so far, albeit implicitly. Interconnectedness, in a global sense as well, would be inconceivable if people, texts, and systems did not interact with each other. Interactivity is anything but a self-evident characteristic of digital media, however; rather, it indicates “a leap forward in the evolution of media” (Leggewie & Bieber, 2004, p. 14). Although our dealings with print and audiovisual media are characteristically receptive, as long as they are not linked up with digital media, those very digital media enable us to actively engage with media reality (Ahrens, 2003, p. 177; Sandbothe, 2000, p. 88).

But who is interacting with whom or what? That is a question which has more than one answer. Media philosopher Sybille Krämer talks of “artificial communication” in conjunction with computers “because the computer user is not interacting with a person after all but with a machine or, to be more precise, with a computer-mediated data universe” (1997, p. 92). Here Krämer still includes a human actor in the form of a computer user; elsewhere she even negates the existence of the human actor, writing “they [the computer users] are not acting as people but as chains of symbols” (1997, p. 97). From a theoretical position I could agree with this proposition as human actors are only present online thanks to their

texts in word or image. On the level of the experiences of network actors, however, it is very important as to who precisely is behind a text. A 12-year-old network actor turned the relationship between text and author into one of the main issues in her interview when she pondered in what way an author is present in a text, whether a text includes true or false statements about the author, or whether “true friendship” and “true love” are possible in the internet, the prerequisite for all of this, for her, being interaction with a real person. The 12-year-old’s thoughts point to a tension between text and author. Depending on how authors act in relation to their texts and whether they reveal their “true selves” in their texts or not, this network actor considers their texts to be “genuine” or not and interaction with the author to be important or not.

An empirical analysis of media-assisted or media-related narratives in which neither the subject nor the technology can be deactivated as actors requires a broader differentiation of interactivity in digital networks. The first step is to differentiate between levels of interconnectedness. Accordingly, Winfried Marotzki distinguishes between user-to-user interaction, user-to-document interaction, and user-to-system interaction (2004, pp. 119ff.). To this categorization I would like to add document-to-document interaction and system-to-system interaction. This differentiation should not imply that individual forms of interaction can be clearly distinguished from one another in practice. Rather, one form of interaction always includes elements of other forms of interaction. To transfer this idea to the topic of narrating, when online stories interact with each other because they are assembled to create a larger story, the authors of these stories, each of which bears the characteristic signature of its author, also interact with each other, and technical systems also interact with each other to facilitate social and textual interactivity. The conclusion that can be drawn here is that one form of interaction cannot work without another (Leggewie & Bieber, 2004, p. 8).

Claus Leggewie and Christoph Bieber point out that pseudo-interactive media applications are frequently touted as being interactive, for example when a choice can be made between several menu options (2004, p. 9). They believe that “genuine” interactivity involves being able to “influence the content and form, the procedure and duration of a communication—and ultimately that means: active de- and reprogramming of the ‘program’ as well as open and autonomous co-determination of the architecture of the network” (2004, p. 9). Even if I assume that Leggewie and Bieber do not consider reprogramming computer software to be an indispensable

condition of interactivity, their definition still represents an ideal which cannot be achieved completely in interaction in and through digital networks.

And thus the autonomy of the individual in the internet is limited, partly by the technology and partly by other subjects operating in the net. The speed of a chat, for example, means that messages can hardly be longer than one sentence. Network actors react to this limitation with a wide range of abbreviations and icons, such as smileys and emoticons, which reduce complex feelings and emotions like cheerfulness, sadness, or disbelief to their essence (Tuschling, 2009, p. 168). A network actor experienced a different kind of restricted autonomy when she started a new thread on “childcare and going to work” on the business list of the network *Webgrrls* (1997–2019; Schachtner, 2005, p. 186). The female moderator posted in reply that childcare did not have anything to do with business and should therefore not be discussed on the list. Other list members rejected this feedback with the argument that reliable childcare was a prerequisite for mothers who wanted to work and therefore was certainly very relevant on the business list. This sparked off a heated debate on the question as to what could be considered a matter of “common concern,” as Nancy Fraser would put it (1992, p. 129), and to what extent the network actors could have a say in this. The question about the degree of interference in the running of discussion forums also came up in the thread “Warning about tomato sauce” in the *Knuddels* (n.d.) chat community, which took place between 28 February and 3 March 2010. One participant in the forum was first warned and then suspended for seven days by the moderator because he categorized her posts as being off topic, that is as posts which were disrupting the discussion. The ensuing discussion about this sanction also covered the right of network actors to participate, which those involved considered to be extremely important.

Although interactivity is not unlimited in digital networks, when it comes to limitations, they trigger lively discussions. The “autonomous co-determination of the architecture of the network” (2004, p. 9) which Leggewie and Bieber define as being one of the criteria of interactivity is an issue that needs to be renegotiated time and again from the perspective of network actors.

How does the interactive use of digital media affect narrating? Interactivity can have an impact on the product of narrating, the configuration of narrating, the experience of time and space when narrating, and on the status of the narrating subject. Building blocks of text, for example, as Mike Sandbothe points out, can be combined to create a complex

network-like narrative (2000, pp. 89–90), whether it is the narrator who strings together or interweaves different building blocks of text in their blog or the readers who assemble building blocks of text out of various narratives, constructing a new narrative in the process. The result is a dynamic product which is fully accessible despite undergoing many changes. Narrating—whether in the form of writing a text or posting images online—is a public activity as there is hardly any time lag between writing and publishing a text online, and the network is, in principle, accessible to everybody who has signed up for it. When narrators add hyperlinks to their narratives, they can make the relations between their thoughts, memories, and fantasies even more explicit to the public than they could when telling a story orally, in the interests of maintaining a comprehensible narrative flow (2000, p. 102). Under the condition of hypertextuality, narrating also takes place as an interaction with the thoughts and texts of other network actors, in other words as a cooperative activity (Yoo, 2007, p. 40).

Bearing in mind that cooperation can also involve network actors from other countries and continents, it is clear that there are consequences for narrating under the condition of hypertextuality for the dimensions of space and time in narratives. Whereas linear time tends to dominate in offline narratives, online narratives can take place in different time zones more or less simultaneously, for example when one narrator tells their part of a story online in relation to their summer in Europe and a co-narrator from Latin America who is online at the same time takes up the story and shifts scenes to the winter which they are experiencing, maybe in combination with appropriate images. William J. T. Mitchell explains how different time zones interlocking in the stories produced cooperatively by different narrators are associated with overlapping spaces (1999, pp. 234–235).

The reciprocal interactions—whether user-to-user interactions, user-to-document interactions, or user-to-system interactions (Marotzki, 2004, pp. 119ff.)—turn network actors into senders and receivers at one and the same time. “Producersage,” a blend of *production* and *usage* (Paus-Hasebrink, Schmidt, & Hasebrink, 2009, p. 19), is the term which was coined by Bruns (2008) in *Blogs, Wikipedia, Second Life, and Beyond: From Production to Producersage* to describe this status mix. As far as user-to-user interaction is concerned, as Mike Sandbothe suggests, interacting with Others is “independent of one’s own presence” in the internet: Based on the assumption that my narrative permits self-presentation, others can interact with me via the narrative even in my absence (2000, pp. 88–89).

3.2.3 *Globality*

As a feature of digital narrative spaces, globality is closely aligned to the feature of interconnectedness. As far as digital interconnectedness is concerned, physical distances, also across national borders, have no role to play. Computer networks “connect just about every inhabited place on the face of the earth to every other” (William J. T. Mitchell, 2005, pp. 181–182; see also Ahrens, 2003, p. 176). As a result of this development, Norbert Bolz suggests that territoriality no longer has meaningful boundaries, leading him to anticipate a tendency towards a “placeless society” (2001, pp. 38–39). In connection with global digital interconnectedness, American architect, William J. T. Mitchell, in contrast, talks of displacement; the technical instruments which make this possible are called “instruments of displacement” (2005, p. 182). The notion of displacement retains the place as a context for human activity but does not commit the subject to being in one specific place. Ahrens adds that the isolating effect of a physical location has been breached (2003, p. 176); the implications of the notion of displacement are that the locations of human activity can relocate, shift, be displaced, and overlap.

Digital interconnectedness is an indispensable element of globalization; it “exercises its influence across all *strata*,” whether economic, cultural, political, or social, on a global scale (Nederveen, 2010, p. 86). For William J. T. Mitchell, “the unbelievably intricate diagram of Internet interconnectivity has become the most vivid icon of globalization” (2003, p. 10). Sassen proposes that it has a double function as the means of and venue for globalization, providing a space for global actions and communications (1997, p. 231). It is in these functions that the McLuhanian proposition is fulfilled that “the medium is the message,” that is “the change of scale or pace or pattern that it introduces into human affairs” (McLuhan, 1964, p. 8). The new scale that is introduced with every new medium brings about an increase in subjectivity according to McLuhan (1964, p. 15). Digital media help our communicative action spread to an unprecedented extent and at an unprecedented speed. Norbert Bolz’s name for communication which has been intensified and influenced by digital media is “world communication”; this refers, on the one hand, to the operating range of communication and, on the other hand, to its evolved meaning for the constitution of reality. He expresses this very succinctly as “the world is everything which is communicated” (2001, p. 7). Daniela Ahrens proposes that distance intervenes as an “acting distance” (2003, p. 185);

regardless of how far apart actors are in an event or how far apart those are who communicate this event, every event can become a nearby event with the help of digital media (2003, p. 185). The potential of digital networks to interweave communication worldwide makes globality a structural feature of these networks.

“Worldwide communicative connectivity” (Hepp, 2006, p. 66) takes the shift between deterritorialization and reterritorialization, which is applied in Deleuze and Guattari’s (1980/1987) metaphor of the rhizome, to a new level in qualitative terms. Beyond national borders, new communication patterns and communicative connections arise on a global virtual stage. From this perspective, it is possible to speak of a deterritorialization of communication. At the same time, the communicative contents arrive somewhere; they are read and adapted in various places; they are blended with the thoughts of Others; they are remixed and transformed into action, without geographical borders influencing their reception. They relocate themselves, reformulate themselves, and are reterritorialized. In the interplay between deterritorialization and reterritorialization, a displacement of ideas, values, and orientations takes place.

As we found out in the study “Communicative Publics in Cyberspace,” network actors bank on globality as a feature of digital networks. A 26-year-old network actor from Saudi Arabia related: “There is something [the internet] very big out there. It’s not only limited to us.” A bit later in the interview, he addressed the internet as a global space for communication “where interaction between Saudi Arabians and international community started to happen.” A 26-year-old Yemeni blogger also counted on her tweets overcoming national borders, arriving in another part of the world, and triggering something there:

We have a lot of stories, a lot of issues, a lot of aspects, a lot of faces that we want the world to know about. And it will be shocking the rest of the world to know that there is another side of Yemen except the terrorism side.

In this quotation, the blogger broaches the possibility of the stories about her country experiencing a displacement, of their being perceived and taken up beyond their original territory, of their being deterritorialized and reterritorialized.

For the Arab network actors, our study revealed, the globality of digital networks was particularly important because they saw it as their chance to overcome their territorial isolation and, consequently, to present a

different image to what was going on in their country on the virtual “world stage.” For those network actors who wanted to make friends online and to exchange stories about their everyday lives, in contrast, the globality of the medium was irrelevant. Individual motivations for communication in virtual space appear to determine the extent to which the global perspective is perceived. But even when network actors are not aware of the globality of the medium, their posts on digital platforms can have a global impact because they can be accessed from all over the world.

What does global interconnectedness mean for narrating and narratives? How must we envisage the concepts of displacement, deterritorialization, and reterritorialization in the context of narrating and narratives? What we can take from the words of the Yemeni blogger is that narrating in the net should enable stories about a country to be released from their territorial anchors in the hopes that they will arrive somewhere else, or be reterritorialized. In this process of displacement, the story comes into contact with other stories thanks to which the public image of a country can change. The question is how such changes come about. This can only be discussed on a general level here. In line with Deleuze and Guattari (1980/1987), the deterritorialization and reterritorialization of stories could ideally and typically take place in such a way that the codes contained within the stories could be picked up by network actors elsewhere and be integrated in their thoughts. At the same time, these codes would undergo a transformation which corresponded to the needs and experiences of the Others so that they could be passed on in their transformed version. Thus the shifts between deterritorialization and reterritorialization and back again can be seen as an endless process.

In more recent discussions in media and cultural studies, the concepts of transculturality and transnationality are used in an attempt to capture the interaction between images, values, and interpretations which come from different cultural contexts. Transculturality focuses on the cultural dimension of global processes and transnationality on the political dimension; the distinction is not entirely clear-cut, however. For Jan Nederveen, “transnational culture is not new” although “since the transportation and communication revolutions, [it] has rapidly grown in scope and density” (2010, p. 86). Benjamin Jörissen (2002, p. 324), who speaks of transculturality, regards cyberspace as virtually paradigmatic for an understanding of transculturality as proposed by Wolfgang Welsch. What Welsch understands by transculturality is that cultures permeate each other, resulting in cultural mixtures (2001, p. 263). Transculturality is a rejection of the idea

of culture as a homogeneous whole (2001, p. 260); rather, from the perspective of transculturality, differences between the Own and the Foreign would be eliminated (2001, p. 266). From Andreas Hepp's perspective, a transcultural notion of culture emphasizes the hybridity of cultures, in other words the mixing of resources from different cultural contexts (2006, p. 76). Whereas Wolfgang Welsch, Jan Nederveen, and Andreas Hepp all focus on the mixing of cultural elements, Ulrich Beck's concept of transnationality highlights the acceptance of differences as a prerequisite for cultural mixture. He sees a transnational perspective as one which is sensitive to differences, one which registers and respects the Otherness of the Other (2006, pp. 5ff.).

As already mentioned, Jörissen considers the internet to be a potential space for the development of transculturality in Welsch's sense of the word. When applied to narrating in the net, it means that narrations from different cultural contexts are interwoven, along with the cultural codes they contain. New codes may arise in the form of new values and standards or life patterns beyond one or the other cultural context, which create new narrations. The concrete narrations in the net are to be regarded against the background of such possibilities.

The hybridization of narrating and the narrated signals a tentative result for transcultural processes; there are preliminary phases which trigger the opportunity for hybridization, as Daniela Ahrens points out. One of these conditions is to understand the encounter with narrations from other cultural contexts as a call to adjust one's own narrations to global communication spaces, for example by depicting one's own positions very precisely (Ahrens, 2003, p. 184). Another condition is that an awareness arises of a "generalized elsewhere" (Meyrowitz, 1989) which allows the perspective of network actors to appear as one out of many and which acts like a mirror in which they take on a reflexive stance with respect to the Own (Ahrens, 2003, p. 184). Practices of reflection document that globality can be experienced on the doorstep without it already becoming part of one's own thinking. They reflect the individual's willingness to open themselves up to the Other. But things can also turn out differently. As Nederveen points out, "it is not a straight-forward path to a global culture" (2010, p. 88). On the contrary, it is a bumpy road which includes isolation, aggression, and conflict. An encounter with the Other may not only be experienced as enriching but also as a threat to the Self.

3.2.4 *Multimediality*

Multimediality is a structural characteristic of digital narrative spaces which draws on new technical possibilities and cultural specifications alike. Multimedia, Frank Hartmann's term for this characteristic, was a buzzword in the 1990s and stands for "Multiple Content Media" (2008, p. 8). It refers to the "integration of multiple media formats like text, image, animation, video, and audio" (2008, p. 8) which opens up a new "complex display option" (2008, p. 9).

In principle, media have versatile structures: The various media formats mentioned earlier have always been interrelated. Attempts have always been made to illustrate texts with images, for example, as Sandbothe proposes, without casting doubt on the boundaries between the two formats (2000, p. 83), with digital data networks "set[ting] in motion the semiotic demarcations of image, language, and writing" (2000, p. 83). Hartmann underlines how analogue culture can be converted into multimedia presentation with the help of digital technology (2008, p. 9), which can be seen as the "operational basis for multimedia culture" (2008, p. 8). Digital technology facilitates a new form of media technology, namely the convergence of communication channels by consolidating the technologies of telecommunications and the computer and by integrating media formats such as the image, writing, and spoken language thanks to multimodal coding (2008, p. 8). As an integrated media application, multimediality addresses various senses at one and the same time (2008, p. 19). The different media formats are integrated with the help of computer technology and made available via a single device (2008, p. 19). For example, further media formats are embedded in a computer, which is already a medium in itself; these formats extend and diversify its media potential and, as I will further illustrate, lead to new convergences between media. In relation to the subject matter of this book, *Storytelling in the Age of the Internet*, the characteristic of multimediality is that narrations can be told in different ways thanks to digital technology, in the form of text, image, video, and sound (e.g., podcasts or digital music). In view of the empirical data available, I will limit myself to a discussion of the media formats of oral and written language and the image, whose emergence and further development precede the invention of computer technology. These formats take on specific forms under the influence of computer technology, which does not mean, however, that the cultural implications embedded in them as they arose are going to disappear.

3.2.4.1 *Language, Writing, and Text*

Until the end of the twentieth century, digital media principally made use of spoken and written language, constituting themselves as such thanks to the interplay between digital technology and language which dominated in the fields of information and communication.

If we start from the premise, as McLuhan did, that media influence cognitive and social processes by virtue of their cultural implications (1964, p. 8), as pointed out at the beginning of this section, now is the moment to explore the genesis and implications of language and writing. What is language and what is writing in relation to language?

Language, according to Susanne Langer, is the result of symbolization (1957, pp. 41ff.). The brain constantly translates “the material furnished by the senses ... into *symbols*, which are our elementary ideas” (1957, p. 42). As the brain finds itself in a permanent “process of symbolic transformation of the experiential data that comes to it,” this gives rise to “a veritable fountain of ... ideas” (1957, p. 43). Speech is the fulfilment of those elementary processes in the brain (1957, p. 44). The desire to speak comes from the need for fulfilment urged by the process of transformation. As Langer points out, “symbolization [of experiences] is pre-rational, but not pre-rational. It is the starting point of all intellection in the human sense” (1957, p. 42). The gradual accumulation of verbal symbols led to the development of language, the use of which “sets man so far above other animals” (1957, p. 26). Merleau-Ponty is of a similar opinion to Langer when he describes thinking and language as not being separable: “Language does not presuppose thought, it accomplishes thought” (1945/2012, p. 182). For him, thinking is not something “‘inner,’ nor does it exist outside the world and outside of words” (1945/2012, p. 188). He refers to the “orator [who] does not think prior to speaking, nor even while speaking; his speech is his thought” (1945/2012, p. 185).

According to Sybille Krämer, writing is not just “language that has been made visible and thereby fixed” (2003, p. 158). She even proposes that spoken and written language are two different media (2003, pp. 158ff.), pointing out that “syntactic units and their relations ... can be differentiated with blanks and punctuation” (2003, pp. 160–161). Consequently, in a written text, it is not the “oral phenomena themselves [which are visualized], but rather conceptual contents, such as grammatical categories, as well as relations between thoughts and structures for arguments” (2003, pp. 160ff.). From my perspective, conceptual matters

are not completely alien to spoken language, even when the textualization of language is put under significantly greater pressure to adhere to institutionalized syntactic and grammatical rules. This pressure is not unwavering, however, as will be exemplified by changes in verbal language used in virtual space.

Hartmann describes how, influenced by the invention of printing as a technology of reproduction, written language asserted itself over spoken language as a cultural medium between the fifteenth and nineteenth centuries (2008, p. 22). He explains how printing opened up unprecedented opportunities for the reproduction and dissemination of texts and knowledge, making it possible to read about experiences, and how, at the same time, it influenced modern patterns of thought, which are characterized, amongst others, by the logic of argumentation, the transfer of experiences into abstract, visual categorizations, and the increasing abstraction of European languages (2008, pp. 22ff.). Krämer adds that “writing is not only a tool for describing but also a tool for cognizing, a technique for thinking that enhances intelligence” (2003, p. 171).

Thanks to the evolution of digital media into media for writing and communicating, written language is no longer bound to print media. The new technical context ensures that the creative possibilities of language and text are changing, depending on the field of application within virtual space in which writing and reading are taking place. Hypertext has already been presented as a new textual form (see Sect. 3.2.1) which evolved out of the interactivity and potential interconnectedness of digital media. Hypertexts can make use of self-created or pre-existing building blocks of text to form a textual structure which, at least partially, disrupts the linear structure of writing. Blogs often take on the form of hypertexts because they allow their authors to connect the different levels of communication and expression with each other.

Anna Tuschling (2009) has analysed chats, another digitally assisted text type. Chats are communications written very rapidly in real time. Often sentences remain incomplete and mistakes are accepted, in a very similar way to oral use of language. Leithäuser and Leicht characterize chats as “writing-cum-speaking” (2001, p. 43). In a chat, voice and speech are decoupled (2009, p. 153). Tuschling posits that digital technology is involved in chats as a third ear, so to speak, influencing the form of writing and language with its potential (2009, p. 163). In the specific circumstances of media-related computer technology, not only is so-called writing-cum-speaking encouraged, but the lack of physical presence also

leads to the body language which would annotate speech in face-to-face encounters being replaced by a wide range of abbreviations, acronyms, and emoticons, or, instead of physical signals, a nickname holds the key to making contact (2009, p. 172). Corporeality is generally expressed in writing in online communication, which leads to the creation of new signs and symbols or accords familiar signs and symbols a new status.

As Tuschling discovered, in the medium of the chat, it is not only the form of writing and language which changes but also its contents. Here she provides evidence in the form of flaming (2009, p. 173), namely targeted insults, aggressive outbursts, and deliberate provocation, which is on the increase in virtual space due to the possibility of remaining anonymous.

Despite these new forms of language and writing which have emerged in the context of digital media, there appear to be universal, cultural implications for language, which prompted Alfred Lorenzer (1981, p. 28) to quote Langer's denotation of language as a discursive carrier of meaning (1957, p. 81). As already mentioned at the beginning of Chap. 2, verbal language is discursive because it "string[s] out our ideas even though their objects rest one within the other; as pieces of clothing that are actually worn one over the other have to be strung side by side on the clothesline" (Langer, 1957, p. 81). The process of understanding follows the same logic according to Langer in that "the meanings given through language are successively understood, and gathered into a whole by a process called discourse" (1957, p. 97). Hartmann adds that language is capable of fostering logical-deductive, analytic, and perspective reasoning thanks to its discursive structure (2008, p. 24). Above and beyond that, language connects us with other people, which is why Schade and Wenk see it as a prerequisite for the sociality of the subject (2011, p. 44).

Language also has its limitations, however, as our thoughts have to acquiesce to discursive logic; otherwise "thoughts cannot be uttered or communicated with the help of words" (Lorenzer, 1981, p. 28). It is an interesting question as to whether new forms of language and writing like hypertext might not change discursive reasoning in favour of mental processes running in parallel. It is not possible to pursue this question further in this context.

3.2.4.2 *Images*

Alongside verbal language, images have always served as carriers of information. Sometimes images passed on information independently, as in

prehistoric cave paintings, while others served as ornamental decoration in liturgical manuscripts or to illustrate books with the aim of complementing or shedding light on the text. Starting in the first half of the nineteenth century, thanks to the discovery of electricity and electromagnetism, new transmission and recording techniques were invented which increased the significance of sounds and images (radio and television) alongside writing (Hartmann, 2008, p. 16). For images transmitted on television, which started to make its way into almost every household in the Western world from the 1960s or so onwards,² geographical borders were quite irrelevant. Meyrowitz suggests that when television pictures started to flow through walls, the actual physical location of individuals no longer limited their perceptions (1985, p. viii).

The transnational nature of media images is also a characteristic of digital media, which were established as a medium for writing but which have increasingly emerged as a medium for images as digital networks developed. In contrast to older media (radio and television), everybody who has access to digital networks can post their own images online. The World Wide Web does not only ensure that there is a continuous stream of images from all four corners of the earth but also that these images have global visibility.

In contrast to language, images do not consist of units with independent meanings; the individual elements of an image only make sense in combination with other elements. As already mentioned in the introduction to Chap. 2, according to Langer, the light and dark areas in a photo, for example, have no meaning per se (1957, p. 94): “Their shapes, in quite indescribable combinations, convey a total picture” (1957, p. 95). Like Langer, Lorenzer classifies both images and music as presentational carriers of meaning (1981, p. 24, 32) which speak directly to our senses and to our feelings, which we can see or hear, and which move us emotionally (Langer, 1957, p. 96). Images are capable of recording and making those things visible which defy the discursive code (1957, pp. 42–43). According to Lorenzer, presentational carriers of meaning originate in situations or scenes; they include blueprints for scenic life experience, illuminating the individual’s being-in-the-world (Lorenzer, 1981, p. 31). This proposition is demonstrated strikingly by the photo galleries in digital networks which

²Whereas in 1960 only 24% of the population in the Federal Republic of Germany had access to a television, by 1965 it had increased to 64% and by 1971 to 88% (Köcher & Bruttel, 2011, p. 15).

are published by network actors for the purpose of making very many different situations in their everyday lives visible for Others. According to Langer, “the correspondence between a word-picture and a visible object can never be as close as that between the object and its photograph” (1957, p. 95) as a portrait contains “an incredible wealth and detail of information” (1957, p. 95).

Christina von Braun is more sceptical about the potential of images, claiming that, because they have “no layer other than the visible one,” they cannot describe what is concealed behind the visible (1989, p. 128). Equally, she believes that they cannot show the horrors of reality in a concentration camp or in the Vietnam War. A true representation of reality rather proves to be a particularly effective way of depriving the conceptual world of this reality (1989, p. 118). It is possible that von Braun assumes this because a pure reproduction does not allow any latitude for the imagination to fill in the gaps in the visible layer. According to her, the invisible can be conveyed by language better than by images (1989, p. 127).

Von Braun’s view contrasts greatly with the talk of the power of images which art historian W. J. T. Mitchell seizes on in his book *What Do Pictures Want?* (2005). He tries to clarify his idea of the power of pictures by suggesting that “everyone knows that a photograph of their mother is not alive, but they will still be reluctant to deface or destroy it” (2005, p. 31). He then moves onto advertising and the fact that “every advertising executive knows that some images, to use the trade jargon, ‘have legs’” (2005, p. 31), that is, their impact extends beyond their immediate selves, masterminding needs and purchasing decisions. W. J. T. Mitchell points out that pictures are often talked of “as if [they] had feeling, will, consciousness” (2005, p. 31); in other words, he assumes that images have social and psychological agency. This agency also resonates in a project presented in a report broadcast on 6 March 2013 on the Austro-German-Swiss satellite channel 3SAT entitled “Minamisanriku: The Fate of a Town.” The Japanese town Minamisanriku was affected most badly by the tsunami in 2011. After the catastrophe, hundreds of volunteers began looking for photos with people on them in the ruins. The ones that were found were cleaned in a very complex process and put on display in a school. Inhabitants of the destroyed town went there to look for photos of family members, very few of who had survived, and in many cases nobody at all. The helpers who had their say in the programme were convinced of the significance of their actions without actually justifying why. This may stem from the fact that these photos represented some of the only links to life

before the catastrophe, that they helped people to remember, and ensured a feeling of continuity for the survivors which was absolutely essential for experiencing their own coherence.

In W. J. T. Mitchell's eyes, the agency of images has become the pervasive idea of a visual culture which is dominated by images and which has become a real technical possibility thanks to modern-day reproduction techniques (W. J. T. Mitchell, 1994, p. 15; Schade & Wenk, 2011, p. 38). In relation to this possibility, W. J. T. Mitchell observes a new/old paradox, which he describes as follows:

On the one hand, it seems overwhelmingly obvious that the era of video and cybernetic technology, the age of electronic reproduction, has developed new forms of visual simulation and illusionism with unprecedented powers. On the other hand, the fear of the image, the anxiety that the "power of images" may finally destroy even their creators and manipulators, is as old as image-making itself. (1994, p. 15)

W. J. T. Mitchell's position in relation to the impact of images does not necessarily contradict that of Christina von Braun. Whereas von Braun speaks of images which only show the visible, without a hint of the invisible, W. J. T. Mitchell envisages images which conjure up memories which go beyond what is represented, or which pursue invisible intentions with the aid of visible imagery appealing to specific wishes and dreams. Both authors appear to relate to images in different ways, particularly in terms of the room they leave open for imagination. Von Braun makes similar observations to W. J. T. Mitchell when she reports on new forms of photography which can grant or open up spaces to the invisible images which provoke the "inner gaze" (von Braun 1989, p. 125). To sum up the observations made by both authors, the power of images comes above all from what they do not reveal, which then becomes effective thanks to what they do show.

3.2.4.3 The Relationship Between Language and the Image

It is now time to pay more attention to the relationship between verbal language and the image which was suggested in various passages in the previous section, particularly with regard to the status which the two media formats have adopted in Western culture and how the relationship between these formats could be configured in the future. What language and the image have in common, according to Lorenzer, is that they are

products of human practice and, as such, convey meanings (1981, p. 30; see also Langer, 1957, pp. 96–97). Langer adds that different experiences correspond to different kinds of communicative acts (1957, p. 45).

At the same time, it is an academic truism, as Sybille Krämer reminds us, that both formats count as “disjunctive symbolic schemata” (2003, p. 157). This assumption has also left a significant mark on the perception of language and the image beyond academia. Added to this, language and the image are not only considered to be mutually exclusive media forms but are also pitched against each other in hierarchical terms.

Frank Hartmann (2008, pp. 21ff.) gives the following reasons for text being privileged in Western media culture while the image has tended to be denigrated:

- The readability of ideas and experiences is a journalistic ideal and, as such, is rated more highly.
- What can be read is considered to be informative whereas images are only deemed to entertain.
- Images are meant to be easier and quicker to decode and are therefore less complex.
- Images are believed to be superficial whereas verbal texts are perceived as allowing differentiation.

The privileged status of text was dominant until well into the 1980s, defining the world of culture as “a world of discursive signs and referents” (Krämer & Bredekamp, 2003/2013, p. 21). One of Krämer and Bredekamp’s strongest criticisms is that “for a long time, perhaps for too long, culture was seen only as text” (2003/2013, p. 20). According to the authors, the “linguistic turn,” or “the ‘discovery’ of language as the pivot for the conception of ourselves and the world” (2003/2013, p. 21), was but a logical endorsement of this privilege. One negative consequence of this privilege resulted in “misjudging the epistemic power of the image” (2003/2013, p. 21).

Frank Hartmann points out, however, that alongside the privileged status of language and text, the pedagogical value of the image has been recognized since the Enlightenment, adding an ambivalent touch to the aforementioned hierarchization. With the emergence of new recording methods and particularly since the development and spread of cybertechnology starting in the 1990s, increased attention has been paid to the image. The new technical conditions have led to a widespread distribution

of images in just about every relevant sector of society, from advertising, politics, and academia to individuals' professional, recreational, and cultural lives, causing Schade and Wenk to ask "Are we seeing a visual turn?" (2011, p. 35).

In the mid-1990s, in reaction to this trend, W. J. T. Mitchell introduced the notion of the "pictorial turn" (1994, pp. 11ff.). According to him, this turn did not suddenly appear as a phenomenon. He explains how it has its roots in Anglo-American philosophy, for example

in Charles Peirce's semiotics and later in Nelson Goodman's "languages of art", both of which explore the conventions and codes that underlie nonlinguistic symbol systems and (more important) do not begin with the assumption that language is paradigmatic for meaning. (1994, p. 12)

In Europe, he identified the roots of the pictorial turn, amongst others, in the Frankfurt School's scrutiny of mass culture and visual media as well as in Ludwig Wittgenstein's musings in *Philosophische Untersuchungen: Philosophical Investigations* (1953, p. 48e) on the structuring force of images, formulated as follows in this well-known passage: "A *picture* held us captive. And we could not get outside it, for it lay in our language and language seemed to repeat it to us inexorably" (quoted in W. J. T. Mitchell, 1994, p. 12).

For W. J. T. Mitchell, the pictorial turn is embedded in the interplay which relates the symbolism of the image to social structures on the one hand and to the potential insights and actions of subjects on the other when he defines it as "a postlinguistic, postsemiotic rediscovery of the picture as a complex interplay between visibility, apparatus, institutions, discourse, bodies, and figurality" (1994, p. 16). In the age of digital reproduction and "a culture totally dominated by images" (1994, p. 15), the author mentions the possibility of the hierarchy between text and image being turned on its head, of the image becoming the dominant factor in our culture (1994, p. 15). Images of all kinds could merge, or as he puts it, "vision, space, world-pictures, and art-pictures all weave together as a grand tapestry of 'symbolic forms'" (1994, p. 19). Yet this assumption of the dominance of the image is still based on a strict division between text and image which does not take the integrative function of cybertechnology or the ensuing multimedia applications into account yet. Against this background, new "intertwined relationships" (Sandbothe, 2000, p. 83) can be imagined between text and image, as have already been revealed in

multimedia hypertextuality (2000, p. 89; Yoo, 2007, p. 44). In such intertwined relationships, Krämer and Bredekamp can already identify a new mode of reproduction for our culture as its “textualization” has shown its limitations (2003/2013, p. 24). They write: “It is ... in the reciprocity between the symbolic and the technical, between discourse and the iconic—that cultures emerge and reproduce” (2003/2013, p. 24).

3.2.4.4 *Media Carriers of Meaning and Their Addressees*

Words and images may be meaningful as objectifications of human activities, but the realization of these meanings is dependent on their meeting with a response from a human counterpart. As already mentioned, Christina von Braun refers to the “inner gaze” (1989, p. 125) which the understanding of discursive and presentational symbols depends on; for W. J. T. Mitchell, the potential insights and actions of subjects are also a prerequisite for the meanings of texts and pictures to be revealed (1994, p. 16). Expectations of a response from a human counterpart are inherent in both texts and images. With respect to the expectation embedded in language, Jacques Lacan explains, “[a]ll speech calls for a response” (1953/1996, p. 206). The metaphorical illustration of this proposition using a broken piece of pottery whose jagged edges match the jagged edges of another piece of pottery,³ in other words, which prove to be a *tessera*, can also be transferred to the reception of images.

The images which network actors publish in virtual space should attract the attention of Others in the same way as their written blog entries. A 14-year-old who was interviewed in the study “Communicative Publics in Cyberspace” sees the value of his blog, which he keeps as a public diary, in its very public character, which makes it possible for him to reach more people who might have something to say about his entries or who have the same interests. The 14-year-old counts on his posts proving their value as a *tessera*. It cannot be taken for granted that posts, whether text or image, are encountered by an interested opposite number. What Roland Barthes declared in relation to traditional writing is just as true in virtual space: “The text you write must prove to me *that it desires me*” (1975, p. 6). The so-called like button may, indeed, represent an attempt by providers of digital services to retrieve and document the potential of texts and images to act like a *tessera*.

³For more information on the function of texts as pieces of pottery or *tessera*, see “The Other as a Reference Point for Narrating” in Sect. 2.2.2.1.

In accordance with Alfred Lorenzer, we can assume that the subjects' answers develop in response to texts as linguistic–symbolic interaction forms and to images as sensory–symbolic ones (1981, pp. 159ff.). Linguistic–symbolic interaction forms serve to decipher and understand linguistic signs and textual structures whereas sensory–symbolic interaction forms open up the sensory and emotional substance of presentational symbolism, as presented to us by images.

W. J. T. Mitchell, too, proceeds from the assumption that, firstly, the elaboration of meaning in words and images requires a counterpart and, secondly, that the responses of the counterpart to those texts or images differ. He writes:

It is the realization that *spectatorship* (the look, the gaze, the glance, the practices of observation, surveillance, and visual pleasure) may be as deep a problem as various forms of *reading* (decipherment, decoding, interpretation, etc.) and that visual experience or “visual literacy” might not be fully explicable on the model of textuality. (1994, p. 16)

For Lorenzer, linguistic–symbolic and sensory–symbolic interaction forms do not evolve as mere mimesis. Rather, they are part of an interaction game; the meanings of texts and images do not enter the heads of their readers and observers without further ado (1981, p. 156). They are interpreted, accentuated, selected, or relativized in the interaction game. Seeing, for example, is described by Hoffmann-Axthelm as an active sensory function which does not merely register but rather defines (1984, pp. 35–36). Reading and listening are also described as an interactive activity by Roland Barthes: “To read is to name; to hear is not only to perceive a language, it is also to construct it” (1988, p. 115).

When, as described earlier, the boundaries between text and image start to liquify in virtual space, when new intertwined relationships, characterized by their multimodality, arise in the media, the dividing lines between linguistic–symbolic and sensory–symbolic interaction forms are set in motion; these interaction forms then respond to texts and images. On the part of the addressees, new combinations of strategic operations and emotional–sensory forms of expression are required which do not only reveal the experiential significance of presentational and discursive symbolism but are also able to respond to it actively.

3.2.5 *Virtuality*

According to Marc Augé, “it often happens in Africa that a child who is born by chance outside the village receives a particular name derived from some feature of the landscape in which the birth took place” (1992/1995, p. 53). Physical reality is provided with an existential function in the tradition described by Augé; it inscribes itself permanently in human existence, becoming a distinguishing feature of human identity.

As already illustrated in Sect. 2.1.2 on spaces as contexts for narrating, places have always been of great significance for individuals’ experiences and actions through the ages and across cultural borders. Alongside physical places, with the increasing mediatization of societies, spaces have crystallized which can be identified as virtual spaces, although this has happened more rapidly and completely in industrialized countries than in agrarian societies. What is the relationship between virtual and physical spaces? How are they experienced by the human subject? What reality status are they accorded? Can they gain a meaning comparable to the physical place described in Augé’s example? Virtualization is yet another structural feature of digital narrative spaces, which I will now deal with to round off this chapter.

3.2.5.1 *The Relationship Between Virtuality and Reality*

As early as the 1980s, Jean Baudrillard had already focused his research on questions of virtuality, particularly in the light of the proliferation of media artefacts and scenarios which he had observed (1981/2001, 1994). According to Baudrillard, virtuality arises from a simulation of the real;⁴ he also speaks of “hyperreality” in this connection (Baudrillard & Lischka, 1994, pp. 29–30). He was especially interested in the relation between virtuality and reality or, to put it differently, the reality status of virtuality, describing this relation as including both compensation and competition. In its compensatory role, virtuality would be the attempt “[to conceal] the fact that the real is no longer real, and thus [to save] the reality principle” (1981/2001, p. 175). One of the examples he gives is Disneyland, the American toy world, which “is presented as imaginary in order to make us believe that the rest is real” (1981/2001, p. 175). But everything surrounding Disneyland, namely Los Angeles and the whole of the USA, is no longer real according to Baudrillard. He describes “real agony”

⁴This is my interpretation of Baudrillard’s remarks on his concept of simulation.

(1981/2001, p. 180) as a general phenomenon and, simultaneously, notes a resurrection of the real in systems of signs, a simulation of reality which should confirm its existence. Simulation, for Baudrillard, means “to feign to have what one hasn’t” (1981/2001, p. 170). One thinks one has a reality but one only has a virtual reality, a model of reality. Baudrillard claims that virtuality has its origins in the need to create a perfect, flawless reality: “So that it becomes perfect, it has to be created anew, as an artifact, because it is impossible for perfection to dwell within the natural world” (1994, p. 14).

Media productions in the audiovisual media, like reality shows, photo galleries, and multimedia self-portraits in digital networks, bear witness to this endeavour many times over. Virtual reality, in Baudrillard’s mind, does not stay in its housing as the “concept of virtuality is distilled into real life, in homeopathic doses” (1994, p. 8). Or “television and the media have long since stepped out of their media space in order to conquer ‘real’ life from within, lodging themselves there just like a virus lodges itself in a normal cell” (1994, p. 8). The truth of television, to follow Baudrillard’s line of argumentation, would become the truth for the real; likewise an online profile in a digital network would become the truth for the person who created it. The attempt to save reality by simulating reality turns into a competitive relation between reality and virtuality, resulting in a profound virtualization of being (1994, p. 9; see also Pietraß & Schachtner, 2013, p. 255).

Baudrillard’s propositions did not go unchallenged. One of Stefan Münker’s criticisms is that in order to ascertain whether a reality is merely virtual, it would have to be assumed that there is a basic reality (1997, p. 117). In line with Münker’s argumentation, as soon as virtual reality is mentioned, this implies that “there is only one real and true reality” (1997, p. 117). Münker also finds the thought absurd that we are leading a phony life, which is implied in Baudrillard’s assumption of the virtualization of being in which there is nothing beyond the reflections and illusions (1997, p. 117). The reason for such falsities, Münker believes, can be found in the desire for a world with clear, strict boundaries and differentiations as well as clean dichotomies, along the lines of real versus virtual, reality versus illusion (1997, p. 117). Maybe Baudrillard can insist on his dichotomous perspective because he does not define his concept of reality. Münker rejects the idea of understanding the virtual by categorically differentiating it from the real (1997, p. 118), opposing the dualistic method of thinking which characterizes the tradition of Western thought and which is also

reflected in our language. Ludwig Wittgenstein also made this very clear when he wrote: “*The limits of my language mean the limits of my world*” (1922, p. 74). This sentence refers to the anchoring of our potential insights in language. The consequences of this anchoring are also manifested in the difficulty of determining the relation between the physical world and virtual reality as generated by audiovisual and digital media as this relation confronts us with mixed structures, after all, which withstand a dualistic classification. As vague as the term virtuality may be, it is impossible to do without it for the time being so as to be able to identify the special features of reality as staged in the media, without having to express an opposition between virtuality and reality.

In his attempt to clarify the concept of the virtual with reference to Schutz’s (1970) *Reflections on the Problem of Relevance*, Michael Paetau claims that the virtual is not something which stands in opposition to the real (1997, p. 119), explaining that every form of reality is mentally and socially constructed and is, therefore, virtual. It is not physical realities but constructs of reality which form the basis for our actions, as explained by Schutz and Luckmann in *The Structures of the Life-World* (1974, pp. 3ff.). These constructs of reality, called life-worlds or meaning-contexts by Schutz and Luckmann, have the character of a virtual reality because they are models. This does not make them any the less real for subjects; rather these constructs structure their experiences and actions.

Yasuo Imai, too, points out that virtual realities are not a peculiarity of the modern world or even the digitalized one; people have always been concerned with virtual realities, at the latest since the invention of writing (2002, p. 26). According to Imai, spoken language would have already fulfilled the function of “describing absent, not immediately accessible issues” (2002, p. 26). Writing, then, provided the denotive function of language with a permanent substance, thus developing a separate world which, with regard to the currently experienced world, could be classified as virtual (2002, p. 26). The image also fulfils this function, I might add; it shows what has been experienced, perceived, or sensed without being identical to what was experienced, perceived, or sensed. Münker adds that we can gain new perspectives with the help of language or images, although this does not simply mean that we see the world in a different light. Rather, we see “a different world” (1997, p. 120), which has an impact just like the physical world.

From a very early age, we practise constructing virtual realities. Towards the end of the first year of their lives, children already begin to transfer

their life-world experiences and feelings into sequences of sounds and, later on, into words; from the age of 12 months onwards, they translate impressions into scribbles, followed by drawings and role play at the age of three to four or so. At the latest when they go to school, they start learning how to write. It appears to be an existential need to produce virtual realities, which Schutz and Luckmann explain by stating that “the world is already given to [us] for [our] explication” (1974, p. 6). Only within the context of an explicated world are we able to act. Writing and drawing are two forms of explication. A 26-year-old Yemeni blogger from the study “Communicative Publics in Cyberspace” recalled how she felt the urge to write when she was 15 and that later this urge was transferred into the digital world: “I’m really passionate about writing. I used to write since I was 15 years old. I remember that no day passed without me writing one thing in my diary.”

Münker proposes that the concept of reality should be relativized and that virtual reality should be seen as one kind of reality alongside other kinds of reality (1997, p. 119). He wants the virtual to be understood as part of the real (1997, p. 122). At first sight, Ahrens appears to use similar arguments to Münker when she defines virtual spaces as “supplementary technosocial spaces” (2003, p. 175) whose relationship with real space involves neither competition nor exclusion (2003, p. 175). The term supplementary spaces implies that realities exist side by side, as also proposed by Münker. However, as she continues to make her case, Ahrens distances herself from this standpoint with an eye to more recent technical developments. Current media trends are not characterized by physical and virtual realities existing side by side but rather in one another and on top of one another. The following scenario should illustrate what I mean: I am sitting in my office or I am outside, on the street, at a bus stop, or in a park, so I am part of the physical world, but that does not stop me from using my PC, laptop, or smartphone at the same time to log into a virtual world, for example to start a blog entry, to post my current activity as a status update online, or to start a conversation with other network actors who are located in other physical spaces. In between, I might make a few moves in a computer game. Doulis, Agotai, and Wyss (2009) underscore how physical and virtual realities intersect in such situations and become indeterminate so that new “spatial interfaces” arise.

According to Ahrens, the intermingling of online and offline realities allows new interfaces to arise between abstractness and contextuality or

between distance and proximity (2003, p. 183). What is meant to be “outside” can suddenly be found on one’s own desk (2003, p. 183), making its presence felt in one’s everyday immediate world. The boundaries of individual realities shift or dissolve. They become mobile, allowing the creation of mixed realities (Schachtner, 2013, pp. 20ff.).

The new mixed relationships between physical realities and virtual realities in cyberspace prompt reactions from those who move in and between these realities. In the study “Communicative Publics in Cyberspace,” we came across many such reactions; what they had in common was that they were an attempt to clarify the reality status of the virtual. When the 26-year-old Arab blogger cited earlier explained that “there is no difference between the online and offline [name of the blogger],” she was claiming that, for her, the physical and virtual worlds are equally real, backed up by her organizing her online existence like her real-life existence. A 23-year-old blogger from Austria had also expressed his interest in organizing his virtual space like in real space, for example when he posted on his feelings in his blog:

I think that it is very important that people have this emotional bond with a blogger and that they also know that when I write about such feelings, they [other network actors] can count on the fact that what I write is really true.

For the 23-year-old, true feelings are presumably authentic feelings. We do not know whether his feelings are the same beyond the blogosphere, but while he is writing, that is what he feels, in his mind, and that is crucial for him to experience virtual reality as being real and to let Others experience it as real as well. In contrast, a 12-year-old network actor was not yet so sure about how she should categorize virtual reality in relation to physical reality. In the course of the interview, the 12-year-old returned to the question time and again as to whether activities which develop online are to be rated as right, genuine, and, consequently, important or not. She talked about a boy who had asked her online whether she wanted to be his girlfriend. She reacted to his offer with a counterquestion, asking him “why he can’t look for a girlfriend in his real life.” When emotional commitment is potentially involved, questions about the degree of reality in the virtual are particularly sensitive as this is associated with a particularly high risk in case the virtual world does just turn out to be an illusory world.

3.2.5.2 *Virtual Spaces as Heterotopias*

The ongoing attempt to determine the quality of the virtual was characterized in the previous section by an exploration of the relation between virtuality and physical reality; now the characteristics of virtuality are brought to the fore as illustrated in digital narrative spaces. By the late 1960s, Michel Foucault had already developed a concept which is highly suited to grasping the idiosyncrasies of digital narrative spaces, namely the concept of heterotopias (1967/1997). Foucault uses this concept to characterize places like psychiatric clinics, prisons, cemeteries, gardens, ships, brothels, and libraries (1967/1997, pp. 333ff.), special places in a society in which physical dimensions intermingle with specific ideologies, visions, and life trajectories. Naturally, Foucault did not have the virtual spaces of cyberspace in mind when he developed his concept; nevertheless it can be used to help characterize them.

For Foucault, heterotopias are “real and effective spaces” which are part of society but which “constitute a sort of counter arrangement, of effectively realized utopia” (1967/1997, p. 332). On the one hand, they represent a society’s culture; on the other hand, they question it (1967/1997, p. 332). Foucault distinguishes between heterotopias and utopias, the latter representing what he calls “spaces that are by their very essence fundamentally unreal” (1967/1997, p. 332) whereas heterotopias, as already mentioned, are real spaces for Foucault. He concedes that mixed forms also exist in the sense that what already exists is mixed in with dreams and ideals (1967/1997, p. 332).

Foucault describes heterotopias with the help of specific principles, which can generally be applied to digital narrative spaces as well. One principle describes how a heterotopia can combine “in a single real place different spaces and locations” (1967/1997, p. 334). The example Foucault gives is of a Persian garden, which consists of four rectangles standing for the four parts of the earth, with a sacred space in the middle symbolizing the centre of the world (1967/1997, p. 334). Gardens were then reproduced in carpets in which, for Foucault, “the world in its entirety achieved symbolic perfection” (1967/1997, p. 334).

The internet is akin to a Persian garden, or even takes its structure one step further, because it works like an enormous “parallel computation device” (William J. T. Mitchell, 2003, p. 13), which not only has four or five spaces but provides an immensely large number of them. We encounter digital workspaces and study spaces as well as spaces for playing, flirting, and discussing, which open up to the narrative activities of subjects.

These spaces do not exist next to each other; they are all available to us simultaneously. Thomas Steinmaurer suggests that we would have to start from the premise of “a liquifying overlapping and co-existence of different representative spaces” (2013, p. 11). Steinmaurer assumes that subjects are “exposed to the intermingling of the simultaneous effects of different spatial references” (2013, p. 11), which he attempts to capture with the term “hybrid multilocality” (2013, p. 11). Given the overlapping of spaces, it would be appropriate to talk of a translocality. In addition to that, the miniaturization and merging of digital technology ensure that the overlapping spaces have become transportable and can be accessed on a smartphone in just about every situation (Schachtner, 2013, p. 20). These technical possibilities are also reflected in the subjects’ actions. In the study “Communicative Publics in Cyberspace,” a Yemeni blogger talked about the simultaneity of different spatial references as follows: “When I open my laptop it’s my Facebook open, my Twitter, my blog, BBC, Yemen—it’s just everything.” As she sees it, she is present on all of the various platforms at the same time. Sherry Turkle came across a similar phenomenon with a young network actor in one of her studies, explaining that “she can keep her parallel lives open as windows on her screen” (2011, p. 194). Thus the overlapping spatial references not only apply to interfaces between virtual and physical reality, as described in Sect. 3.2.5.1 (“The Relationship Between Virtuality and Reality”), but also exist within the virtual world of cyberspace.

In another principle, Foucault ascertains that heterotopias are connected to “bits and pieces of time” (1967/1997, p. 334). They function fully “when men find themselves in a sort of total breach of their traditional time” (1967/1997, p. 334). In the light of his examples about breaching time, Foucault appears to associate “traditional time” with a steady flow of time. According to Foucault, the cemetery is a “highly heterotopian place,” for it represents the end of human lives. Heterotopias are also places which are dominated by the idea of accumulating everything, all epochs, all thoughts, all tastes, driven by “the desire to enclose all times ... within a single place” (1967/1997, p. 334), as is the case in museums or in libraries. In contrast to that, there are also heterotopias “without a bias toward the eternal” which are “linked to time in its more futile, transitory and precarious aspects,” such as fairs (1967/1997, pp. 334–335).

The virtuality of cyberspace features different types of breach with traditional time, some of which match Foucault’s deliberations and some of

which point to new manifestations. Virtual spaces are incredibly large global archives for information and texts which save the stories of their users, often without their knowledge and not uncommonly against their will. They have storage capacity on a scale hitherto unknown. Conversely, yet also in line with Foucault's concept of heterotopias, virtual spaces are fleeting to a degree hitherto unknown. The stories told in chats, for example, whiz across the screen in a matter of seconds. Narrations which are co-constructed in dialogue, for example in a communication forum or a computer game, can be abandoned from one second to the next, with no chance of their being continued.

Above and beyond that, there are new types of breach with traditional time in virtual narrative spaces caused by the blurring of borders enabled by digital technology. This is revealed in the liquifying of boundaries between day and night; storytelling can happen round the clock and storytellers can even bank on an audience round the clock.

Another way of blurring borders concerns work and leisure time. Under the influence of digital technology, at present gainful employment is moving away from the characteristics of the Fordist–Taylorist model of work, which presupposes invariable borders between gainful employment and other areas of one's life (von Streit, 2011, p. 24), towards a liquification of these borders. As the technology which promotes this liquification has become mobile, the working population find themselves in these heterotopias characterized by numerous time references on a virtually permanent basis (Roth-Ebner, 2015, pp. 256ff.; Schachtner, 2013, pp. 23–24).

A third principle describes heterotopias as always “presuppos[ing] a system of opening and closing that isolates them and makes them penetrable at one and the same time” (Foucault, 1967/1997, p. 335). Either individuals are forced to enter spaces such as a prison or a locked psychiatric ward, thus experiencing the closing of the space, or they are only allowed to enter a space with permission and after carrying out certain rituals, as in an Islamic hammam. The characteristics of this principle are also found in virtual narrative spaces. For the most part they are spaces which are globally accessible, which makes them particularly attractive to narrators as narrative spaces. Computer networks breach the isolating effect of individual spaces, making postings visible on a global scale (Ahrens, 2003, p. 176). The pressure to enter these spaces is implicit rather than explicit and is associated with the increasing importance of such spaces as subcultural partial public spaces. Adolescents, for example, who do not play certain computer games cannot participate in some

aspects of communication in their peer groups as today it is very strongly related to the media. Membership of an online community also demands regular involvement so as not to risk being expelled. For network actors participating in global communication and narrative networks, heterotopic experiences are enhanced, leaving their marks on an individual's representation of the Self, as a network actor from Saudi Arabia explained: "In real life I'm a Saudi guy living in Saudi Arabia and talking within one kilometre radius that is around me. ... But online I'm multinational, I'm multigeographical." The opening up of digital narrative spaces worldwide does not rule out participation being tied in with certain access rituals. These include passwords as a condition for access or even ethical codes which have to be agreed to in order to gain access to these spaces.

Heterotopias prevail over dualistic perspectives; they configure, facilitate, and urge individuals to live different or even contradictory lives. They create the "Other Spaces" (Foucault, 1967/1997), the Other in contrast to the dominant culture. Digital narrative spaces are part of the heterotopic spectrum because they match elements of Foucault's principles. For one thing, they reproduce certain facets of the world beyond its digital face but they also contrast with others, for example by challenging accepted spatial and temporal boundaries (Doulis et al., 2009, p. 55). They can turn out to be counterplacements and counterarrangements. Thanks to liquified geographical boundaries, distance can become involved as an "acting distance" (Ahrens 2003, p. 185), triggering a feeling of proximity which is not necessarily limited to virtual space (2003, p. 185), as indicated by the viral nature of social movements which Castells detected. He uses the notion of virality to describe impulses which can originate from political protests in one place and inspire protests in other places (2012, p. 224). Hearing about protests taking place elsewhere "triggers *hope* of the possibility of change" (2012, p. 224). In Castells' eyes, digital media are an important component of virality (2012, p. 221).

Like heterotopias in general, virtual spaces represent special realities, the special features of which are not, however, determined by the question as to whether they are real or not because they are real in the sense that they evoke real thoughts and feelings and are suffused by them. Just like physical spaces, the emergence of digital narrative spaces is dependent on the interaction and communication of network actors. That explains why experiences in the world beyond the screen are not barred as well as why commonplace behaviours are found in digital heterotopias and why new experiences can develop on the basis of novel experiences.

3.2.5.3 *The Narrative Potential of Digital Heterotopias*

The proliferation and overlapping of virtual spaces open up options to add collages and montages to stories (Ahrens, 2003, p. 188). New elements can be transferred to familiar contexts; familiar elements can be transferred to new contexts. In more concrete terms, elements of a story which is told in virtual space, for example in a chat or beyond the screen, can be transferred onto another digital stage and combined there with elements of another story, resulting in a new story, a process which can be carried on infinitely. This could be an example of transmedia storytelling, although Henry Jenkins reserves the term transmedia for a type of storytelling in which “*integral elements of a fiction get dispersed systematically across multiple delivery channels ... each medium makes its own unique contribution to the unfolding of the story*” (2011, para 4.). In the case of narrative collages and montages which are constructed over different spaces, the narrative elements are not tied down to one platform; instead, they are mobile, which means that not one but several stories could emerge in the end. But just like the type of storytelling that Jenkins has in mind, the narrative elements from different digital platforms also interact; the boundaries between different media do not necessarily mark the boundaries of a story. Arising out of the possibilities of narrative collages and montages in digital heterotopias, it follows that the stories can be changed over and over again at all times, that the permanent and the fleeting can form innumerable alliances, and that the narrated life or representations of the Self can be experienced and perceived as constructions.

Furthermore, digital heterotopias put narratives on display in the spirit of Walter Benjamin (1935/1996, p. 21). Like the “actor before the camera” (1935/1996, p. 21) that W. Benjamin refers to, the network actors and bloggers tell their stories while interacting with a technical device.⁵ The process of narrating is co-extensive with the product, with the narrative, as reflected in the very term “narrative,” which indicates its procedural nature (cf. the beginning of Chap. 2). One difference between actors in the film industry and network actors or bloggers is that the latter can

⁵The apparatus, or the camera in front of which the actor tells his or her story, is not just a recording device either, although W. Benjamin would have it as such; rather it comments permanently on the actor’s performance under the guidance of the cameraman (or woman).

adapt their reactions to their audience because their relationship is interactive. In view of the emergence of interactive films in which the addressees can help shape the story, the difference is reduced between storytelling online and in film (Gaudenzi, 2009). Yasuo Imai's interpretation of W. Benjamin is that he wishes to resolve the tension between the process and the product, giving the process greater recognition by declaring it to be a product (Imai, 2002, pp. 31ff.).

Imai attempts to verify the suitability of W. Benjamin's approach, or rather the concurrence of product and production, for characterizing virtual reality with the example of the concept of life-writing, which also demonstrates parallels with digital storytelling. As mentioned earlier in "The Relationship Between Virtuality and Reality," for Imai, writing is about the production of a virtual reality, regardless of what technology is used. The concept of life-writing was introduced by the progressive educational movement, which was very influential in Japan in the 1930s. It involved children writing essays about their life experiences, expressing their fears and worries, addressing enjoyable and horrible aspects (2002, p. 36). The underlying assumption is that in the process of writing, the different dimensions of reality, namely the I–Self relationship, the I–world relationship, and the social reality of the I–Other relationship, permeate it, merging to create a single reality (2002, p. 39). The product, or reality as a whole, is not an end product of writing but constitutes itself in the very process of writing. In the sense of W. Benjamin, the writing process and product merge.

The forms in which stories are told in digital heterotopias, whether in the form of longer passages in blogs or succinct tweets in digital networks, are similar to the life-writing essays of Japanese children. Here, too, everyday events and the associated emotional states are translated into written language. It is doubtful, however, whether this writing can meld experienced realities into one whole in view of our pluralized society. It is more likely that written products emerge which mirror multifarious realities with non-compatible facets. Nevertheless, writing in digital heterotopias could pursue the intention to produce a coherent reality. Whichever realities emerge from digital narrating, they are realities which people experience as existing alongside other realities. As "actual" realities, however, they cannot be isolated from those in digital heterotopias.

REFERENCES

- Ahrens, D. (2003). Die Ausbildung hybrider Raumstrukturen am Beispiel technozusozialer Zusatzräume [The formation of hybrid spatial structures taking the example of supplementary technosocial spaces]. In C. Funken & M. Löw (Eds.), *Raum-Zeit-Medialität* (pp. 173–190). Frankfurt am Main: Leske + Budrich.
- Andritzky, M., & Hauer, T. (2002). Alles, was Netz ist [Everything which is a network]. In K. Beyrer & M. Andritzky (Eds.), *Das Netz: Sinn und Sinnlichkeit vernetzter Systeme* (pp. 11–18). Heidelberg: Braus/Wachter.
- Arendt, H. (1958). *The human condition*. Chicago, IL: The University of Chicago Press.
- Augé, M. (1995). *Non-places: Introduction to an anthropology of supermodernity* (J. Howe, Trans.). London: Verso. (Original work published 1992).
- Barthes, R. (1975). *The pleasure of the text* (R. Miller, Trans.). New York, NY: Hill and Wang.
- Barthes, R. (1988). *The semiotic challenge* (R. Howard, Trans.). Oxford: Blackwell.
- Baudrillard, J. (1994). Die Illusion und die Virtualität [Illusion and virtuality] (H. P. Einfalt, Trans.). In G. J. Lischka (Ed.), *Die Illusion und die Virtualität* (pp. 7–22). Bern: Benteli-Werd.
- Baudrillard, J. (2001). Simulacra and simulations (P. Foss, P. Patton, & P. Beitchman, Trans.). In M. Poster (Ed.), *Jean Baudrillard: Selected writings* (2nd ed., Rev. and Expanded, pp. 169–187). Stanford, CA: Stanford University Press. (Original work published 1981).
- Baudrillard, J., & Lischka, G. J. (1994). Gespräch zwischen Jean Baudrillard und Gerhard Johann Lischka [Conversation between Jean Baudrillard and Gerhard Johann Lischka]. In G. J. Lischka (Ed.), *Die Illusion und die Virtualität* (pp. 23–47). Wabern-Bern: Benteli-Werd.
- Beck, U. (2006). *The cosmopolitan vision* (C. Cronin, Trans.). Cambridge: Polity.
- Benjamin, W. (1996). *The work of art in the age of mechanical reproduction* (J. A. Underwood, Trans.). London: Penguin. (Original work published 1935).
- Böhme, H. (2004). Netzwerke: Zur Theorie und Geschichte einer Konstruktion [Networks: The theory and history of a construction]. In J. Barkhoff, H. Böhme, & J. Riou (Eds.), *Netzwerke: Eine Kulturtechnik der Moderne* (pp. 17–36). Köln: Böhlau.
- Bolter, J. D. (1997). Das Internet in der Geschichte der Technologien des Schreibens [The internet in the history of the technologies of writing]. In S. Munker & A. Roesler (Eds.), *Mythos Internet* (pp. 37–55). Frankfurt am Main: Suhrkamp.
- Bolz, N. (2001). *Weltkommunikation [World communication]*. München: Econ.
- Bruns, A. (2008). *Blogs, wikipedia, second life, and beyond: From production to pro-usage*. New York, NY: Peter Lang.

- Castells, M. (2012). *Networks of outrage and hope: Social movements in the internet age*. Cambridge: Polity.
- Csikszentmihalyi, M., & Rochberg-Halton, E. (1981). *The meaning of things: Domestic symbols and the self*. Cambridge: Cambridge University Press.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus* (B. Massumi, Trans.). Minneapolis, MN: University of Minnesota Press. (Original work published 1980).
- Doulis, M., Agotai, D., & Wyss, H. P. (2009). Spatial Interface: Wahrnehmungsfelder und Gestaltungsansätze im virtuellen Raum [Spatial interface: Fields of perception and design concepts in virtual space]. In M. Bogen, R. Kuck, & J. Schröter (Eds.), *Virtuelle Welten als Basistechnologie für Kunst und Kultur?* (pp. 55–64). Bielefeld: transcript.
- Erstad, O., & von Wertsch, J. (2008). Tales of mediation: Narrative and digital media as cultural tools. In K. Lundby (Ed.), *Digital storytelling, mediatized stories: Self-representations in new media* (pp. 21–40). New York, NY: Peter Lang.
- Foucault, M. (1997). Of other spaces: Utopias and heterotopias (J. Miskowicz, Trans.). In N. Leach (Ed.), *Rethinking architecture: A reader in cultural theory* (pp. 330–336). New York, NY: Routledge. (Original work published 1967).
- Fraser, N. (1992). Rethinking the public sphere: A contribution to the critique of actually existing democracy. In C. Calhoun (Ed.), *Habermas and the public sphere* (pp. 109–142). Cambridge, MA: The MIT Press.
- Frerichs, P., & Wiemert, H. (2002). *Ich gebe, damit Du gibst: Frauennetzwerke; Strategisch, reziprok, exklusiv [I give so that you can give: Women's networks; Strategic, reciprocal, exclusive]*. Leverkusen: Leske + Budrich.
- Gaudenzi, S. (2009). Setting the field. *Interactive documentary: Towards an aesthetic of the multiple*. Unpublished PhD thesis, Centre for Cultural Studies of Goldsmiths, University of London, London. Retrieved from www.interacted-ocumentary.net/wp-content/2009/07/sg_panel-yr3_2009_ch1.pdf
- Hartmann, F. (2008). *Multimedia [Multimedia]*. Wien: Facultas.
- Hepp, A. (2006). *Transkulturelle Kommunikation [Transcultural communication]*. Konstanz: UVK.
- Hoffmann-Axthelm, D. (1984). *Sinnesarbeit: Nachdenken über Wahrnehmung [Working with the senses: Thinking about perception]*. Campus: Frankfurt am Main.
- Imai, Y. (2002). Erfahrung, Repräsentation und Virtualität in der Pädagogik [Experience, representation, and virtuality in pedagogy]. In W. Bauer, W. Lippitz, W. Marotzki, J. Ruhloff, A. Schäfer, M. Wimmer, & C. Wulf (Eds.), *Weltzugänge: Virtualität – Realität – Sozialität; Jahrbuch für Bildungs- und Erziehungsphilosophie*, 4 (pp. 25–44). Hohengehren: Schneider.
- Jenkins, H. (1998). *From Home(r) to the holodeck: New media and the humanities*. Retrieved from <http://web.mit.edu/m-i-t/articles/australia.html>
- Jenkins, H. (2011). *Transmedia 202: Further reflections*. Retrieved from http://henryjenkins.org/blog/2011/08/defining_transmedia_further_re.html

- Jörissen, B. (2002). Virtually different: Interkulturelle Erfahrungsräume im Internet [Virtually different: Intercultural experiential spaces in the internet]. In C. Wulf & C. Merkel (Eds.), *Globalisierung als Herausforderung der Erziehung* (pp. 308–338). Münster: Waxmann.
- Knuddels. (n.d.). Retrieved from <http://forum.knuddels.de>
- Köcher, R., & Bruttel, O. (2011). *1. Infosys-Studie: Social Media, IT & Society [First Infosys study: Social media, IT & society]*. Frankfurt am Main: Infosys.
- Krämer, S. (1997). Vom Mythos ‘Künstliche Intelligenz’ zum Mythos ‘Künstliche Kommunikation’ oder: Ist eine nicht-anthropomorphe Beschreibung von Internet-Interaktionen möglich? [From the myth of ‘artificial intelligence’ to the myth of ‘artificial communication’ or: Is a non-anthropomorphic description of internet interactions possible?]. In S. Münker & A. Roesler (Eds.), *Mythos Internet* (pp. 83–107). Frankfurt am Main: Suhrkamp.
- Krämer, S. (2003). ‘Schriftbildlichkeit’ oder: Über eine (fast) vergessene Dimension der Schrift [‘Notational iconicity’ or: An (almost) forgotten dimension of writing]. In S. Krämer & H. Bredekamp (Eds.), *Bild – Schrift – Zahl* (pp. 157–176). München: Wilhelm Fink.
- Krämer, S., & Bredekamp, H. (2013). Culture, technology, cultural techniques: Moving beyond text (M. Wutz, Trans.). *Theory, Culture and Society*, 30(6), 20–29. (Original work published 2003).
- Lacan, J. (1996). The function and field of speech and language in psychoanalysis (B. Fink in collaboration with H. Fink & R. Grigg, Trans.). In J. Lacan (Ed.), *Écrits* (pp. 197–268). New York, NY: W. W. Norton. (Original work published 1953).
- Langer, S. K. (1957). *Philosophy in a new key: A study in the symbolism of reason, rite, and art* (3rd ed.). Cambridge, MA: Harvard University Press.
- Leggewie, C., & Bieber, C. (2004). Interaktivität: Soziale Emergenzen im Cyberspace? [Interactivity: Social emergences in cyberspace?]. In C. Bieber & C. Leggewie (Eds.), *Interaktivität: Ein transdisziplinärer Schlüsselbegriff* (pp. 7–14). Frankfurt am Main: Campus.
- Leithäuser, T., & Leicht, P. (2001). *Junge Erwachsene im Netz: Kommunikation und Identitätsbildung in Chats und Online-Rollenspielen; Eine sozialpsychologische Untersuchung* [Young adults in the internet: Communication and identity formation in chats and online role plays; A sociopsychological study]. Bremen: Akademie für Arbeit und Politik.
- Lorenzer, A. (1981). *Das Konzil der Buchhalter [The council of the bookkeepers]*. Europäische Verlagsanstalt: Frankfurt am Main.
- Maresch, R., & Werber, N. (2002). Permanenzen des Raums [Permanences of space]. In R. Maresch & N. Werber (Eds.), *Raum, Wissen, Macht* (pp. 7–32). Frankfurt am Main: Suhrkamp.

- Margreiter, R. (1999). Realität und Medialität: Zur Philosophie des ‘Medial Turn’ [Reality and mediality: The philosophy of the ‘media turn’]. *Medien Journal*, 23(1), 9–18.
- Marotzki, W. (2004). Interaktivität und virtuelle Communities [Interactivity and virtual communities]. In C. Bieber & C. Leggewie (Eds.), *Interaktivität: Ein transdisziplinärer Schlüsselbegriff* (pp. 118–131). Frankfurt am Main: Campus.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. New York, NY: McGraw-Hill.
- Mead, G. H. (with Morris, C. W., Ed.). (1934). *Mind, self and society: From the standpoint of a social behaviorist*. Chicago, IL: The University of Chicago Press.
- Merleau-Ponty, M. (2012). *Phenomenology of perception* (D. A. Landes, Trans.). London: Routledge. (Original work published 1945).
- Messner, D. (1997). Netzwerktheorien: Die Suche nach Ursachen und Auswegen aus der Krise staatlicher Steuerungsfähigkeit [Network theories: The search for causes and escape routes from the crisis of state accountability]. In E. Altwater, A. Brunnengräber, M. Haake, & H. Walk (Eds.), *Vernetzt und verstrickt: Nicht-Regierungs-Organisationen als gesellschaftliche Produktivkraft* (pp. 27–64). Münster: Westfälisches Dampfboot.
- Meyrowitz, J. (1985). *No sense of place: The impact of electronic media on social behavior*. New York, NY: Oxford University Press.
- Meyrowitz, J. (1989). The generalized elsewhere. *Critical Studies in Mass Communication*, 6(3), 326–334.
- Mitchell, W. J. T. [William]. (1999). Cyborgs: Die Bürger der digitalen Stadt [Cyborgs: Citizens of the digital city]. In K.-H. Wellmann & U. Thimm (Eds.), *Intelligenz zwischen Mensch und Maschine: Von der Hirnforschung zur künstlichen Intelligenz* (pp. 230–239). Münster: LIT.
- Mitchell, W. J. T. [William]. (2003). *Me++: The cyborg self and the networked city*. Cambridge, MA: The MIT Press.
- Mitchell, W. J. T. [William]. (2005). *Placing words: Symbols, space, and the city*. Cambridge, MA: The MIT Press.
- Mitchell, W. J. T. (1994). *Picture theory: Essays on verbal and visual representation*. Chicago, IL: The University of Chicago Press.
- Mitchell, W. J. T. (2005). *What do pictures want? The lives and loves of images*. Chicago, IL: The University of Chicago Press.
- Münker, S. (1997). Was heißt eigentlich: ‘virtuelle Realität’? Ein philosophischer Kommentar zum neuesten Versuch der Verdoppelung der Welt [What does ‘virtual reality’ mean actually? A philosophical comment on the latest attempt to duplicate the world]. In S. Münker & A. Roesler (Eds.), *Mythos Internet* (pp. 108–130). Frankfurt am Main: Suhrkamp.

- Nederveen, P. J. (2010). Global multicultural: Cultures, transnational culture, deep culture. In C. Baraldi, A. Borsari, & A. Carli (Eds.), *Hybrids, differences, visions: On the study of culture* (pp. 81–96). Aurora, CO: Davies Group.
- Netlog. (2010). Retrieved from <http://de.netlog.com>
- Neverla, I. (1998). Das Medium denken: Zur sozialen Konstruktion des Netz-Mediums [Thinking the medium: The social construction of the internet as a medium]. In I. Neverla (Ed.), *Das Netz-Medium* (pp. 17–36). Opladen: Westdeutscher Verlag.
- Paetau, M. (1997). Sozialität in virtuellen Räumen [Sociality in virtual spaces]. In B. Becker & M. Paetau (Eds.), *Virtualisierung des Sozialen: Die Informationsgesellschaft zwischen Fragmentierung und Globalisierung* (pp. 103–134). Frankfurt am Main: Campus.
- Paus-Hasebrink, I., Schmidt, J.-H., & Hasebrink, U. (2009). Zur Erforschung der Rolle des Social Web im Alltag von Heranwachsenden [Research on the role of the social web in adolescents' everyday lives]. In J.-H. Schmidt, I. Paus-Hasebrink, & U. Hasebrink (Eds.), *Heranwachsen mit dem Social Web: Zur Rolle von Web 2.0-Angeboten im Alltag von Jugendlichen und jungen Erwachsenen* (pp. 13–40). Berlin: Vistas.
- Pietraß, M., & Schachtner, C. (2013). Entgrenzungen zwischen Realität und Virtualität [The blurring of borders between reality and virtuality]. In H.-R. Müller, S. Bohne, & W. Thole (Eds.), *Erziehungswissenschaftliche Grenzgänge. Beiträge zum 23. Kongress der Deutschen Gesellschaft für Erziehungswissenschaft* (pp. 253–267). Barbara Budrich: Opladen.
- Roth-Ebner, C. (2015). *Der effiziente Mensch: Zur Dynamik von Raum und Zeit in mediatisierten Arbeitswelten* [The efficient person: On the dynamics of space and time in mediatized work environments]. Bielefeld: transcript.
- Sandbothe, M. (2000). Interactivity – hypertextuality – transversality: A media-philosophical analysis of the internet. *HERMES: Journal of Linguistics*, 24, 81–108.
- Sassen, S. (1997). Cyber-Segmentierungen: Elektronischer Raum und Macht [Cyber segmentation: Electronic space and power]. In S. Münker & A. Roesler (Eds.), *Mythos Internet* (pp. 215–235). Frankfurt am Main: Suhrkamp.
- Schachtner, C. (2005). Virtuelle Mädchen- und Frauennetze als Kommunikationsräume [Virtual networks for girls and women as spaces for communication]. In C. Schachtner & G. Winker (Eds.), *Virtuelle Räume – neue Öffentlichkeiten: Frauennetze im Internet* (pp. 176–218). Frankfurt am Main: Campus.
- Schachtner, C. (2013). Im Gespinnst der Netze: Soziale und kulturelle Entwicklungstrends im Medienumbuch der Gegenwart [The interconnectedness of networks: Social and cultural trends in the current media revolution]. *Medien Journal*, 37(4), 18–34.

- Schade, S., & Wenk, S. (2011). *Studien zur visuellen Kultur: Eine Einführung in ein transdisziplinäres Forschungsfeld* [Studies on visual culture: An introduction to a transdisciplinary field of research]. Bielefeld: transcript.
- Schmidt, J.-H. (2009). *Das neue Netz: Merkmale, Praktiken und Folgen des Web 2.0* [The new net: Characteristics, practices, and consequences of Web 2.0]. Konstanz: UVK.
- Schutz, A. (1970). *Reflections on the problem of relevance*. New Haven, CT: Yale University Press.
- Schutz, A., & Luckmann, T. (1974). *The structures of the life-world* (R. M. Zaner & H. T. Engelhardt Jr., Trans.). London: Heinemann.
- Semper, G. 2004. *Style in the technical and tectonic arts, or, practical aesthetics* (H. F. Mallgrave & M. Robinson, Trans.). Los Angeles, CA: Getty Research Institute. (Original work published 1860).
- Steinmaurer, T. (2013). Kommunikative Dauervernetzung: Historische Entwicklungslinien und aktuelle Phänomene eines neuen Dispositiv [Permanent connectivity: Historical traits and current phenomena of a new dispositif]. *Medien Journal*, 37(4), 4–17.
- Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. New York, NY: Basic Books.
- Tuschling, A. (2009). *Klatsch im Chat: Freuds Theorie des Dritten im Zeitalter elektronischer Kommunikation* [Gossip in the chatroom: Freud's theory of the third in the age of electronic communication]. Bielefeld: transcript.
- von Braun, C. (1989). Die schamlose Schönheit des Vergangenen [The shameless beauty of the past]. In C. von Braun (Ed.), *Die schamlose Schönheit des Vergangenen: Zum Verhältnis von Geschlecht und Geschichte* (pp. 113–141). Frankfurt am Main: Neue Kritik.
- von Streit, A. (2011). *Entgrenzter Alltag: Arbeiten ohne Grenzen? Das Internet und die raum-zeitlichen Organisationsstrategien von Wissensarbeitern* [The blurring of borders in everyday life: Work without limits? The internet and spatio-temporal organizational strategies of knowledge workers]. Bielefeld: transcript.
- Weber, S. (2001). *Medien – Systeme – Netze: Elemente einer Theorie der Cyber-Netzwerke* [Media – systems – networks: Elements of a theory of cyber networks]. Bielefeld: transcript.
- Webgirrls. (1997–2019). Retrieved from <https://www.webgirrls.de/>
- Welsch, W. (2001). Auf dem Weg zur transkulturellen Gesellschaft [Heading for a transcultural society]. *Paragrana*, 10(2), 254–284.
- Wittgenstein, L. (1922). *Tractatus logico-philosophicus* (C. K. Ogden, Trans.). London: Kegan Paul, Trench, Trubner.
- Wittgenstein, L. (1953). *Philosophische Untersuchungen: Philosophical investigations* (G. E. M. Anscombe, Trans.). Oxford: Blackwell.

Yoo, H.-J. (2007). *Text, Hypertext, Hypermedia: Ästhetische Möglichkeiten der digitalen Literatur mittels Intertextualität, Interaktivität und Intermedialität* [Text, hypertext, hypermedia: Aesthetic possibilities for digital literature with the help of intertextuality, interactivity, and intermediality]. Würzburg: Königshausen & Neumann.

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