

## Geographies of Cyberspace: Internet, Community, Space, and Place

**Abstract** This chapter “Geographies of Cyberspace” discusses the term “cyberspace” in relation to the concepts of “space”, “place”, and “community” by reviewing the academic literature from human geography, sociology, and cultural anthropology. It forms the basis for the development of a phenomenological perspective on cyberspace. Instead of presenting all possible approaches towards cyberspace, this chapter discusses only those concepts that focus on the connections between on- and offline life. It proposes that cyberspace not only includes spatial and territorial metaphors, as several human geographers have pointed out, but that it is also characterised by complex geographies, which have to be explored in order to understand recent cultural and social developments, both on- and offline.

**Keywords** Community · On- and offline · Place · Space · Spatial metaphor

Cyberspace is seen by many humanities scholars as an emerging social or cultural technological field of human communication that comprises all forms of signs and actions. The relation between social or cultural affairs, on the one hand, and technology, on the other, is seen as that between a subject and an object. Humans act or give sense to technology, and as such they are subjects, while technology reacts to or transmits the intended sense, and so is an object (Rivers 2015, pp. 43–49). This view

of technology suggests an “instrumental-” or “anthropological determination” (Heidegger 1962, p. 6) of technology; that is, technology as a means to achieve an intended goal and as a mode of human action that is frequently called technique (Heidegger 1962, p. 6). Miller (2016, p. 16) summarises this view as follows: “technology becomes a means to satisfy human ends by aiding the acting out of considered, reflective and rational intensions to the mind or subjects onto the world of objects”. It is evident that, from this standpoint, technology is constantly used in our lives since humans employ both artefacts and their imagination (Heidegger 1962; Rivers 2015). Yet as well as being used by people, technology is also seen as a transformative medium for society (Dodge and Kitchin 2001, p. 13). Another widespread conception of technology departs from the conviction that it determines the ways societies are ordered and people live. Both views, of social and of technological determinism, conceptualise the relationship between humans and technology in terms of a simple subject–object distinction. Yet applying this viewpoint would inevitably lead to a perspective on cyberspace that would reaffirm the widely held belief that there is a distinction between these two, separate realms: that of the technological, “virtual” world (cyberspace), and that of the “real”, human world (geographic space) (Miller 2016; Moore 2012). Human geographers have been disputing this distinction since the 1990s.

In his convincing article about the development of the London Stock Exchange, Thrift has shown that the idea that technical innovations determine society and culture has persisted ever since the development of the telegraph in the late nineteenth century. In contrast to this perspective, he concludes that:

[One reason why] it is impossible to see information space as an abstract and inhuman space, strung out on the wire, stems from the way that City people interact knowledgeably with the available electronic communications technology. Here it is important to remember, first of all, that City people are practised in this kind of technology, socialised into its use over more than a century. (Thrift 1996, p. 1483)

Humans and technology evolve together, and their existence is intrinsically tied to each other. This view of a co-evolution challenges well-known concepts in media science. Graham (1998, p. 169), for example, does not agree with McLuhan’s concept of the “global village”—one

which has become very popular in writings devoted to the Internet and new communication technologies—because it suggests that the virtual opposes the real; the virtual is portrayed as an independent and new symbolic world that is steadily replacing our reality. This view, therefore, is labelled the “substitution perspective” (Graham 1998). Doel and Clarke (1999, p. 277) blame supporters of the substitution perspective for using terms such as “hyper-realisation” and thereby “confusing the virtual with the possible: the latter pre-empts, opposes, and resolves the real” (Doel and Clarke 1999, p. 277). For similar reasons, Light (1999, p. 120) challenges the idea that we live in a “culture of simulation”, Kitchin (1998, p. 392) questions writings on the “dematerialization and dissolution of city life”, and Adams (1997, p. 157) opposes Baudrillard’s concept of “simulacra”, which implies that in the modern era illusions and virtuality are replacing the real world in which we live with simulations. In order to avoid this radical view of the substitution perspective, Graham (1998, p. 172) has suggested that it would be more fruitful to understand social and cultural life through perspectives that are grounded in the assumption that cyberspace is produced alongside material and sociocultural spaces in a type of co-evolution or a re-combination of space relations.

The co-evolution perspective rejects the utopian idea that cyberspace is a universal space where everybody can freely meet after having entered as equals, and in which democracy naturally prevails (Cosgrove 1996, p. 1495; Warf 2001, p. 3). Crang et al. (1999), however, warn against such a simplistic perspective:

There is then no single version of cyberspace, but a plurality of networked conceptions, each associated with particular generic and geographical sites, and translated for others with varying degrees of success. [...] More generally, the works collected [in our anthology] emphasis how unhelpful it is to seek or proclaim a singular character to virtual geographies. (Crang et al. 1999, p. 4)

Thus, “virtual geographies” (Crang et al. 1999), “cybergeographies” (Dodge 2001), and “internet geographies” (Pott et al. 2004) all depart from the idea that cyberspace is connected to the offline world. Different social, political, and economic entities appropriate spaces on the WWW, interconnecting on- and offline elements and forming topologies of information that change over time.

The co-evolution and re-combination perspectives that advocate the linking of the virtual with the real, that is, the material, social or cultural with technology, have received more and more support because they are based on convincing theoretical foundations and produce strong empirical results. As such, they will be the bases for the following discussion. Although both stances do reject some postmodern ideas such as those having “the virtualization of human beings in their core” (Baudrillard 1995, p. 98) and its replacement by a clone (Baudrillard 1995) through new media and, therefore, the Internet, they both confirm the postmodern assumption that contemporary society and identities are characterised by hybridity and fluidity. However, both stances deny that technological progress will lead humanity to either a utopian, democratic mental space where physical ballast no longer exists or a dystopian, universal virtual space that will destroy society (Bingham 1996, p. 652; Doel and Clarke 1999, p. 277; Graham 1998, p. 170; Kellerman 2010, p. 2993; Robins 1995, p. 147). Instead, Light (1999, p. 126) suggests that research into modern media should pay more attention to the various social actions, relations, and political stances that are present online, and which have many connections with society offline.

On the basis of various critiques, scholars have developed a rich variety of concepts by using, among others, Popper’s three-world model (Benedikt 1992), social constructivism (Adams 2009; Anders 2001; Graham 1998), political economy (Adams 2009; Graham 1998; Kirsch 1995; Kitchin 1998; Poortuis and Zook 2014), postmodern ideas such as hybridity (Haraway 1991; Graham 1998; Kitchin 1998), and Actor-Network Theory (ANT) (Bingham 1996; Thrift 1996). The theoretical stances of social constructivism, political economy, postmodern theory, and ANT have also been combined in order to approach the question of the interrelationship between offline and online life and have been accompanied recently by an attempt to reintroduce materiality into academic discussions on cyberspace (Adams 2009, p. 152; Poortuis and Zook 2014, pp. 319–321). These concepts will be the subject of the following detailed discussion because they recognise the multidimensional character of this study’s area of research. According to the aforementioned scholars, geography also matters in cyberspace and their concepts have proved useful in empirical studies. These concepts differ in their approaches towards the relationship between society/culture, materiality, and technology, i.e. the relation between the “virtual” and the “real”, and they can be divided into two main perspectives that will serve as the

bases for the following discussion. The first recognises a certain linking of the “two worlds”, while the second denies that it can be useful for social and cultural approaches to make any distinction between “virtuality” and “reality”.

## THE TWO WORLDS START TO MINGLE: SOCIAL CONSTRUCTION AND POLITICAL ECONOMY

In 1992, Michael Benedikt published a much-cited work on cyberspace in which he proposed that cyberspace belongs to “world three” of Popper’s three-world model. For Popper, all things can be placed in one of three categories, or “worlds”: world one comprises all material things and physical properties that obey the laws of nature, which he suggests are those that can be investigated by the physical sciences; world two encompasses the mental realm of humans, i.e. their consciousness, which can be examined by psychologists; while analysis of world three, which comprises the social structure, social interaction, and interaction of human being with nature (world one), can be carried out by social and cultural scientists. On the basis of an historical examination of the development of communication technology since the 1930s, he concludes that “cyberspace, we might now see, is nothing more, or less, than the latest stage in the evolution of World 3, with the ballast of materiality cast away—cast away again, and perhaps finally” (Benedikt 1992, p. 4). In his view, while cyberspace will not replace other elements of world three, it is a distinct social realm that possesses its own structure and rules. Thus, he sees, in the real and the virtual, that world three is divided into those two spheres, each of which has its own properties. Thus, on the one hand, the real world three is characterised by its durable social structure, while, on the other, cyberspace—the virtual world three—is characterised by its immateriality and ephemeral social relations. Both worlds, however, are sociocultural in nature (Benedikt 1992, pp. 4–10).

Applying a linguistic framework to cyberspace, the “two worlds”—the real and the virtual—start to become interconnected through the use of metaphors. Adams (1997) suggests that the virtual world is described using many metaphors that relate back to offline places and space, such as “[...] ramps, rooms, lobbies, dungeons, dens, lairs, cafes, pubs, offices, and classrooms” (Adams 1997, p. 155), through which human

beings translate the emerging virtual world into a familiar reality by using commonly understood language. He concludes that describing and comprehending the emerging and relatively unknown “cyberspace” by using metaphors enables people to become familiar with it and incorporate it into their daily lives (Adams 1997, p. 156). Consequently, he (1997, p. 167) views the Internet as a “sociotechnological system that is largely immaterial yet seems to have the attributes of a place or landscape”. Like Adams (1997), Graham (1998) begins his argument by highlighting the numerous types of metaphors used in daily and academic language to refer to the Internet. He states that:

Thus, an Internet point-of-presence becomes a web site [...]. Web sites run by municipalities become virtual cities. [...] Such spatial metaphors help make tangible the enormously complex and arcane technological systems. (Graham 1998, p. 166)

But for Graham (1998), this is only the first step in his attempt to demonstrate that social, political, and economic interests play a key role in understanding cyberspace and in the processes of social ordering in that space. Introducing a judicious perspective that is grounded in critical geography and political economy, he shows that the “real world” and the “virtual world” follow similar social conventions and are broadly interconnected. He demonstrates that cyberspace is characterised by various inequalities related to whether or not any one individual has access to the Internet and the unbalanced distribution of political and economic power among the various users and producers (Graham 1998, pp. 171–173). Following on from this, Warf (2001) has stated that a vast number of people, particularly in the “Third World” but also geographically or economically marginalised people from across the globe, have insufficient or no access to the Internet or have to deal with slow transfer rates. These conditions restrict their ability to present their political views online and to participate in e-commerce. He also points out that in many countries political regulations prevent people from surfing freely on the WWW (Warf 2001, pp. 8–16). The result is called, in academic discussions, the digital divide, an epithet that refers to the appearance of a socio-economic gap between those people who are able to participate in cyberspace and those to whom access is denied, or at least obstructed. Many scholars have demonstrated that the digital divide is closely connected to social, economic, and political issues in the offline world (e.g. Dodge 2001; Graham et al. 2012; Kellerman 2010; Kitchin 1998; Li and Wang 2014).

Further evidence of the close connection between the offline and online worlds has been highlighted by research into “virtual cities”, i.e. websites run by the administrations of real-world cities. Aurigi together with Graham (2003) analysed the websites of European virtual cities where municipal authorities present their city through texts, pictures, and statistics, which usually includes an online map. They sum up: “Virtual cities, then, are attempts to ‘ground’ the globally interconnected online realm in real urban areas” (Aurigi and Graham 2003, p. 490) and conclude that the strategy that virtual cities follow is to form a “local cyberspace” (Aurigi and Graham 2003, p. 494). The authors show that the localisation of cyberspace is carried out by making use of the local language and by highlighting important elements of the offline city, such as local markets (Aurigi and Graham 2003, pp. 494–495). Similar conclusions in urban studies were reached by Whyte and Macintosh (2003) in their research on the implementation of the Electronic Democracy European Network (EDEN), which facilitates the participation of citizens in processes of urban planning, and by Floeting’s (2004) study of the use of the Internet by German cities. In addition, Kitchin (1998, p. 393) states: “Many cities have now taken a proactive role to ‘wire’ themselves to try to gain a competitive advantage in the global marketplace”. Consequently, cities place their markets, tourist information, and statistics on the Internet in the hope of being recognised within the global flow of information and signs, which in turn is aimed at gaining a prime position as part of the global competition to attract economically powerful companies and funding opportunities. They also attempt to improve communication with their citizens by providing new, easy-to-use communication tools (Floeting 2004, pp. 79–90; Kitchin 1998, pp. 390–393; Whyte and Macintosh 2003, p. 1607).

As highlighted, the combination of social constructivism and political economy allows the possibility of understanding the unbalanced character of power relations in cyberspace. The concept of space that underpins the aforementioned studies appears rather opaque, suggesting a simple transfer of inequalities from the offline world into cyberspace. The idea that cyberspace is an extension of real space implies that inequalities in physical space are necessarily translated into cyberspace or mirrored in the electronic arena (Zook and Graham 2010, p. 764). Kellerman (2010), however, accurately criticises this view and points out that many geographers “examine cyberspace from the perspective of physical space” (Kellerman 2010, p. 2990) and neglect both the plurality of concepts

of space and the fact that inequality can also be generated online, which can, in turn, influence daily life offline.

Nevertheless, social constructivism and its alliance with political economy show the usefulness of employing a relational concept of space and place. Life happens in many different spaces, such as the imagined and the material, as well as in lived and conceived spaces, all of which are interrelated. Places are not just points in coordinate systems but emotionally charged material, social, and technological nodes of relations. Dodge and Kitchin (2001, p. 17) recognise that people create a sense of place in relation to online content and suggest naming this cluster of content that evokes a sense of place an “online place”. Thus, places get their meaning and geographic position through their relations to and between humans and in relation to other places. Technology also has a part of this interplay of relations, as Adams (2009, p. 117) suggests:

So cyberspace is not merely a technological phenomenon, a technoscape, it is also a heterogeneous set of codes, institutions and users, all bound together by particular social, psychological, symbolic, and material relations. As such, cyberspace consists of countless cyberplaces, each out of particular combinations of elements from the complementary realms of meaning, nature, and social relations.

Kirsch (1995) offers the concept “relative space of everyday life” (Kirsch 1995, p. 529), which takes into account the economic and physical materiality of space and place, developing a coherent conceptualisation of cyberspace based on Lefebvre’s “production of space” that can be used to analyse and critique the economic and political inequality within cyberspaces. From this perspective, space is constructed of different subtypes: the conceived space (*représentations de l’espace/representations of space*); the perceived space (*pratique spatiale/spatial practice*); and the lived space (*espaces de représentation/spaces of representation*). The production of space happens in these three dimensions, where the economically and politically powerful defines the meaning and use of physical, mental, social, and cultural spaces in the contemporary capitalist world. Kirsch views the Internet as a technology that mediates the production of this triadic space. Thus, cyberspace is an integral part of this process and, as a result, the “virtual” space and the “real” space are both involved in the creation of our lifeworld, while the two influence



each other (Kirsch 1995, pp. 531–552). The two-world perspective dissolves in such thinking.

## WE LIVE IN ONE WORLD: HYBRIDS AND ACTOR-NETWORK THEORY

Scholars such as Bingham (1996), Thrift (1996), and Graham (1998)<sup>1</sup> have questioned the usefulness of making an analytical separation between the real and the virtual and between the immaterial (social or cultural) and the material worlds. They argue that humans live in just one world, in which all things and all living beings are hybrids of material (body, matter, etc.) and immaterial (discourses, consciousness, meanings, etc.) elements. Reality and virtuality merge in sociomaterial practices. Bingham and Thrift criticise technical determinism, deeming it essentialist as it reduces social processes to material and technical characteristics, while they also criticise post-structuralism and social constructivism for introducing social and political determinism into the social and cultural sciences. For them, both determinisms are rooted in a “modern thinking” that is characterised by a dualist approach to the world, one in which subject and object, mind and body, material and social elements, and reality and virtuality are separated from each other, and thus scholars are prevented from developing a holistic perspective based on the phenomena of daily life. To overcome this thinking, they suggest employing an “amodern” framework that does not reproduce these dualisms (Bingham 1996, p. 648; Thrift 1996). According to them, an amodern approach to research into cyberspace could be based on two concepts that suggest that all things and beings are, in fact, hybrids: the concept of “cyborgs” as developed by Donna Haraway (1991), and “Actor-Network Theory” (ANT), advocated most prominently by Bruno Latour (1998 [1991]).

Haraway introduced the figure of the “cyborg” into feminist and Marxist writings to analyse and criticise modern capitalist society.

By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism. In short, we are cyborgs. The cyborg is our ontology: it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation. In the traditions of “Western” science and politics – the tradition of racist, male-dominant capitalism. (Haraway 1991, p. 292)

The organic, technological, and imagined body of the cyborg symbolises the individual in the contemporary lifeworld. It is a body struggling for social and political change and for control over the formation of its own identity, defending its interests in a contested world of power inequalities. The cyborg is, therefore, able to overcome the modern dualisms found in academic studies and take a normative standpoint against power inequalities (Graham 1998, pp. 177–178; Kirsch 1995, p. 537; Latour 1998 [1991], p. 66).

Latour, like Haraway, criticises the dualist thinking of modern and postmodern scholars and states that not only do human beings act, but non-humans do as well, because they are at the same time, like humans, real, discursive, and social. He suggests labelling them quasi-objects, thus implying that objects are the carriers of subjectivities (Latour 1998 [1991], p. 88). Humans are not only subjects but also objects and quasi-objects, as they have bodies that carry signs. Furthermore, Bingham adds that “every actor is also a network” (Bingham 1996, p. 647), meaning that things, events, and humans are all networks of subjectivities and objectivities, relating material, social or cultural, and technological elements. For both authors, social processes do not have a unidirectional effect on technology, nor vice versa. All elements of the world are interconnected and all actors are involved in the production of our known world. Consequently, only relational conceptions of cyberspace and new communication media can allow an understanding of the socio-technological-material processes involved in its ordering and functioning (Bingham 1996, p. 653; Graham 1998, p. 181; Thrift 1996, p. 1485). From this perspective, cyberspace is not an abstract universal space in which everybody meets equally, but a contested space where human and non-human actors define the processes through which they can form their identities and representations. Cyberspace is made by hybrids fighting for their trivial or existential interests (Bingham 1996, p. 652; Thrift 1996, pp. 1466, 1483). Graham (1998, p. 178) describes this viewpoint as follows:

“Cyberspace” therefore needs to be considered as a fragmented, divided and contested multiplicity of heterogeneous infrastructures and actor-networks. For example, there are tens of thousands of specialized corporate networks and intranets. The internet provides the basis for countless Usenet groups, Listservers, corporate advertising sites, specialized Web sites, multi-user dungeons (MUDs), corporate intranets, virtual communities and increasingly sophisticated flows of media and video.

Both perspectives, the cyborg and ANT, show that cyberspace is an embodied space because online practices are performative, as they form identities. Cyberspace itself is an assemblage of diverse elements (Bingham 1996, p. 649), i.e. various technologies, as pointed out by Warf (2001, pp. 5–7), and which are referred to within academic discussions as “digital convergence” (Warf 2001, p. 5); actor-networks and networks of actors; cultural practices (Thrift 1996, p. 1464); and technological practices (Thrift 1996, p. 1485).

Bingham (1996) and Thrift (1996) have shown that analyses of cyberspace and telecommunications are best carried out on the basis of ANT and the concept of hybridity, and this has become commonplace in recent empirical studies. Although many works do not explicitly name these concepts as their source of inspiration, they do show the complex interplay of social, material, and technological elements in cyberspace. For example, studies of virtual cities demonstrate that the material and immaterial infrastructure of the cities are becoming more and more interwoven, and are connected and ordered based on political and economic (self-)interests (Aurigi and Graham 2003; Peng et al. 2002; Whyte and Macintosh 2003). The model of the smart city has become popular in urban planning, meaning that cities can be equipped with sensors such as cameras and participation platforms for the inhabitants in order to optimise transport systems, urban planning, and economic affairs (Gabrys 2014; Viitanen and Kingston 2014). Although concepts of the “smart city” offer great opportunities for the sustainable development of cities, both Viitanen and Kingston (2014) and Klauser et al. (2014) convincingly show that urban planning based on the smart city model leads to a form of government based on codes and surveillance. Studies on the digital divide have shown that online and offline realities are intrinsically interdependent, and therefore the academic distinction between the “virtual” and “real” worlds is redundant (Graham and Zook 2013, p. 78; Li and Wang 2014, p. 326).

Instead of reproducing this distinction, Graham and Zook suggest speaking of “augmented realities” in order to highlight the fact that daily life is situated in both reality and virtuality: “augmented reality is the material/virtual nexus mediated through technology, information, and code and enacted in specific and individualised space/time configurations” (Graham and Zook 2013, p. 78). As early as 2007, they demonstrated, through their study of GoogleLocal, that this online service transcends the physical-virtual binary and proposed that the places

created in this online service be labelled “DigiPlaces” (Zook and Graham 2007, p. 252) in order to highlight the interplay between social, material, and technological environments in their production. Furthermore, they indicate that the technical infrastructure developed by Google plays a key role in the creation of spaces and places, despite being untraceable as a result of the non-transparent algorithms of GoogleLocal (Zook and Graham 2007, p. 246). Code has become the agent of the technology known as the “Internet” and this not only has consequences online but in offline environments too, such as when the data collected is commercialised or presented as maps, thereby producing new, or reinforcing old, power relations (Kitchin and Dodge 2011).

The idea that cyberspace emerges out of an assemblage of offline and online places, practices, and hierarchies is central to concepts developed recently within human geography, such as “cyberspace cartographies” (Zook and Dodge 2009), “geoweb” (Elwood 2010), “neogeography” (Turner 2006; Wilson and Graham 2013), and “volunteered geographic information” (Goodchild 2007; Poortuis and Zook 2014). All of these concepts deal with digital technologies, through which users produce spatial data. This information is, in many cases, the basis on which the developers can make money and/or is part of the processes of decision-making and spatial planning (Elwood 2010). Wilson and Graham (2013, p. 4) propose that “the word ‘neogeography’ marks digitally mediated social practices through explicitly spatialised data/code”. Together with Zook and Dodge (2009, p. 356), they emphasise that ordinary people, and not just engineers or other experts, the state, and companies, are involved in creating cyberspace and online cartography. There is also evidence of a bottom-up production of social hierarchies online. Poortuis and Zook (2014) use the Lefebvrian perspective, mentioned above, to analyse spaces of volunteered geographic information. The authors conclude that services such as OpenStreetMap or Facebook are not just spaces of communication but of code, data, and practices, and thus of intermingled on-and offline interactions between people and their surroundings. The data created can counteract offline inequalities but also, in many cases, produces or reinforces them. All of these concepts, therefore, show that uneven geographies also prevail in cyberspace and thus confirm the relational character of place and space. But in contrast to the perspectives of social constructivism and political economy on cyberspace, technology is seen as an actor in everyday life and a mode of living. Cyberspace is thus considered an embodied space.

## CYBERSPACE AND COMMUNITY

New media such as the Internet and the WWW are, as has been highlighted, closely connected to society and culture. It is supposed that these technologies are transformative, thus meaning that they alter the social and cultural practices and orders of daily life. Many scholars have emphasised the cultural and social side of the Internet and the WWW, as demonstrated by the titles of anthologies such as “Culture of the Internet” (1997), edited by Kiesler; “Internet Culture” (1997) by Porter; “Cybersociety 2.0” (1998) by Jones; and “Communities in Cyberspace” (1999) by Smith and Kollock. In these works, the authors focus on the emergence of communities on the Internet, which they call online or virtual communities, thus implying that there is a difference between online and offline communities. Nevertheless, the articles in all these anthologies show that a clear separation cannot be detected.

In relation to the Internet, a vast variety of different communities can be identified. On the one hand, there are communities conceived of as categories of people with very weak ties, which Foster labels “containers of communicative acts” (Foster 1997, p. 24), while, on the other, there are communities whose members are connected by a strong sense of belonging. An example of the first definition is given by Gibbs et al. (2016) when describing the members of a specific message board system as an online community; the “initiating and maintaining [of a] social relationship among strangers”. However, some members, who used the board for a long period gradually developed a stronger and stronger “we-feeling”. Accordingly, Wellman and Gulia, as early as 1999 (p. 183), conclude their research on online community ties as follow:

In sum, the Net supports a variety of community ties, not only weak ties and intimate secondary relationships, but strong, intimate ones. [...] Not only do such ties sustain important, albeit more-specialized, relationships, the vast majorities of informal interpersonal ties are weak ties, whether they operate on-line or face-to-face.

They later add: “Yet despite the limited social presence of on-line ties, companionship, emotional support, services, and a sense of belonging are abundant in cyberspace” (Wellman and Gulia 1999, p. 186). Thus, they indicate that online and offline communities have much in common, such as the way in which they are formed and maintained. In many

cases on- and offline communities interfere with each other or no distinction at all can be made between the two.

While most scholars writing on virtual communities do not actually define the notion “community”, in the case study that forms the core of this book the frequently used concept of *Gemeinschaft* (“community”) that was developed by Tönnies (1991 [1887]) will be employed. This defines “community” in relation to the feeling of belonging found among its members, a feeling that characterises the *contrade* of Siena. In contrast to the definition of community as a category of people whose social boundary is above all drawn by non-members, the definition in the sense of *Gemeinschaft* is based on the idea that members auto-declare themselves as part of a community. As such, the community boundary is drawn from both inside and outside. Tönnies demonstrated how people living together can be understood in terms of the emotional ties between them (Boos 2013, pp. 78–79; Tönnies 1991 [1887], pp. 3, 36). This concept views “community” as an ideal type of social relationships, one which cannot be found in the lifeworld. Thus, in empirical studies, the relationship of people within groups oscillates between community as a category (i.e. with weak ties) and as *Gemeinschaft* (with strong ties) (Foster 1997, pp. 24–25).

The boundaries of communities are drawn by the employment of arbitrary community markers; these can include an interest in a particular topic, wearing particular costumes, or having the same surname or supposedly similar DNA, or speaking the same language. In all such cases, the boundaries are sociocultural constructions (Barth 1996 [1969], pp. 299–301), and following Anderson (2006 [1983]) communities are thus imagined:

In fact, all communities larger than primordial villages of face-to-face contact (and perhaps even these) are imagined. Communities are to be distinguished, not by their falsity/genuineness, but by the style in which they are imagined. (Anderson 2006 [1983], p. 6)

All communities are imagined, something that is primarily achieved through installing a special system of truth and meaning within the group. By being part of a special system of truth and meaning, members of a community tend to highlight notions of “comradeship” and “fraternity” between and among them, even if outsiders may perceive inequality and exploitation (Anderson 2006 [1983], p. 7). Individuals are members

of different communities at the same time and can thus change their own sense of belonging in certain situations. Therefore, identities always are hybrid and, to a certain degree, fluid, depending on the surrounding context and situation (Boos 2015, pp. 94–96).

One of the main questions in studies of online communities is how they are established through the interplay of privacy and the different layers of publicity (Light 1999, p. 111). Using the assumption that cyberspace is an open public space where people can meet and debate as its starting point, research on the use and design of the Internet has shown that cyberspace is not open to everyone, as access to chat rooms and virtual communities is restricted to certain people. Sometimes access has to be paid for (Fernback 1997, pp. 36–40). Furthermore, the use of the content of web pages is limited and hyperlinks pre-define the routes people can take while surfing on the Internet (Brügger and Finnemann 2013, pp. 72–73). A number of studies have shown that community markers on issues such as ethnicity and race (Burkhalter 1999), and gender (O'Brien 1999) also matter online. They are employed in processes of inclusion and exclusion and, as a result, in the formation of asymmetric power relations.

The Internet provides a vast set of communication applications that facilitate the possibility of synchronous communication via chat rooms or online “telephone” calls, and of asynchronous communication which give almost contemporaneous methods such as e-mail, bulletin board systems, the comment sections of web pages, and the content of web pages a perdurability similar to that of printed books (Aroles 2015, p. 6; Hine 2000, p. 84; Kollock and Smith 1999, p. 7). Together with the fact that, in many cases, supposedly intimate conversations can be read by anyone with Internet access and that the possibility of masking one’s own offline identity, the different time configurations (i.e. synchronous/asynchronous) of these can create situations in which the public and the private intermingle (Miller 2016; Tepper 1997; Wellman and Gulia 1999, pp. 180–181). Dodge and Kitchin suggest:

As such, we should be careful not to fall into the trap of either declaring that cyberspace provides new public spaces or that cyberspace further weakens public space in the geographic realm. Instead, we should seek to document the socio-spatial relations of cyberspace, the interplay between public and private concerns, and how these intersect with geographic space. (Dodge and Kitchin 2001, p. 20)

As a result of their existence online, communities encounter different layers of publicity, and this implies that there is a need to display the collective or personal identity, interests, and claims, while paying attention to the multilayered audience and time configurations (Light 1999, p. 111; Poster 1997, pp. 207–211).

Online communities emerge in different parts of the Internet and sometimes the same community is active in different parts of cyberspace: on bulletin board systems, Internet Relay Chat (IRA), Multi-User Dungeons (MUDs), social media such as Facebook, and websites. Almost every topic can initiate the building of an online community, just as with offline communities (Baym 1998, p. 63; Wellman and Gulia 1999, p. 172). Although online communities “rarely exist exclusively in cyberspace” (Kollock and Smith 1999, p. 19), they can be characterised by comparatively loose or strong connections to the offline lifeworld and by strong links.

Rheingold (1993) was one of the first scholars to highlight the emergence of online communities with loose connections, using the example of “Multi-User Dungeons” (MUDs), in which users establish an Internet network in order to create text-based stories that can be violent or erotic, or simply fairy tales. The defining character of the MUD is that its members use fake names and an invented personal history that relate to the overarching story and create worlds that, at first glance, have nothing to do with their daily lives (Rheingold 1993). Although MUDs have been seen as a means of escaping reality, and consequently as threatening the cohesion of society as people start fleeing from real life in vast numbers, Sherry Turkle (1997) demonstrates that, for many people, MUDs are the only way to make friends and communicate with other people in a way they feel comfortable with. She suggests that in most cases they provide their members with mental support (Turkle 1997, pp. 143–176).

Frequently, games and online applications are designed to stimulate a sense of togetherness (Gurzick and Lutters 2009; Kollock 1996), and communities emerge in so-called graphical virtual worlds, such as League of Angeles (Aroles 2015) and Second Life (Boellstorff 2008; Harrison 2009). Aroles (2015) demonstrates that some players form communities of people that share a strong sense of belonging. They even develop a vernacular, synchronise parts of their daily routines in order to meet online at a specific time, and define their online actions as real. He suggests that the online communities of such a game create a complex set of different timelines—sometimes synchronous and sometimes



asynchronous with other players—and spaces of communication and action. Harrison (2009) reaches similar conclusions, showing that, in Second Life, virtual settlements and special places are built which users and programmers connect to the history of the game, myths, and personal memory. Furthermore, complex timelines and space relations emerge, while the separation between on- and offline places, communities, and times become blurred.

In 1993, Rheingold published “The Virtual Community”, which, using the example of a bulletin board system, shows that, over the course of time, people in distant places begin to discuss private issues with each other and thus become a community, with online and offline ties. He recounted his own experiences of participating in the Internet network known as the “Whole Earth ‘Lectronic Link” (WELL) and describes how he became involved with this network of people which, at its inception in 1985, was only used by people from San Francisco. Members of WELL chatted about their work and daily life, participated online in preparing for weddings, and helped members through personal crises. They helped each other, had fun, and went through difficulties together. It was the computer that connected the members, thereby allowing them to care for each other; as such, they were able to become emotionally involved in the life of other members of the group, and soon became a virtual community. As all members lived in the same city they also started to meeting offline, but the main avenues of communication continued to be online. Over the course of time, it became a global network which today<sup>2</sup> has several thousand members.

Being online, communities often display a contested identity, one that is embedded in both local and global contexts (Sobré-Denton 2015). Websites, Facebook pages, and so on are places from which marginalised people speak. Ethnic and diasporic communities and social movements articulate their interests and identities online (Georgiou 2010; Mele 1999; Miller and Slater 2000). Belton (2010) indicates that the websites of indigenous people provide information to members, as well as to local and global audiences, while attempting to strengthen solidarity between members. They use websites to position their collective identity in both global and local contexts. Forte (2005) drew similar conclusions from his research on the Caribbean Amerindian Centrelink, which links several websites run by Caribs of Trinidad. All these authors illustrate that collective identities are both formed and maintained online. Yet online communities are not only social constructions meant to support members,

they also seek to control their forms of self-representation and behaviour (Gibbs et al. 2016, p. 1; Kollock and Smith 1999, p. 23). Questions concerning online communities, therefore, are related to how people deal with themes of belonging and how they relate to space, time, and their social and material environment.

### CYBERPLACE AND THE LIFEWORLD

The great work of human geographers, sociologists, cultural anthropologists, and scholars from other academic fields over the last 30 years has shown that Internet applications have become part of our daily life (Adams 2009, p. 110). They proved wrong the hasty utopic and dystopic predictions of an emerging cyberspace that leads, on the one hand, to a democratic world society showing perfect transparency, or, on the other, to the breakdown of society due to people attempting to escape the real world into commodified fantasy worlds.

Recent studies have suggested that the distinction between the “real” and “virtual” worlds is artificial and only useful for a limited number of analytical issues, and that this perceived separation is in sharp contrast with the experiences of people who use and produce Internet content. People use the Internet, and communicate and socialise, in cyberspace, which, therefore, forms part of our lifeworld. Communities form or maintain themselves online, and offline communities may go online. How people live together in online environments appears to be very similar to how they live in offline environments, but it has been suggested that global contexts matter even more there because the content on the WWW can be accessed by many people, from all over the world, instantaneously. Research into online communities has not only stressed their global contexts, but also shown that they join with local contexts, allowing them to reinforce each other rather than dissolving them (Harrison 2009, pp. 91–92). Research has also indicated that contemporary technologies are interlinked with practices of community building. Communities are not necessarily connected to specific offline places but to issues that are important to their members. They create stories and histories around these topics, connect specific online practices to offline times, and unfold different senses of spatiality. In this way, they establish online places from where people and their communities can speak to local and global audiences. Hence, many online places are deeply involved in the formation of personal and collective identities, thus allowing them to take

a position in both local and global contexts. However, not all online places emerge out of practices of communities; some do from individuals or from social and economic institutions such as the state and companies. These places are always linked to offline environments and the user can surf through most of them in a way that combines online and offline information. Terms such as “online places” (Dodge and Kitchin 2001, p. 17), “local cyberspace” (Aurigi and Graham 2003, p. 494), “DigiPlace” (Zook and Graham 2007, p. 252), and “cyberplace” (Adams 2009, p. 117) are useful terms to describe these relatively new places unfolding in cyberspace, and the intermingling of on—and offline places. The relational and multidimensional view on space and place within these concepts opens an exciting and new research field within human geography.

The performativity of online practices also indicates that cyberspace is not disembodied space, but is instead a space in which the body matters when taking a position within local and global contexts. Identities are formed both online and offline, and, furthermore, cyberspace can be experienced in different ways. Elements within cyberspace can be seen, as well as often being heard, and touched, albeit indirectly, via the mouse, keyboard, or touch screen. Up to now, however, they cannot be smelled or tasted. People employ different ways of dealing with online content through using “knowledge in the hands” (Moores 2012, pp. 37, 52)—for example, knowing the proper speed for double clicking, how to touch-type, and how to browse pages of the WWW by clicking on buttons on the screen—and through our visual habits. Furthermore, our senses are stimulated when surfing the WWW, and the satisfaction of bodily desires is particularly central for users of the WWW (Dodge and Kitchin 2001, p. 24; Miller 2016, p. 18). Web pages evoke the users’ and producers’ emotions, they become more familiar to the user over time, and can convey a sense of place (Adams 2009, p. 122; Light 1999, p. 126; Moores 2012, p. 52). As such, cyberspace is far from being a disembodied space; rather, body and cyberspace are connected in a complex way.

Although ANT provides a reasonable approach to the study of life in cyberspace and the multifaceted interplay of technology, society or culture, and materiality in producing the world we know, the metaphor “network” seems inadequate to capture the plurality of socio-technological-material processes. The image of a “network” suggests a rigid connection, both within and between actors, pictured merely as lines, and which cannot truly reflect the dynamic character and richness of social, cultural, and technological relations. Although Latour surely does not

have in mind such unchanging structures but, rather, dynamic systems of points and connections that can dis- and reassemble themselves if something changes at any one point, the metaphor “network” seems, in general, to be a purely technological image for pluri-dimensional processes which are, in great part, also cultural (McFarlane 2011, p. 654; Sloterdijk 2004, p. 257). Perhaps it is helpful to recognise that humans are not only connected to the world but also immersed within it and, therefore, entangled within cyberspace. This corresponds to the basic view of phenomenology (cf. Ingold 2008, pp. 1801–1806).

Phenomenology is, like ANT, a theoretical approach that focuses on the relationship between humans and their socio-technological-material surroundings (Buttimer 1976, p. 286; Seamon 2000, p. 173). Phenomenologists ground their research on human experiences and the “lifeworld—the culturally defined spatiotemporal setting or horizon of everyday life” (Buttimer 1976, p. 277). Although phenomenology has been criticised for tending towards technological pessimism (Adams 2009, p. 201; Heidegger 1986 [1927], p. 105; Seamon 2006) and universalism (Moores 2012, p. 60; Seamon 2006), it adds a rarely recognised perspective on cyberspace and provides reasonable tools for analysing socio-technological-material processes without being essentialist or following the dualist perspective of modernity (Buttimer 1976, p. 286; McFarlane 2011; Miller 2016; Moores 2012). Furthermore, it offers the possibility of investigating environments in which technology becomes an actor and of developing empirical analysis alongside a coherent theoretical framework. Of special interest are the terms “dwelling” or “inhabiting” and “coming-to-the-world”, both of which were developed by Ingold (2000, 2008) and Sloterdijk (1998, 1999, 2004), who grounded their ideas in the writings of Heidegger. The next chapter details the possible design of a phenomenological perspective on cyberspace and cyberplace.

## NOTES

1. In the last section of his article.
2. WELL still exists; its homepage is: <http://www.well.com/>.

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Inhabiting Cyberspace and Emerging Cyberplaces

The Case of Siena, Italy

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