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## **1 Introduction**

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Technology pervades our everyday life. For most of us, it is hard to imagine a day going by without an activity that does not involve, directly or indirectly, the use of technology. Our everyday life, however, is increasingly characterized not only by "older" forms of technology, but by newer ones; mobile phones, tablets, personal computers, smart watches, and a plethora of new devices are now central to the accomplishment of everyday tasks in almost every imaginable context. Such devices are part of the radical and rapid digitization of society, in which communication with digital tools and technologies as well as via digital services plays a key role. We use these technologies for working, for socializing, for finding friends, partners, or spouses, for managing our social networks, building communities, exercising, playing games, disciplining our bodies, managing our health, socializing and relaxing.

The absolute ubiquity of digital technology has given rise to competing accounts regarding its social impact. On the one hand, we commonly see pervasive discourses of social hope surrounding this technology – that it may be a resource to overcome socio-economic inequality (Greene 2021), create more egalitarian, knowledgeable, socially connected and conscious societies (for a critical discussion, see Turner 2008). That it provides more accessible education, healthcare, economic participation, and so on (Koc-Michalska and Lilleker 2017; Toffler 1981). In contrast, and complementing earlier critical perspectives that decried our affective dependence on technology and the rising societal power of technocratic thinking in the “risk society” (Adorno [1969]2005; Beck 1992), there are many voices now pointing to the social harm of these technologies: the intrusive, profit seeking practices of “surveillance capitalism” (Zuboff 2019) where every detail of individual lives are inspected through technologies, and used to construct metrics of financial exploitation. Digital technologies are often seen as resources to enforce new social categories – what Fourcade refers to as ‘ordinal citizenship’, the measurement and the sorting of people into categories and hierarchies – as people are required to engage more and more with online technologies, such that “being a full member of society implies one’s bit by bit incorporation into the networked infrastructure of the internet.” (Fourcade 2021: 157). Such surveillance practices are said to be (negatively) re-shaping practices of exploitative sales, debt accumulation, policing (McCabe 2021), criminal punishment (Lageson 2020), education and almost every area of social life.

Whatever their interpretation, which we will re-visit in the conclusion of this chapter, accounts of digital technologies are re-articulations of very old debates about the social possibilities and risks of technology, debates that have been evident in every moment of social history and every technological innovation. Digital technologies may be new, as are the distinctive ways they are

being used to re-shape social action, but the sociological concern with the relationship between technology and social practice is as old as the discipline itself.

Like its home discipline of sociology, interactionism has also had a long-time engagement with the concept of technology, a centuries-old idea. The word “technology” derives from the Greek *tekhologia*—a composite of “tekhnē” (“art, craft”) and “logia” (“a subject of study or interest”)—and dates back to the seventeenth century (Oxford Dictionaries 2010). Although there are many angles from which to study the conceptual meanings of technology today, interactionist perspectives on technology are among the earliest and most prominent in the social sciences. Following a pragmatic orientation, interactionists are not typically interested in exploring the materiality of technological objects per se, or the ontological separations that plague many definitions of technology, but, rather, the lived experiences through which people use and make sense of technologies and, in turn, create “tekhnē.” Thus, this book is a continuation of a long-standing interactionist concern with the empirical exploration of the uses of technologies in people’s everyday lives. While most of the chapters in this collection do center on *digital* technologies, this simply reflects the prevalence of these tools in contemporary society. Our concern here is not with digital technologies as such, but with how people use technologies of all kinds and what these uses mean for the conditions for social action in society. We regard it as problematic to provide a definition of technology that sits outside of its everyday uses. Technology is part of ordinary life, and its meaning and possibilities are structured by people in real-world contexts. One can find abundant examples of “makeshift” technologies in everyday situations which are often utterly mundane: people sitting in coffee shops use bags to illustrate that, say, a chair is occupied or books to demonstrate their lack of interactional availability (Laurier 2008). For surgeons, scissors are technologies used to cut, but also to point or to maneuver objects (Bezemer, Murtagh, Cope,

Kress, and Kneebone 2011). In both of these examples, technologies are an intricate part of the work at hand, and central to the practical achievement of coordinated actions.

### **1.1. Selves, Objects and social Interaction**

If interactionist scholarship has had a long-standing interest in the ways people use technologies, it has also been concerned with the more general question of the intersection of people (as “bodies” and as “selves,” and as “embodied selves”) with the physical world. Indeed, the interrogation of the subject/object dichotomy and treating object engagement as a lived phenomenological practice has been one of the cornerstone achievements of interactionist scholarship. This theme has its roots in work inspired by G. H. Mead’s (1932) interest in the relation between selves and the material world and in phenomenological accounts of the lived experience of the life world.

Although early interactionists’ analyses were not directly concerned with technology, G. H. Mead has much to offer to the investigation of the intersection between selves, objects and social interaction. Mead discussed the ways we configure our selves and our sense of our bodies as distinct to an ‘external world’ of things and (other) people. For Mead, we establish an interconnectedness with this externality through a collaborative entanglement with objects: we build a physical sense of things and our bodies/selves through our manipulation and handling of objects, and through this same engagement, we develop a conceptual understanding of ourselves and of the objects (Mead 1932; 2015). As Doyle McCarthy (1984) notes, there is a social relation between people and things as objects are critical to the construction of social identities, furnishing a ‘stable and familiar environment’ and a construction of a (sense of) social reality.

This view of an intertwining of the material world and social selves finds expression in how symbolic interactionists subsequently analyzed the relationship between technology and social change. In his often neglected book “Industrialization As an Agent of Social Change: A Critical Analysis,” Herbert Blumer ([1956]1990) makes a powerful argument for an analytic focus on people’s interpretive actions when analyzing industrialization (Maines and Morrione 1991). Blumer explored the social changes that accompanied urbanization and mass production, focusing on the meaning making practices of people and groups of people and how this interpretive work, manifest in power relations and conflicting interests, is constituted in the negotiation of social life. As with E. C. Hughes (1958; 1984), Blumer saw the changes in organizational structures, the formation of new occupations and occupational roles, divisions of labor, license and mandates of action as analyzable through people’s own interpretive schemes. This perspective rejects a structural determinist view of social change, where people’s actions change because social structures do. It also rejects a technological determinism where new production technologies, say, lead to new structures of work and social arrangements. Instead, all socio-technological changes are practices of meaning making.

In a related way, Couch (1984; 1996) provides a critical evaluation of the emergence of novel information technology and its relationship to societal changes. Based on an analysis of a wide range of information technologies across human history, Couch argues that new technology and social structure mutually affect each other ; “[H]e showed how an information technology could foster the emergence of particular social relationships and decrease the development of others. Moreover, he argued that the existence of certain social relationships influences the development of a given information technology” (Chen 1995: 324). In his analyses of information technologies, Couch (1996), for example, compares the emergence of printing technology in Europe and several centuries earlier in China. He finds that in Europe major

societal developments such as the Renaissance, the Reformation, and Capitalism have been underpinned by the use of printing technology. In China, however, the technology had a relatively moderate influence on societal developments. According to Couch (1996), the reason for the divergence in the influence that the emergence of printing technology had on society lies in the social organization that underpinned development. While in China the technology was developed, used and controlled by state officials, in Europe the technology and its products – leaflets, posters, books – were widely disseminated by merchants.

Drawing on Innis' (2007; 2008) and McLuhan (2001), Couch (1996) also suggests that the emergence of information technology influences social structure. He argues, for example, that electronic media such as radio and television favor the use of evocative symbols enhancing the importance of emotions in communication (Couch 1996). Consequently, in Couch's (1996) view, representative democracy has been undermined through the growing importance of electronic broadcasting that benefits charismatic leaders like Hitler and Khomeini (cf. Chen 1995). In this way Couch's (1996) analyses contrasts with approaches that propose either a "social shaping of technology" or a "technology-shaped social structure". Instead, Couch, like Blumer (1990) in his study of industrialization, pursues an interactionist approach that sensitizes us to the study of how technology enters social life and of the reflexive relationship between technology and social structure.

Couch was not only interested in technology and its relationship with social structure but also in interaction. He promoted the use of experiments, for example, to study the opening of face-to-face interaction, i.e. the move from behavioral independence to interdependence (Miller, Hintz, and Couch 1975; Hintz and Miller 1995). Through this research, Couch and his colleagues at the so-called "New Iowa School" (Katovich and Chen 2021) have started to

reveal the elements of social relationships that underpin the possible ways that two participants might align their actions with each other. Their research, however, does not explore how technology might feature in the emergence of social relationships.

The analyses of social interaction undertaken by scholars at the New Iowa School bear a family resemblance with developments in “ethnomethodology” (Garfinkel 1967). Ethnomethodology draws on the works of Husserl, Merleau-Ponty and other phenomenologists to critically interrogate the subject-object distinction. Like symbolic interactionists, ethnomethodologists conduct studies that reveal the reflexive relationship between ‘embodied action’, ‘the lived body’, and the material environment. They do not separate body, consciousness and environment but examine how participants interweave the material world with their embodied actions. The mundane objects and the physical world are, in the normal course of habituated action, experienced by us as unproblematic features of action and they are used and managed in the same pre-reflexive way that we manipulate objects with our bodies. We drink from cups, type on computers, drive cars, play the piano, and walk-up escalators without “conscious consideration” and without *noticing* our techniques of manipulation. Similarly, we use our own bodies as tools in much the same way that we use objects.

In ethnomethodology, there are various now classic studies that investigate the interweaving of vocal and bodily action with the material and visual environment. For example, David Sudnow (2001) explores the process of learning to play the piano, the movement from experiencing the clumsiness of hands as a neophyte learner, to a more experienced player whose hands seemingly make the shapes and trace the pathways of the keyboard of their own accord, without the need for any conscious attention on the part of the player. Even when technology is used in private, like the playing of a piano (Sudnow 2001), it always is *social* in

character, situated within particular worlds of praxis (cf. Cohen 2015). In a related vein, ethnomethodological research examines work in the sciences (Garfinkel and Lynch 2022), focusing on the embodied practices through which scientists orient to the material world in the process of making discoveries (Knorr-Cetina 1981; Lynch 1985; Sormani 2014).

Studies in this ethnomethodological program criticize conceptual schemes that create separations between ‘things’ and their ‘use’. Such separation is often at odds with people’s own experiences and understandings of the material world. For example, hands are part of the practice of greeting (e.g. shaking hands, high fives, fist bumps) and can be regarded as a ‘technology of greeting’ (Hall and Hall 1983; Kendon 2004). Hands are also central to pointing, or to how we manipulate objects, and they represent an important interface of our embodied engagement with the physical world (Goodwin 2017; Hindmarsh and Heath 2000; Streeck 2002). As another example, ‘external’ technologies are increasingly *internalized* to bodies: technologies of medicine and food production are ingested and become ‘embedded in’ (and transform) the biological organism. Indeed, the processes of ‘biomedicalization,’ or “the ongoing extension of biomedicine and technology into new and previously unmedicalized aspects of life” (Clarke and Olesen 1999: 20; see Clarke et al. 2003; 2010) continue to expand. Digital implants interact with the nervous system, and manufactured body parts are implanted and grafted. More than ever, our bodies are, internal and external sites of technological action, places where models of medical practice meet technological logics and architectures. Our bodies are increasingly (re)configured through our engagement with technologies; indeed, our very physical actions, social identities, and communicative engagements are produced through these body-technology intersections.

## **1.2. Interactionism and the Study of Technology**



Interactionists 'non-dualist' understanding of our relationship with technology (see Puddephatt 2005) has led them to interrogate closely the distinction between material objects (e.g., physical tools, machinery, digital devices), or the "technics" that people use (Vannini 2009; see also Merrill 2010) and the human interactions that configure and transform users, communities, cultures and the tools themselves. One way to question the ontological divide between technology and people is to show how people attach the material objects of technology a sense of agency and even personality. This is what Phillip Vannini (2008) found in his ethnographic study of the sinking of a ship, the Queen of the North. The analysis of this technological accident which occurred in British Columbia, illuminates the ontological complexities of our interactions with technology. In fact, Vannini's ethnography shows that in the eyes of the local community 'the Queen' (a non-human technic) was no longer merely 'a ship that sank' as it had attained qualities that were characteristic of those of a person, embodied with personality. Addressing how meaning-making practices reframe the ontological nature of technological objects is thus one of the directions interactionists may take to question dualistic approaches in technology studies.

Another interactionist direction for questioning this duality comes from the field of 'Workplace Studies' (Luff, Hindmarsh, and Heath 2000). This work has its origin in E. C. Hughes' (1958; 1984) studies of work and organization and in the broad body of empirical work from sociologists at the University of Chicago (Birenbaum and Sagarin 1973). It also draws on the "Studies of Work" program that Harold Garfinkel ([1986]2005) started in the 1980s, which includes ethnomethodological studies of diverse practices, such as lawyers (Burns 2005), professional coffee tasting (Lieberman 2022), and mathematical practice (Greiffenhagen 2008). Workplace studies use "ethnomethodological interaction analysis" (Heath, Hindmarsh, and Luff 2010; vom Lehn 2018; 2019) as a methodological technique for analyzing the moment-

by-moment accomplishment of communicative understanding. Its practitioners employ video-recording<sup>1</sup> as principal data to reveal the fine details of the production of vocal and bodily action through which objects are momentarily constituted (Engeström and Middleton 1998; Heath and Luff 2000; Llewellyn and Hindmarsh 2010). Through a detailed inspection of short fragments of interaction these studies produce accounts of how tools and technologies, such as computer systems, handheld devices, and electronic displays as well as pens and paper, gavels, or knives are embedded within action and interaction. They, for example, show how personnel responsible for the orderly workings of rapid urban transport systems continuously remain aware of each other's orientation to the technologies around them. Thus, "[T]he technology and the information it provides, does not stand independently of the various practices in and through which personnel exchange information and coordinate their actions; rather, the use of the various systems is thoroughly dependent upon a current version of train movement, running times and changes to the timetable which are currently being undertaken" (Heath and Luff 1991). In a different study, undertaken in museums, vom Lehn, Heath, and Hindmarsh (2001) reveal how visitors encourage or curb other's participation in an activity with an exhibit by the ways in which they arrange their bodies around the artefact. They show how the minute movement of a foot, for example, may invite and obstruct co-participants to join in an activity at an exhibit.

An important theoretical context for these studies on "technology in action" (Heath and Luff 2000) relates to the phenomenological approach to "intersubjectivity" and the construction of a "reciprocity of perspectives" (Schutz 1967) between people in social action. Ethnomethodological studies of interaction argue that intersubjectivity is achieved moment-

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<sup>1</sup> Ethnomethodological studies of people's mundane uses of technology, in work and leisure activities, often use video-recordings of "technology in action" (Heath and Luff 2000; see further below), independent from but as encouraged by Couch (1996).

by-moment as people organize their vocal and bodily actions with each other (vom Lehn 2019). Through vocal utterances, bodily actions such as shifts in posture or head directions as well as through gestures, people display for others where and how they orient in the local environment. This allows co-participants to align their orientation and action with each other and pursue what Blumer (1969) called “joint action”.

While some interactionists pursue detailed analyses of the achievement of joint action, others have turned their interest from joint action towards the emergence of “social worlds” (Clarke 1991) that are based on people sharing commitments to engage in certain activities and different kinds of resources. “Social worlds are defined as ‘universes of discourse,’ shared discursive spaces that are profoundly relational” (Clarke and Star 2008: 113). They therefore are characterized by shared commitments towards the joint action that is at the center of their respective “universe of discourse” (Mead 1926; cf. Strübing 1997). Different social worlds, with their respective interests and commitments, enter in negotiations with others in what Clarke (1991) refers to as “arenas”. Here, “boundary objects” (Star and Griesemer 1989), such as maps, diagrams, or plans, serve to mediate or translate between different social worlds and help bring them together to pursue joint action. The people in different worlds may be oriented to distinctive “systems of relevancies” (Schutz 1967) to one another, but *boundary objects* facilitate mediation by allowing people to communicate and come to agreements with each other.

This direction of research has been particularly influential in the field of science and technology studies. Interactionist scholars have been interested in the “social construction of technological systems” (Bijker, Hughes, and Pinch 1987) investigating topics such as the emergence of new technologies like the bicycle and pneumatic tires (Pinch and Bijker 1984), distributed artificial

intelligence (Strübing 1998), and cancer treatments (Fujimura 1996), all of which are analyzed in terms of the negotiation between different social worlds. Such analysis shows that technological development is a result of complex processes of negotiation between worlds and their competing “visions” (Dierkes 2001) and priorities, and that the ‘most effective’ technology is not always the ‘winner’ in these negotiations (Pinch and Bijker 1984).

Social constructivist studies of technology have argued that technology only becomes useful and usable when it is embedded within a complex network of activities, people and systems. Thomas P. Hughes (1993) explains that Thomas Edison’s achievement is not only the invention of the light-bulb, but the creation of a system of electrical lighting that includes a wide range of technologies, personnel and activities. This “socio-technical network” (Hughes 1993) entails political processes within and across different stakeholders that generate and determine standards and norms for features such as the power used in the network, the sockets that hold the bulbs, and so on. Gasser and Palfrey (2012) have introduced the concept of “interoperability” to describe this property of functioning socio-technical systems, referring to Apple’s “interoperable ecosystem” as an example for a company that has ensured interoperability between different devices (such as desktop computers, laptops, iPods, smartphones, watches, etc.) and systems (including the App-store and iCloud service). This form of interoperability is designed to allow the owners of devices produced by Apple to easily exchange information between them. The creation of interoperability between such a wide range of devices vastly increases in complexity when multiple hardware and software producers become involved in the creation of the system. Collaboration requires strict rules, standards and norms in order to guarantee the system’s functioning, as in the case of the App-store which prescribes the design practices for apps sold on its site.

### **1.3. The Internet, Social Media and Online Communication**

The emergence of the internet and, subsequently, social media sparked a flurry of research that has been heavily informed by interactionist ideas. There are three broad and overlapping strands in this work where we can see clear influences from interactionist perspectives: identity theory, ethnographic study of online communities and studies of online/mediated communication.

#### *Online Identity*

As early as the 1990s Stone (1991) asked “Will the Real Body Please Stand Up?” highlighting the possibility for people to create an online identity that does not always coincide with their offline identity (Marwick 2013a; 2013b). Early interactionist ideas about the self (Cooley 1902; Mead [1934]2015) have had a huge influence on the study of online identity through an examination of the digital “...devices and activities that serve as props for conveying status, membership, style, and focus to audiences” (Altheide 2021: 279). These ideas have had a wide-ranging influence on sociological approaches to identity (Stets and Serpe 2016), with concepts such as ‘identity activation’, ‘identity verification’, ‘identity conforming/disconforming feedback’ becoming key components of behavior models that seek to understand the collaborative processes of identity formation in social contexts (e.g. the ways that other peoples’ ‘disconfirmation’ of a person’s identity may be managed by that individual). These frameworks have been applied to the study of online identity performance and the exploration of how people manage the intersecting networks of distinctive publics and the social selves that they implicate (ibid.).

Erving Goffman’s work in particular has had a substantial impact on the formation of theoretical perspectives on identity and the internet (Ditchfield 2021). Researchers interested

in the relationship between technological mediation and the presentation and construction of self have drawn heavily on Goffman's notions of 'frontage' and 'backstage' to think about how participants might control information to present a 'front' in an online context (cf. boyd 2006; 2007). This metaphor has also been used to reflect on the implications of the 'context collapse' (Marwick and boyd 2011) that characterizes much online interaction, and the absence of control over the boundaries of an audience or even an understanding of who the audience may be. While the dramaturgy analogy has been influential, Hogan (2010) has pointed to the limitations of this concept showing that in face-to-face contexts, the 'stage' metaphor relies substantially on the idea that people manage their impressions on the basis of the expectations of particular audiences. However, a key characteristic of online environments is a lack of predictability or control over the audience context. As such, Hogan suggests we think of online contexts as 'exhibitions' of 'artifacts' which are created and curated by active interactants. Other concepts from Goffman such as "facework" (1955) have also been important in analyzing how people collaborate in the maintenance of certain identities. Ditchfield (2021) analyzes how people edit chat messages in real time and how we can understand such editing actions as an orientation to the relationship between two interlocutors and the social values embedded within them.

### *Online communities*

A second strand of work concerns the study of the emergence and organization of online cultures of action. These broadly ethnographic approaches have been informed substantially by the ethnographic turns in symbolic interactionism and ethnomethodology and have been used to study areas as diverse as online music making (Waldron 2013) and policing (Schneider 2021). Waldron explores how music teaching and learning is accomplished in the Banjo Hangout online community and investigates the differences between online and offline music

communities. Schneider examines how the police made use of social media to respond to viral videos of police brutality. Through tools such as Twitter, the police can be seen to try to ‘enhance police/community relations’ (itself a strategy of impression management and the enforcement of police authority), and of self-promotion.

A particularly strong area of research here has been online gaming. Kirschner (2021), for example, explores how players in online games manage to make sense of game action using a range of meaning constructing technologies to communicate with each other. In related studies, Williams and colleagues (Williams and Kirschner 2012; Williams, Kirschner, and Suhaimi-Broder 2014) looked at how in multiplayer games people use the technology to construct players’ roles and manage those roles in interaction with each other. Ethnomethodologists also have shown growing interest in online gaming. Reeves, Greiffenhagen and Laurier (2017), for example, have begun to elaborate some of the issues that scholars drawing on ethnomethodology might pursue, such as studies of players’ acquisition and display of competence or the examination of talk and interaction between players. These and related issues have been taken up by a few scholars who for example have begun to explore if, while involved in a game, players orient to avatars as participants (Baldauf-Quilliatre and de Carvajal 2015) and how they encourage others to continue participating in a game when they seem to have lost motivation (Baldauf-Quilliatre and Carvajal 2019).

### *Online and mediated communication*

The third stand of online research that interactionists have substantially influenced concerns the communicative practices found in online spaces. Conversation Analysis has been central to the formation of the microanalytic studies of online data and interdisciplinary study of Computer Mediated Communication (CMC), itself a reaction to ‘big data’ and the tendency to

rely on large data sets rather than the detailed analysis of interactional practices. In some ways this growing field has required adaptation of original conversation analytic techniques, which were initially designed for studying the moment-by-moment production of turns at talk in co-present or at least spoken distributed environments. Foundational ideas such as ‘Turn Construction Units’ which were used to study the real time construction of talk are of questionable relevance in environments where turns are not negotiated but can be produced any time. However, other concepts in CA such as ‘repair’, ‘topic organization’, ‘adjacency pair’, and ‘recipient design’ have proven to be extremely important tools for understanding the organization and achievement of online talk (Giles et al. 2015; Meredith, Giles, and Stommel 2021). Researchers have used these tools to explore diverse textual practices such as textual quoting (Reed 2001), editing (Ditchfield 2021), and the use of multimodal communicative devices such as emoji (Gibson, Huang, and Yu 2018) and hyperlinks (Stommel, Paulus, and Atkins 2017). Similarly, mediated interaction through audio-video tools and other modes of communication continues to be a strong area of research for conversation analysts (Gibson 2020; 2022; Licoppe et al. 2017, 201). This research reveals how people use talk and gesture to facilitate co-orientation and make sense of objects in virtual (Snowdon, Churchill, and Munro 2001; Hindmarsh, Heath, and Fraser 2006) and video-mediated environments (Licoppe 2015; Luff et al. 2003; 2016).

Another strand to CMC research has been informed by Harvey Sacks’ work on Membership Category Analysis and its concern with the organization of language as a system of ‘moral machinery’ through which people organize their knowledge and construction of ‘what the world is like’ (Jayyusi 2015; Hester and Eglin 1996). Researchers have used this framework to look at topics such as the organization of political opinions on newspaper forums (Gibson and



Roca-Cuberes 2019), the construction of controversies in the Twitter use of celebrities (Housley et al. 2017), or categories of moral action in Facebook (Andersen 2021).

These research approaches have also been used to interrogate the intersection of ‘online’ communication in co-presence or non-mediated interaction contexts. Humphreys (2005) as well as Walsh and Clark (2019) find that the use of mobile phones in social interaction often disrupts the natural flow of talk as, for example, the buzzing of a phone calls for a participant’s attention. Ictech (2019) continues this line of research on the ways in which the use of smartphones is embedded in face-to-face interaction: through focus groups with smartphone users he revealed that at times people might turn to the phone and, for example, answer a text-message without allowing others to take part in the activity – “exclusive digital cross-talk”. Then, people also might turn to and see a message or picture on their phone that they then show others and build into the ongoing interaction; “semi-exclusive digital cross-talk”. Ictech calls the third type of digital cross-talk “collaborative” and cites focus group participants talking about ways in which they said to have included others in the production of social media content, such as group selfies.

With this discussion of interactionists research on the communication on the internet and social media as well as in online communities we have pointed to the important contributions that interactionists make to revealing the social organization of action and interaction, with and around these new technologies, systems and online resources. The chapters in this book further add to the interactionist body of research that explores how technology features within social relationships and interaction. In the following section, we briefly expand on the contributions of this book to interactionism.

### **The contribution of this book**

Throughout this introduction, we have highlighted the theory and methods as well as the studies interactionists have contributed to the sociological study of technology and social action. Our discussion here shows that technology has been closely intertwined with the emergence of interactionism as a perspective and method in sociology. While Mead (1932; [1934]2015) only touched on the issue of technology, through Blumer's work ([1956]1990) technology became firmly situated within interaction studies. Interactionists have observed how industrial technologies and now digital systems, tools, and devices enter people's lives and they have explored people's sense of self, their place in a 'technologized world', and their (technological) relationships with others. Through their research, interactionists have consistently criticized theoretical and conceptual approaches that ascribe technology the power to shape or determine social structure and action. Instead, they promote a humanist perspective that puts the actors at the center of societal developments.

With this volume we aim to move this discussion forward by exhibiting a wide range of interactionist perspectives, methods, and studies that investigate social life in a technologized world. The authors whose chapters have been compiled in this book show their commitment to and their distinctive interpretations of interactionism. The chapters comprise research of people's orientation and interaction with and around technology in a wide variety of settings and use a broad range of research methods that include (auto-)ethnography, ethnomethodology and conversation analysis, ethnomethodological interaction analysis, qualitative interviews, image analysis, and more. The findings from their studies advance interactionist and sociological research on how technology enters social life and reveal the human ingenuity and creativity in dealing with technological impositions.

## **Overview of the book**

The book is comprised of three distinct parts in which we have collated 12 empirical studies. Part 1 titled 'Power and Control' includes two studies exploring the impact of the use of technology on social relationships and two studies that critically examine the relationship between technology and social interaction. In chapter 2, "Being Family and Friends to Abused Women – a qualitative study of digital media in intimate partner violence" Åkerström and Boethius explore the use of smartphones, social media platforms, apps, and other internet-connected devices by domestic abuse victims and members of their social networks. They show how such technologies provide perpetrators with new opportunities and methods to be present in social relationships even when physically absent. Thus, the use of such technologies can lead to an increase in the reach of abuse in close relationships and extend the troubles beyond the borders of the victim and into the broader family and social networks. In chapter 3, "News, Sex, and the Rebel Forces of the Informal Internet", Dellwing examines how moral panics affect the online construction of news and sexuality. In particular, he explores the conflict between, on the one hand, hobbyists' use of the internet to share content with others and, on the other hand, the attempts by corporations and the state to curtail hobbyists' sharing of content. The critical discussion of the impact of technology on social relationships is continued by Gottschalk's "Terminal Violence: Online Interactions and Infra-Humanization" (chapter 4), in which he examines autoethnographic vignettes of interaction with terminals, analyzing how technology can surreptitiously dehumanize social relationships. Gottschalk argues that our interactions with technology, and in particular terminals, are guaranteed to grow exponentially as social actions are increasingly "mixed activities" where people interact with terminals and other forms of technologically-driven non-human objects/subjects. He uses an interactionist approach coupled with an auto-ethnographic study to critically examine how technology interfaces or interferes with people's experience of and their interaction within the world. Part

1 concludes with Davis Wästerfors' "Summing Up and Restarting. Interactive Encouragement in Online Crime Case Discussions" (chapter 5). Wästerfors examines how participants in online crime case summarize their online discussions, and how these summaries are used to try to bring order to the often very diverse and contested online debates.

In Part 2 of the volume, scholars investigate the construction of community identity through the use of technology. In chapter 6, "Organizing subcultural identities on social media: Instagram infrastructures and user actions" J. Patrick Williams and Samuel Judah study the ways that members of the 'straightedge' subculture community use Instagram, paying attention to the intertwining of the technology into the everyday identity practices of its members. Through their analysis they show how users make their own identity recognizable as 'straightedge' through the technical affordances of the application. In chapter 7 'A queer kind of stigma', Christopher T. Conner and Sarah Ann Sullivan use multi-sited qualitative research methods to explore the various ways in which stigma features in the action and interaction of users of the popular gay dating app 'Grindr'. Through participant observation, in-depth interviews and the analysis of dating profiles the authors study users' stigma management techniques and how they reproduce the stigmatization process in interaction with others. This analysis extends the concept of "homonormativity" by demonstrating how the users of Grindr take part in a cultural system erected on normative standards of beauty. Part 2 draws to a close with chapter 8, "Symbolic Separation: The Amish and 21st Century Technologies", by Corey J. Colyer, Rachel E. Stein, and Katie E. Corcoran. The authors analyze how the Amish community negotiates its traditional commitment to modesty and technological simplicity. Through their analysis, we see how the Amish use, reject, and adapt certain technologies in ways that are seen to "conform with" their cultural expectations and how, in doing so, they can be seen to negotiate the symbolic boundaries of Amish identity.

In Part 3, the final section of the book, authors investigate the practices through which people organize the use of technology in real-world social situations. In chapter 9, “Receiving Calls during Medical Consultations: How Patients and Doctors Produce Slots to Answer a Phone” Aleksandr Shirokov, Iuliia Avgustis and Andrei Korbut look at video-recordings of doctor-patient interaction to explore how a ringing phone becomes embedded within the practical organization of the setting. Through their analysis the authors show how doctors and patients jointly produce slots for answering incoming calls. In the next chapter 10, “Silence and co-presence in digital space. A study of question-answer-sequences in university teaching”, Kenan Hochuli and Johanna Jud investigates interaction on digital learning platforms in higher education. Hochuli and Jud explore the emergence of moments of silence in interaction on two different digital architectures-for-interaction, Zoom and Adobe Connect. Through his analysis he reveals differences in how participants interactively work through moments of silence and the different demands that the two platforms place on participants in this process. In chapter 11, “Learning to Manage by Playing Video Games”, Lydia Heiden, Heike Baldauf-Quilliatre, and Matthieu Quignard explore the interactional function of participants’ cursor movements during game play. The authors show that such movements are carefully coordinated and are related to practical actions such as displaying attention and the management of turn organization. In Chapter 12, Daniela Böhringer investigates how people use a computer-based job seeking system. Her contribution, titled “Problems with the Digital Public Encounter”, reveals how users manage moments of irritation, i. e. moments in which the computer-system does not respond to their action in an expected way, and reflects on the implications of this for how we understand encounters between citizens and the welfare state. Part 3 concludes with Brian L. Due, Louise Lüchow, Rikke Nielsen’s chapter “The Embodied Organization of Mobile Object Recognition: Exploring How Visually Impaired People Achieve a Workable

Body-Phone-Object-Space Relation in Situ when Shopping” (Chapter 13). The authors explore the use of a smartphone app designed to help visually impaired people when they go out shopping, illustrating how the application helps the shoppers to gain relevant object information, and how they negotiate its use and the special relations of the context.

After part 3, as editors we bring the book to a close with reflections on the empirical studies, their contribution to debates on interactionist research concerned with technology, and what developments in theory, methods, and research we anticipate or hope for. Our chapter 14 titled “Where Next for Interactionist Studies of Technology?” relates the contributions to this volume to the context of current discussions about “digitization” and “the digital revolution” (Brennen and Kreiss 2016; Sidhu 2015) and points to possible future developments in interactionist theory and methods that on the one hand are used to study people, technology, and organization, and on the other hand use technology for undertaking research.

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