

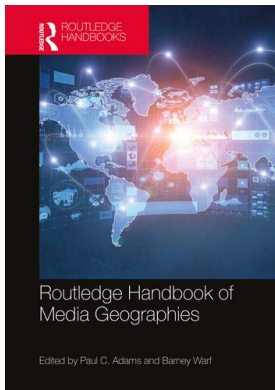
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1

MEDIA GEOGRAPHIES

An introduction

Paul C. Adams and Barney Warf

Media geographies are all around us. Networks of world-spanning infrastructure keep us in touch with family, friends, business colleagues, customers and clients. News companies headquartered in major cities form our sense of historical and contemporary reality by providing “the news,” a shared here and now that circulates through geographical and social space, on newspaper and magazine pages, large and small screens, radio and podcasts. These are media geographies, as are the maps and GPS that guide people’s movements through space, facilitating movements from shopping trips to vacations to intercontinental migration. Media geographies also include invented and fictionalized places created for the purposes of entertainment and escapism, including immersive games and virtual reality experiences. Media geographies surround us, guiding us, following us and taking us places.

Our understanding of the term “media” involves more than mere technology. Technologies alone do not communicate. Rather, communication depends on social processes of encoding and decoding (Hall 2001) that inevitably produce a shift in meaning, a kind of translation, between sender(s) and receiver(s), a process that reflects their positionality relative to social power and ideology. Producing and sharing meaning involves complex processes that conjoin the social, political, psychological, linguistic and geographical into a seamless whole. Media are sociotechnical processes (Marwick 2018) moving through all of the following: technologies (communication infrastructures and devices), matter (book pages, ink, wires, satellites, fiber optics, screens), codes (ways of making sense of marks and tracings in matter), information (data, facts, rumors, stories, discourses, narratives), actors (people, bookworms, companies, governments, algorithms, switching devices), and systems (economies, legislative apparatuses, bureaucratic organizations, libraries). The list could be expanded indefinitely, but the point is that a medium is not a technical object, a thing, but rather a network or assemblage, a hybrid mix of the tangible and intangible. Not all of the authors contributing to this volume would espouse actor network theory or assemblage theory, and our wish is not to promote a single approach to media geography; the issues our authors address treat media as neither wholly social nor wholly technical, but rather as *sociotechnical* phenomena and processes.

When we were making our first forays into media geography, there were particular media that interested us. Adams was interested in television (1992) and Warf in telecommunication networks supporting financial transactions (1989). Geographers interested in media usually

focused on particular media, such as paintings (Cosgrove 1985), newspapers (Goheen 1990), writing (Barnes & Duncan 1992) and films (Aitken & Zonn 1994). This interest in particular media did not deny that various media “texts” interrelated to each other intertextually (Kristeva 1980), but it was assumed that literature, news media, telephones, television, music recordings and film were all distinct and separate media that could be studied on their own. Of course, no one in the 1970s or 1980s picked up a telephone to watch a movie, read a newspaper, play games, or monitor their bank account. Now these things are all commonplace, indicating a process of media convergence made possible by the digital revolution (Cupples 2015). One can still use a phone to call someone, but one can also check email, only to be interrupted by one’s calendar, or a reminder to order a prescription, or a ping indicating a friend has posted on social media. The phone is no longer just a phone, but also a mailbox, bank teller, pharmacist, calendar, movie theater, television, newspaper, toy, puzzle, game, notepad and tape recorder; we can also use a laptop or desktop computer for these very same things (Koeze & Popper 2020). When we speak in terms of “apps” rather than particular devices, we are speaking of families of software that can be hosted on various devices in a plethora of places. It becomes such a tangled mess that “media” has become a singular noun because it is hard to identify a particular medium. The media is a muddle of things from which most of us cannot escape.

Media geographies are, nonetheless, accessed to different degrees and intensities depending on one’s social position and geographic location. There are high and low degrees of accessibility whether one compares countries, regions or parts of a city. The typical American household includes seven screens, and two-thirds of the world’s population now has access to at least one cell phone (ReportLinker 2017; Taylor & Silver 2019). There are still many places where digital media are scarce and where traditional face-to-face media hold their own. Roughly a third of the world’s population does not have access to the internet, and for many people cyberspace is some distant, foreign continent. The digital divide remains a serious issue. Within any of these more or less connected places, people build their own distinct media environments, personalized by their contacts in their physical or digital phone books, their friendship networks and their social media. Media geographies are not just “out there”; they are also in us, in the languages we know, our highly internalized systems of meaning, the nonverbal communications we understand, the way our fingers find the right keys on keyboards and keypads, the way our speech automatically adjusts to various apps and interfaces, the way we sense our phone’s vibration even when it is silenced.

In addition, our lives are increasingly *mediatized*: daily routines, activities and social interactions evolve in response to configurations of media encountered, used and appropriated (Lundby 2009; Hjarvard 2013). Mediatization is the incorporation of media into our various projects, allowing things to be done across space rather than in place, letting people come together around shared interests, tasks and objectives without physically converging (Kwan 2000). Mediatization reflects, among other things, the increasingly information-intensive nature of capitalism, both in the domains of production and social reproduction, the proliferation of new technologies, and the growth of the demand for information of all kinds. It is the ongoing reworking of our “life paths” (Hägerstrand 1970) to incorporate media routines, cycling over spans of days, months and years. The substitution of physical gathering by mediated forms of gathering creates a risk of *context collapse*; as “social media environments become a place where person-to-person conversations take place around user-generated content amidst potentially large audiences” (Marwick & Boyd 2011, 129–130) the *situational integrity* of life breaks down. The boundaries between situations (such as home, work, school, the bank and the doctor’s office) that help us maintain control over aspects of our self-identity have become steadily eroded (Nissenbaum 2009).

Geographers can contribute to understanding the challenges of mediatization, the risks of context collapse and the threats to situational integrity, by returning to fundamental geographical concepts of space and place, and reconsidering them in light of sociotechnical transformations associated with new media. Geographers can “ground” media in the reality of lived experience and the highly variegated places in which people live. They can map, literally and figuratively, the flows of information that media create, linking the producers and consumers of information in complex webs of interaction.

Unfortunately, the geography of communication is still plagued by “invisibility,” as Ken Hillis noted more than two decades ago (1998). The reason for this lack of visibility strikes us as a truncated understanding of “geography.” Outsiders still view geography as studying a “space of places” and are unaware that the discipline has grappled with the “space of flows” (Castells 1989) for decades. To be sure, how the media relates to places is still a topic of significant concern (Halegoua 2019). Media geography as a subdiscipline addresses both patterns and processes, stasis and flows, communication infrastructure and “traffic” on that infrastructure. Nonetheless, we are optimistic that media geography is on the verge of broader recognition, in part because of the longevity of relevant concerns within the discipline, and in part because of the convergence of pertinent questions from all segments of society.

History of media geography

The earliest work in media geography can be traced to the 1970s. Geography’s “quantitative revolution” brought attention to human movement and information flows, which led in turn to the key observation that the speeding up of transportation and communication brings locations closer together in time-distance, progressively shortening the time required to move or communicate between points. Costs to move or communicate among places also tend to decrease over time, leading to cost-space convergence (Brunn & Leinbach 1991; Janelle & Hodge 2000). For this reason, media geographies are an integral part of the successive rounds of time-space compression that have swept the world repeatedly since the Industrial Revolution (Warf 2008). Viewed comprehensively, this process means that the spaces in which people live and act can be understood as shrinking, collapsing, compressing or converging.

Media have long played a central role in the reconstruction of relational space. By bridging space effortlessly, by bringing ever larger audiences into reach, telecommunications changed the scale of the community in which people imagined themselves. The telegraph, whose invention is often credited to Samuel Morse in 1844, was the first form of telecommunications and was essential to the expansion of the United States and the formation of a national economy (Pred 1977). Shortly thereafter telegraph lines crossed the Atlantic Ocean to link North America and Europe (Hugill 1999). The telephone, unveiled in 1876, was originally the preserve of the wealthy, only to become a household tool over time. Its use greatly expanded the spatial range of interpersonal networks, the opportunities for interaction, undermined longstanding boundaries between public and private spaces (de Sola Pool 1977) and helped in the formation of “communities without propinquity,” or people tied by common interests rather than physical proximity (Marvin 1988). The mass-produced camera, the creation of George Eastman in 1888, led to an explosion in photography and its acceptance as an accurate, unbiased and objective mirror of the world (Sontag 1977). Few innovations had such a power to make distant places seem near. The evolution of photography into the cinema represents one of the most powerful extensions of visual experience in the history of modernity. Cinema allowed people to “get a sense of the world without moving

very far at all” (Allen & Hamnett 1995, 3). The radio, an outgrowth of wireless telegraphy, for the first time brought news and entertainment directly into the homes of the masses. Finally, of course, television stitched together the world as a collage of simultaneous sights and sounds divorced from their historical or geographical context. Television exceeds at entertaining (Postman 1985), and forces all other discourses to imitate it: education, religion and politics must be entertaining to be successful. In drawing the multitudes indoors, television helped to eclipse the public agora, deepening the bourgeois process of individualization and commodification. The world’s foremost source of entertainment and news, television has shortened attention spans, engendered immediate gratification, led to unrealistic stereotypes, desensitized viewers to violence and endlessly promoted commodities in a never-ending series of advertisements.

In the late 20th century, two major technologies—satellites and fiber optics—became the backbones of the global communications and media network. From their Cold War origins, satellites were deployed by telecommunications companies to provide services for financial firms, the media and transnational corporations. Starting in the 1980s, a global skein of fiber optics cables became the most preferred mode of telecommunications in the world, greatly altering global flows of financial funds and information, and laying the basis for the internet (Warf 2006). Such systems well illustrate the notion of “power-geometries” (Massey 1993) that ground the space of flows within concrete material and spatial contexts. In providing a largely homogenous diet of Western television and video programs around the world, these technologies have had important repercussions for local and national forms of consciousness and subjectivity. Appadurai (1990) views such phenomena as part of a global “mediascape” that interacts with other “scapes” to redefine the cultural geographies of global postmodernism. Thus, from the most intimate spaces of the body to the rarified domain of the global economy, media geographies inform, teach, enlighten, entertain, amuse and at times mislead people, producing subjects and reproducing and changing social relations.

Claims regarding the transformation of space, such as compression or convergence, depend on a particular view of geographic space as *relational*, rather than absolute (Murdoch 2006); space is relevant to human life because of *how it shapes relations between things*, and these relations are stretched and compressed rather than absolute metrics like Euclidean space (Sack 1980). In the current global capitalist system, capitalism drives the compression of space according to its inherent logics; spatial compression is a temporary, provisional resolution of the contradictions inherent to capitalism (Harvey 1990), giving rise to a series of shifting “spatial fixes” over time. The transformation of space through mediated communication and transportation is a broad-brush interpretation and does not foreclose the possibility of local trends in the opposite direction, such as traffic jams and declines in communication connectivity in neglected and marginalized places (Janelle 1969; Massey 1993). Communications of various sorts move through various kinds of spaces, each with its own properties, many of which change dynamically over short and long timespans, including daily and weekly cycles of expansion and contraction (Gould 1991). The people living in any given place are always positioned unequally in their ability to benefit from time-space compression/convergence. Media and place are thus intimately intertwined (Halegoua 2019). This means that social power imbalances are expressed and perpetuated through mediated communications leading to “power geometries” wherein one’s race, ethnicity, national origins, class, sex, age, education and other social criteria affect the quality and quantity of one’s ability to access, and benefit from, distant places (Massey 1993). In general, the implications and conditions for the transformation of relational space occur within a general process of compression or convergence with regard to time and cost, but in a way that differently impacts differently

situated actors, through unevenness, asymmetry and bias in communication flows. Media geography therefore constitutes a particular lens on the issue of globalization.

In addition to these transformations of space and time, media geography has also returned frequently to questions of place, as captured in mediated representations. This approach was developed in the 1980s with humanistic geographic studies of prose and poetry, by authors such as Silk (1984), Porteous (1985), and Pocock (1988). Around the same time, geographers examined visual media, including television, film and advertising (Gould et al. 1984; Burgess & Gold 1985; Adams 1992; Aitken & Zonn 1994). Research on verbal and visual representations of place demonstrated a sharpened recognition of the “cultural” in cultural geography, drawing on ideas of the Frankfurt School, British cultural studies and French social theory, all of which prompted a recognition of culture as a contested terrain. “High” and “low” culture are deeply implicated in material struggles (Bourdieu 1984), and one cannot speak of a place’s culture in monolithic terms but only as a particular place-based struggle over culture (Mitchell 1995) among participants who define culture differently. This idea breaks with earlier cultural geography dominated by ideas of areal differentiation (Hartshorne 1968) and the cultural landscape (Sauer 1969), by refusing to accept culture as a patchwork where similarity is a function of distance, and instead positing multiple layers and counter-currents of culture in any given place.

In addition, communication is central to the process of knowing the world, and knowledge inevitably is sutured to power. As Foucault (1993) stressed, discourses—constellations of meanings, narratives and ideologies—do not simply mirror the world, but enter into its making. The implication for media geography is that a place represented in the media is not one thing but multiple perspectives aligned with axes of social power, offering an ideologically vested way of knowing the world. Bringing related ideas “home” to geography’s own communications, authors such as Brian Harley (1988; 1989) and Denis Wood (1992) subjected cartography to new kinds of critical reflection, revealing maps not simply as technical objects but as social constructions imbued with power. On this account, cartography is central to geographic ways of knowing, rather than serving merely as a tool. It is a discourse that plays instrumental roles in social and political life, a tactic or strategy to promote various agendas, a projection of social as well as geodetic relations.

In yet another shift, a more critical approach evolved with regard to “landscape,” questioning landscape’s ontological status; no longer “out there,” landscape became seen as a way of representing, seeing and interacting with the world (Cosgrove & Daniels 1988; Duncan 1990; Barnes & Duncan 1992; Duncan & Ley 1993). This work highlighted ways in which power relations embodied in discourses and images of landscape worked to naturalize social inequality. Feminist geographers brought a more complicated and nuanced understanding of social inequality, reminding other geographers that this was not a matter of class but also a complex intersection of gender, race and ethnicity running through modes of representation, discourse and power (Rose 1993; Gibson-Graham 1994; Kobayashi & Peake 1994; Nash 1996). Critical studies of landscape and feminist geographic research both fostered geographic interest in discourse, and the latter situated discourses about space and place within an intersectional, multidimensional model of social power.

Throughout this period, a particularly important figure was Yi-Fu Tuan, who employed a unique, humanistic approach to bear, exploring representations of space and place in media as varied as language, literature, mythology, photography, motion pictures and dance (Tuan 1978; 1991; 2004), while also disclosing how landscape could function as a medium to send disciplinary messages, maintaining social hierarchies and power relations (Tuan 1979; 1984). His work epitomized a humanistic, phenomenological approach, and while no one directly

addressing media geography could replicate his style, he nonetheless contributed to the complex interplay between critical and interpretive approaches to media geography.

In short, by the mid-1990s, geographers saw media of all sorts as means of projecting order onto the world through representations, shaping and organizing how people see the world and their place in it, solidifying perceptions and expectations while buttressing material relations, actions and interactions. Few geographers self-identified as media geographers, but many studied discourses of one kind or another, which brought attention to an array of particular media. Most such work shared certain assumptions, foremost among them the idea that a way of showing is also a way of seeing (Berger 1972), and a description is also a script (Ó Tuathail 1992). Stated less obliquely: representations do not just re-present, they also present ways of perceiving, they guide action and they offer people positions and identities. In all of these ways, media and communications are deeply implicated in the dialectics between self and world, here and there, Us and Them. The historical foundations of media geography sketched here have been explored in greater depth elsewhere (e.g. Adams 2009; Adams & Jansson 2012; Adams et al. 2014; Mains et al. 2015; Adams et al. 2017). The core ideas to take away are that media geography is now more than 35 years old, it has engaged with diverse media as sources of place representations and spatial systems, and the area of inquiry has benefited from humanistic, critical and analytical approaches.

Recent trends in media geography

The emergence of “non-representational” geography (Lorimer 2005; Thrift 2008) emphasized communications as perceptions and actions, many of which precede language, more than representation, directing attention to less easily translated communications such as dance, sports, and the everyday geographies of the body. Here people are communicating and their communications saturate spaces and places, but it makes little sense to describe such communications in terms of representation. Non-representational and more-than-representational approaches to media geography can deepen our understanding of images, rhythms, emotions, embodiment and multisensory experiences that contribute to a person’s sense of self and sense of place (Lorimer 2005; Latham & McCormack 2009). They can also shed light on how nonverbal communications flow between people in the form of affect and emotion (Pile 2010). Such work demonstrates a preference for writing about flows, fluidity, movement and mobility and avoids nitty gritty details about the infrastructure and images carrying such flows, but this is not universally the case (Carter & McCormack 2006). The intersection between media geography and the discussion of affect remains a promising and largely unexplored area.

Another area of intense current interest in media geography has its roots in the 1990s. Initiated by Gearóid Ó Tuathail and John Agnew, critical geopolitics reconceptualizes geopolitics as a discursive practice (1992, 1992), a move that led to fruitful investigations by Sharp (2000), Dodds and Atkinson (2002), Dittmer (2010), and many others. Such work owes a huge debt to Benedict Anderson’s (1983) famous and well received idea of imagined community, the shared sense of national identity that characterizes everyday patriotism with its accompanying self-identities, media practices and worldviews. Anderson’s “print capitalism” is a social formation linking a particular form of state power to the practice of publicly defining historical time and geographical space through commercial journalism. Not just news media, strictly defined, but all media are in the business of condensing and “interpreting” the nation, including popular magazines and comics, and they help fuse personal identities to particular ways of inhabiting and performing national(ist) identities (Dittmer 2012).

In this reading, popular and formal politics intersect and are hopelessly intertwined. Critical geopolitics constitutes a significant influence on media geography, with somewhat different emphases but shared interests, objectives and assumptions.

A wave of impressive recent work in geography has exposed the peculiarities of digital media, including the following: a compendium of efforts to map cyberspace (Dodge & Kitchin 2000), the geography of the internet industry (Zook 2005), the origins and growth of cyberspace, its uneven social and spatial diffusion, and its innumerable impacts (Malecki & Moriset 2008; Warf 2012; Kellerman 2016), digital code's relation to places and spaces (Kitchin & Dodge 2011), the interface between the human and the machine (Ash 2015), how online interaction incorporates aspects of ritual and fetishism into contemporary life (Hillis 2009), and how uneven geographical coverage in map-based online services perpetuates biases (Zook & Graham 2007). "Old" media like television and film continue to attract attention (Lukinbeal & Zimmermann 2008; Christophers 2009) but the focus of the discipline has shifted to issues relating to new media, and particularly digital communications. Never have so many people been able to contact one another so easily, obtain news, file complaints, pay bills, be entertained and save time than today. For large numbers of users, the real and virtual worlds have become inextricably intertwined; for them, the internet is a necessity, not a luxury. Seen this way, the dichotomy offline/online does not do justice to the diverse ways in which the "real" and virtual worlds are interpenetrating. However, for those without access to the information highway, the internet may represent a new source of inequality.

We sympathize with the effort to promote the study of "digital geographies" (Zook et al. 2004; Ford & Graham 2016; Ash et al. 2018), and the effort to understand the interfaces between humans and technologies as objects in their own right (Ash 2015). However, it may be avoiding difficult questions that come up when speaking of digital media *as media*, that is to say, as sociotechnical communication systems. It is important to frame "the digital" as communication, even if that communication has unfamiliar powers. Alternatively, work in digital geographies is at times putting old wine in new bottles. While the novelty of digital media deserves attention, understanding many aspects of new media requires a return to fundamental questions about communication flows and processes in space and place and about space and place. Fundamental questions about relationships between representation, subjectivity and the world arise whether one is examining digital media or earlier media. Digital media like earlier media can be used to represent places, enhance the functioning of places and connect through physical and social spaces (Adams 2009). The study of digital media benefits from a historical geographic perspective that attends to longstanding questions about geographical ontology, epistemology and methodology. So, rather than encouraging digital geographies, per se, we would encourage geographical attention to digital media within media geography.

Media geography and current issues

The COVID-19 crisis has accelerated key facets of mediatization whereby elements of life, including face-to-face communications and embodied mobility, are hybridized with digital communications and virtual gathering. We cycle between our online workplaces, leisure places, places of learning, marketplaces and information places. "Going to work" increasingly means a particular way of logging onto a particular app or database, with entry to the workplace controlled by a username, a password, and site-specific ways of uploading, downloading, networking and collaborating. Going to school is often just a different way of

logging onto apps and databases, a different username and password, and different site-specific ways of uploading, downloading, networking and collaborating. Shopping and hanging out with friends also involve these elements, where each generally constitutes a bounded activity space defined by different ways of “entering” and interacting.

One result of the COVID-based onlining of lives, particularly in the economically developed world, is rapid transformation of social norms and expectations. A blurring of social boundaries follows from the blurring of spatial boundaries. Social media norms spill into business meetings, as kids, cats and dogs poke their noses in and disrupt consultations and boardrooms. The norms of social media also spill into classrooms as professors ask students for a thumbs-up if they understand a particular concept from the lecture. With so much of life migrating online, we are afforded daily demonstrations of how media geographies support construction of disembodied identities (e.g. faces on a screen), but also how media geographies are embodied, emotional and material. In this light, the divisions between the public and private spheres become porous. Video links allow us to peek into one another’s homes; Facebook allows people to post the most intimate details of their lives. The boundaries between the public and private realms have become porous indeed.

Despite this plunge into the latest bout of time-space compression, accompanied by context collapse and multiple risks to situational integrity, there are still quite a few of the “old” pre-digital communications around the corners of our worlds. Many people still read books printed on paper, and some read newspapers and magazines that way. We continue to have face-to-face conversations safely distanced from our neighbors as we pass on the street; hours are spent leafing through the encrusted pages of forgotten cookbooks for ways to spice up a homebound life; mail fresh from the mailbox waits on the corner of the table. These things remind us that our lives still depend on old media. Media geography is suited to reflection on the current situation since it considers old and new media, high-tech and the low-tech infrastructure, mobile and stationary uses of media, entertaining and utilitarian media, simple and complex media, and all in light of spatial activity routines and the evolving meaning of place.

During the COVID-19 crisis, media-geography questions have become a general pre-occupation. Why is food ordered from a restaurant only half as good as the same food eaten in the restaurant? How do intimate social relations like dates and family get-togethers survive transplantation to the relatively (though not entirely) disembodied space of online togetherness? Why is seeing people in 2D inferior to talking with them in 3D? How can we teach students technical skills, sports, dance, art, social sciences or even social skills when each learning environment is a numbingly similar array of boxes on a Zoom screen? The mass interest and publicity in this moment around what we recognize as media geography will have major implications for the study of media geography, and perhaps by the time “COVID-19” has faded from the scene through widespread vaccinations, “media geography” will be more familiar.

Outline of chapters

The first section of the book engages with issues around the control of, and access to, digital media. These topics include state-backed censorship of media and digital divides, both of which create forms of exclusion from mediated communication flows. The next chapter in this section deals with efforts to overcome controls built into digital media; in a word, hacking. This is followed by chapters on the Chinese internet, which demonstrates a particularly severe form of state control, and a chapter exploring how digital media both exclude and include people with visual impairment and blindness.

Many governments around the world fear the emancipatory power of the internet, which can undermine monopolies over the control of information. In Chapter 2, Barney Warf examines internet censorship, which varies widely across the globe. He summarizes the major forms and levels of severity that censorship assume, then displays their geographies using data from Reporters Without Borders. Next he focuses on the world's most egregious practitioners of censorship, such as China, where the "Great Firewall" is notorious, as well as Vietnam, Iran, Russia, and Central Asian republics such as Turkmenistan. The chapter concludes with a warning that early utopian expectations of the internet have given way to more sobering but politically realistic assessments.

Social and spatial inequalities in access to cyberspace, better known as the digital divide, have long been central to understanding who uses the internet and who does not. In Chapter 3, James B. Pick and Avijit Sarkar provide a comprehensive overview of digital divides among the world's major regions. Although divides in most cases have narrowed, particularly with the growth of cell phones and the mobile internet, significant discrepancies remain among countries, and often within them as well. Pick and Sarkar point out the growing multidimensional complexity of divides, which now include technical literacy, affordability, technophobia, broadband access and social capital. The growth of information technologies the world over has led to new types of divides with varied geographies, which they illustrate with a wealth of examples.

Mareile Kaufmann, in Chapter 4, offers a comprehensive overview of hackers and hacking that departs from conventional representations that portray hackers as criminals. Rather, she emphasizes, hackers are motivated by a range of economic, political, affective and philosophical inclinations. After summarizing discourses about hacking, she focuses on an empirical case study of hacking dataveillance—surveillance using digital data—in three European countries, which redefines the contours of data flows and governance. Her chapter fruitfully depicts hackers in terms that emphasize the multiplicity of views surrounding the practice, their embodiment and the techno-political dimensions of governmentality and resistance.

China has by far the world's largest single population of netizens, more than 850 million in 2020. Xiang Zhang, in Chapter 5, explores the rise of social media there and how it differs from conventional media platforms. Inspired by the theoretical perspectives of Michel Foucault, in which knowledge and power are seamlessly fused, he turns to the social impacts of internet media there, such as news apps on smartphones. In contrast to the rigidly hierarchical structure of state media, a plethora of new media companies such as Sina and Tencent have unleashed enormous changes in the Chinese media landscape. In response, the Communist Party, adamant to retain its authoritarian control over the country, has amplified its surveillance and censorship. How long this status is retained in light of growing internet penetration rates and citizen activism remains to be seen. Chinese usage of video sharing platforms, microblogs, and services similar to Twitter has markedly altered how they obtain and share information, with uncertain long-term consequences.

For people with visual impairment or blindness (VIB), media offer particular challenges and opportunities. In Chapter 6, Susanne Zimmerman-Janschitz explores geographical aspects of VIB and how they intersect with media. Ranging from the large-scale geography of legal and technological conditions structuring VIB experiences in different countries, to the question of how to facilitate access for VIB to the built environment, she shows multiple geographies of media that are encountered by those with visual impairment and blindness. The overwhelmingly visual quality of contemporary digital media effectively shuts out access to much information (including spatial information) when users are limited to aural-haptic interfaces. In contrast, automated aural and tactile navigation assistance is being developed to facilitate navigation by the VIB and help them avoid environmental obstacles and hazards.

The second section is dedicated to geographies of mass media. Chapters range from the newspaper and (fake) news content, to audiovisual media: film, television and video. Running through these chapters are thematic interests in the evolution of the democratic polity, public discourse and the audience segments constituted as publics. An intersecting theme is the ontological status of representations of the world, in particular their ability to falsify or misrepresent, an ability that requires a renewed encounter in the wake of postmodern critiques that destabilized notions of the true and the real.

Chapter 7, by Paul C. Adams, considers the newspaper from various geographical viewpoints: as a venue for disseminating geographical findings, a source of geographical data, a means to identify and critique public discourse, and an institutional actor that plays an important role in social processes. Studies roughly aligned with these various approaches have established the newspaper as one of the most important media for geographers to understand, and have drawn attention to important issues such as the role of newspapers in defining national culture and worldviews, as well as contextualizing social contestation. The chapter closes with a cautionary section addressing the ways in which digital newspapers deviate from the longstanding assumptions about newspapers, requiring geographers to adopt new research approaches.

One of the more distressing trends in global media today is the explosion of fake news, or false stories that masquerade as real. James Compton, in Chapter 8, points out that this phenomenon has created a legitimization crisis for journalism. He traces the origins of fake news, with its deep roots in yellow journalism, and its utilization by demagogues such as Donald Trump. As the variety of news outlets has proliferated with abandon, the opportunities to manufacture fake news have grown accordingly. Coupled with a growing crisis of traditional media, this trend has led to large numbers of misinformed people who are gullible enough to swallow conspiracy theories. He concludes by noting that the right-wing mediasphere—Fox News, Breitbart, Infowars, and the like—have seized on fake news with a vengeance, sowing enormous distrust of the media among large swaths of the public.

Within media geography, a special position is held by studies of film and cinema. Many questions later directed toward other media were originally posed in relation to film. In Chapter 9, Elisabeth Sommerlad reviews the rich history of film geography, with particular attention to geographies in and of film, screen tourism, cinematic cartography, the didactic potential of film critique in geography education, and finally filmmaking as a research methodology and a venue for geographical findings. Sommerlad's chapter concludes with a prospective glance at how these multifarious perspectives on film may become more integrated.

In Chapter 10, James Craine turns to the geographies of television, still arguably the world's most important media outlet. Revolutionary technological changes such as digitization, virtuality and streaming have unleashed new televisual landscapes. Craine analyzes these trends within the context of feminist thought, affect and the literature on spaces of difference. The multidimensional semiotics of televised spaces and places reveal how the virtual and the real have become interpenetrated in complex, often unpredictable ways.

Among the most popular applications of digital media today is streaming video. Irina Kopteva, in Chapter 11, delivers an in-depth profile of the largest such service, YouTube, which has given millions of people a chance to express themselves visually to large audiences. The results include YouTube stars and influencers with millions of subscribers, videos of dangerous stunts, and a surge of material in vernacular languages. Even countries such as China, where YouTube is banned, have seen imitators emerge. As YouTube has grown, so too have debates about the legality of its content, marketing opportunities, advertising,

intellectual property rights and repercussions for education and entertainment. YouTube thus unites and divides people in diverse geographic contexts around the globe.

The third section of the book addresses a spectrum of issues ranging from mobile media to surveillance. The functioning of mobile media implies the collection of locational data from users, opening up the possibility of a sort of microscopic, multidimensional surveillance that is unprecedented in human history. While this potential is exposed in the final chapter of the section, prior chapters indicate the ways in which mobile media have facilitated various forms of mobility. A complicated nexus of issues bringing together mobility, digital media, media convergence, loss or erosion of privacy, surveillance, and the commodification of mobility data preoccupies the authors contributing to this section.

Just as mobile communication technologies have been undergoing rapid evolution, so are the geographical insights that can be obtained from the study of these technologies, as revealed in Chapter 12, by Ragan Glover-Rijkse and Adriana de Souza e Silva. The chapter reviews the short but complicated history of mobile media, from the late 1990s to the present, with particular attention to the reworking of human mobility through incorporation of mobile media into everyday spaces and practices. The chapter introduces corresponding transformations of relations between public and private, near and far, present and absent, space and place. The use of mobile media permitted the development of hybrid spaces that are simultaneously digital and physical, but as the authors insist, this process was as much a social as a technological transformation.

Roger Norum and Erika Polson offer a deeper dive into the co-construction of media and mobilities in Chapter 13. Applying the concept of “connective media” to the present period, they question how connective media support both digital placemaking as well as movements to, in and through these places. They delve into the complex intertwining of mobility and mediation, showing that media are now deeply involved in spatial connections whether one looks at flows of goods, services or people. Moving beyond the more familiar elements of this story, they explore more theoretically challenging aspects of the media-mobility nexus, considering how media function as intermediaries, coming between yet connecting, making what is distant immediate, and thereby altering conceptions of reality.

Chapter 14 continues this dive into theoretical complexity as Peta Mitchell, Marcus Foth and Irina Anastasiu examine geographies of locative apps. Here the focus narrows to the “location-aware” applications running on digital devices. The chapter traces the historical emergence of mobile geolocation and offers a way of theorizing the new, “hybrid” forms of spatiality being generated in its wake. The authors move on to discuss the spatial affordances associated with location-based apps and services. They next offer a sobering reflection on how mobile geolocation has contributed to an emerging economic sector driven by the collection, collation and processing of personal locational data from the users of these apps. Their review of the literature demonstrates that locative apps present simultaneously an unwanted intrusion into personal privacy, a means of enhancing safety and security, and a way of engaging with hybrid spatiality.

In Chapter 15, Ellen van Holstein writes of digital surveillance and place, notably the “culture of watching and being watched.” This set of practices is increasingly central to questions of privacy, fear and risk. Moving beyond conventional understandings of the panopticon, she portrays digital surveillance in terms of networks and assemblages, in which new geographies of power and resistance are continually produced and reproduced. She concludes by calling on geographers to come to terms with their own complicity in this phenomenon.

The fourth and final section of the book deals with media and the politics of knowledge. Geographies of media involve intersectionality defined by race and ethnicity, sex and gender, nationality, regional identity and anthropocentric understandings of the natural.

In Chapter 16, Douglas L. Allen and Derek H. Alderman explore the politics of race and ethnicity in the media, bringing to bear geographic theories regarding presence and absence, socio-spatial representations and racialized landscapes. They demonstrate ways that media portrayals of racial and ethnic minorities stereotype, essentialize and marginalize, but also show that media can be used to affirm presence in the face of these processes, contest dominant narratives and images, and subvert oppressive systems. Cell phone videos, for example, have brought racist police brutality to the public eye, while also precipitating an alternative, re-envisioned, aspirational sense of place.

Recent years have brought right-wing movements fusing racist and nationalist ideologies, in the US and throughout the world. In Chapter 17, Daniel Bos explores how media weave nationalist ideas in popular culture. His chapter explores how nationalism is experienced, embodied and performed through everyday mediated encounters. The nation is not merely represented in the media; in many ways, mediated communication is a key process through which the nation is created in an ongoing fashion. This wide-ranging chapter considers old and new research that bears on this question of how the nation comes to be and the part media play in this process. It reflects on the audience and various modes of contributing to, and engaging with, the circulation of nationalist imagery.

Nationalist media content depends in part on representing outside people and places as significantly different, in other words as inferior, alien, bizarre, primitive, threatening, failed and so on. This Othering process is examined in Chapter 18 by Virginie Mamadouh, focusing on how news media perpetuate Eurocentric and Orientalist worldviews. These mediated realities situate negative stereotypes of non-Western places and people within an ethnocentric worldview prejudiced toward Western people and places. Through globalization and digitalization, these Eurocentric and Orientalizing perspectives have diffused outside of their Western source regions. However the same processes of globalization and digitalization have supported alternative perspectives, for example Al Jazeera and the Chinese broadcaster CCTV, as well as local perspectives posted by amateurs on social media platforms.

If nationalism is obviously a spatial expression of power relations in the media, more subtly spatialized aspects of power involve sex and gender. These aspects are treated by Marcia R. England in Chapter 19 through a feminist approach to media geography. She outlines how notions of masculinity and femininity have been naturalized by media, as women's agency is pushed to the margins. She considers how media both affirm or challenge social norms and stereotypes governing men's and women's spatial behaviors. She also reveals how geographical concerns with embodiment inherently invoke dynamics of mediated sex and gender.

In the final chapter, Hunter Vaughan troubles the idea of nature as something we come to know through media representations by showing that media impact the environment and extend associated social justice violations in ways that are often disregarded.

No single volume can hope to address all of the issues that swirl around the theme of media geographies. Obviously there are omissions in this volume: there are no chapters on radio, or Facebook, or the dark web. But we hope that the work presented here is useful for those studying the complex intersections of media and place, the ways in which spatiality and information are wrapped up in one another, and how the continuous, ongoing transformation of both shape our societies, politics, cultures and lives.

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