1. Misinformation in the digital age: an American infodemic

In 1835, The New York Sun reported that men with bat wings and unicorns were roaming the moon. The story caused such a stir that every newspaper in the country carried it. As it turned out, the editor of The Sun had published the story by laying claim to the authority of, and trust in, scientific expertise, namely the expertise of astronomer Sir John Herschel, and connecting the alleged sightings to Herschel’s study of the moon at his observatory in South Africa. The story was a hoax, yet it was confirmed by many newspapers.

Nearly two centuries later, in 2016, the small, relatively unknown town of Veles, Macedonia, came to world attention for hosting over one hundred websites disseminating memes and partisan content about the United States (US) presidential election. Young entrepreneurs in the town found an audience in their production and posting of misinformation.

Both stories illustrate that misinformation has been around for hundreds of years. But the information landscape has also changed dramatically in the US in recent decades. News and information are consumed on digital platforms. News alerts on smartphones push notifications so that users are instantly updated on events and stories. Mobile technology allows these stories to be circulated at rapid speed, reaching global audiences in real time. Over-abundance of information has emerged as one of the most pressing issues today and may best be illustrated in the 2019 Coronavirus (COVID-19) disease outbreak. Misinformation about COVID-19 exploded, leading World Health Organization Director-General Tedros Adhanom Ghebreyesus to call attention to the “infodemic” in addition to the pandemic.

The term “infodemic” was popularized by David Rothkopf (2003), who had highlighted the large amount of information accompanying the SARS (Severe Acute Respiratory Syndrome) epidemic. He wrote: “Infodemics are emerging as one of the most virulent phenomena known to man, able to transmit to continents instantly”. Here, information spread is seen to be analogous to the global spread of a contagious virus: it is highly transmissible and reproducible in time and space. Since publication of Rothkopf’s article, misinformation has not only
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intensified but also amplified, from claims that the COVID-19 virus is a hoax to allegations of voting fraud in the 2020 American presidential election. Infodemic has moved beyond pagers, faxes and wireless phones, which Mr. Rothkopf had identified as a principal cause. Today, rumor, fiction, myth, evidence, data, speculation and propaganda are combined in various forms and forwarded swiftly on social media including WhatsApp, WeChat, TikTok, Twitter and Meta. It has become apparent that there is a dystopia to the infodemic. While digital technology has democratized the power of authorship from institutions to everyday citizens, it has also led to a chaotic landscape of multiple, often fragmented, shifts in authority and trust, as authors abandon traditional editorialization, corroboration and fact-checking. Virality of information is often conflated with veracity, and opinion and fact are interchangeable. This emerging terrain of misinformation is geographically uneven. The social production and reproduction of misinformation in the infodemic environment favor some regions over others, creating misinformation hotspots and news deserts.

Some 93% of Americans obtain at least some of their news online, either from a mobile or a desktop device (Pew Research Center, 2019a). This shift in the technological and social organization, production, and consumption of news matters because the information in news is being reconstituted. Jim Lehrer, a former news anchor at the American Public Broadcasting Service (PBS), once said that “news is information that is required in a democratic society,” echoing Thomas Jefferson’s idea that “democracy is dependent on an informed citizenry” (both quoted in McFadden, 2020). Digital media offers the promise that citizens will become more informed to participate in democratic life. Yet recent events in the US have challenged these notions. Information produced by peer-to-peer networks (over social media) has raised questions about the impact of information production on communities and democratic processes.

New fluid social relations are being formed in digital spaces as interactivity replaces face-to-face interactions, and a bewildering geography of nowhere appears to mark the misinformation terrain in the US. Relational formations are increasingly elastic, simultaneously emerging at local and global scales. Rural and small-town communities may be isolated but are also tethered together in real time through digital media. New information and data brokers have emerged to reconstitute geographical peripherality, linking isolated communities into national news and information spaces that bolster conservative interests. Power and authority
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are defined by the number of likes and favorites, allowing new forms of authority driven by charisma to emerge. These are some of the emerging themes in the “post-truth” era of academic scholarship. This book aims to address a lacuna that exists in prevailing literature, namely the neglect of space in understanding misinformation, disinformation, and post-truth. Misinformation is highly spatial, involving social and cognitive formations and expressions in space, yet spatial sensibility is under-addressed in the literature. While misinformation is taking shape across the globe, examining misinformation beyond the US is beyond the scope of the book. Instead, the book will focus on the American infodemic, where the authors have collated significant case studies and data for empirical evidence.

1.1 MISINFORMATION

Misinformation is not easy to define. Early media response to the 2016 presidential elections in the US issued warnings about hoax articles by authors like Paul Horner, who claimed that he helped to put Donald Trump in the White House because of his fabricated stories and fake news (Dewey, 2016). The term “fake news,” however, is inadequate for examining the themes of this book because it has entered the everyday vernacular of citizens who increasingly invoke the term to refer to any narrative that they disagree with. Other similar terms have emerged, including misinformation, disinformation, mal-information, and more recently, information pollution or disorder. A general consensus has emerged that the first three terms are distinguished by the messenger’s intention: disinformation refers to false information that is developed and spread with the intention to disrupt, even to cause harm, whereas misinformation does not necessarily carry such intent. Mal-information captures reasonable or genuine information, but the information also contains content that causes harm. Information pollution refers to messages that are contaminated or distorted at any of the stages of creating, producing, circulating and/or consuming the information (Wardle & Derakhshan, 2017). Information pollution has become a global phenomenon and is supported by numerous digital platforms, often through echo chambers that spread and reinforce false messages at lightning velocity. According to one US survey, only 39% of those surveyed are “very confident” in their ability to recognize fake news (Barthel et al., 2016), while other surveys found Americans had difficulty discerning news from sponsored content. Because misinformation is a relational activity,
recipients of misinformation can act on it. Furthermore, distortion of facts for political or financial gains can be pernicious because it is driven by deceptive motives (Vasu et al., 2019).

Despite the usefulness of the term “information pollution,” the wider scholarship has continued to favor the terms “misinformation” and “disinformation.” One early article that tried to pin down misinformation analytically is Lewandowsky et al. (2012). Highlighting the effect of pseudo-science on the anti-vaccination movement, the authors argue that the movement is driven by misinformation. We often learn about another culture from stories read in the media, novels, or movies. These are not necessarily true and are often produced to sell and provoke emotions among the audience. Fictions may also be sourced on social media that are gathered from peer authors and commentators. Among geographers, peer experts have helped to democratize the information landscape by devolving knowledge control from institutions of authority to everyday citizens. This is best seen in the literature on volunteered geographic information. However, amateur scientists and writers of fictional stories are not bound to editorial norms of evidence corroboration and sourcing. Urban legends and economic fictions, for instance, are difficult to overturn. One reason is that humans tend to accept information to be true if the story is coherent or consistent with their beliefs (Lewandowsky et al., 2012). Once such a narrative becomes part of an individual’s belief system, it tends to be relatively stable.

A relatively well-established body of work in economic geography has shown that information is spatially sticky; hence knowledge production tends to be concentrated in certain hubs in cities. Tacit information is exchanged through the relational interactions of people, and transmission is more effective when people are geographically proximate (Storper & Venables, 2004). Likewise, misinformation can be sticky when the networks of propagators are relatively local. However, stickiness alone does not drive misinformation. A major argument in this book is that misinformation is spatially elastic, and scale may be mobilized for disinformation. Consistent with Southwell et al. (2018), this book will use the term “misinformation” broadly to refer to misleading data, metrics, messages, images/graphics and information. While data, metrics, graphics, images and facts are representations and socially constructed, they have for the most part historically been subjected to a process of editorialization and vetting by a community, or controlled by institutional actors which share common cognitive norms. Human actors and messengers who share and promote information on their social networks without such gatekeeping
may believe in the credibility and reliability of the content, even if the information is false.

How should we treat conspiratorial narratives and propaganda? Benkler et al.’s (2018) *Network Propaganda* frames propaganda as a media ecosystem gone awry. They argue that shared institutional norms of truth and authority have given way to “radicalization” of the right-wing media ecosystem (p.14). Such radicalization has the capability to link millions of stories and tweets online and to share them digitally across time and space, mounting disinformation campaigns and smears against individuals. Misinformation tactics often include moving incriminating and false content through multiple mirror sites in various countries so that the location of origin and the jurisdiction are obscured. Moreover, radicalized and populist media operates under the guise of professional media—for instance, fringe alt-right sources such as Infowars. Propaganda is an important dimension of disinformation, because the goal is to influence a population’s attitude and behavior to achieve a political or ideological outcome, as we discuss in Chapter 4. Among the actively misinformed, propaganda can further mobilize action by manipulating facts that provoke both positive (e.g., patriotic) and negative (e.g., hate/xenophobic) emotions.

Opinion journalism is pervasive in radicalized media but it is also found in US’s nationally televised talk news (e.g., shows like *Fox & Friends* or *The Sean Hannity Show*). Here, information is destabilized by marginalizing competing narratives and invoking moral panic through fear. This is not to say that more liberal media sites do not engage in disinformation. News outlets like *The New York Times* and *The Washington Post* largely adhere to norms of sourcing and corroboration of facts. On the other hand, radicalized media sites excel in conspiratorial headlines. For instance, *Breitbart News*, which is highly right-wing, wrote about “exotic diseases” that an “invading flood of people” from south of the border would bring to the US (Starr, 2018). As Higdon (2020) observes, *Breitbart*’s narratives are racist and xenophobic. This often goes undetected by the reader because it is presented as normal information in news. Bergmann (2018) points out that conspiracy theory-telling is propagandist in orientation and often has the aim of marginalizing certain worldviews. It thrives on disrupting a certain institutional and social order through the false legitimation of particular narratives, for example, the narrative that Americans are being victimized in prevailing global trade arrangements, which is highlighted in Chapter 5. Likewise, rumors fall under the umbrella of misinformation, as they have the effect
of inflicting harm on a target by contorting facts (Vasu et al., 2019). Indeed, as we show in Chapter 6, rumor is treated as misinformation and sanctioned by the government in a country such as China.

Opinions and unverifiable facts, once seen to be on the fringe of the media ecosystem, are increasingly part of mainstream discursive spaces. For this reason, this book will attempt to shed light on the multiple forms of misinformation that are analyzed both quantitatively and qualitatively. This includes disinformation, propaganda, conspiratorial narratives, fictions and legends. Misinformation is reinforced and propagated in space and time through tweeting (and retweeting); reporting of alternative facts; fake metrics and reviews; corrosion of editorial and epistemic standards; and the dismantling of institutional mechanisms that hitherto have legitimized the authority of information.

1.2 MEDIA POLITICAL ECONOMY: A BRIEF OVERVIEW

Contemporary institutional arrangements of media have tended towards the centralization of human interactions that favors distinctions between producers and consumers, news and entertainment, and mass-mediated versus interpersonal communication. In the US, news and information were concentrated in three national television and news networks in the 1960s and 1970s. Domination of national media space by the three networks also meant that the organizations controlled the major channels by which economic and political information were disseminated to the public. A centralized media regime privileges journalists and reporters as major gatekeepers in the production and dissemination of news to the public. While facts may be contested and used to support political and economic elites, the contemporary intersection of technology, relational communication and digital agency has also turned contested facts into “fake news” and “alternative facts.”

The media regime that enables alternative facts today did not just emerge recently. As early as the Roman period, human messengers were used to spread falsehoods through allegations of political treason (Posetti & Matthews, 2018). After the Gutenberg printing press was developed in 1439, news began to travel farther because information could be produced in transportable material form. Misinformation and rumors could now reach a bigger audience. Over time, fake news entered the news ecosystem with stories about the supernatural that intersected with reality, often with deeply religious undertones. As religious fake news flour-
ished, a countermovement to inject greater objectivity into news-making arose, emphasizing knowledge production that was grounded in facts. Led by the scientific community, historians used footnotes to denote verifiable sources, and prominent scholars like Galileo (in the 17th century) and Voltaire (in the 18th century) advocated more rigorous examination of truth, rooted in facts and scientific methods. Indeed, current editorialization practices evolved out of efforts to counter the tide of fake news during this period. Despite these developments, the British media regime was largely embedded in an environment that restricted the production of information of interest to the public. News proprietors lacked political influence because major patrons of the press in the period were the political class. The state exercised considerable influence on British media through various regulatory controls (e.g., libel statutes) and licensing schemes. Press dependency only began to loosen when circulations grew rapidly in the early 1900s, liberating proprietors from political patronage to reach a wider readership, specifically the working class (Curran, 2002). Over time, the rise of radio and television helped to strengthen media power by ensuring that entertainment programs and advertising were offered. This in turn contributed to revenue diversification beyond economic, social and political news.

In the US, news-making took on a twisted form by the 19th century. The press peddled sensational stories to attract readers (Campbell, 2003). There was little regard for fact-checking; articles were fabricated using fake interviews and false experts. One notable example was Benjamin Day’s *New York Sun*, which created stories to boost readership; this tactic is still employed by today’s tabloids. Indeed, news had become so partisan in the 1700s that the US government passed the 1798 Sedition Act to prosecute authors who engaged in false and malicious writings against the government. This unpopular law did not ultimately survive. But it prompted fierce debates that led to the view that information needed to be institutionally protected as part of free speech, a point that will be elaborated in Chapter 6. If the climate of news production is to be taken as a barometer of the extent of fake news, then it leaves little doubt that information is frequently distorted (Perloff, 2019).

Norms influencing media content favored partiality during the 19th century, and good editorialization was often associated with partisanship rather than objectivity and fact-finding in the US (Sloan, 2005). The US Federal Communications Commission (FCC) required all broadcast license holders (radio and television) to adhere to the “fairness doctrine.” This meant that license holders had to present a balanced view of con-
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Controversial issues. However, this policy was removed in 1987 and blocked from reinstatement in 2011. The media space became more polarized and vitriolic as it also opened up discourse to a more plural and less objective representation of politics and other affairs. In this plural news landscape, information became increasingly commodified. Commercialization in the US offered a more independent role for press and media organizations to pursue their own financial goals (Baldasty, 1992). The 19th century was also marked by the rise of the “penny” press. Inexpensive paper reduced the cost of newsprint production and set the stage for mass consumption. Political parties saw how popular newspapers were with the masses and purchased advertisements. As Perloff (2019) points out, the penny press in effect created “news” as we know it today: storytelling took on a reporting style that was bestowed with respect for information. Objectivity became a standard to aspire to, because news was central to the prints that the organizations produced. More importantly, producing an entertaining product was now an important factor in the organization’s financial health, as newsworthy material meant a larger circulation. This is not to say that misinformation ceased with the development of the penny press. Rancorous content and propagandist material by certain agencies continued, but editors had also become more cautious about being overly sensational or partisan, as this might turn off advertisers and inhibit circulation. Such editorial gatekeeping continues to influence news production today.

Moreover, news production and reporting became a big business, and most cities had their own local newspapers. The emergence of the Cable News Network (CNN) in 1981 transformed the media landscape by broadcasting news around the world continuously and providing live news coverage of emerging events. It ushered in an era of cable services that support talk shows, 24-hour weather and financial information, and entertainment programming (including movies, reality television and sports). Local and national television networks continued to offer news at prime time or a few times throughout the day, but the 24-hour cable news also freed Americans from gathering around the television for the evening news. It moved the public’s consumption of economic and political affairs and information away from family space in the living room of a home to a more amorphous configuration of social spaces, igniting the beginning of a geography of nowhere in the media economy. Consider the shift in the spaces of consuming political information. In the 1930s, Franklin Delano Roosevelt redefined the US presidency by offering solace to a country undergoing economic depression through his
fireside chats on the radio. Thirty years later, John Kennedy’s charismatic communication was projected into American living rooms through their television sets. In both instances, broadcast media came to define how Americans understood and received news and information. Until his suspension, President Donald Trump delivered political commentary directly to Americans on Twitter and it was consumed everywhere as Americans brought their internet-enabled devices from supermarkets and boardrooms to the kitchen and bedroom. These spaces of information consumption have shifted from public space to private space. News as a commodity became more geographically accessible but commodification also acts as a double-edged sword. While it liberated the press from political patronage, commodification exposed news organizations to market competition and fragmentation. A more fragmented market means that hyper-local, hyper-partisan and increasingly personalized modes of news and (mis)information are filling in for areas largely overlooked by national and city-wide presses or television networks. Media, its power, and its relationship to the state are not static; they change as new technology emerges.

Web 2.0 ushered in new forms of interactions among groups of individuals from meetup groups, Uber carpools, location-based dating and location-based games. Social and digital media had seen a boom in the number of online media sources. Users have become both consumers of news and producers as well. Citizens co-produce news, information and misinformation as they contribute to the content that social media platforms capitalize on. Citizens can achieve virality while reaching global audiences in a matter of seconds. This capability is derived from two features: social media platforms function as aggregators of information without requiring attribution of the information source; and social media depends on the production and circulation of content through sharing with friends, family and other trusted individuals. The sharing economy is not free, it is highly commodified. Relational networks assume the logic of capitalist production and accumulation. Algorithms are deployed by agents to “datafy” digital relations in the form of information-for-hire and for-sale to companies. The latter, in turn, are interested in locational and personal data as the basis for marketing and advertising, or to influence political behavior.

Like the three national television networks of the 1960s, the contemporary social media landscape is dominated by a few technology firms such as Meta¹ (which owns Instagram and WhatsApp), Twitter and Google (which owns YouTube). Media power has for the greater
part of this and previous centuries been concentrated among a few organizations. Such power is increasingly dispersed in the digital age, as media amateurs emerge to take advantage of market fragmentation. Take Paul Horner, an amateur who produced viral fake news, using fake websites, including ABC.com.de, NBC.com.de and CBS.com.de, that were designed to resemble real news networks. President Trump normalized a personalized form of narrative as “truth.” He bypassed traditional channels of political norms and communication, and shared his opinions with the public directly through Twitter. He used Twitter to challenge media power by calling independent news “fake news” and describing the press as the “enemy of the people.” Douglas (2018) points out that previous presidents have tried to shape media coverage of political news by co-opting journalists, reporters and media barons. But few officials in high office have used Twitter to insult or put out controversial facts to the extent that Trump has. Part of his success lay in transforming the White House’s relationship with national media by remaining in headlines, and by invoking emotional geographies that enhance digital interactivities on social media. Emotional geographies and digital interactivities are taken up further in Chapter 2.

Social media’s emergence has transformed the economic landscape by reducing the demand for traditional media with editorial controls. It also led to new production norms: the BBC crowdsourced thousands of digital artifacts submitted by readers to develop a collaborative map of their spatial experience surrounding the 2005 bombings of London’s transport system (Taft, 2014). Information may be gathered at a lower cost and readers can now also help to co-produce news, leading not just to new accumulation strategies but also to new norms of information production. But peer production also increases misinformation in the digital age because it is difficult to verify the authenticity of hundreds of competing narratives in real time as a story unfolds and reproduces online. Peer-produced information can travel farther, faster and cheaper than fact-checked news with journalistic integrity.

1.3 SCALE

Misinformation is highly spatial. It can disrupt neighborhoods, communities, urban and relational spaces as it is mobile in time and space. The spread and diffusion of misinformation may be both centripetal and centrifugal. Misinformation flows between individuals and communities at multiple scales but also coalesces around certain sites. Consequently,
the production and consumption of misinformation are intimately tied to geographical scale.

Much of geographers’ contemporary work on scale was ignited in part by the globalization of economic activities and human movements in the 1980s and 1990s, and the reorganization of space at local, urban and state levels as a result. One of the most notable observations from this literature is that scale is socially produced (Brenner, 2019; Herod, 2010; Jones et al., 2017). Here, scale is understood to be a process rather than a fixed geographic unit or container. The latter is no doubt useful for analytical modeling, but take a scale like the city: urban areas expand and contract in response to economic, political, institutional or social processes. Social relations may be weaved together to form a stable spatial configuration that we call city, region or nation-state. But spatial stability is not necessarily permanent. For example, an allegedly stable national state territory may still be unsettled by demands for rescaling in the face of globalization and de-globalization, as illustrated in the evolution of the European Union and questions surrounding Brexit. But adopting an approach where scale is relational has the advantage of focusing attention on actors and their communications that drive not only social connections but also the structure that constrains action. In addition, it opens up questions of power arising from uneven relationships in space. Marston et al. (2007) observed that scalar thinking is susceptible to a static local–global, space–place binary framework, which treats scale as partitioned spatial fields. This neglects considerable inter-percolation between the fields that are not organized around a hierarchical or horizontal order of spatial axes. Scalar processes are necessarily incomplete as relations are fluid and contradictory. Connections grow, radiate and shrink since they do not operate in vacuous institutional and human agencies. Increasingly, such connections are also embedded in non-human, algorithmic agency in digital spaces that have the capacity to exacerbate power relations.

One of the earliest geographers to move away from thinking of scale as areal units is Cox (1998). He advanced the notion of “spaces of engagement” to highlight the role of associations (relations) developed by actors. For him, associational and relational dynamics influence the movement of actors between spaces of engagement. Associational agents may include interactions with a number of players. This observation is becoming more apparent in the digital setting, where social media is used to scale up (or down) social movements. The August 2019 mass shooting of 22 people in El Paso, Texas, was not just a local event. The perpetrator drew some of his inspiration from the manifesto that he had written...
online, inspired by the killing of at least 49 worshippers at a mosque in Christchurch, New Zealand, just five months earlier (Arango et al., 2019).

What these incidents demonstrate is how digital scale has been deployed to accentuate social difference. Scale is not neutral here; it unifies disparate communities and their fragmented discourses of otherness by giving material form to an emerging transnational movement that percolates between scales, both vertically and horizontally. While the shootings were local (mosque and Walmart) and urban (Christchurch and El Paso), neither of the shooters was from those cities, bringing an inter-scalar dimension to spaces of engagement through the tethering of White supremacy discourses. In this case, such engagement allows fear and hate to take root.

Much of the scholarship discussed above does not explicitly deal with the problematic nature of scale in the informatized economy. Scale is necessary to understanding the object of this book, misinformation. Production of misinformation is a spatio-discursive practice, as scale may be used to confound, confuse, mock, generate fear and legitimize ideas. It can, as the El Paso and Christchurch shootings demonstrate, include and exclude by reproducing cultural and social differences of otherness. Misinformation can be used to mobilize hate, influence access to news, fictionalize facts and weaponize space. Perhaps the best example of the last point, weaponization, is seen in how the border between the US and Mexico has been spatialized as a war zone, inviting a national imaginary of immigrants as invaders importing violence and disease. Such an imaginary is supported by polarized news media and social media that have played a significant role in keeping the imaginary alive in time and space.

What seems clear is that scalar writings have pressed for the rethinking of space as relational by enlarging the configurations through which technological, social, political and economic processes are constituted. This denies pre-fixed or determinate directionality. The popularity of a more relational epistemology is in part inspired by Manuel Castells (2000), who highlighted the networked connectedness of places by framing them as spaces of flows. Marston et al. (2007) and Herod (2010), however, argue that network-centrism’s answer to scale is unsatisfactory, because it suggests a geography of nowhere and the erasure of somewhere. If network relations capture actor-centered activities, then they are necessarily embedded in communities. Spaces of flows may conjure a flat terrain but swirls of actor-driven flows need sites for take-offs and landings. In virtual and digital space, these sites are inhabited by
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communities of authors, readers, editors, commentators, viewers, lurkers, citizen activists, organizations, institutions, firms, non-governmental organizations (NGOs), video and media producers, and increasingly, algorithmic agents. For this reason, the relational approach sees an undulating landscape that is marked by spatial unevenness. More specifically, we maintain that relational geography remains a relevant conceptual anchor, because much of the literature identified above rarely tackles the relational in the context of virtual and digital community formation.

Information’s hypermobility in the digital age shares many of the issues that preoccupied early debates on capital’s hypermobility. This means highlighting the porosity of borders and administrative boundaries, and the concomitant decrease of power among state actors to control mis- and disinformation. While contributors like Neil Brenner (2019) see state atrophy and lack of cohesive geopolitical regulation as being replaced by rescaling strategies – for example, by forcing cities to assume more of state’s regulatory burden – such rescaling downwards is less obvious in the context of misinformation. Regulation is at a nascent stage in part because social media firms and corporations have pushed for a decentralized scale of private governance globally. This makes some sense as citizen science has gained traction, such as in volunteered geographic information (VGI), but decentralization also empowers certain discursive practices. The state, for instance, is hesitant to police hate speech online in the global West. Decentralized private governance in turn escapes national scrutiny, percolating into the global as communities forge associations across space.

Despite its spatial permeability, information, especially social media information, is also distinct from capital: social media has contributed to the rise of the free and sharing economy. Cognitive activities involving information production are social, as we argue in Chapter 2. Social media presupposes some form of communication, a symbolic exchange (Fuchs, 2014). Understood this way, the twin features of free exchanges and sharing of information should mean that market metrics of firm and labor-centric exchanges that are favored in other global flows such as capital and finance are important but not central metrics in the digital economy. Social media information thrives on the communal, the personal, and increasingly, the sensational, because companies see relational data as an important source of revenue. The pace and scale of surveilled impressions—chatting, liking, commenting and clicking—are relevant metrics of performance that companies have commoditized as information-for-sale. Datafication of human interactions and mobility is
the new sharing economy. This new economy necessitates scalar thinking as it expands the power relations described in this book—digital and scale are intrinsically related.

Misinformation has largely escaped scalar fixity because it can be mapped and layered at many geographical scales. This has to do in part with competing interests of digital communities and hence the plurality of various claims that wind up as misinformation. Facts compete with opinions seeking new legitimacies of trust and authority. Nonetheless, while we recognize the importance of approaching scale from a critical perspective, this approach presents challenges in analyzing the digital space. Census data, for example, generally depends on fixed boundaries even if the boundaries may expand and contract to reflect population shifts. Likewise, it is difficult to avoid spatial categories in large-scale survey data such as the census (e.g., cities, state). In addition, social media data may be static, failing to capture fluid mobility in space (Shelton et al., 2015). Notwithstanding these problems, there is some advantage to approaching scale from an analytical perspective as it alleviates criticisms about scale becoming a chaotic concept (Jones et al., 2017). More specifically, the making of digital spaces is not free from subject-making. Indeed, a major premise of the relational framing in this book is that communities construct subjectivities in digital space. This does not discard ideas of fluidity and representation that critical geographers have highlighted, but simply deploys scale as an analytical tool to understand the geographies of misinformation.

1.4 RELATIONAL GEOGRAPHY AND THE CRISIS OF TRUST AND AUTHORITY

While psychologists, political scientists, communication researchers, and legal scholars have dominated a growing literature on misinformation (Benkler et al., 2018; Lewandowsky et al., 2012; Southwell et al., 2018; Vasu et al., 2019), this book draws on spatial sensibility in examining the phenomenon. Such sensibility is anchored on Geography’s relational turn in the past two decades. The pace and scope of misinformation compel us to think about how information is shared and exchanged. Hochschild and Einstein (2015) call those who do not propagate misinformation the “inactive misinformed.” Members of the group may hold inaccurate facts about an issue, but they may not act on this knowledge and try to shape policy. Members of the “active misinformed” group, however, identify strongly with a community and are enthusiastic participants and
disseminators of inaccurate information. Misinformation is a relational activity in both groups. It is often targeted at a spatially centripetal audience whose members may or may not all be directly communicating with one another. Communities that make up this audience may be connected through exposure to the digital circulation and dissemination of misinformation.

A relational focus calls attention to the sociological nature of trust and authority that could help to explain misinformation. Understanding the popularity of conspiracy theories, propaganda and fictions requires understanding the role of beliefs. In Chapter 2, we argue that humans rely on a community for information ranging from tasks such as putting together a faucet to more complex theories on global warming. Lewandowsky et al. (2012) point to gaps in mental models that require other people to fill in the missing information. But normative beliefs are resistant to being overturned since new, more accurate information can threaten community relationships and stability. Moreover, simple myths and fictions are far more attractive and easier to spread and to be retained in memory. Information spins and propagation are aided by digital platforms, but they also require human and non-human agents. These agents may be individuals, organizations, corporations and governments that produce and propagate information, or that automate information production and dissemination. For this reason, trust in the relational structure of a community and belief in the authority of such a community are important conceptual constructs in developing an understanding of misinformation. Adopting a relational approach underscores the spatial practices of misinformation because such practices support various forms of digital connectivity. Specifically, Chapter 2 will outline relational notions of trust and authority, but the book’s core analysis is to be found in Chapters 3 through 6.

The importance of relationality may be traced to Alfred Marshall, who had declared that trust “permeates all life” (1961, p.165). Trust is relational because it involves a person who trusts, and the trusted to whom the trust is given. It is also geographical because the radius of trust can be low (e.g., family) or high (e.g., global community with shared knowledge), and it operates at multiple scales. Relationality influences misinformation because members of a community are more receptive to, and trusting of, information originating within the community, even when the information is false. In Chapter 3, we show how everyday citizens collectively author geographic information that fosters misinformation. Scientists are not the only ones encouraging everyday citizens
to help gather geographic information data on the ground. Companies like Amazon have cultivated peer-production of reviews and ratings to datafy economic life. In this sharing society, peers’ ratings substitute for expert information even if they are false. Sharing extends to digitizing gossip in the form of urban legends. These legends are collectively authored lessons protecting friends and family from evolving anxieties of a community (immigration, urban blight, etc.). A shift in the landscape of local consumption of information is particularly stark in sparsely populated rural communities, which have become news deserts as local news outlets decline.

Meta describes its mission as: “Giving people the power to build community and bring the world closer together.” As a source of trusted information, the Facebook platform can also be harnessed for maleficiency. Social media has been used as an information weapon promoting propaganda and perpetuating culture wars that deepen community cleavages through distrust. Conspiracy theories circulating on Facebook and WhatsApp in India have stoked hatred against Kashmiris. Governments harness trusted relationships on social media to exploit social and religious tensions. Military personnel from Myanmar used Facebook as an information weapon against the Muslim Rohingya. Chapter 4 maps out the global weaponization of information by plotting transnational attacks delivered through inauthentic digital behavior. Given that a goal of weaponization is propaganda that attempts to sow distrust and to denigrate competing sources of authority, Chapter 4 discusses the nature of information weaponization and its relationship to propaganda, paying specific attention to Russian propaganda.

In the digital age, media discursive spaces resist discourse complexity. Narratives are compressed and replicable, leaving out the sticky nuances of accuracy. Information complexity tends to be higher among specialized epistemic institutions which depend on trust relationships with a community to cultivate ideational formations (O’Connor & Weatherall, 2019). Editorialization and gatekeeping of information reveal the nature of institutional arrangements and relationships. Nonetheless, the social construction of authority has offered a relatively stable model for the control of misinformation, through accepted cognitive practices and norms that favor reasoning and critical thinking. Institutional arrangements that have safeguarded against the spread of misinformation, however, are under stress in the digital age. We focus on the disruption of epistemic authority in science wars and the role of authoritarian charisma in delegitimizing epistemic knowledge in Chapter 5. “Climategate” has
seen strong partisanship, with climate deniers regarding anthropogenic global climate change as a hoax. The epistemic authority of experts like climate scientists is not the only mode of authority under attack. Other modes are also being challenged by multiple projections of authority in digital space. The same chapter will also present (former) President Trump’s trade tweets as a strategy to subdue dissent from competing relational arrangements by drawing heavily on charismatic authority to strengthen certain forms of knowledge while eroding the authority of epistemic communities and institutions.

What does a crisis of trust and authority mean for territoriality? In Chapter 6, we suggest that digital space’s lack of respect for territorial boundaries is encouraged in the West because of protections of free speech. Yet it is becoming clear that misinformation can also negatively affect trust, which is necessary for the functioning of society. The current deterritorialized approach to governing transnational information flows, where states delegate authority to industry and non-state actors in monitoring misinformation, has come under increased scrutiny. Some countries like China and Singapore see the borderless-ness of digital relations as a sovereignty threat and have attempted to reclaim jurisdictional sovereignty by introducing fake news laws to strengthen state’s authority. Very often, emerging laws on misinformation are framed around national security and racial harmony, capturing a process of rescaling that attempts to shift deterritorialized authority from the global to the national.

It should be noted that much of the material in this book was written before the 2020 presidential election. Since the election, claims of a rigged election have reverberated in social media, supporting much of this book’s insights on trust and authority in the digital age. Chapter 7 provides an update of this development. Overall, this book provides a timely lens to the geographies of misinformation. It covers a number of themes from the technological, economic, political and social to the environmental, because misinformation is pervasive and problematic, and therefore affects many facets of society. The geographical scope of the problem needs to be understood for any broader policy to be contemplated.

NOTES

1. The rebranded name of the company previously known as Facebook
3. About Facebook. https://about.fb.com/company-info/