

# Ethnographic Approaches to Digital Media

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## Abstract

This review surveys and divides the ethnographic corpus on digital media into three broad but overlapping categories: the cultural politics of digital media, the vernacular cultures of digital media, and the prosaics of digital media. Engaging these three categories of scholarship on digital media, I consider how ethnographers are exploring the complex relationships between the local practices and global implications of digital media, their materiality and politics, and their banal, as well as profound, presence in cultural life and modes of communication. I consider the way these media have become central to the articulation of cherished beliefs, ritual practices, and modes of being in the world; the fact that digital media culturally matters is undeniable but showing how, where, and why it matters is necessary to push against peculiarly narrow presumptions about the universality of digital experience.

*No mode of production and therefore no dominant social order and therefore no dominant culture in reality includes or exhausts all of human practice, human energy or human intention.*

*Raymond Williams*

## INTRODUCTION

Whenever and wherever individuals and groups deploy and communicate with digital media, there will be circulations, reimaginings, magnifications, deletions, translations, revisionings, and remakings of a range of cultural representations, experiences, and identities, but the precise ways that these dynamics unfold can never be fully anticipated in advance. In some instances, digital media have extended their reach into the mundane heart of everyday life, most visibly with cell phones—gadgets now vital to conduct business affairs in remote areas of the world, as well as in bustling global cities. In other instances, digital artifacts have helped engender new collectivities: Web-cam girls, gamers, hackers, and others, whose senses of self, vocation, and group sociabilities are shaped significantly, although not exclusively nor deterministically, by digital technologies.<sup>1</sup>

The diversity and pervasiveness of digital media can make them difficult to study, but also can make them compelling objects of ethnographic inquiry. Still, anthropologists have been slow to enter this terrain—at least until recently, when the trickle of 1990s publications became a steady stream. Here I survey and divide this growing ethnographic corpus on digital media into three broad but overlapping categories. The first category explores the relationship between digital media and what

might be called the cultural politics of media. This work examines how cultural identities, representations, and imaginaries, such as those hinged to youth, diaspora, nation, and indigeneity, are remade, subverted, communicated, and circulated through individual and collective engagement with digital technologies. The second category explores the vernacular cultures of digital media, evinced by discrepant phenomena, digital genres, and groups—hackers, blogging, Internet memes, and migrant programmers—whose logic is organized significantly around, although not necessarily determined by, selected properties of digital media. The final category, what I call prosaics of digital media, examines how digital media feed into, reflect, and shape other kinds of social practices, like economic exchange, financial markets, and religious worship. Attention to these rituals, broad contexts, and the material infrastructures and social protocols that enable them illuminates how the use and production of digital media have become integrated into everyday cultural, linguistic, and economic life.<sup>2</sup>

The distinctions I draw among these three fields should not imply that they are neat and tidy categories; indeed anthropological work in the past two decades has often contested these boundaries. Even though groupings such as the prosaics of digital media and the vernacular culture of digital media overlap, I use the terms provisionally and tactically to emphasize different frames of analysis that have been brought to bear on the ethnographic study of digital media. To grasp more fully the broader significance of digital media, its study must involve various frames of analysis, attention to history, and the

<sup>1</sup>Although the term digital media may be familiar to most readers, it is worth highlighting that digital media encompasses a wide range of nonanalog technologies, including cell phones, the Internet, and software applications that power and run on the Internet, among others. Despite this diversity—and with the exception of cell phones—many digital technologies are still not within reach of most of the world's population. For the latest trends on Internet use around the world, see: <http://www.internetworldstats.com/stats.htm>

<sup>2</sup>This review does not consider in much depth virtual worlds, the role of digital tools in reshaping ethnographic inquiry, or many publications covered in earlier *ARA* reviews on similar topics (Cook 2004, Eisenlohr 2004, Wilson & Peterson 2002). For reflections on methods see Burrell (2009) and Hine (2005), and for reviews on virtual worlds see Boellstorff (2008) and Malaby & Burke (2009). Fischer (2007) provides four genealogies in science and technology studies, including many examples that engage with digital media. For a media studies review of critical information studies see Vaidhyanathan (2006).

local contexts and lived experiences of digital media—a task well suited to the ethnographic enterprise.

To elaborate my tripartite structure further, I open by historicizing ethnographic work on digital media in light of broader shifts in the popular and scholarly literature. Then, engaging my three categories of scholarship on digital media, I consider how ethnographers are exploring the complex relationships between local practices and global implications of digital media, their materiality and politics, and their banal, as well as profound, presence in everyday life and modes of communication. The presumption that digital technologies are the basis of planetary transformations is widespread, but unfounded. I take my task to be one of “provincializing” digital media [to borrow a phrase coined by postcolonial theorist Dipesh Chakrabarty (2000)]. To provincialize digital media is not to deny their scale and global reach, particularly in the circulation of finance capital and in the aspirations of transnational corporations (Boyer 2007, Sassen 2002, Zaloom 2006); rather, it allows us to consider the way these media have become central to the articulation of cherished beliefs, ritual practices, and modes of being in the world; the fact that digital media culturally matters is undeniable but showing how, where, and why it matters is necessary to push against peculiarly narrow presumptions about the universality of digital experience.

## MAPPING THE TERRAIN

Just a little more than a decade ago, the study of digital media was marked by a notable division of labor. Although anthropologists published influential methodological and theoretical reflections on the cultural implications of digital media—many of which remain relevant even today (Appadurai 1996, Escobar 1994, Fischer 1999, Kirshenblatt-Gimblett 1996)—few scholars attempted to conduct ethnographic research primarily in terms of emergent digital technologies (for a few exceptions, see Baym 2000, Danet 2001, Kendall 2002, Miller & Slater 2000, Pfaffenberger 1996). This

is despite the explosion of scholarly and popular work that heralded the coming of a new posthuman subject residing in a “digital age” or “network society” (Castells 1996, Hayles 1999, Negroponte 1996, Turkle 1995). These technologies supposedly ushered in, according to Manuel Castells (1996), an “historically new reality” (p. 92)—one that is “fundamentally altering the way we are born, we live, we sleep, we produce, we consume, we dream, we fight, or we die” (p. 31). By now it is well known that much of this initial literature was concerned with two problematic motifs: rupture and transformation. A few anthropologists were quick to challenge these kinds of broad claims, for instance, casting doubt on the autonomous power of technology to engender change (Hakken 1999, 2003). Others noted that, far from stimulating novelty, digital technologies in many instances facilitated social reproduction, catalyzing “expansive realizations” of self and culture, as Miller and Slater aptly phrased it (2000).

By the turn of the century, owing in part to the Silicon Valley “dot-com” bust, the breathless, utopian enthusiasm engulfing digital media had subsided, as had the epochal scholarly pronouncements concerning the digital age. But by 2004, scholarly and especially popular hype about digital technologies resurfaced, following the proliferation of what has been branded as Web 2.0 technologies—a term used to distinguish contemporary social media (Wikis, blogs, embedded videos) from their immediate predecessors, the static Web pages and message forums that had characterized what was retroactively dubbed Web 1.0. A new wave of publications by scholars, journalists, and pundit-entrepreneurs would once again insist, with varying degrees of specificity, that social media allowed for more communicative interactivity, flexibility, social connectivity, user-generated content, and creativity, facilitating more democratic participation than did previous digital platforms and greater interaction among larger swaths of the global populace (Shirky 2008, Weinberger 2007).

Despite a surge of scholarship contesting the liberatory image of Web 2.0’s participatory

architectures (Hindman 2009, Lovink 2008, Mosco 2004, Scholz 2008) and the continued reality of the digital divide (Warschauer 2004), the digital age remains a powerful structuring emblem with material and cultural consequences. Ginsburg (2008), for instance, critiques this governing metaphor by examining how it resurrects outdated modernization theories, working to influence the agenda of development projects and marginalize groups, such as indigenous communities, who are rarely included in academic or popular accounts on digital media:

This techno-imaginary universe of digital eras and divides... has the effect of reinscribing onto the world a kind of "allochronic chronopolitics"... in which "the other" exists in a time not contemporary with our own. This has the effect of restratifying the world along lines of a late modernity, despite the utopian promises by the digerati of the possibilities of a 21st-century McLuhanesque global village. (pp. 130–31).

If, as Ginsburg notes, sweeping visions of the digital age betray a constitutive myopia built on very particular exclusions, there is another irony as well: The term *native* is now commonly used by scholars and policy makers—most often in the titles of their books and reports—to denote the momentous and deep cultural changes that follow from the use of digital media (Adams & Smith 2008, Zeitlyn 2009). The use of digital media is, no doubt, culturally and politically meaningful. But even if we momentarily set aside important questions of access and capacity, the evidence remains unconvincing that digital media are the sole or even the most important grounds for producing a shared subjectivity or a wholly new sensorium, still less a life world that might characterize a vast population, such as an entire generation of young people in North America—the very thing that “*native*” connotes.<sup>3</sup>

<sup>3</sup>Tribal motifs have long been part of the scholarly study of digital media owing in part to Marshall McLuhan’s popularization of this connection (see Boyer 2007). The term digital

Despite these limits, it would be a mistake to overlook how digital media have cultivated new modes of communication and selfhood; reorganized social perceptions and forms of self-awareness; and established collective interests, institutions, and life projects. Indeed, anthropologists, as well as sociologists and media theorists, have increasingly attended to more particular kinds of groups, practices, and communicative genres that are underwritten and sustained via engagement with digital technology. Whether it is a dense ethical practice rooted in legal and technical tinkering online (Coleman 2009, Kely 2008); the genre-specific attributes of blogs (Doostdar 2004; Herring & Paolillo 2006; Reed 2005, 2008), the status and microcelebrity gained by Webcasting (Senft 2008), or the blurring of work and pleasure among Silicon Valley high-tech workers (English-Leuck 2002, Malaby 2009), it is clear that groups substantially can and do culturally dwell in digital technology (Ingold 2000). These examples, however, are more circumscribed in time and place (and often require substantial skills and media literacy) than what is all too often portrayed in the popular, and even some of the scholarly, literature.

Of course, these are not the only digital genres or groups whose engagement with digital technologies merits ethnographic investigation. Indeed, the cultural significance of digital media extends far beyond those groups most immediately organized around these technologies. To privilege these “cultural locations” (Gupta & Ferguson 1997) over others—to emphasize well-defined groups over alternate forms of collectivity—would limit our understanding of the important role digital media play in a wide range of social, linguistic, and political processes and projects: postcolonial economies and aesthetics (Larkin 2008, Silvio 2007, Smith 2007); perception and visual representations of self, memory,

generation functions in a similarly problematic fashion to connote the fundamental changes that follow from the use of digital media.

space, and the built environment (Cohen 2005, DeNicola 2006); and the cultural logic of capitalism, globalization, and corruption (Boyer 2007; Mazzarella 2004, 2006; Schull 2008), among others explored in this review.

Furthermore, to assess more richly the cultural and political life of digital media, we must attend to the role of social and technical protocols, infrastructure, and platforms (servers, cell phone towers, underwater cables, video sharing sites, conventions for chatting) that enable and constrain the circulation and use of digital media (Bowker 2007, DeNardis 2009, Gillespie 2007, Gitelman 2006, Larkin 2008, O'Donnell 2009, Ratto 2005) and do so, as Larkin (2008) insists, in light of their actual and material day-to-day operations. Whether it is willful avoidance of the Internet (Wyatt et al. 2002), the "unimagined user" (Burrell 2010), or a crumbling, slow infrastructure (Larkin 2008), these are the small but necessary details that render the materiality of media (and hence its particular affordances and constraints) not only heterogeneous but fully cultural, social, and above all, political.

## DIGITAL MEDIA AND THE POLITICS OF CULTURAL REPRESENTATION

People the world over use Internet applications (email, social networking sites, video chat) and cell phones to stay in touch with family and friends living overseas. Digital technologies are thus central to diasporic groups in part because, as Bernal (2005) argues in her work on Eritrea, diaspora and information technologies stand in a "homologous" relationship to each other because "in both cyberspace and the spaces of diaspora . . . location is ambiguous, and to be made socially meaningful, it must be actively constructed" (p. 661). Bernal also insists that conflict is part of the social architecture of many diasporic communities, a motif emerging in other studies on diaspora and information technologies (Axel 2004, Whitaker 2004).

For many diasporic groups, unfiltered and affordable access has been central to support

interactions that stretch from familial relations to pressing political projects (Burrell & Anderson 2008, Forte 2003, Landzelius 2006, Miller & Slater 2000, Panagakos & Horst 2006). In contrast, some indigenous groups seek to restrict the circulation of specific (i.e., sacred) forms of cultural knowledge, meaning imperatives other than unhampered circulation are also at stake. Cultural protocols might dictate restrictions on viewing material, such as images, owing to the ritual state of the viewer (initiated versus uninitiated, for example). In other instances, restrictions might follow after the death of an individual. A number of studies examine how indigenous groups, with the aid of ethnographers and nongovernmental organizations, have thus crafted (in painstaking detail) digital databases, interactive multimedia projects, and cultural mappings to represent, circulate, and at times, exclude various cultural motifs, norms, values, and folklore (Christen 2006, 2009; Christie 2008; Cohen & Salazar 2005; Salazar 2005; Srinivasan 2006). These digital projects represent what scholars have identified as "digital ontologies," which map "the community's overall structure of priorities and issues" (Srinivasan 2006, p. 510). These mappings, which often bypass the need for traditional forms of digital literacy, provide new visual representations of anthropological knowledge as well as resources for the community that respect cultural protocols.

These digital projects and their scholarly accounts also sustain a new chapter in the project of "dewesternizing media studies" (Curran & Park 2000; see also Ginsburg et al. 2002) all too rarely reflected in the scholarly or advocacy literature on the commons and digital access (Benkler 2006, Lessig 2004). To be sure, these advocates have built a politically vital project because it provides a legal and ethical counterweight to the ever-growing tangle of intellectual property restrictions. The particular debate over "free culture," however, perhaps too heavily relies on binaries like "open and closed" or "proprietary and free" that overlook other modes of circulation and access than those of capitalist proprietorship and liberal access

(Christen 2009, p. 4; Leach 2005; Myers 2005; Strathern 2005). One way to revamp scholarly thinking on the relation between culture and access is by considering national patrimony and cultural repatriation, whose politics must account for the material properties of media, colonial histories, and the multiplicity of protocols for organizing knowledge (Geismar 2008, Geismar & Mohns 2010).

The interplay between open and restricted access is also pertinent to questions of identity and digital media. One of the richest studies on the topic of identity, ethnicity, and race, is offered by Nakamura (2007) who examines how default virtual representations—white and masculine—“are intensified, modulated, reiterated, and challenged” by users online (p. 34). A recent monograph on white supremacy digs deep into the social life of racism online, appraising the role of “cloaked” Web sites whose design obscures the source, intention, and authorship of the content—a mode of presentation increasingly common on many political and corporate Web sites (Daniels 2009). It is surprising that only a handful of ethnographers have pursued in-depth studies on ethnicity, race, and digital media (Eglash & Bennett 2009). Youth and digital media, however, have been the subject of substantial ethnographic inquiry, although studies are generally limited to industrialized nations such as the United States, Brazil, and Japan (boyd 2009, boyd & Marwick 2009, Herring 2008, Horst 2010, Ito 2009, Ito et al. 2009, Palfrey & Gasser 2008). One recent collaborative project points an ethnographic lens at the intersection between digital media and American youth, including the changing dynamics of friendship, the reconfigurations between publicity and privacy, and the role of gaming and playing (Ito et al. 2009).

Many places in the world, even in North America, are untouched by the Internet grid—a condition commonly dubbed the digital divide—although this notion is more complex than a simple binary of haves and have-nots. Cell phones, often adopted where no telephone land line infrastructure has been built, and being small, “portable” (Ito et al. 2005), and more

affordable than computers, have populated the world over. There are no signs that this trend will abate. Used to transmit voice, send texts, and take pictures, cell phones have become important multimodal tools not only for economic activity, but for extending sociality and kin networks (Horst & Miller 2006, Ito et al. 2005, Wallis 2008); reinforcing friendships and transforming patterns of social coordination, status, and visibility (Ito et al. 2005, Caron & Caronia 2007, Katz 2008, Ling & Donner 2009, McIntosh 2010); and providing new avenues for intimacy and sexuality (Humphreys & Barker 2007, Pertierra 2006, Wallis 2010). Cell phones, generally a domesticated object, can assume extraordinary symbolic power, for example, when deployed during spectacular street protests, as in the People’s Revolution in the Philippines in 2001 (Pertierra 2006, Rafael 2003). Other scholars zero in on the more mundane features of cell phones, such as the ring tone, making the banal appear strange and extraordinary to arrive imaginatively at the logic of late capitalism (Gopinath 2005).

## DIGITAL MEDIA VERNACULARS

Scholars are increasingly applying an ethnographic lens to practices, subjects, modes of communication, and groups entirely dependent on digital technologies for their existence (Baron 2008, Biao 2007, Boellstorff 2008, English-Leuck 2002, Juris 2008, Malaby 2009, Senft 2008, Taylor 2006). The bulk of this work, however, continues to confound sharp boundaries between off-line and online contexts and between the past and the present (Kelty 2008, Sreberny & Khiabany 2010), for instance by turning to remediation, usefully defined by Silvio (2007) in terms of desire and attention: “To be compelling, a new media product must capture the psychic and social experiences of a particular time and place, and these include the experiences of older media, as well as the hopes and anxieties around the introduction of new media technologies themselves” (p. 286).

Other scholars examine the way digital media have become centrally implicated in centuries-old debates, such as those surrounding liberal rights, personhood, and institutional governance. For instance, ethnographers have given ample attention to free software and open source software hackers and developers—programmers and systems administrators who freely make, truck, and barter in the underlying recipes of software, source code, via novel licensing arrangements that invert, and thus politically challenge, the *raison d'être* of copyright law (Coleman 2009, Coleman & Golub 2008, Coombe & Herman 2004, Leach et al. 2009, Lin 2007). Much of this scholarship is concerned with transformations as well as continuities within liberal and Enlightenment ideals. For instance, Kelty treats free software as a “recursive public” whereby continuous and collaborative modification of software is what marks this “geek” public as distinctive from those publics mediated primarily by print culture (2008). In other parts of the world, the liberalism of open source is often submerged, although not entirely eclipsed, as it melds with national projects (Chan 2008a) as well as pan-regional imaginaries of the European Union (Karanovic 2008).

Furthermore, whereas some digital networks allow for decentralized networks or loosely associated groups, some of which would have been “unimaginable” (Lysloff 2003, p. 236) before the Internet (Shirky 2008), other online projects not only are part of vibrant public cultures but have become “routinized” (Weber 1947). Many open source projects—and close cousins, most famously Wikipedia—have become partially centralized organizations, with complex governance procedures and policy instructions edging close to guilds of times past, and even bureaucracies (Coleman & Hill 2004, O’Neil 2009, Reagle 2010).

If some geeks extend and transform liberalism, others renew and transform leftist, radical traditions. Juris’s (2008) monograph, a detailed ethnographic account of the social justice, counter-globalization movement, identifies the affinities between technical

decentralization and the organizational and political decentralization of many activist collectives who collaborate virtually to expose the abuses of corporate globalization (compare Milberry 2008). Digital activism uses other formats as well, including “banal activism” in suburban Malaysia (Postill 2008), the technological activism of nongovernmental organizations (McInerney 2009), immigrant mobilization and Web 2.0 (Costanza-Chock 2008), and the vibrant sphere of political blogging in Iran (Doostdar 2004, Sreberny & Khiabany 2010).

Indeed, the 2009 postpresidential election protests in Iran provide a powerful reminder of the double-edged sword of digital activism: Social media tools can simultaneously support grass-roots political mobilizations as well as government surveillance and human rights violations. For instance, during the course of these dramatic protests, citizens could purchase low-cost CDs loaded with anticensorship software, ensuring that a steady stream of images and videos were catapulted onto social media networks and the mainstream news (Sreberny & Khiabany 2010). The government, however, also used digital media to fortify its surveillance apparatus (Morozov 2009). “So long as ‘free’ is paid for by surveillance” as one activist technology scholar has put it, “the Internet will represent a Faustian bargain for radical social movements” (Saxon 2009).

If some technologists make and use digital media to fight the injustices of capitalism, others are enmeshed in flexible post-Fordist capitalism. The latter have been the subjects of studies—many regionally focused on South Asia—whereby the most abstract features of informational capitalism are brought to the foreground through nuanced ethnographic excavation (Amrute 2008, Aneesh 2006, Biao 2007). For example, Biao (2007) examines body shops—small outfits that place itinerant South Asian programmers into software companies in Australia, the United States, and Malaysia for short-term contract work. He reveals not only the lived experience of these migrant programmers, but also the economic and cultural conditions sustaining this practice. These laborers,

who at the turn of the century filled a massive global labor shortage (owing to the Y2K bug), now respond to fluctuations in a volatile market, rationalized, in part, by ideologies of meritocracy (Biao 2007, p. 111). Companion studies critical of informational capitalism attend to some of the most intractable and long-lasting by-products of digital media: the toxic waste of screens, computers, cell phones, and other electronics, which, despite its undeniable materiality and ubiquity, has received meager scholarly or journalistic attention (Maxwell & Miller 2008).

Some of the richest ethnographic studies explore digital media in light of language ideologies change, informality, virtuosity, revitalization, play, and morality (Axel 2006; Baron 2008; Cook 2004; Crystal 2008; Danet & Herring 2007; Eisenlohr 2004; Gershon 2010; Jones & Schieffelin 2009a,b; Keating & Mirus 2003; Lange 2009; McIntosh 2010). Many challenge the mainstream media's moral panic over the seeming demise of literacy; others make the panic itself the object of analysis (Tagliamonte & Denis 2008, Thurlow 2006). Jones & Schieffelin (2009a,b) provide a rich microanalysis of verbal informality, play, panic, and morality in digital contexts from the perspective of users. They treat thousands of comments left on YouTube videos—addressing an AT&T advertisement about text messaging that went viral—as “user-generated metalinguistic data” (2009b, p. 1063) whereby “young proponents of texting . . . publicize their own opinions about texting as linguistic phenomenon” (p. 1058) and publicize them with a remarkable level of moral acuity.

This ethnographic analysis is methodologically significant because the authors make sense of data—Internet memes, chatting, viral videos, and an astonishing cascade of comments that accompany this material—that may initially seem unsuitable for ethnographic analysis. It illustrates how the study of digital media transforms the possibilities and contours of fieldwork (Burrell 2009, Wesch 2007). Ethnographers will increasingly have to address how to collect and represent forms of digital

data whose social and material life are often infused with elements of anonymity, modalities of hypermobility, ephemerality, and mutability and thus pose new challenges to empirical, let alone ethnographic, analysis.

In contrast to the microanalysis of YouTube comments, Baron's (2008) monograph covers multiple modes of online communication—from social networking to chatting—to argue that the informality of many types of digital communication is part of a broader informalization in American public, familial, and work life. Examining the Iranian blogosphere, Doostdar (2004) takes on what Iranian critics call blogging's “vulgar spirit”—referring to informalities of language such as grammar mistakes. McIntosh (2010) addresses the informality and playfulness of texting to demonstrate how Giriamian youth construct a “fantasized persona” (p. 338) that is not bound to local customs. Among many elders, however, “mobile-phone technology and language are saturated with a kind of witchcraft that threatens Giriama identity” (p. 347).

Even if texting and IMing are predicated on a disregard for grammar and spelling, scholars have treated these genres in terms of their virtuosity and moral depth (Crystal 2008, Jones & Schieffelin 2009a). To understand the culture and linguistics of digital media, it will be crucial to pay ethnographic attention to what Gershon (2010) defines as media ideologies: “beliefs about how a medium communicates and structures communication” (p. 3), measuring these beliefs against what people actually do with this media, a method she deftly applies in her work on the use of digital media for mediating romance, and especially its end: the break-up (2010).

## THE PROSAICS OF DIGITAL MEDIA

The word prosaic invokes much of Bakhtin's work, which attests to the lived experience of language, the contexts in which it is uttered and reuttered (church versus market), the multiplicity of speech genres, and the ideological



and material conditions that sustain not only dominant languages, but also the heteroglossic and polyphonic formations, such as dialects, that can disturb the coherence of monologic languages (Morson & Emerson 1990). Looking at digital media in similarly prosaic terms means uncovering the lived experiences of digital media; discussing the conditions in which they are made, altered, and deployed (finance, religion, news); attending to particular genres of communication (blogs, spam, video-sharing sites); and finally placing attention on the material and ideological functions produced and sustained by digital technologies.

Several ethnographic accounts expand our understanding of the cultures of finance and capitalism (Knorr-Cetina & Bruegger 2002a,b; Schull 2008, 2010; Zaloom 2006), complementing existing sociological scholarship on how digital technologies magnify the speed, exploitation, and reach of contemporary global, neoliberal capitalism (Castells 2009, Harvey 1990, Sassen 2002). One the one hand, Zaloom (2006) demonstrates how financial trading firms created a new neoliberal dynamic of competitive hyperindividualism via the introduction of computers alongside new architectural spaces—a model pioneered in Chicago in the 1990s and subsequently adopted by other firms in financial centers around the world. Other studies are oriented phenomenologically, examining in detail how computer screens bring into being an entire world for finance traders (Knorr-Cetina & Bruegger 2002b).

On the other hand, digital media sustains underground, shadow, or unofficial/informal economies: digital piracy (Larkin 2008, Philip 2005, Sundaram 2007); fan fiction (Jenkins 2008, Silvio 2007); “mail-order” brides (Constable 2003, Johnson 2007); and email scams and spam (Brunton 2009; Burrell 2008, 2010; Smith 2007). Internet piracy, in particular, follows from uncoordinated and distributed activity whereby hundreds of thousands of people around the world download music, movies, and increasingly, books. Other types of digital piracy emerge on the streets or markets in global cities where copies of movies and music

are sold at low cost (Larkin 2008, Philip 2005, Sundaram 2007). Digital piracy in its totality partly interferes with the smooth functioning of capitalist and liberal-legal imperatives, tearing into what Derrida (1992) calls the “mystical foundation of authority” and inducing a moral panic in the copyright industries. Along with the hefty financial and ideological support of governments, the copyright industries have retaliated with aggressive educational campaigns in the form of comics, videos, radio ads, and posters (Gillespie 2007) along with doomsday declarations, which have also functioned to represent developing nations “as adolescents growing toward nation- and statehood, awakening to the joys of shop-lifting but still unprepared for full-time shop-keeping” (Philip 2005, p. 207).

The Internet has also become a central conduit and node for one of the most public and politically significant genres of communication: news. As journalism in industrialized nations migrates online, and as regional papers in the United States struggle to survive as advertising revenue dwindles, the scholarly discussion has been fiercely focused on what these transformations mean not only for the future of journalism but, by extension, the future of democracy (Downie & Schudson 2009). Ethnographic accounts complement these existing studies by examining the lives, ideologies, hopes, desires, and perceptions of digital journalists and grassroots bloggers (Boczkowski 2004, Boyer 2010, Klinenberg 2005, Paterson & Domingo 2008, Russell 2010, Srinivasan & Fish 2009). Boyer’s (2010) ethnographic work among digital journalists in Germany, for instance, unveils their cybernetic orientation that, although fully rooted in their actual, material, and very particular experiences, becomes conveyed in far more general “definitions and discourse—and ultimately, into the truth—of digital expertise and power” (p. 143).

Many other domains and groups are being refigured and refiguring themselves through their everyday reliance on digital media including religious worshippers (Eisenlohr 2006, Ess et al. 2007, Radde-Antweiler 2008), people with disabilities (Boellstorff 2008, Davidson 2008,

Ginsburg 2007, Keating & Mirus 2003), and patients and their families who are turning to each other via online forums to supplement or supplant doctor's advice, devise treatment strategies, discuss side-effects of medications, seek emotional support, and organize advocacy campaigns (Dumit 2006, Epstein 2008, Gillet 2003, Orgad 2005, Radin 2006).

A number of researchers turn away from groups and frame their analyses of digital media along the axes of perception and self-awareness (Cohen 2005, Reed 2005, Wesch 2009); personality, personal connection, and friendships (Baym 2010, boyd 2009, Humphrey 2009); the shifting lines between publicity and privacy (Lange 2007, Marwick & boyd 2010); affect and addiction (Chan 2008b, Golub & Lingley 2008, Schull 2011); and archive and memory (Bowker 2007). Schull (2008, 2011) provides a wide-ranging ethnographic analysis of slot machine addicts in Las Vegas, for whom gambling becomes a means of self-suspension in which "time, space, the value of money, social relations, and even a sense of the body dissolves" (2008, p. 155; for scholarship on human-machine interaction, see Suchman 2007 and Nardi & Kaptelinin 2006). The technologically mediated repetition of mini-decisions involved in machine gambling affords a sense of safety and control that eludes her informants in an "uncertain human world" of "ever-proliferating choices" and risks (p. 168).

Given the seemingly disembodied interaction that occurs online, digital media, especially the Internet, may seem to be a quintessential nonspace as defined by M. Augé (1995): the bland and uniform spaces of modernity, such as highway rest stops and motels. Ethnographic work, however, tells a very different story. Studies examine how various places and spaces sustain the production and reach of virtual spaces and technologies: regions and cities such as Chennai (Fuller & Narasimhan 2007, 2008); spatially situated ritual events such as gamer and hacker conferences (Coleman 2010, Taylor 2006); and places such as body shops, cyber cafes, and Internet centers (Burrell 2010, Constable 2003, Johnson 2007, Smith 2007,

Tawil-Souri 2009). Others examine the virtual configuration of place (Boellstorff 2008), for instance, whereby the city of London is apprehended via blogging (Reed 2008) or a particular slice of Los Angeles street/musical culture is virtualized and memorialized in stunning detail in *Grand Theft Auto San Andreas* (Miller 2008).

One of the most detailed studies concerning the importance of place is English-Lueck's (2002) ethnography of Silicon Valley: the unofficial capital of software, hardware, geeks, engineers, and immigrant technology workers. It is a region defined, on the one hand, by "technological saturation" (p. 2), which blurs the line between work, play, and leisure for privileged workers, and, on the other hand, by the reality of immigrant workers with a vastly different relation to technology (Saxenian 2002). Differences appear among digital producers: The Bay Area is home to high-tech giants and smaller start-up firms, institutions whose norms and practices simultaneously sustain countercultural worldviews (Turner 2006), techno-liberal commitments (Malaby 2009), and "New Edge" spiritual celebrations of technology (Zandbergen 2010). Malaby's ethnographic study of the Bay Area Linden Lab, corporate makers of the popular virtual world *Second Life*, joins an older literature on the intersection between labor, information technologies, and corporate life (Freeman 2000, Ross 2003). This study demonstrates how one of the most distinctive attributes of games, their "contrived contingency" [defined as a "mixture of constraint and open-endedness" (Malaby 2009, p. 68)], is integrated into corporate governance structures by Linden Lab employees in an attempt to minimize the bureaucracies they so overtly shun.

## FINAL MEDIATIONS AND MEDITATIONS

Many ethnographic studies of digital media provincialize and thus particularize the role that digital media play in the construction of sociocultural worlds, group identities and representations, protocols of economic exchange,

communicative genres, and phenomenological experience. This anthropological imperative posits that the devil is in the details; these details are often aesthetically valued for revealing the splendor of sociocultural life and at times are also ethically deployed to push against faulty and narrow presumptions about the universality and uniformity of human experience. Although there might seem to be an analytical price to be paid by considering the minutiae of social life, resolutely following the details, whether “the social life of things” (Appadurai 1986) or the constitution, extension, and especially translation of people and objects along various networks (Latour 1988), does not imply a delinking from totalities or global processes. Details can be tethered to action, global formations, other material artifacts, and social processes of translation, providing a dynamic view into what Fischer (1999), following Heidegger, aptly describes as “worlding.”

To flesh out this point ethnographically, we might consider a digital genre infamous for its ubiquity: the advanced fee fraud, more commonly known as the “419” scam (also known as the “Nigerian” scam), a subgenre of spam, itself a subgenre of email. A 419 email is meant to circulate promiscuously via the Internet so as to arrive at hundreds of thousands of email in-boxes with the intent of duping a handful of users into transferring large sums of money to the originating scammers. If there are scammers and spammers, however, there are also systems administrators—the plumbers of the Internet—tasked with halting the circulatory voyage of spam. Thus, the entrapment of spam is a powerful reminder of the extensive, costly, and often-invisible forms of human labor needed to keep the Internet running “smoothly” (Brunton 2009, Downey 2001). Despite elaborate spam filters, some (but by no means all) 419 emails arrive at their final destination. As individuals sift through the daily deluge of email—an increasingly onerous chore and nuisance (Fisher et al. 2006)—some might come across one or two 419 emails, and a few, apparently, are compelled to wire over their savings to the scammers (Zuckoff 2006). Most people, however,

delete the emails with no further thought. Others may take a moment to reflect on the email, bemused by its “strange” qualities, amazed that anyone would fall for such a scam, but not really able to decipher its full meaning, despite the fact that most are written in English. A few do not just delete the email; they seek to bait the scammers. They have grown so irked that they have banded together as 419 baiters to trap the trappers, a form of Internet vigilantism representative of the cat-and-mouse politics common to the Internet.<sup>4</sup> Systems administrators use the messages that beat their systems to train their filters and tweak their rules, or they report them to collaborative filters; by thus maintaining servers, systems administrators are in almost continuous crafting mode (Sennett 2008), learning skills and tips from others, gaining capacities that are economically lucrative and also constitute vocational mores and sensibilities.

Smith (2007), in his ethnography of the culture of corruption in Nigeria, shows that 419 scams are ethnographically significant because “their themes...[are] directly related to the structure of real fraud and corruption in Nigeria” (p. 36) and are an entryway into “popular perceptions” of corruption among the many low-level scammers, who have been themselves scammed—ensnared in this informal and precarious vocation by the economic marginalization of Nigeria in the global, capitalist economy.

This brief example demonstrates how ethnographically rich the examination of a single digital genre can be and how the study of digital media can touch on many of the analytic frames explored in the previous sections. Thus to entertain a single 419 email, a small communicative artifact, is to entertain a pervasive communicative subgenre (spam); a vocational group (systems administrators); ideologies of cultural difference; the workings of shadow economies,

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<sup>4</sup>Given the plasticity of software and thus to some degree the Internet, software can be written to route around the restrictions; hence we might identify this tug of war politics as what marks the Internet as politically distinct from older media, such as television. See <http://www.419baiter.com/>

structured in part by the massively unequal distribution of world economic resources; the far-reaching and hidden human labor required to keep the Internet functioning; new types of political responses such as Internet vigilantism; and most richly, the culture and politics of corruption in particular places such as Nigeria.

Although this one digital genre connects various worlds, types of people, and activities, one cannot always entertain all these dimensions at once. What enters our analysis depends on a particular type of mediation, as Weber (1949) famously insisted when he argued that we cannot nakedly apprehend the full force and complexity of any social phenomena. Scholars,

he argued, can reach significant cultural and social conclusions via mediation only in the form of the questions and analytic frames brought to bear on the objects and subjects of analysis. Or, in Nietzsche's (1980) more philosophical take on this predicament, "[o]ne blinds some birds to make others sing more beautifully" (p. 41). Despite the massive amount of data and new forms of visibility shored up by computational media, many of these worlds remain veiled, cloaked, and difficult to decipher. Long-term ethnographic research is well suited to tease out some of these veiled dimensions, however tentatively, to unearth the remarkable depth, richness, and variability of digital media in everyday and institutional life.

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