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Digital Anthropology

Tom Boellstorff

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Introduction

Digital anthropology is an emerging field focused on the Internet-related transformations that make possible a whole array of new social phenomena (including, notably, *Oxford Bibliographies Online*). Research in this exciting domain demonstrates anthropology's relevance and provides valuable perspectives regarding the relationship between technology and culture. As currently used, "digital anthropology" overlaps with terms such as "virtual anthropology" and is in conversation with other fields, including media anthropology and the anthropology of science and technology. Digital anthropologists draw mostly from sociocultural anthropology; there is some influence from linguistic anthropology but little thus far from archaeology or physical anthropology. As befits a young field, it is profoundly interdisciplinary, shaped by conversations with a range of disciplines including (but not limited to) art history, communications, design, informatics, media studies, museum studies, and sociology. Indeed, many of the scholars cited here would not describe themselves as digital anthropologists, nor would they always be seen as such by others. This article emphasizes ethnographic research and does not include primarily quantitative, literary, historical, or philosophical scholarship. It includes older work (which, in the case of a young field such as this, means "before 2000"). Many of the cited works could have appeared under multiple headings, and the listing of the topics is heuristic. The goal is to provide an initial examination of some key themes and works in the still-nascent domain of digital anthropology, for almost any future fieldwork project will involve studying persons who use digital technologies in their everyday lives. Additionally, anthropologists increasingly recognize the importance of attending to online cultural contexts that cannot be simply extrapolated from physical-world socialities. Throughout the history of anthropology, scholars have produced valuable insights based on ethnographic fieldwork conducted in small-scale societies, sometimes with only a few hundred members. There is much to learn from the study of smaller online social networks as well as larger ones. Particularly in an era where "big data" can make quantitative methods appear to have a privileged vantage, digital anthropological work can offer simultaneously detailed and expansive studies with an attention to novel and consequential logics of selfhood and culture.

Early Work

Because digital anthropology is a relatively new domain of study, it is particularly important to take its history into account. Of course much of that history extends and predates the digital, including work on pre-Internet technologies as well as scholarship on embodiment, exchange, games, mass media, and a range of other topics. This section focuses on key early research on digital socialities. Given that this work was published before 2000, the notion of "early" is obviously relative (additional examples of earlier work appear in other sections of this bibliography). Several important early works were produced not by professional anthropologists but by journalists and designers of online environments. Taken as a whole, this early work addresses themes of enduring interest, including Communication and Language (Cherny 1999), Social Organization (Curtis 1997, Damer 1998, Dibbell 1998, Morningstar and Farmer 2008), Medicine, Embodiment, and Disability (Stone 1995), Methodology (Paccagnella 1997), identity (Turkle 1995), and

infrastructure (Star 1999).

Cherny, Lynn. 1999. *Conversation and community: Chat in a virtual world*. Stanford, CA: CSLI.

Cherny's ethnography of ElseMOO is an early example of studying online socialities "in their own terms," in that she did not attempt to interview any of her informants offline (p. 307). Cherny focuses on questions of turn-taking and register, making this an early study of communication and language online.

Curtis, Pavel. 1997. Mudding: Social phenomena in text-based virtual realities. In *Culture of the Internet*. Edited by Sara Kiesler, 121–142. Mahwah, NJ: Lawrence Erlbaum.

Curtis was the key designer and manager of LambdaMOO, one of the most influential text-based virtual worlds, which first went online in 1991. Originally published in 1992, this overview of LambdaMOO is remarkably insightful, noting emergent online social conventions that scholars continue to explore in virtual worlds and beyond.

Damer, Bruce. 1998. *Avatars! Exploring and building virtual worlds on the Internet*. Berkeley, CA: Peachpit.

Damer's study includes everything from theoretical analyses to how-to guides for building virtual worlds; the book even included a CD-ROM with software that readers could install on their computers to enter a range of virtual worlds. As its title suggests, special attention is paid to questions of avatars, representation, and embodiment.

Dibbell, Julian. 1998. *My tiny life: Crime and passion in a virtual world*. New York: Henry Holt.

Dibbell provides a detailed and influential study of the text-only virtual world LambdaMOO, including the chapter "A Rape in Cyberspace" (pp. 11–32), an early account of antisocial behavior in a virtual world context. He also explores a range of ethnographic topics, including community, trust, desire, and economics.

Morningstar, Chip, and F. Randall Farmer. 2008. The lessons of Lucasfilm's Habitat. *Journal of Virtual Worlds Research* 1.1: 1–21.

Launched in 1985, Habitat is generally considered the first online graphical virtual world. In this article, first published in 1991, its creators provide a prescient analysis of the cultural norms that took form in Habitat, norms that continue to shape digital culture in the broadest sense.

Paccagnella, Luciano. 1997. Getting the seats of your pants dirty: A methodology for ethnographic research on virtual communities. *Journal of Computer-Mediated Communication* 3.1.

Drawing on ethnographic research of an Italian-language virtual community based in Internet Relay Chat (IRC), this early discussion of methods for online ethnographic research addresses a range of enduring issues, including questions of context, ethics, and participation.

Star, Susan Leigh. 1999. *The ethnography of infrastructure*. *American Behavioral Scientist* 43.3: 377–391.

Star's ethnographic exploration of questions of infrastructure has had a significant influence on a range of digital anthropological work. In the context of digital anthropology, infrastructure represents one key aspect of the often unspoken background of everyday sociality and has ramifications for governance, political economy, and power. Available online for purchase or by subscription.

Stone, Allucquère Rosanne. 1995. *The war of desire and technology at the close of the mechanical age*. Cambridge, MA: MIT Press.

Stone's important early study of life online pays particular attention to questions of embodiment, as well as sexuality and emotion. Issues of intimacy and social experience are also central to the analysis.

Turkle, Sherry. 1995. *Life on the screen: Identity in the age of the Internet*. New York: Simon & Schuster.

This book brings together ethnographic and psychological methods to provide an influential early examination of how selfhood is shaped by engagements with the online. There is a particular focus on how the "interface" shapes how persons experience social contexts on the Internet.

Edited Volumes

Given the relative marginalization of digital anthropology from anthropology writ large and Internet studies, it should not be surprising that digital anthropology scholars have often found it difficult to get their work published in mainstream journals. As a result, edited volumes have played an important part in the history of this research community, playing the role of "general overviews" and helping build key interdisciplinary conversations. This continues to be the case even as digital anthropology becomes increasingly legible and valuable to both anthropology and the study of online culture. Many key examples of early digital anthropology appeared in edited volumes that featured scholarship from a range of disciplines (Benedikt 1991, Jones 1997, Porter 1997, Shields 1996, Smith and Kollock 1999). Some edited volumes, including Fornäs, et al. 2002 and Horst and Miller 2012, featured conceptual chapters that helped map out agendas for digital anthropological research. Other edited volumes focused discussion on specific issues, such as Social Organization (Schroeder 2002). The short annotations accompanying each edited volume here list only a few chapter authors; those with further interests can read the volumes themselves.

Benedikt Michael, ed. 1991. *Cyberspace: First steps*. Cambridge, MA: MIT Press.

In all likelihood, the first edited volume in which several chapter authors address topics relevant to what could now be called digital anthropology. These include ritual (David Tomas, pp. 31–47), erotics (Michael Heim, pp. 59–80), social organization and governance (Chip Morningstar and F. Randall Farmer, pp. 273–301), and medicine, embodiment, and disability (Allucquère Rosanne Stone, pp. 81–118).

Fornäs, Johan, Kajsa Klein, Martina Ladendorf, Jenny Sundén, and Malin Sveningsson, eds. 2002. *Digital borderlands: Cultural studies of identity and interactivity on the Internet*. New York: Peter Lang.

Following an extensive conceptual introduction (pp. 1–47), this volume contains four substantive chapters addressing love (Malin

Sveningsson, pp. 48–78), gender (Jenny Sundén, pp. 79–111), the production of cyberzines (Martina Ladendorf, pp. 112–145), and globality (Kajsa Klein, pp. 146–180) and then ends with a postscript on academia and Internet research (Steve Jones, pp. 181–188).

Horst, Heather A., and Daniel Miller, eds. 2012. *Digital anthropology*. London: Berg.

The first edited volume to focus specifically on anthropological research with regard to digital culture. Chapter authors address general principles for digital anthropology (Daniel Miller and Heather Horst, pp. 3–36; Tom Boellstorff, pp. 37–60) as well as a range of specific topics, including disability (Faye Ginsburg, pp. 99–126), museums (Haidy Geismar, pp. 266–287), and politics (John Postill, pp. 163–184).

Jones, Steven G., ed. 1997. *Virtual culture: Identity and communication in cybersociety*. London: SAGE.

Contributors to this early volume on online culture address topics including non-Western contexts (Ananda Mitra, pp. 55–79), sexuality and emotion (David F. Shaw, pp. 133–145), and hate speech online (Susan Zuckmund, pp. 185–205).

Porter, David, ed. 1997. *Internet culture*. New York: Routledge.

This early edited volume covers a wide range of topics, including community (Derek Foster, pp. 23–38); medicine, embodiment, and disability (Mizuko Ito, pp. 87–110; Shanon McRae, pp. 73–86); and place (Dave Healy, pp. 55–72).

Schroeder, Ralph, ed. 2002. *The social life of avatars: Presence and interaction in shared virtual environments*. London: Springer-Verlag.

The authors of the twelve chapters making up this volume focus on questions of social organization, addressing as well a range of other topics, including medicine, embodiment, and disability (T. L. Taylor, pp. 40–62) and social influence (Jim Blascovich, pp. 127–145).

Shields, Robert M., ed. 1996. *Cultures of Internet: Virtual spaces, real histories, living bodies*. London: SAGE.

This early edited volume includes chapters addressing social organization (Heather Bromberg, pp. 143–152); medicine, embodiment, and disability (Katie Argyle and Rob Shields, pp. 58–69); gender (Sadie Plant, pp. 170–183); and governance (Leslie Regan Shade, pp. 11–32; Dan Thu Nguyen and Jon Alexander, pp. 99–124).

Smith, Marc A., and Peter Kollock, eds. 1999. *Communities in cyberspace*. London: Routledge.

This early edited volume includes important discussions of race (Bryon Burkhalter, pp. 59–74), deception (Judith S. Donath, pp. 27–58), social control (Elizabeth Reid, pp. 107–134), and economics and labor (Peter Kollock, pp. 219–240).

Review Essays

For a field such as digital anthropology, oriented to a relatively novel subject matter, review essays can helpfully summarize debates,

trends, and agendas for further research: Like Edited Volumes, they often play the role of general overviews of the field. Given the paucity of available work, early review essays such as Escobar 1994 and Wilson and Peterson 2002 tend to examine issues and work published in other disciplines, placing such work in the context of anthropological conversations. More recent reviews have often focused on media, mediation, and language change, reflecting the importance of scholarship on Communication and Language to digital anthropology as an emergent research community (Axel 2006, Coleman 2010, Cook 2004, Eisenlohr 2004, Mazzarella 2004), as well as questions of Methodology (Garcia, et al. 2009). These foci also reflect enduring questions regarding how online technologies are understood and used differently in specific physical world cultural contexts yet are simultaneously linked to forms of translocal community and connection that challenge the emphasis on difference, which remains common in anthropological work. Thus these reviews contribute toward a broader revitalization and reconfiguration of anthropology, moving away from the assumption that difference is the stock in trade of anthropological investigation and toward a more fine-grained and ethnographically informed exploration of how sameness and difference are themselves culturally constituted. Crucially, such processes and practices of cultural constitution now include the digital in a foundational rather than merely epiphenomenal manner, as discussed in Manning 2009.

Axel, Brian Keith. 2006. Anthropology and the new technologies of communication. *Cultural Anthropology* 21.3: 354–384.

In this essay, the author responds to anthropological interest in “new technologies of communication” (p. 354) by exploring the 20th-century discourses on cybernetics, communication, and technology that have shaped forms of knowledge production. Particular attention is paid to the role of linguistic ideology in these discourses. Available online by subscription.

Coleman, E. Gabriella. 2010. Ethnographic approaches to digital media. *Annual Review of Anthropology* 39:487–505.

This essay provides an extensive overview of digital anthropological work, focusing on research regarding digital media. Foci include the politics of cultural representation and the “vernaculars” of everyday digital media use. Available online for purchase or by subscription.

Cook, Susan E. 2004. New technologies and language change: Toward an anthropology of linguistic frontiers. *Annual Review of Anthropology* 33:103–115.

This review essay focuses on issues of language use and language change in the context of Internet technologies but with a strongly ethnographic perspective. Youth and education is a particular focus. Available online for purchase or by subscription.

Eisenlohr, Patrick. 2004. Language revitalization and new technologies: Cultures of electronic mediation and the refiguring of communities. *Annual Review of Anthropology* 33:21–45.

Eisenlohr reviews work on electronic mediation and community, focusing on issues of language loss and revitalization and emphasizing questions of access, power, and context. Available online for purchase or by subscription.

Escobar, Arturo. 1994. Welcome to Cyberia: Notes on the anthropology of cyberculture. *Current Anthropology* 35.3: 211–223.

An early and influential consideration of how anthropologists might study cyberspace, with particular attention to how such research might engage broader debates in science and technology studies, critiques of modernity, and the history of anthropological inquiry. Available online for purchase or by subscription.

Garcia, Angela Cora, Alecea I. Standlee, Jennifer Bechkoff, and Yan Cui. 2009. Ethnographic approaches to the Internet and computer-mediated communication. *Journal of Contemporary Ethnography* 38.1: 52–84.

This review examines a range of ethnographic research on “technologically mediated phenomena” (p. 53), with particular attention to issues of methodology. Available online for purchase or by subscription.

Manning, Paul. 2009. Can the avatar speak? *Journal of Linguistic Anthropology* 19.2: 310–325.

This review essay focuses on a series of ethnographies of online community, placing them in conversation with work on offline community to investigate questions of embodiment, place, and selfhood. Available online by subscription.

Mazzarella, William. 2004. Culture, globalization, mediation. *Annual Review of Anthropology* 33:345–367.

This review essay focuses on the relationship between globalization and mediation in anthropological research, as well as the more general relationship between culture and mediation. Available online for purchase or by subscription.

Wilson, Samuel M., and Leighton C. Peterson. 2002. The anthropology of online communities. *Annual Review of Anthropology* 31:449–467.

This review essay was written at the time when the body of digital anthropological work was beginning to increase, but the discussion still focuses on conceptual issues. Important insights include questions of terminology; the impact of computer-mediated communication research; and questions of community, identity, access, and ethics. Available online for purchase or by subscription.

Reference Resources

Given the subject matter with which digital anthropology is concerned, it is not surprising that a range of websites (usually taking the form of blogs) have been important as reference resources for furthering scholarly conversation and community. This section includes only websites that have high standards for content, were still online at the time this article was written, and address to a significant extent issues of digital anthropology. Some of these blogs include discussions of digital anthropology or online culture in a general sense (Association of Internet Researchers, New World Notes, Savage Minds), while others focus on specific issues such as education (DMLcentral, Mediated Cultures). Some blogs are more interdisciplinary but regularly include contributions by anthropologists, such as Culture Digitally and Terra Nova.

Association of Internet Researchers.

This website includes a range of information about Internet research, including how to subscribe to the AoIR mailing list, which is a useful way to communicate with other scholars studying online culture.

Culture Digitally.

This collective blog features posts by several anthropologists and other scholars of online culture.

DMLcentral.

Focusing on questions of education and learning, this website includes regular contributions by anthropologists and others with an interest in digital culture.

Mediated Cultures.

The blog of Michael Wesch and his students at the University of Kansas that focuses on questions of education.

New World Notes.

This blog by the journalist James Wagner Au regularly addresses questions of culture, particularly with regard to virtual worlds.

Savage Minds.

This blog reviews and discusses current issues in anthropology and often includes discussions of topics related to digital anthropology.

Terra Nova.

This blog, which began in 2003, features a wide range of discussions of digital culture, including several regular contributors who are anthropologists.

Journals

Because digital anthropology has been positioned at the border of anthropology and Internet studies, digital anthropologists have often found it difficult to get their work disseminated in either venue. However, there are an increasing number of journals that publish work in digital anthropology. This section does not include anthropology journals but rather focuses on journals that might be less familiar to anthropologists. Some of these journals focus on Internet studies (Convergence: The International Journal of Research into New Media Technologies, First Monday, Journal of Computer-Mediated Communication) or on subsets of this domain, like virtual worlds (Journal of Virtual Worlds Research). Others emphasize topics that overlap substantially with studies of online sociality, such as games (Games and Culture), communications (Information, Communication & Society), and media studies (New Media & Society).

Convergence: The International Journal of Research into New Media Technologies. 1995–.

Published since 1995, this journal focuses on the implications of new media technologies with regard to society and politics.

First Monday. 1995–.

This open-access journal focuses exclusively on Internet-related scholarship and publishes ethnographic work on a regular basis.

Games and Culture. 2006–.

This journal publishes research about games and culture, with an emphasis on interactive media and other online phenomena; ethnographic approaches are well represented.

Information, Communication & Society. 1998–.

Seeking to draw together current work on the implications of new information and communications technologies, this journal publishes a range of ethnographic research.

Journal of Computer-Mediated Communication. 1995–.

A pioneer in the study of online culture, this journal has included ethnographic research from its beginnings in 1995. Indeed, many key examples of early work in digital anthropology appeared in this journal.

Journal of Virtual Worlds Research. 2008–.

As its name suggests, this open-access journal takes as its theme research on virtual worlds. From its first issue, this has included ethnographic research on virtual worlds from a range of perspectives.

New Media & Society. 1999–.

This journal publishes a wide range of scholarship that addresses some aspect of “new media,” broadly defined, and regularly publishes ethnographic research.

Methodology

Given that digital anthropology is a relatively new field of inquiry, it should not be surprising that many researchers find questions of methodology to be pressing, even vexing. On one hand, digital anthropologists can face colleagues who question the validity of digital anthropology, particularly when the research design is such that fieldwork is conducted entirely online. On the other hand, digital anthropologists often encounter persons claiming to have “done an ethnography” of a virtual community based on a weekend of casual conversation, interviews in isolation, or simply playing an online game. But while ethnographic methods are by design flexible, so they can be adapted to the staggering array of cultures worldwide, simply calling something an “ethnography” does not make it so. In response to these concerns, a number of scholars have discussed questions of methodology in the form of works specifically devoted to the subject (Boellstorff, et al. 2012; Kozinets 2010; Williams 2008), including Edited Volumes (Hine 2005, Jones 1999, Lyman and Wakeford 1999, Markham and Baym 2009). Even in cases where the research has both online and offline components, questions arise, including how to interview via the Internet, how to validate findings, and how to conduct participant observation when “participating” involves online activities. Many of these authors discuss the importance of recognizing that, depending on the research questions being pursued and the online socialities under investigation, it may be most effective to study online socialities without attempting to meet most or even all participants in the physical world: “The ethnography of the Internet does not necessarily involve physical travel. Visiting the Internet focuses on experiential rather than physical displacement” (Hine 2000, p. 45; see also Boellstorff, et al. 2012).

Boellstorff, Tom, Bonnie Nardi, Celia Pearce, and T. L. Taylor. 2012. *Ethnography and virtual worlds: A handbook of method*. Princeton, NJ: Princeton Univ. Press.

This cowritten handbook discusses a range of issues, including research design and preparation, participant observation, interviewing, focus groups, ethics, and human-subject protocols. It also addresses myths about ethnography, as well as writing up and presenting research findings.

Hine, Christine. 2000. *Virtual ethnography*. London: SAGE.

This is an ethnography of “a topic and not a location . . . [the case of] Louise Woodward, a teenage British nanny tried in Boston for the murder of the child who had been in her care” (p. 67). While thus quite different from most online ethnographies, Hine nonetheless extensively addresses questions of method and representation.

Hine, Christine, ed. 2005. *Virtual methods: Issues in social research on the Internet*. Oxford: Berg.

This edited volume includes chapters on interviewing (Joëlle Kivits, pp. 35–49), offline relationships with informants (Shani Orgad, pp. 51–65), design (Adam N. Joinson, pp. 21–34), and fieldwork boundaries (Mário J. L. Guimarães, Jr., pp. 141–156). In her introduction, Hine emphasizes that “virtual methods could act as interrogators of traditional method” (p. 10).

Jones, Steven G., ed. 1999. *Doing Internet research: Critical issues and methods for examining the Net*. Thousand Oaks, CA: SAGE.

Several chapters of this early edited volume on Internet research address questions related to ethnographic fieldwork online, including issues of defining community (Jan Fernback, pp. 203–220; Lori Kendall, pp. 57–74) and the study of discourse (Barbara F. Sharf, pp. 243–256).

Kozinets, Robert V. 2010. *Netnography: Doing ethnographic research online*. London: Sage.

This exploration of ethnographic methods online covers topics ranging from research design to data collection, data analysis, and representation.

Lyman, Peter, and Nina Wakeford. 1999. Introduction: Going into the (virtual) field. *American Behavioral Scientist* 43.3: 359–376.

This is an introductory essay to an issue of *American Behavioral Scientist* that can be considered an edited volume, with contributions on a range of topics, including infrastructure (Susan Leigh Star, pp. 377–391) and virtual reality technologies (Nicola Green, pp. 409–421). In their overview, Lyman and Wakeford focus on identity; medicine, embodiment, and disability; and place. Available online for purchase or by subscription.

Markham, Annette N., and Nancy K. Baym, eds. 2009. *Internet inquiry: Conversations about method*. Los Angeles: SAGE.

This edited volume is based around essays that respond to questions like “How can qualitative Internet researchers define the

boundaries of their projects?" (p. 1), followed by short responses by two scholars with relevant expertise. The essays explore a range of methods for online research, with significant attention to ethnographic approaches.

Williams, Matthew. 2008. Avatar watching: Participant observation in graphical online environments. *Qualitative Research* 7.1: 5–24.

Based on research in the online world Cyberworlds, the author discusses how for ethnographers, "re-engineered methodologies and methods can take advantage of the technologies that forge and mediate these social worlds" (p. 20). Available online for purchase or by subscription.

Ethics

Questions of ethical research practice have been important (and sometimes controversial) throughout the history of anthropology and deeply linked to questions of Methodology (Beaulieu 2004). Given that fieldworkers usually gain extensive knowledge regarding the everyday and even intimate lives of those they study, issues of care, informed consent, and protecting interlocutor confidentiality are just some of the ethical concerns that have received sustained discussion. How these issues of ethical research practice translate into online contexts is an important issue for digital anthropology and has been a concern since the (relatively recent) period of Early Work (Reid 1996). One reason for this is the accessibility of many Internet venues (compared to physical travel) means that many persons terming themselves "ethnographers" claim to conduct ethnographic research but have not received proper training or oversight. When breaches of ethical practice occur, this not only violates the rights of those studied but can "poison the well" for future researchers, since community members may come to regard those terming themselves "ethnographers" as ethically suspect. Scholars have now addressed these issues in monographs (McKee and Porter 2009) and edited volumes (Buchanan 2004; Johns, et al. 2004), as well as individual articles and white papers (Beaulieu and Estalella 2012, Ess and Association of Internet Researchers Ethics Working Committee 2002, Vanacker and Heider 2012).

Beaulieu, Anne. 2004. Mediating ethnography: Objectivity and the making of ethnographies of the Internet. *Social Epistemology: A Journal of Knowledge, Culture and Policy* 18.2–3: 139–163.

Beaulieu discusses both issues of methodology and the "new ethical dilemmas" (p. 144) that arise when conducting ethnographic research online. Available online for purchase or by subscription.

Beaulieu, Anne, and Adolfo Estalella. 2012. Rethinking research ethics for mediated settings. In *Special Issue: Law and Ethics in e-Social Science*. Edited by Annamaria Carusi, Marina Jirotko, and Christopher Millard. *Information, Communication & Society* 15.1: 23–42.

Beaulieu and Estalella focus on "the ethical aspects of e-research by analysing the implications of these changing relationships in mediated settings" (p. 24). In particular, they investigate how "when doing research in a mediated setting, the contiguity of settings challenges distinctions" (p. 27) between sites of research, analysis, and publication. Available online for purchase or by subscription.

Buchanan, Elizabeth A., ed. 2004. *Readings in virtual research ethics: Issues and controversies*. Hershey, PA: Information Science.

This edited volume includes several chapters on ethics in relation to online ethnography, including overviews (Malin Sveningsson, pp. 45–61), discussions of sexuality (Monica Whitty, pp. 203–218), and meeting informants offline (David Clark, pp. 246–261).

Ess, Charles, and Association of Internet Researchers Ethics Working Committee. 2002. Ethical decision-making and Internet research: Recommendations from the AOIR Ethics Working Committee. Chicago: Association of Internet Researchers.

This white paper is one of the most detailed and informative discussions of ethics for online research and combines conceptual discussions with case studies.

Johns, Mark D., Shing-Ling Sarina Chen, and G. Jon Hall, eds. 2004. *Online social research: Methods, issues, and ethics*. New York: Peter Lang.

Contributors to this edited volume explore a range of topics relevant to ethics and methodology, including issues of intimacy (Kathleen LeBesco, pp. 63–80), eavesdropping (Katherine M. Clegg Smith, pp. 223–238), and the development of ethical guidelines (Charles Ess, pp. 253–264).

McKee, Heidi A., and James E. Porter. 2009. *The ethics of Internet research: A rhetorical, case-based process*. New York: Peter Lang.

McKee and Porter provide an extensive discussion of Internet research ethics, including chapters on regulations and laws as well as differing ethical issues that can arise when researching blogs and social network sites versus online games and virtual worlds more generally.

Reid, Elizabeth. 1996. Informed consent in the study of on-line communities: A reflection on the effects of computer-mediated social research. *Information Society* 12.2: 169–174.

Reid draws from her experience researching text-based virtual worlds to examine issues of informed consent in online research. Of particular concern are questions of privacy and curating ethnographic materials. She also discusses in detail a case in which her research “has had a negative effect on its subjects” (p. 171). Available online for purchase or by subscription.

Vanacker, Bastiaan, and Don Heider. 2012. Ethical harm in virtual communities. *Convergence: The International Journal of Research into New Media Technologies* 18.1: 71–84.

In this article, Vanacker and Heider examine “under which conditions ethical relevant avatar harm occurs in virtual worlds” (p. 71), including the relationship between self-understanding and perceptions of harm. Available online for purchase or by subscription.

Social Network Websites

Social network sites (such as Facebook), blogs, chat rooms, and other websites are some of the most common modalities for engaging with the online. Studying them poses particular challenges for anthropologists. As populous online venues for social interaction, they have enormous consequences. Yet they have less of a sense of place than phenomena like virtual worlds and online games, making

them more difficult to access as field sites. They are also less clearly linked to specific devices: They can be accessed on a range of platforms, from laptop and desktop computers to smartphones and tablets. Despite these difficulties, ethnographers have produced a range of studies of these online phenomena. Such work often involves a physical-world component, as in Reed 2005, but may be based entirely on data gathered online, as in Doostdar 2004. Research in this domain often explicitly addresses how a specific physical-world cultural context shapes how the website or blog is experienced and used (Humphrey 2009, Miller 2011), including via mobile devices rather than desktop computers (Humphreys 2010). One issue addressed by many researchers in this domain is how forms of transnational diaspora are reshaped by these technologies (Bernal 2005, Doostdar 2004, Kendzior 2011), thus linking up to questions of Non-Western Contexts. Another key topic is the reconfiguration of notions of public and private (Burgess and Green 2009, Lange 2007).

Bernal, Victoria. 2005. Eritrea on-line: Diaspora, cyberspace, and the public sphere. *American Ethnologist* 32.4: 660–675.

This analysis of websites and blogs produced by Eritreans in diaspora addresses how online socialities can shape and even retrench forms of ethnic and national identity. The analysis thus addresses non-Western contexts. Available online for purchase or by subscription.

Burgess, Jean, and Joshua Green. 2009. *YouTube: Online video and participatory culture*. Cambridge, UK: Polity.

Burgess and Green explore a range of topics in relation to YouTube, from its history to its role in popular culture and political debates. Particular attention is paid to questions of labor, content creation, ownership, and media participation.

Doostdar, Alireza. 2004. “The vulgar spirit of blogging”: On language, culture, and power in Persian Weblogestan. *American Anthropologist* 106.4: 651–662.

This analysis of Persian-language addresses examines how Iranian intellectuals (in Iran and the diaspora) debate questions of religion, human rights, and proper interaction online. Doostdar’s engagement with speech genre theory links up with other work on communication and language and also addresses non-Western contexts. Available online for purchase or by subscription.

Humphrey, Caroline. 2009. The mask and the face: Imagination and social life in Russian chat rooms and beyond. *Ethnos: Journal of Anthropology* 74.1: 31–50.

In this study of the “masks” created in online text-only chat rooms, Humphrey investigates how “Internet chat rooms are spheres in which everyday identity is screened off, thus provoking the imagination of participants” (p. 46) with consequences for social interaction and self-understanding. Available online for purchase or by subscription.

Humphreys, Lee. 2010. Mobile social networks and urban public space. *New Media & Society* 12.5: 763–778.

Humphreys ethnographically examines how mobile social network sites shape forms of locality and urban interaction. Available online for purchase or by subscription.

Kendzior, Sarah. 2011. Digital distrust: Uzbek cynicism and solidarity in the Internet age. *American Ethnologist* 38.3: 559–575.

In this ethnographic study of Uzbek exiles online, Kendzior examines how notions of trust and solidarity transform notions of political dissent and intergroup conflict. Available online for purchase or by subscription.

Lange, Patricia G. 2007. Publicly private and privately public: Social networking on YouTube. *Journal of Computer-Mediated Communication* 13.1: 361–380.

Lange's ethnographic study of YouTube users explores "how participants manipulate media to maintain social networks and intimacy amid public scrutiny" (p. 362). The analysis emphasizes both transformations of the public/private binarism and notions of social network and media circuit.

Miller, Daniel. 2011. *Tales from Facebook*. Cambridge, UK: Polity.

Miller provides a detailed analysis of how Facebook is used and transformed in Trinidad and implications for our understanding of social network sites and the Internet more broadly. The text moves from twelve individual "portraits" to synthetic essays about the relevance of social network sites for anthropology.

Reed, Adam. 2005. "My blog is me": Texts and persons in UK online journal culture (and anthropology). *Ethnos: Journal of Anthropology* 70.2: 220–242.

This study of bloggers in London examines how for bloggers "publication is automatic, the beginning rather than the endpoint of any claim to knowing" (p. 220). As a result, blogs take up particular relationships to self-knowledge and can illuminate the relationships anthropologists have to the ethnographic texts they produce. Available online for purchase or by subscription.

Mobile Devices

The study of cell phones, smartphones, tablet computers, and other mobile devices is an important subset of digital anthropological work. This research has reflected the classic anthropological attention to Non-Western Contexts (Ito, et al. 2005; McIntosh 2010; Rafael 2003) and also often emphasizes Youth and Education and their quick adoption of new technologies (Caron and Caronia 2007). Issues of Gender have also received sustained attention (Hjorth 2009). Questions of Economics and Labor have also been a frequent focus of investigation, particularly because among low-income communities worldwide an emerging pattern is a high level of cell phone use, but of more basic devices (rather than smartphones), higher levels of simpler forms of communication such as SMS (texting), and practices of device sharing (Horst and Miller 2006). The use of mobile devices for social networks and community in the context of physical separation is also an important area of research (Chayko 2008; Humphreys 2010, cited under Social Network Websites).

Caron, André H., and Letizia Caronia. 2007. *Moving cultures: Mobile communication in everyday life*. Montreal: McGill-Queen's Univ. Press.

This ethnographic study of mobile communication is based on fieldwork in North America and Europe, primarily among youth. The authors address questions of communication and language (including texting), advertising, intergenerational communication, and performance.

Chayko, Mary. 2008. *Portable communities: The social dynamics of online and mobile connectedness*. Albany, NY: SUNY Press.

This is an extended analysis of how mobile devices and the websites, blogs, e-mails, and other Internet spaces accessed through those mobile devices shape a shared “sociomental space” (p. 22) of shared community understanding even when there is physical separation.

Hjorth, Larissa. 2009. *Mobile media in the Asia-Pacific: Gender and the art of being mobile*. London: Routledge.

Drawing on fieldwork in Japan, China, South Korea, and Australia, Hjorth examines how cell phones are reshaping understandings of mobility, connection, and disconnection in the Asia Pacific region. She focuses on how gender and romantic relationships, as well as national ideologies and social memory, are shaped by cell phone use.

Horst, Heather A., and Daniel Miller. 2006. *The cell phone: An anthropology of communication*. Oxford: Berg.

This ethnography of cell phone use among low-income Jamaicans examines relationships between socioeconomic status, national belonging, and technology. Topics explored range from everyday practices like the use of ringtones to questions of infrastructure, possession, and user evaluations of the place of cell phones in Jamaican life.

Ito, Mizuko, Daisuke Okabe, and Misa Matsuda, eds. 2005. *Personal, portable, pedestrian: Mobile phones in Japanese life*. Cambridge, MA: MIT Press.

Contributors to this edited volume examine many dimensions of mobile phone use in Japan, including its use in public transportation, for e-mailing, for taking images, and by different social groups including youth and women.

McIntosh, Janet. 2010. Mobile phones and Mipoho’s prophecy: The powers and dangers of flying language. *American Ethnologist* 37.2: 337–353.

McIntosh focuses on forms of mobile phone texting among the Giriama ethnic group in Kenya, examining how “language ideologies informing Giriama text messaging also speak to distinctively local concerns” (p. 338). The analysis thus links up to broader anthropological conversations about the role of communication and language in online interaction. Available online by subscription.

Rafael, Vicente L. 2003. The cell phone and the crowd: Messianic politics in the contemporary Philippines. *Public Culture* 15.3: 399–425.

Long before the Arab Spring events began in late 2010, Rafael explored how cell phones shaped a “people power” prodemocracy movement in the Philippines and how emergent practices like texting linked up to histories of technology use. Available online by subscription.

Online Socialities

Many forms of online sociality involve reference to the physical world—from a neighborhood website to the use of Twitter to challenge a

corrupt government. However, one of the greatest breakthroughs in digital anthropology was the realization that such one-to-one correspondences between virtual and physical do not exhaust the possible range of relationships between the online and offline. In particular, it is now known that there can exist online communities whose members rarely or never meet offline. This does not mean that the physical world is irrelevant but that the relationship is different and requires a different set of conceptual and methodological tools. For instance, there are thousands of online communities who interact via a website, blog, online game, virtual world, or combination of these but for whom only an handful of members have met in the physical world. The online interaction does not depend on physical world meetings in a direct sense. Such online socialities are shaped by the physical world—with relation to everything from the materiality of computer chips and physical bodies to assumptions about selfhood and community—but those influences, if they are influences, thus show up online. People can make money, fall in love, take a college course, purchase a commodity, and a myriad number of other things without meeting in the physical world, and researchers would fundamentally misunderstand this reality if insisting they had to meet each person they studied in the physical world. As a result, there is a rich tradition of digital anthropological work that studies online socialities “in their own terms,” which includes key Early Work (see especially Cherny 1999). These researchers do not ignore or downplay the necessity of the offline to the online but follow the lead of those they study in exploring how such influences show up in the social realities of online interaction (Chayko 2008). In these cases, ethnographic data collection takes place primarily or solely online, reflecting the reality of the sociality studied. This genre includes broad overviews of online cultures (Boellstorff 2008, Markham 1998), as well as studies that focus on specific topics such as Gender (Schaap 2002). It can also include the study of subcultural communities such as musicians (Lysloff 2003) or the study of online communities based on bulletin boards (Baym 2000).

Baym, Nancy K. 2000. *Tune in, log on: Soaps, fandom, and online community*. Thousand Oaks, CA: SAGE.

Baym’s study of soap opera fans’ use of Usenet groups addresses key issues of social organization, interpretation, relationships, and identity that continue to animate a broad swath of digital anthropology work.

Boellstorff, Tom. 2008. *Coming of age in Second Life: An anthropologist explores the virtually human*. Princeton, NJ: Princeton Univ. Press.

In this ethnography of Second Life, the author explores a range of issues, including place, time, subjectivity, community, economics, and governance. A central concern of the analysis is to use the notion of *techne* (craft) to address continuities and novel aspects of the virtual in human life.

Chayko, Mary. 2008. *Portable communities: The social dynamics of online and mobile connectedness*. Albany, NY: SUNY Press.

Chayko’s analysis of Internet-mediated community is based on interviews conducted over e-mail: “That is where I met them; I interviewed them in the very sociomental spaces they so often inhabit” (p. 205).

Lysloff, René T. A. 2003. Musical community on the Internet: An on-line ethnography. *Cultural Anthropology* 18.2: 233–263.

Lysloff’s detailed study of a “mod scene” took place entirely online: “Although I conducted my research without ever leaving my home, my work involved immersing myself in a new musical community, but with informants I would never actually meet face-to-face, people whose presence I could only infer from their textual messages” (p. 235). Available online by subscription.

Markham, Annette N. 1998. *Life online: Researching real experience in virtual space*. Walnut Creek, CA: Altamira.

In this early book-length ethnography of online culture, Markham explores Internet Relay Chat (IRC) communities without meeting interlocutors offline. Focusing on questions of the “real,” Markham shows how even with slow dial-up connections and text-only interaction, real social spaces and relationships form and are amenable to ethnographic investigation.

Schaap, Frank. 2002. *The words that took us there: Ethnography in a virtual reality*. Amsterdam: Aksant Academic.

Schaap’s ethnography of the text-only virtual world Cybersphere was conducted entirely online: “I haven’t met any of my informants face to face” (p. 29). Schaap focuses on gender in a virtual world oriented around roleplaying. He also asks how a text-only virtual world can be a “postmodern ethnography” in its own right (p. 133).

Games and Play

From video game consoles designed primarily for gaming to casual games played on a smartphone or tablet to online games in which thousands of players participate simultaneously using desktop or laptop computers, games are one of the most widespread aspects of digital life. Ethnographic research on online games has helped demonstrate that they have consequences for physical-world cultures and for online senses of selfhood and community, as seen in Castronova 2005, Nardi 2010, and Taylor 2006. This body of work has also drawn productively from theoretical perspectives of game studies to illuminate norms of social interaction in online games that have consequences for digital sociality more generally (Pearce and Artemesia 2009) and also to address topics including Economics and Labor (Jin 2010), professionalization and performance (Miller 2012, Taylor 2012), and cheating (Consalvo 2007).

Castronova, Edward. 2005. *Synthetic worlds: The business and culture of online games*. Chicago: Univ. of Chicago Press.

Although Castronova was trained as an economist, this book is based on extensive participant-observation research and addresses a range of important cultural issues, including governance and place-making. Unsurprisingly, special attention is provided to questions of economics and labor, including business models and commerce.

Consalvo, Mia. 2007. *Cheating: Gaining advantage in videogames*. Cambridge, MA: MIT Press.

Based on ethnographic research in the online game Final Fantasy XI and a range of interviews, Consalvo provides a detailed discussion of how cheating is defined and understood by video game players, with implications for our understanding of rules, good behavior, and community online.

Jin, Dal Yong. 2010. *Korea’s online gaming empire*. Cambridge, MA: MIT Press.

This detailed study of online gaming in Korea focuses on questions of economics and labor and also provides insight into gaming in non-Western contexts.

Miller, Kiri. 2012. *Playing along: Digital games, YouTube, and virtual performance*. Oxford: Oxford Univ. Press.

Through ethnographic studies of a range of online environments, including Grand Theft Auto and Guitar Hero, Miller addresses

questions of “virtual performance.” In so doing, she places these questions in conversation with longstanding ethnomusicological debates over creativity, audience, and the relationship between form and performance.

Nardi, Bonnie. 2010. *My life as a night elf priest: An anthropological account of World of Warcraft*. Ann Arbor: Univ. of Michigan Press.

Nardi's ethnographic study of World of Warcraft addresses questions of games and play with regard to theories of aesthetic experience and the ways in which online games represent a “new digital medium” (p. 52). Specific topics addressed include addition, gender, and “mods” to the game interface.

Pearce, Celia, and Artemesia. 2009. *Communities of play: Emergent cultures in online games and virtual worlds*. Cambridge, MA: MIT Press.

This is a study of “intergame immigration” (p. 197), in which players of a discontinued online game recreated the game and sustained their community in other virtual worlds. Save for a physical-world gathering of There.com participants in 2005, the fieldwork was conducted online using the avatar Artemesia.

Taylor, T. L. 2006. *Play between worlds: Exploring online game culture*. Cambridge, MA: MIT Press.

This ethnographic study of the online game EverQuest was conducted primarily in-world but also includes discussions of physical-world meet-ups held by the gamers. Taylor explores a range of issues, including play practices, gender, and governance.

Taylor, T. L. 2012. *Raising the stakes: E-sports and the professionalization of computer gaming*. Cambridge, MA: MIT Press.

Taylor works to examine the world of competitive computer gamers “as a phenomenon in its own right, but also to situate it within our culture at large” (p. 2). Building from historical context to the contemporary gamer circuit, Taylor attends to how players see their video-game playing as a professional activity.

Communication and Language

Beginning with Early Work that could be considered digital anthropology in a contemporary sense, questions of communication and language have been prominent (e.g., Carlstrom 1992). Indeed, many ethnographic works on digital culture have been produced by scholars trained in communications or linguistics, and there continues to be vibrant theoretical and methodological interchange between these disciplines and anthropology (Baron 2008). Specific topics addressed with regard to communication, language, and digital anthropology include coordination in online gameplay (Chen 2009), the use of specific linguistic forms in text messaging (Jones and Schieffelin 2009), and journalism and media practices (Boyer 2010). Early work in this area emphasized how many of the socialities under consideration were text-only (such as multiuser domains [MUDs]) or primarily textual (such as blogs that can be optionally accompanied by images, video, or sound). Such online socialities that are in effect built from language continue into the present, including via text messaging on mobile devices. A fascinating question less directly addressed by most work in this genre is how all digital culture is ultimately based on computer languages and thus is a form of sociality predicated on linguistic being in a very specific sense, with implications for understandings of social construction and the “real.”

Baron, Naomi S. 2008. *Always on: Language in an online and mobile world*. Oxford: Oxford Univ. Press.

This study of language online explores “the synergy between technology and language” (p. x) through examinations of instant messaging, cell phones, e-mail, and other modalities of digital communication.

Boyer, Dominic. 2010. Digital expertise in online journalism (and anthropology). In *Special Issue: Anthropological Perspectives in the Digital Age*. Edited by Alexander S. Dent. *Anthropological Quarterly* 83.1: 73–95.

Based on fieldwork with German and American online journalists as well as the history of cybernetic theory and the Internet itself, Boyer shows “the importance of cybernetic-informational epistemology in contemporary intellectual and public culture” (p. 79). Available online by subscription.

Carlstrom, Eva-Lise. 1992. Better living through language: The communicative implications of a text-only virtual environment, or welcome to LambdaMOO!

This example of early work of a text-only virtual world examines how such a world “is not only a new sociolinguistic environment, it is a new kind of sociolinguistic environment” (p. 1). Issues addressed include communicative modes, proxemics, and turn-taking.

Chen, Mark G. 2009. Communication, coordination, and camaraderie in World of Warcraft. *Games and Culture* 4.1: 47–73.

Chen provides a close analysis of how forms of linguistic communication allow players to coordinate gameplay and build social relationships. Available online for purchase or by subscription.

Jones, Graham M., and Bambi B. Schieffelin. 2009. Enquoting voices, accomplishing talk: Uses of *be + like* in instant messaging. *Language & Communication* 29.1: 77–113.

Jones and Schieffelin examine how the increasing use of the *be + like* quotative formula in instant messaging (as in “my dad was like . . .”) shapes a sense of orality and intimacy in online communication. Available online for purchase or by subscription.

Social Organization

A fundamental topic of interest to scholars of online culture since the period of Early Work has been that of social organization. How do people connect online at all? What does it mean, in daily practice, to be part of a “virtual community”? How do such communities differ, and what features might they share? Scholarship in this area has addressed a range of issues, including how people communicate and interact in online contexts (Heider 2009, Marwick and Boyd 2010), as well as the roles of “ubiquity” (Dourish and Bell 2011), friendship, and positive social relation (Carter 2005, Rheingold 2000). Bakioglu 2009 and Brunton 2012 also examine forms of “antisocial” behavior that can be permitted, illicit, or in between, and Jenkins 2006 explores forms of political engagement.

Bakioglu, Burcu. 2009. Spectacular interventions in Second Life: Goon culture, grieving, and disruption in virtual spaces. *Journal of Virtual Worlds Research* 1.3: 1–21.

In this study of grieving in Second Life, Bakioglu examines how such activities can act to challenge and disrupt dominant social norms of capitalism but also community.

Brunton, Finn. 2012. Constitutive interference: Spam and online communities. *Representations* 117.1: 30–58.

Brunton examines how spamming, a ubiquitous form of communication online, reveals logics of virtual communities and Internet governance, particularly the relationship between infrastructure and online sociality. Available online for purchase or by subscription.

Carter, Denise. 2005. Living in virtual communities: An ethnography of human relationships in cyberspace. *Information, Communication & Society* 8.2: 148–167.

Based on ethnographic research conducted primarily in the virtual world Cybercity, Carter examines how friendships form online and in some cases lead to offline friendships as well. Available online for purchase or by subscription.

Dourish, Paul, and Genevieve Bell. 2011. *Divining a digital future: Mess and mythology in ubiquitous computing*. Cambridge, MA: MIT Press.

Dourish and Bell explore a range of topics with regard to the idea of “ubiquitous computing,” particularly with regard to the rapid growth of mobile device use worldwide. They also provide an extensive discussion of the “role of ethnography” in better understanding emergent forms of ubiquitous computing (pp. 61–90).

Heider, Don, ed. 2009. *Living virtually: Researching new worlds*. New York: Peter Lang.

Contributors to this edited volume explore a range of topics related to social organization in virtual worlds, including infrastructure (Marianne Ryan, pp. 23–46), virtual geography (Nan Zheng, pp. 93–110), and journalism (Dustin Harp, pp. 271–290).

Jenkins, Henry. 2006. *Convergence culture: Where old and new media collide*. New York: New York Univ. Press.

Jenkins’s influential study of media focuses on contexts where digital media interact with older media such as television. Questions of participation, transformation, community, and politics are central to the analysis.

Marwick, Alice E., and Danah Boyd. 2010. I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society* 13.1: 114–133.

The authors examine how Twitter users imagine their networked audiences, given that this social network technology collapses social contexts so that it is harder to shift one’s self-presentation based on imagined interlocutors. Available online for purchase or by subscription.

Rheingold, Howard. 2000. *The virtual community: Homesteading on the electronic frontier*. Rev. ed. Cambridge, MA: MIT Press.

Active in the study of online sociality since the 1980s, Rheingold explores a range of topics, including the online community the WELL,

notions of counterculture in cyberspace, MUDs, and questions of activism and advocacy.

Non-Western Contexts

While the bulk of the research discussed in this article is based on work conducted either online or in the West (North America, Europe, Australia/New Zealand), an important and growing body of digital anthropological work addresses online technologies in non-Western contexts. Such scholarship (many examples of which appear in other sections of this bibliography) draws from two historical lineages. First, from its origins, anthropology has focused on the non-Western Other. While shaped by legacies of colonialism, Orientalism, and the exoticization of the “savage” or “native,” this focus on the non-Western has also been a welcome counter to the overwhelming focus on North America and Europe that characterizes the majority of social scientific scholarship. Second, online cultures have been powerfully shaped by Western (and even American and Californian) perspectives in the Internet industry. From the earliest stages of design to later phases of implementation and management, online socialities have been powerfully shaped by the cultural logics of Silicon Valley and similar dominant locations. While multicultural in their own ways, these Western biases are becoming destabilized as new centers for the development of Internet technologies arise around the globe. Just as significantly, any simplistic talk of a “digital divide” has been troubled by the rapid uptake of Internet technologies worldwide and not just by rich elites (Burrell 2012, Madianou and Miller 2012, Srinivasan and Fish 2009, Uimonen 2012), though issues of Economics and Labor of course remain relevant (Miller and Slater 2000), as do questions of nationalism and state control (Graham and Khosravi 2002). As cell phones move toward being possessed by the majority of the world’s population, and as tablets, laptops, and venues such as Internet cafés make access to computers easier as well, anthropologists find opportunities to explore how online socialities are shaped by varied cultural contexts around the world, as seen in Gottlieb and McLelland 2003 and Nozawa 2012.

Burrell, Jenna. 2012. *Invisible users: Youth in the Internet cafés of urban Ghana*. Cambridge, MA: MIT Press.

In this study of Internet cafés in Uganda, Burrell examines a range of issues, including experiences of marginality, notions of national and cosmopolitan belonging, and the material networks of computer use.

Gottlieb, Nanette, and Mark J. McLelland, eds. 2003. *Japanese cybercultures*. London: Routledge.

This edited volume contains a range of ethnographic studies on Japanese cybercultures, including uses of cell phones, e-mail, and websites for new “cultures of encounter” (pp. 34). Clusters of chapters address popular culture, gender and sexuality, and politics and religion.

Graham, Mark, and Shahram Khosravi. 2002. Reordering Public and Private in Iranian Cyberspace: Identity, Politics, and Mobilization. *Identities: Global Studies in Culture and Power* 9.2: 219–246.

In this article, the authors explore “some of the ways in which cyberspace has contributed to redrawing the boundaries between public and private... for people, things, and ideas in Iran and the Iranian diaspora” (p. 219). They pay particular attention to consequences for theories of diaspora and public/private spheres.

Madianou, Mirca, and Daniel Miller. 2012. *Migration and new media: Transnational families and polymedia*. New York: Routledge.

The authors explore how transnational migration shapes kinship by focusing ethnographic attention on migrant mothers who have left the Philippines but also the families they leave behind and their understandings of their mediated relationships with those who have gone abroad for work.

Miller, Daniel, and Don Slater. 2000. *The Internet: An ethnographic approach*. Oxford: Berg.

Despite not including “Trinidad” in its title, this ethnography is deeply oriented to the specificities of Internet use in the context of Trinidadian culture. Miller and Slater explore topics such as relationships, representation, political economy, and religion.

Nozawa, Shunsuke. 2012. The gross face and virtual fame: Semiotic mediation in Japanese virtual communication. *First Monday* 17.3–5.

Ethnographically exploring “self-fashioning and sociality in Japanese-language virtual communication” (p. 1), Nozawa discusses how forms of pseudonymity and anonymity reshape notions of presence and sociality in Japanese online contexts.

Srinivasan, Ramesh, and Adam Fish. 2009. Internet authorship: Social and political implications within Kyrgyzstan. *Journal of Computer-Mediated Communication* 14.3: 559–580.

In this article, the authors discuss how grassroots Internet usage has shifted with relation to political shifts in Kyrgyzstan, particularly since the Tulip Revolution of 2005. Particular attention is paid to how many Internet authors in this context “see their work within the larger context of online journalism” (p. 560).

Uimonen, Paula. 2012. *Digital drama: Teaching and learning art and media in Tanzania*. New York: Routledge.

Drawing from ethnographic fieldwork at an arts college in Tanzania, Uimonen explores how, under conditions of inequality, poverty, marginalization, and crisis, artists and educators use digital technologies for self-expression, community formation, and artistic production in the context of conflict and coalition on a national and transnational stage.

Design, Activism, Hackers, and Piracy

Questions of design have long been salient in digital anthropological research. Such themes are prevalent in much Early Work, much of which was written by persons who were not professionally trained anthropologists but rather designers who confronted questions of culture as they created and managed online environments. The social contexts and cultural logics studied by digital anthropologists are obviously predicated on forms of technology, and these technologies are designed in specific ways that are amenable to ethnographic investigation. As a result, one important body of work in digital anthropology addresses the design, creation, management, and transformation of online technologies. Malaby 2009 and O'Donnell 2009, for instance, study the companies that create and manage virtual worlds, linking to questions of Governance. Eubanks 2011 examines both emerging new “digital divides” and grassroots movements for digital empowerment. Coleman 2012; Juris 2008; Kelty 2008; and Leach, et al. 2009 explore movements for open source and free software that challenge dominant capitalist models of copyright and ownership. Such studies attend to questions of hacking and in Kow and Nardi 2010 link up as well to “modding” within online games and other cyberspaces.

Coleman, E. Gabriella. 2012. *Coding freedom: The ethics and aesthetics of hacking*. Princeton, NJ: Princeton Univ. Press.

Coleman's ethnographic study of free and open-course programmers addresses issues of ownership, freedom, and markets. The analysis includes a range of hacking relationships to established modes of software production and dissemination.

Eubanks, Virginia. 2011. *Digital dead end: Fighting for social justice in the information age*. Cambridge, MA: MIT Press.

Eubanks employs a fine-grained cultural analysis of how marginalized persons encounter technology, seeking "a model of high-tech equity based on resisting oppression . . . and fostering democratic and participatory decision making" (p. 27). There is a strong focus on gender and its relation to class and other forms of difference.

Juris, Jeffrey S. 2008. *Networking futures: The movements against corporate globalization*. Durham, NC: Duke Univ. Press.

Employing what he terms "militant ethnography," Juris investigates how activists in antiglobalization networks bring together local and global spatial scales. These activists "not only employ new technologies as tools; they use them to engage in horizontal collaboration, expressing their utopian ideas through technological practice" (p. 268).

Kelty, Christopher M. 2008. *Two bits: The cultural significance of free software*. Durham, NC: Duke Univ. Press.

This ethnographic study of the free software movement demonstrates how a set of practices and cultural assumptions in regard to software design shaped forms of public engagement, collaborative practice, and "geek" identity.

Kow, Yong Ming, and Bonnie Nardi. 2010. Culture and creativity: *World of Warcraft* modding in China and the US. In *Online worlds: Convergence of the real and the virtual*. Edited by B. Bainbridge, 21–42. Heidelberg, Germany: Springer.

Kow and Nardi examine how modders in China and the United States reshaped interfaces and other aspects of the online game World of Warcraft to create forms of social infrastructure. Attention is also paid to relationships between modders and the company that owns and manages the online game.

Leach, James, Dawn Nafus, and Bernhard Krieger. 2009. Freedom imagined: Morality and aesthetics in open source software design. *Ethnos: Journal of Anthropology* 74.1: 51–71.

This analysis of open source software designers focuses on questions of community formation and "how the moral imagination takes a specific form and has a particular trajectory . . . because of its precipitation by a series of technological processes" (p. 52). Available online for purchase or by subscription.

Malaby, Thomas. 2009. *Making virtual worlds: Linden Lab and Second Life*. Ithaca, NY: Cornell Univ. Press.

Malaby's extensive access to the offices of Linden Lab allowed him to study in detail the everyday decisions staff made as they designed and modified the software behind the virtual world Second Life; he also addresses how design and management shaped social norms inworld.

O'Donnell, Casey. 2009. The everyday lives of video game developers: Experimentally understanding underlying systems/structures. *Transformative Works and Cultures* 2.

O'Donnell explores how designers, artists, and engineers involved in video-game development struggle with relationships between code, gameplay, and the everyday labor of video-game creation.

Governance

Questions of governance, including law, are an important area of scholarship with regard to online culture. This includes both the emergence of political and legal forms online (Mnookin 1996, O'Rourke 1998) and the corporate entities that own and manage most online socialities (Burk 2010; Fairfield 2011; Herman, et al. 2006; Lastowka 2010). How indigenous communities and other subjugated populations engage with online technologies is another important area of scholarship on governance that connects to work on Non-Western Contexts (Forte 2003).

Burk, Dan L. 2010. Authorization and governance in virtual worlds. *First Monday* 15.5.

Burk examines a range of issues in regard to the intersection of law and governance in virtual worlds. He particularly addresses the problematic use of Terms of Service agreements for the purposes of authorizing claims of improper behavior.

Fairfield, Joshua A. T. 2011. Nexus crystals: Crystallizing limits on contractual control of virtual worlds. In *Special Issue: Contemporary Issues in Cyberlaw*. Edited by Greg Lastowka. *William Mitchell Law Review* 38.1: 43–95.

Fairfield addresses a range of topics regarding the legal governance of virtual worlds, including copyright, ownership, and fair play. One key issue explored is “whether corporations can use EULAs [End User License Agreements] to control consumer behavior that has little or nothing to do with copyright” (p. 47).

Forte, Maximilian C. 2003. Caribbean aboriginals online: Digitized culture, networked representation. *Indigenous Affairs* 2.3: 32–37.

Forte analyzes how Caribbean aboriginals use Internet technologies for communication and advocacy, including the fact that “there is far more information on the Internet about Caribbean aboriginals than there is by them” (p. 34).

Herman, Andrew, Rosemary J. Coombe, and Lewis Kaye. 2006. Your Second Life? Goodwill and the performativity of intellectual property in online digital gaming. *Cultural Studies* 20.2–3: 184–210.

This study of intellectual property rights in virtual worlds focuses on “the creation and management of goodwill, an intangible asset of considerable value to corporations based on affective bonds between consumers, corporations, and their commodities in the marketplace” (p. 184). Available online for purchase or by subscription.

Lastowka, Greg. 2010. *Virtual justice: The new laws of online worlds*. New Haven, CT: Yale Univ. Press.

A culturally informed study of law in virtual world contexts. Lastowka addresses legal issues, including regulation, jurisdiction, property, and copyright.

Mnookin, Jennifer L. 1996. *Virtual(ly) law: The emergence of law in LambdaMOO*. In *Special Issue: Emerging Law on the Electronic Frontier, Part 1*. Edited by Anne Wells Branscomb. *Journal of Computer-Mediated Communication* 2.1.

This important example of early work examines how forms of legal control and political governance arose in the text-only virtual world LambdaMOO. Topics addressed include dispute resolution and property rights.

O'Rourke, Maureen. 1998. *Fencing cyberspace: Drawing borders in a virtual world*. *Minnesota Law Review* 82:609–704.

An example of early work on the legal implications of cyberspace, O'Rourke examines property rights, policy considerations, and contracts.

Economics and Labor

Issues of Governance link up to the topics of economics and labor, which are addressed by work discussed in many other sections of this article. Despite the apparently disembodied state of virtual culture and stereotyped linkages to notions of games, play, and fantasy, it is clear that questions of economics and labor are vital to digital anthropology. Some of this work has explored how online socialities are implicated in new workplaces (Hakken 1999) and transform forms of labor like journalism (Paterson and Domingo 2008). Other research explores the work of computer programmers who remain in one place (like India) even while working on behalf of American software firms (Aneesh 2006) or the “body shopping” movement of laborers across national boundaries (Biao 2007). This research often attends to the history of labor in the worlds of information and communication technology, examining both continuities and emergent formations (Downey 2001, Freeman 2000). It also includes attention to commodities and consumption (Martin 2008), the role of new forms of money and payment (Maurer 2011), and the impact of technology on finance (Zaloom 2006).

Aneesh, A. 2006. *Virtual migration: The programming of globalization*. Durham, NC: Duke Univ. Press.

Aneesh draws on ethnographic research in India to focus on contexts where laborers in the global internet industry do not move but work on behalf of companies in the United States and elsewhere.

Biao, Xiang. 2007. *Global “body shopping”: An Indian labor system in the information technology industry*. Princeton, NJ: Princeton Univ. Press.

Biao addresses contexts in which information technology firms hire workers from countries such as India. This includes attention to the firms that locally recruit workers and the implications of this circulation of workers for understandings of political economy.

Downey, G. 2001. *Virtual webs, physical technologies, and hidden workers: The spaces of labor in information Internetworks*. *Technology and Culture* 42.2: 209–235.

Drawing on both contemporary Internet laborers and the history of labor in telecommunications industries such as the telephone and

telegraph, Downey examines how, in some cases, information networks “used new socially constructed technologies to create new socially constructed spatialities” (p. 217). Available online by subscription.

Freeman, Carla. 2000. *High tech and high heels in the global economy: Women, work and pink-collar identities in Barbados*. Durham, NC: Duke Univ. Press.

Freeman draws on extensive ethnographic research in the Caribbean to explore how working-class “pink-collar” women laboring in the technology industry are reshaping notions of femininity, labor, and social equality in a postcolonial context.

Hakken, David. 1999. *Cyborgs@cyberspace? An ethnographer looks to the future*. New York: Routledge.

This ethnographic study of online sociality is an important example of early work in digital anthropology. Hakken focuses on questions of organizational culture, workspaces, and political economies of cyberspace. He also addresses a range of other issues, including identity and methodology.

Martin, Jennifer. 2008. Consuming code: Use-value, exchange-value, and the role of virtual goods in Second Life. *Journal of Virtual Worlds Research* 1.2: 1–21.

Martin examines the implications of virtual goods for theories of exchange and value, given that they have no apparent physical world “use-value.”

Maurer, Bill. 2011. Money nutters. *European Economic Sociology Electronic Newsletter* 12.3: 5–12.

Maurer examines how forms of electronic money, particularly “mobile money” linked to devices such as cell phones, are reshaping notions of exchange and value, even as they draw on longstanding economic conceptions and infrastructures.

Paterson, Chris, and David Domingo, eds. 2008. *Making online news: The ethnography of new media production*. New York: Peter Lang.

This edited volume contains a range of studies of online journalism, shaped by the “guiding premise that only ethnographic methodologies derived from anthropological and sociological traditions can come close to providing an adequate description of the culture and practice of media production” (p. 2).

Zaloom, Caitlin. 2006. Markets and machines: Work in the technological sensoryscapes of finance. *American Quarterly* 58.3: 815–837.

Through fieldwork with financial traders in Chicago, Zaloom examines cases in which “the neoliberal value of individuals in competition took on material form through new technological and social arrangements” (p. 817). Available online by subscription.

Sexuality and Emotion

Interest in sexuality dates to Early Work on Internet culture (see Mills 1998). This concept can include communities oriented around sexual acts that take place in an online environment (Bardzell and Odom 2008). It also includes uses of online technologies to seek or end romance in the physical world (Constable 2003, Gershon 2010, McGlotten 2007) and the study of nonnormative sexualities (Campbell 2004, Correll 1995, Gray 2009). This body of work links up to questions of emotion and intimate relationships online (Ben-Ze'ev 2004).

Bardzell, Shaowen, and William Odom. 2008. *The experience of embodied space in virtual worlds: An ethnography of a Second Life community*. *Space and Culture* 11.3: 239–259.

This is an ethnographic study of Goreans in Second Life—a community that draws from the science fiction novels of John Norman and is based on forms of BDSM (bondage, discipline, dominance, submission, sadism, masochism) sexuality. Bardzell and Odom investigate the role of spatiality and virtual artifacts in these relations of desire and sexuality. Available online for purchase or by subscription.

Ben-Ze'ev, Aaron. 2004. *Love online: Emotions on the Internet*. Cambridge, UK: Cambridge Univ. Press.

Drawing primarily on the empirical research of other scholars, Ben-Ze'ev examines a range of issues regarding online relationships and emotion, including immediacy, distance, sincerity, imagination, and infidelity.

Campbell, John Edward. 2004. *Getting it on online: Cyberspace, gay male sexuality, and embodied identity*. New York: Harrington Park.

The study of queer and otherwise nonheteronormative sexuality online is an important and growing area of digital anthropological research. Campbell's study of gay male sexuality online is an important example of such work, addressing issues of desire and embodiment.

Constable, Nicole. 2003. *Romance on a global stage: Pen pals, virtual ethnography, and "mail-order" marriages*. Berkeley: Univ. of California Press.

This ethnographic study of Chinese and Filipina women who meet Western men online for marriage took place primarily online, particularly via discussion boards and e-mail. Including perspectives of both women and men, Constable addresses issues of power, choice, love, and transnationalism, among others.

Correll, Shelley. 1995. *The ethnography of an electronic bar: The lesbian cafe*. *Journal of Contemporary Ethnography* 24.3: 270–298.

Correll's study of a text-only "electronic lesbian bar" is an important example of early work on sexuality, with particular attention to questions of community diversity when community "is characterized not by locale but by factors such as a high degree of personal intimacy, moral commitment, and social cohesion" (p. 271). Available online for purchase or by subscription.

Gershon, Ilana. 2010. *The breakup 2.0: Disconnecting over new media*. Ithaca, NY: Cornell Univ. Press.

Gershon's study of how college students end romantic relationships online addresses a range of issues, including media ideologies and shifting notions of public and private. In attending to the role of Facebook in negotiating relationships, Gershon links up to scholarship on social network websites as well as youth and education.

Gray, Mary L. 2009. Negotiating identities/queering desires: Coming out online and the remediation of the coming-out story. *Journal of Computer-Mediated Communication* 14.4: 1162–1189.

Based on an ethnographic study of rural youth, Gray examines how Internet media can offer possibilities not so predicated on the imaginary of an urban life in which family ties are optional and venues such as gay bars and clubs are at least marginally accessible. Available online by subscription.

McGlotten, Shaka. 2007. Virtual intimacies: Love, addiction, and identity @ the matrix. In *Queer online: Media technology and sexuality*. Edited by Kate O'Riordan and David J. Phillips, 123–137. New York: Peter Lang.

McGlotten draws on ethnographic research to examine how intimacy and desire are articulated and transformed in relation to the interface between the virtual and the actual. The focus is on both textual and video chat social network websites.

Mills, Russell. 1998. Cyber: Sexual chat on the Internet. *Journal of Popular Culture* 32.3: 31–46.

Mills focuses on how forms of language use shape sexual practice online in text-only chat rooms. This attention to communication and language includes the question of "identity in chatrooms . . . [which] is centrally bound to the use of language" (p. 36). Available online by subscription.

Youth and Education

Given that youth often pioneer the use of new technologies, it is not surprising that youth and education are central topics of digital anthropological research, including many works cited in other sections of this article. The relationship between informal and formal education is one key theme examined by this body of scholarship (Ito, et al. 2010), as is language use (Tagliamonte and Denis 2008), relationships (Hijazi-Omari and Ribak 2008, Hodkinson and Lincoln 2008), cultural diversity (Kafai, et al. 2010), and political engagement (Gerodimos 2012, Livingstone 2009).

Gerodimos, Roman. 2012. Online youth civic attitudes and the limits of civic consumerism. *Information, Communication & Society* 15.2: 217–245.

Gerodimos explores how youth engage with civic organization websites, exploring possible limitations and reconfigurations of the Internet's democratic potential with regard to topics such as senses of powerlessness and individualism over community online. Available online for purchase or by subscription.

Hijazi-Omari, Hiyam, and Rivka Ribak. 2008. Playing with fire: On the domestication of the mobile phone among Palestinian teenage girls in Israel. *Information, Communication & Society* 11.2: 149–166.

The authors of this article explore how Palestinian teenage girls use mobile phones to challenge parental and societal monitoring, communicate with boyfriends, and reshape their own identities. The work links up with scholarship on sexuality and emotion as well as non-Western contexts. Available online for purchase or by subscription.

Hodkinson, Paul, and Sian Lincoln. 2008. Online journals as virtual bedrooms? Young people, identity and personal space. *Young* 16.1: 27–46.

The authors investigate the important role that online journals play for many contemporary youth as virtual places of self-making and social interaction. Notions of privacy, peer community, and the “personal” are central to the analysis. Available online for purchase or by subscription.

Ito, Mizuko, Sonja Baumer, Matteo Bittani, et al. 2010. *Hanging out, messing around and geeking out: Kids living and learning with new media*. Cambridge, MA: MIT Press.

Contributors to this volume explore a wide range of topics concerning how youth use online technologies in the context of formal and informal learning.

Kafai, Yasmin B., Melissa S. Cook, and Deborah A. Fields. 2010. “Blacks deserve bodies too!” Design and discussion about diversity and race in a tween virtual world. *Games and Culture* 5.1: 43–63.

Through a study of the virtual world Whyville, the authors examine how youth address limitations of an online platform for representing racial diversity. Linking up with scholarship on race, they note that these debates “touch on deeper aspects of racial identity and can connect online and off-line experiences” (p. 58). Available online for purchase or by subscription.

Livingstone, Sonia. 2009. *Children and the Internet: Great expectations, challenging realities*. Cambridge, UK: Polity.

Livingstone’s expansive study of youth online addresses a range of issues, including learning, identity, civic engagement, and the balance of opportunity and risk. She attends to how shifts in these domains are due not only to the Internet itself but also “changes in contemporary childhood” (p. ix).

Tagliamonte, Sali A., and Derek Denis. 2008. Linguistic ruin? LOL! Instant messaging and teen language. *American Speech* 83.1: 3–34.

Against views that instant messaging represents a breakdown in linguistic form, the authors show how instant messaging represents “a unique new hybrid register, exhibiting a fusion of the full range of variants from the speech community” (p. 3). This research thus also links up to work on communication and language. Available online for purchase or by subscription.

Gender

Issues of gender and particularly the malleability of gender online have been of interest since the period of Early Work (Bruckman 1996, Roberts and Parks 1999). This has included questions of gender with regard to Design, Activism, Hackers, and Piracy (Nafus 2012),

physical world contexts such as Internet cafés (Wakeford 1999), and the gendered dimensions of everyday online phenomena such as personal home pages (Paasonen 2005, Senft 2008). Scholars have focused on both femininity and masculinity (Kendall 2002) and their mutual constitution and transformation online.

Bruckman, Amy S. 1996. Gender swapping on the Internet. In *High noon on the electronic frontier: Conceptual issues in cyberspace*. Edited by Peter Ludlow, 317–326. Cambridge, MA: MIT Press.

This example of early work on gender online focuses on text-only virtual worlds and explores how the possibility of choosing and changing gender both reflects and subverts dominant norms.

Kendall, Lori. 2002. *Hanging out in the virtual pub: Masculinities and relationships online*. Berkeley: Univ. of California Press.

Kendall's detailed ethnographic exploration of the text-only virtual world BlueSky focuses in particular on questions of masculinity and gender but addresses a range of other issues as well, including identity, class, race, and sexuality and emotion.

Nafus, Dawn. 2012. "Patches don't have gender": What is not open in open source software. *New Media & Society* 14.4: 669–683.

Beginning from the observation that as few as 1.5 percent of open source participants are women, Nafus uses a participant observation study of a range of software projects to examine "the underlying issues that generate this exclusion" (p. 670) in a context that otherwise values openness. Available online for purchase or by subscription.

Paasonen, Susanna. 2005. *Figures of fantasy: Internet, women, and cyberdiscourse*. New York: Peter Lang.

Paasonen explores a range of everyday ways in which women engage with the online, including personal web pages and e-mail, addressing as well questions of embodiment, intimacy, and language, among other topics.

Roberts, Lynne D., and Malcolm R. Parks. 1999. The social geography of gender-switching in virtual environments on the Internet. *Information, Communication & Society* 2.4: 521–540.

This study of text-only virtual worlds addresses the prevalence and motivations for changing genders in online contexts. Available online for purchase or by subscription.

Senft, Theresa. 2008. *Camgirls: Celebrity and community in the age of social networks*. New York: Peter Lang.

Senft explores how women use webcams, personal webpages, and other online contexts for self-presentation and social interaction. She focuses particularly on how "for feminists, network society presents a double-edged sword" (p. 6), given how these technologies can foster both connection and exploitation.

Wakeford, Nina. 1999. Gender and the landscapes of computing in an Internet café. In *Virtual geographies: Bodies, space, and relations*. Edited by Mike Crang, Phil Crang, and Jon May, 178–201. London: Routledge.

Wakeford's study of gender in an Internet café explores "how gender operates in a 'real' place where the Internet is both produced and consumed" (p. 180).

Race

Like Gender, race has sometimes been seen as a less relevant topic for scholarship of online sociality, given its ostensible malleability on the Internet. However, a growing body of digital anthropology scholarship shows how race and ethnicity are central to the design, experience, and control of online socialities in the West as well as in Non-Western Contexts. A key interest has been in how racial subjectivity shapes online identity, given the ways in which whiteness has acted as a default in cyberspace (Gajjala, et al. 2008; Higgin 2008; Kolko, et al. 2000) and how white supremacists have employed Internet technologies (Daniels 2009). Scholars have also examined how movement between differing online environments can be shaped by racial imaginaries (Boyd 2011). There are bodies of work on specific racial identifications and communities, including Black (Higgin 2008) and Latina/o (Rodríguez 2003), as well as work on visual representation (Nakamura 2008).

Boyd, Danah. 2011. *White flight in networked publics: How race and class shaped American teen engagement with MySpace and Facebook*. In *Race after the Internet*. Edited by Lisa Nakamura and Peter A. Chow-White, 203–222. New York: Routledge.

This ethnographic analysis focuses on how youth moved from one social network platform to another, in a manner shaped by cultural logics of class and race. Boyd thereby brings together questions of race, class, gender, and change over time in the context of social network technologies.

Daniels, Jesse. 2009. *Cyber racism: White supremacy online and the new attack on civil rights*. Lanham, MD: Rowman & Littlefield.

Based on a range of sociological methods, including ethnographic participant observation on online white supremacy websites, Daniels provides a detailed analysis of white supremacist communities online. Topics addressed include online racist acts, methods of recruitment (including "cloaked" websites that appear to address other issues), and ideas for combating white supremacy online.

Gajjala, Radhika, Natalia Rybas, and Melissa Altman. 2008. *Racing and queering the interface: Producing global/local cyberselves*. *Qualitative Inquiry* 14.7: 1110–1133.

The authors of this article explore "how power works in multiply mediated contexts at the intersection of online and offline practices" (p. 1111), with particular attention to conceptions of race. Available online for purchase or by subscription.

Higgin, Tanner. 2008. *Blackless fantasy: The disappearance of race in massively multiplayer online role-playing games*. *Games and Culture* 4.1: 3–26.

Exploring "the visual and discursive disappearance of blackness from virtual fantasy worlds" (p. 3), Higgin examines how conceptions of blackness shape norms in online gaming worlds. Available online for purchase or by subscription.

Kolko, Beth E., Lisa Nakamura, and Gilbert B. Rodman, eds. 2000. *Race in cyberspace*. New York: Routledge.

Contributors to this edited volume explore a range of issues with regard to race online, including racial passing (Lisa Nakamura), educational settings (Jonathan Sterne), and whiteness (Beth Kolko).

Nakamura, Lisa. 2008. *Digitizing race: Visual cultures of the Internet*. Minneapolis: Univ. of Minnesota Press.

Nakamura focuses on “the way that uses of the Internet collaborative product digital images of the body . . . in the context of racial and gender identity formation” (p. 5).

Rodríguez, Juana Maria. 2003. *Queer Latinidad: Identity practices, discursive spaces*. New York: New York Univ. Press.

In the chapter “Welcome to the Global Stage: Confessions of a Latina Cyber-Slut” (pp. 114–152), Rodríguez explores how text-based online interaction shapes racial and sexual selfhood via “another context through which the world can be experienced” (p. 118).

Medicine, Embodiment, and Disability

It has become clear that embodiment is an important topic for digital anthropological work, with regard to both physical bodies, virtual bodies, and the range of relationships between them. This involves examining the relationship between embodiment and virtual place (Boellstorff 2011), including forms of textual embodiment that differ from now-dominant notions of “realistic” avatars (Sundén 2003). This work on embodiment links up to an expansive, interdisciplinary literature on disease, disability, and healing. Scholars have examined how specific “disabilities” are shaped by online cultures, including ways that understandings of disability are contested (Davidson 2008, Keating and Mirus 2003), how patients and sufferers organize online for recognition and advocacy (Dumit 2006, Orgad 2005, Radin 2006), and forms of addiction and compulsion (Schüll 2012).

Boellstorff, Tom. 2011. Placing the virtual body: Avatar, chora, cypherg. In *A companion to the anthropology of the body and embodiment*. Edited by Frances E. Mascia-Lees, 504–520. New York: Wiley-Blackwell.

This article explores how in virtual-world contexts, “embodiment” is always a form of “emplacement,” asking after the phenomenological consequences of this understanding of embodiment online.

Davidson, Joyce. 2008. Autistic culture online: Virtual communication and cultural expression on the spectrum. *Social & Cultural Geography* 9.7: 791–806.

Davidson examines how “those with autism describe using the Internet to connect with similar Others, not just for social support, but to organize and advocate for recognition of autistic cultural difference” (p. 791). Available online for purchase or by subscription.

Dumit, Joseph. 2006. Illnesses you have to fight to get: Facts as forces in uncertain, emergent illnesses. In *Special Issue: Patient Organisation Movements*. Edited by Kyra Landzelius and Joseph Dumit. *Social Science & Medicine* 62.3: 577–590.

Drawing primarily on postings to Internet newsgroups, Dumit examines how sufferers of chronic fatigue syndrome and multiple

chemical sensitivity struggle through collective patient action to have their diseases recognized and responded to by the medical domain. Available online for purchase or by subscription.

Keating, Elizabeth, and Gene Mirus. 2003. American Sign Language in virtual space: Interactions between deaf users of computer-mediated video communication and the impact of technology on language practices. *Language in Society* 32.5: 693–714.

The authors examine how deaf persons are transforming their language practice via online technologies. The discussion of “consequences for American Sign Language of the introduction of technologically enhanced communication” (p. 694) thus links up to work on communication and language. Available online for purchase or by subscription.

Orgad, Shani. 2005. *Storytelling online: Talking breast cancer on the Internet*. New York: Peter Lang.

Based on a range of ethnographic methods, Orgad examines how “the online experience furnishes breast cancer patients with . . . a means and a space to configure their experience into a story” (p. 4). Questions of collective identity, narrative, and illness are thus central to the analysis.

Radin, Patricia. 2006. “To me, it’s my life”: Medical communication, trust, and activism in cyberspace. In *Special Issue: Patient Organisation Movements*. Edited by Kyra Landzelius and Joseph Dumit. *Social Science & Medicine* 62.3: 591–601.

Radin explores how members of breast cancer patient virtual communities “pool their ‘collective intelligence’ about many things, from how to cope with swelling, to how to think about end-of-life issues, to how to improve social policy” (p. 591). Embodiment, community, and advocacy are thus connected to health and belonging. Available online for purchase or by subscription.

Schüll, Natasha D. 2012. *Addiction by design: Machine gambling in Las Vegas*. Princeton, NJ: Princeton Univ. Press.

Schull examines the shift in Las Vegas from gambling based on roulette wheels and card tables to the rise of video slot machines and other forms of electronic gaming. She focuses ethnographically on experiences of machine gambling, including negative senses of immersion.

Sundén, Jenny. 2003. *Material virtualities: Approaching online textual embodiment*. New York: Peter Lang.

Based on ethnographic fieldwork in the text-only virtual world WaterMOO, Sundén examines how forms of textual embodiment can shape understandings of selfhood and social relation online. Specific topics addressed include gender and social organization.

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