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Historical geography II: Digital imaginations

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Abstract
In my second report discussing the state of historical geography, I review some of the ways historical geographers have made use of digital technologies and digital media. I also highlight how digital data, research, and presentation are affecting related humanities disciplines and inspiring their practitioners to engage more fully with geographic concepts of space, place, and cartography. I argue that information technologies and digital media can deepen the place of historical geography in the academy and in the public's eye.

Keywords
digital humanities, digital technologies, geoweb, historical geography

I Introduction: digital humanities

A decade has passed since Holdsworth (2003) reviewed the role of digital technologies in historical geography, and a great deal has happened since. For some, digital media are poised to transform the humanities and, for others, they already have done so (Brunn, 2003; Bodenhamer et al., 2010). The broader adoption of digital technologies across academia has also moved kindred disciplines closer to geographic concerns of space, place, and cartography. It is not hyperbole to say that Literary Studies has taken a 'cartographic turn' or that History has taken a 'spatial turn'. These changes also reflect the fact that Geographic Information Science (GISc) has sought to work better with humanistic and qualitative perspectives, that Web 2.0 converts volunteered geographic information (VGI) into public and participatory research, and that hundreds and perhaps thousands of websites provide easy access to digital images, maps, text, video, and audio. The relative embrace of digital technologies across the humanities and social sciences might reflect a search for relevancy and solvency in a scientific and instrumentalist world, but there can be little question that a vast array of information technologies and digital data are transforming the possibilities for historical-geographic research, its presentation, and public engagement. And it helps that the money is flowing. The US National Science Foundation (NSF), through its Digital Libraries Initiative, and more specifically the US National Endowment for the Humanities (NEH), through its Office of Digital Humanities, have funded several projects and websites of interest to historical geographers. The latter has also sponsored key workshops from

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which three recent books have appeared (Bodenhamer et al., 2010; Daniels et al., 2011; Dear et al., 2011). Similar developments are occurring throughout much of Europe, even in times of shrinking budgets. Several universities on both sides of the Atlantic have created research centers, degree programs, and scholarly initiatives dedicated to advancing the digital humanities. While enthusiasm should be tempered with a healthy dose of skepticism, I would argue that new media and information technologies can deepen the place of historical geography in both the academy and the public's eye, and that this would be a good thing.

Many of the changes taking place with respect to digital technologies and historical geography are part of a broader societal engagement with the digital humanities. Readers are probably aware that the Association of American Geographers (AAG) and its Executive Director, Doug Richardson, have actively promoted research in the 'geohumanities', particularly as it relates or contributes to GISc and Geographical Information Systems (GIS) (e.g. AAG, 2012; Richardson, 2011; www.aag.org). But geographers may be less aware that similar developments are occurring in the Modern Language Association (MLA) and the American Historical Association (AHA), to name just two of the largest humanities associations in the Americas (e.g. Howard, 2012; Pannapacker, 2011). An area of teaching, research, and creative expression, the digital humanities combine the power of computational technologies with the intellectual concerns of the humanities, broadly defined (Gold, 2012; Svensson, 2010). For geographers, engagement ranges from geovisualization, VGI and thematic web pages to interactive exhibits, multimedia presentations, and data gathering applications. (Remote sensing and its digital data, which can obviously contribute to historical geography, are not considered in the present paper.)

This paper not only highlights some of the ways in which historical geographers have engaged digital technologies, but also documents how said technologies are encouraging related disciplines to take up geography's visual and landscape traditions, as well as our spatial and cartographic concerns. Several journals, including the new *International Journal of Humanities and Arts Computing* and the recently revamped *GeoJournal*, are actively appealing to these cross- and multidisciplinary scholars, particularly those bridging the sciences and humanities (Sui, 2010). Thus, it is no coincidence that I chose this thematic coverage of the subfield in the same year as the 40th-anniversary issue of *Historical Geography* moves to an entirely digital format. Edited by Margaret Pearce, this volume promises to highlight scholarship using non-textual media, including cartographic animation, video links, and a sequential cartographic slide show with voice-over narration.

Historical geographers work with digital data, technologies, and media in at least four different ways. Regardless of their specific research interest, historical geographers draw upon the digital resources produced by others, including individuals and institutions, amateurs, and professionals, and that are made available on the web or for purchase. Historical geographers are also actively involved in producing their own digital information. From making interactive maps and soliciting crowd-sourced and georeferenced data to transcribing and posting primary documents, historical geographers use digital technologies and media to create and disseminate information and the fruits of their labor. The geography – and the historical geography – of communication and power in the digital age has also been a topic of sustained research (e.g. Gilbert, 2010; Gilbert and Masucci, 2011; Graham et al., 2012; Hugill, 2009). Moreover, historical geographers have contributed to the presentation of historical materials designed for public consumption (Driver and Jones, 2009; hiddenhistories.rgs.org Tolia-Kelly, 2012). According to Johnson

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(2011), the digital revolution and particularly the plethora of historical materials on the web have significantly changed how people expect to interact with the past, even in bricks-and-mortar locations such as museums and visitor centers. Although analytically distinct, all of these modes of research and their presentation intersect in practice.

In my last report on the state of historical geography (Offen, 2012), I insinuated that historical geographers are facing ever more questions about their 'relevancy', especially in the United States where academic institutions increasingly incentivize instrumentalist approaches to both research and education. I am sure that many readers are critical of this trend within the academy in general and geography in particular, and some may believe that the hyperbole surrounding digital technologies and their applications contributes to the problem. I used to feel this way, but now believe that there is much to be gained by communicating anew and more broadly the important questions and insights that animate and emerge from historical geography. That said, some observers have already noted what they consider undesirable trends of the digital revolution. Heffernan (2009), for example, has argued that documented trends toward recentism in historical geography (e.g. Jones, 2004; Sluyter, 2010) reflect the availability of digital data used by historical GIS (HGIS) practitioners, as well as assumptions about HGIS's more immediate relevancy to contemporary issues. Both claims seem self-evident from my experience: the former from how students conceive of and approach research topics, and the latter from how students, faculty, and administrators talk about employment after university. Most of the research and websites discussed in the present paper tend to support Heffernan's remarks, at least with respect to recentism and available data sets. Yet I also find divergent trends in antiquity research and the digital analysis and use of historical maps, particularly in different disciplines. Overall, many of the publications and web materials reviewed here suggest that research with and technical proficiency in digital media and technologies might be the most effective way to find employment *as* a historical geographer, especially in the United States, where no one can remember seeing a job advert requesting such a specialty.

II Geovisualization and the humanities

Digital media in general and GISc in particular have become more attuned to how humanities scholars conduct and convey their research. Legitimate charges of positivism, instrumentalism, data-driven research, and quantitative limitations heaped on GIS in the 1990s and early 2000s have waned (Pickles, 1997; Schuurman, 2000; Sheppard, 2005). This is true, in part, because a younger generation of GISc scholars took such criticism seriously and began to engage social theory, science and technology studies, and feminist geography. These scholars also acknowledge that, if GISc is going to contribute to the humanities, theory and code must address the needs of qualitative, affective, and mixed methods research, epistemological diversity, and indeterminate geospatial relations (Elwood and Cope, 2009; Elwood et al., 2011; Kwan, 2007; Kwan and Ding, 2008; Schuurman, 2006, 2009). As Harris et al. (2011: 238) put it, if GISc wants to build geographical concepts and spatial thinking into the humanities, it needs 'to become sensitized to the ways in which humanities scholars practice their craft', including a focus on narrative, positionality, and meaning. In their own work, the authors take 'a phenomenological approach to exploring and interpreting landscapes and places that are relative, mediated, and socially produced' (Harris et al., 2011: 231; see also Bodenhamer, 2010). Their 'Valley of the Shadow' project (valley.lib.virginia.edu), which compares two communities before, after, and during the

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American Civil War, employs virtual reality as part of an experimental geovisualization study.

Much of the recent research making use of digital technologies is playing out on the web, particularly as new and interactive geovisualization media, crowd-sourced data, and web applications and platforms produce new forms of geographic knowledge. In a recent series of review articles on GISc, Elwood (2009, 2010, 2011) explains how the new vocabulary – including 'neogeography' (often used to mean non-expert, user-generated geographical content for collective action), 'geoweb' (short for Geospatial Web, or the combination of new technologies and applications that seek to georeference information on the web for location searching), VGI, Web 2.0, and wiki-mapping – signals genuine and dramatic changes in how spatial data is accessed, manipulated, used, and controlled (see also Sui and DeLyser, 2012). According to Johnson (2011: 269), the geoweb can serve to democratize the 'top-down authority-based model of historical content creation and validation' (see also Dutton and Jeffreys, 2010; Elwood et al., 2012). For her part, Leszczynski (2012) urges critical reflection on the geoweb. Citing Sunder Rajan (2006), she argues that the rise of 'the geoweb is implicated in political and economic transitions that have allowed for the coming together of information technology and markets, a historically specific articulation of technoscience and capitalist exchange' (Leszczynski, 2012: 73). She succinctly reviews how geographers have examined the geoweb, its implications for a genuine neogeography, the role of the state, capital, accountability, and the realistic specter of 'Google governance' (p. 83). In short, Leszczynski raises serious concerns about the shrinking of the state and the rise of the market in articulating the production and governance of spatial data made available by digital technologies and manipulated on the web (see also Elwood and Leszczynski, 2011).

Valid concerns about the future of the geoweb or digital data aside, excellent web pages serve as both repositories of historical-geographic materials and as sites for analysis and geovisualization. Consider the Trans-Atlantic Slave Trade Database (http://www.slavevoyages.org). Formerly available only on CD-ROM, the authors of this ongoing project decided to put it on the web for free. Here we find the world's leading database concerning the people, ships, and ports associated with almost 35,000 slaving voyages, but also a considerable effort to analyze and graphically represent the data in professional, thematic maps (Eltis and Richardson, 2010), some of which are available online. The Virginia Center for Digital History at the University of Virginia (http://www.vcdh.virginia.edu) has several digital collections and associated scholarly works that detail the African experience in North America (Ayers, 2011). The specific projects 'The Geography of Slavery in Virginia' and 'Race and Place: An African-American Community in the Jim Crow South' are particularly useful models for historical geographers seeking to set up thematic websites for documents (court records, censuses, diaries, newspapers, travel accounts), images (advertisements, maps, timelines), oral histories, essays, and other resources that could serve scholars, students, and the general public. In contrast, the Roy Rosenzweig Center for History and New Media at George Mason University (chnm.gmu.edu) and Stanford University's Spatial History Project (www.stanford.edu/group/spatialhistory) serve more as portals to diverse projects, news, tools, exhibits, and visualizations. Equally appealing, the George Mason and Stanford models are geared toward spatially and visually inclined historians and humanities scholars. The Stanford Project, in particular, has managed to produce a well-funded historical-geographic and visualization community of like-minded scholars despite having no geography department, all the while

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doing what many of us would call historical geography and historical GIS.

III Historical GIS

Historical GIS (HGIS) is no longer a new approach within historical geography, but both the breadth of the work being conducted and the influence of humanists on the medium itself have grown significantly. How-to books (e.g. Gregory and Ell, 2007), as well as multidisciplinary and edited collections by Knowles (2000, 2002, 2005, 2008) have helped to popularize HGIS among students, historians, 'Luddites' hoping to reinvigorate their research, and the mass media (e.g. Cohen, 2011). By developing innovative ways to collect, manage, model, analyze, interpret, and display historical-geographic information, HGIS offers scholars multifaceted ways to imagine the past.

Several recent collections seek to highlight the variety of work done in HGIS. The second volume of the new *International Journal of Applied Geospatial Research* is devoted to 'using the past to inform the future'. By reconceptualizing 'applied historical GIS', the editors seek to infuse planning, landscape studies, and the hidden roles of marginalized peoples in the past (Dobbs and Ruvane, 2011). The *Journal of Latin American Geography* has also devoted a recent issue to GIS studies about Latin America (Read, 2010). Here, WinklerPrins and Aldrich (2010) discuss how research on Amazonian dark earths (ADEs) – or anthropogenic soils found in patches throughout the Amazon Basin and transforming the way we think about the early Neotropics – is enhanced by an interactive GIS consolidating known ADE locations. Wernke (2010) uses spatial and multivariate statistical analysis to study how communities made agricultural decisions in the Colca Valley of Peru during the Little Ice Age and post-conquest resettlement. Frank and Berry (2010) map detailed transaction data on the origins, destinations, and characteristics of slaves sold in Rio de Janeiro in 1869 to show how slave sales expanded to encompass every neighborhood of the city. The Dear et al. (2011) volume highlighting work in the geohumanities, as mentioned above, also contains several HGIS chapters. An examination of the relationship between railways, population, and agriculture in late 19th-century Wales is the subject of a study by Schwartz et al. (2011). Hillier (2011) discusses her HGIS application of Du Bois' *The Philadelphia Negro* to make connections between 19th-century racial discrimination and patterns of urban discrimination today. Although HGIS is a broad and dynamic area of historical geography, it is not the only moniker used to describe historical-geographic research using digital technologies.

IV 'Indigital' geographies

Indigenous geographies are often historical and, increasingly, digital (Johnson et al., 2006; Louis et al., 2012; Palmer and Rundstrom, 2012). As Boone (2012) explains, graphic and other forms of recorded knowledge – whether as mnemonic devices or part of cultural practice – are inherently closer to indigenous epistemologies than alphabetic documents. It is not surprising, then, that some native peoples have set up online forms of 'digital storytelling' to help connect elders with youth, to enliven cultural traditions, and to create productions beneficial to community members (Iseke and Moore, 2011). Likewise, scholarly collaboration with indigenous peoples around the Great Lakes Region of Ontario has developed an online, interactive multimedia 'cybercartographic' and 'living' atlas. The project merges academic scholarship with Anishinaabe ways of understanding to 'tell the story' of the Robinson Huron treaty process in an iterative format that spatializes history and exposes the ontological roots of colonialism (Caquard et al., 2009; Pyne and Taylor, 2012). To analyze better the hybrid relationships forming between indigenous

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knowledge and digital technologies, Palmer (2009, 2012) employs the term 'indigital'. Although concerned with past relationships between indigenous peoples and cartography, including GIS, Palmer is optimistic that indigital geographic information networks that merge indigenous and western knowledges are not only compatible but actually encourage diversity within geography (see also Palmer and Rundstrom, 2012). Participatory mapping among the Mapuche people of southern Chile would support Palmer's position (Hirt, 2012). For the Mapuche, notions of territory and ancestral homelands involve dreams and non-human actors, a spiritual and emotional geography that is often difficult to map. But, rather than shun GIS, Hirt shows how non-western knowledges and experiences can be fruitfully incorporated into cross-cultural and digital mapping methodologies. Middleton (2010) takes a similar position when mapping Maidu allotment lands in California with participatory GIS.

By using 'restorative techniques' to enhance historical geography, Pearce and Herman (2010) are able to design a map conveying the sense of place evoked in the journals of Samuel de Champlain. By blending spatial and temporal scales in sequential insets, the authors add multiple perspectives, including indigenous ones, through the incorporation of mental maps, dream geographies, and imagined dialogues. By taking a narrative approach to cartography, the authors seek to map place instead of space (Pearce and Herman, 2010; see also Caquard, 2011; Pearce, 2008; Pearce and Louis, 2008). A similar methodology is taken up by Luria (2011) to illustrate the 'geopoetics' embedded in Thoreau's *Plan of Concord River* (www.concordlibrary.org; see also Earhart, 2009). These works remind us that indigenous studies of place are generally constituted by historical geography, and lie at the intersection of politics, memory, and representation (Bryan, 2011; see also Smith, 2010).

V Digital cartographies

The wide availability of high-resolution historical maps and the relative ease with which they can be digitized has made them subject to new scrutiny (Dym and Offen, 2012; Cartographic Conversations, 2012). The strategic importance of the Negev has inspired numerous maps by interested outsiders. By scanning, digitizing, and rectifying 375 historical maps of southern Palestine drawn between 1799 and 1948, Levin et al. (2010) investigate shifting agricultural boundaries, new settlements, and the sedentarization process of nomadic Bedouins. Hopkins et al. (2011) apply GIS to Danish maps of St Croix to scrutinize the slave-plantation economy. This study is exemplary in its use of archives, recent research on the slave trade and Caribbean sugar economy, and digital technology to analyze change through time. The authors are able to discuss the working lives of slaves, how agriculture priorities changed and matched up with physical-geographic characteristics, and the dramatic growth of the plantation system in the second half of the 18th century. Tucci et al. (2010) use a spatial analytical methodology and geovisualization techniques to explore urban change in Milan, Italy, since the mid-18th century. They find that changes in the built environment reflect broader historical events. A related study by the authors uses GISc to reveal the spatial patterns of Milan's 'toponymic texture' (Tucci et al., 2011). Pinho and Oliveira (2009) discuss the technical process by which historical maps are brought into GIS and interpreted to examine urban morphology. Like maps, the ever-widening availability of digital photo archives prompts new inquiries, such as by Nyssen et al. (2010), studying landscape change in Ethiopia.

In a different take on historical maps and GIS, Lilley and Lloyd have embarked on a statistical and spatial analysis of the Gough Map of

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Great Britain (Lilley, 2011; Lilley et al., 2009; Lloyd and Lilley, 2009). Traditionally dated to c. 1360, the authors use regression analysis to assess the positional accuracy of different locales. They find that the medieval map is a composite of different sources that show variations in spatial accuracy across and within regions. Talbert and Elliot (2008) make a similar argument in their study of the Peutinger Map as part of the ongoing Pleiades Project (pleiades.stoa.org). Dated to about AD 300, the 11 parchment pieces depict the world as the Romans knew it. Conventionally understood as a record of land routes, the authors find instead that the map's intended focus was shorelines, principal rivers, mountains, and settlements. The authors plan to publish a digital version of their work to expand the investigative opportunities provided by the medium. Elliot and Gillies (2009) provide an overview both of the many ways in which scholars of antiquity make use of digital technologies, and of the plethora of websites illustrating such work. Von Lünen and Moschek (2011) provide a specific case study highlighting the benefits of using GIS for ancient history (see also The Stanford Geospatial Network Model of the Roman World, orbis.stanford.edu). Bol (2008, 2011) discusses the special challenges of converting the various maps of different Chinese dynasties into GIS, and particularly how the Chinese conceptualized, hierarchicalized, and represented physical and administrative spaces in ideographs (see also www.fas.harvard.edu/~chgis/).

Digitized historical maps also provide an innovative platform for Literary Studies. Jenstad (2011) and her colleagues have digitized and georectified the Agas map to create an interactive *Map of Early Modern London* (mapoflondon.uvic.ca). The website offers descriptions, transcriptions of primary texts, and other resources, all linked to high-resolution map images covering London from 1550 to 1650. By recreating the urban world in which Shakespeare and his contemporaries lived and worked, Jenstad (2011) maintains that literary character movements, social transgressions, marriage options, and financial limitations are now more apparent and revealing. Although not a wiki and, thus, not accessible to anyone, the site uses an open source platform that allows for dynamic editions of topographical and peripatetic texts, a publication venue for scholarly research, teaching, bibliographic materials and more. One can only imagine that the British Library's recent audio recordings of the Bard's most famous scenes, speeches, and sonnets – all performed in the original pronunciation of Shakespeare's time – will soon make their way to this fantastic website (British Library, 2012).

VI Literary and visual arts

The recent cartographic turn in Literary Studies traces its origins to Moretti's (1998) *Atlas of the European Novel, 1800–1900* (Piatti et al., 2009: 180). Moretti urged literary scholars to use maps as analytical tools to study space in literature (fiction) and literature in space (historical geography). Keenly aware that geography permeates literature, Moretti argued that mapping novels may reveal hidden relationships and create new understandings (see also Moretti, 2007). In the last few years, scholars using digital technologies and interactive tools have taken Moretti's challenge to new levels. A special issue of *The Cartographic Journal*, entitled 'Cartographies of Fictional Worlds', contains nine chapters that highlight a diversity of interactive websites employing digital cartography, reader-generated maps, mashups, and more (Piatti and Hurni, 2011). Among the contributors, Richterich (2011) argues that the digital evolution of mapping affects the tools as well as the objects of research, and represents a progression towards a 'literary neogeography'. She examines websites containing amateur cartographies of fictional worlds, particularly those using Google map mashups, some of

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which intersect with the routine concerns of historical geography. In another article from the special issue, Cooper and Priestnall (2011) draw upon critical cartography and literary geography to examine the maps in Arthur Ransome's *Swallows and Amazons* (1930), an adventure novel for children that conflates actual and imagined geographies. Reimagining the geography of England's Lake District, Ransome's novel includes maps that his characters traversed and with which they interacted. By using GIS, Cooper and Priestnall argue that authorial and reader-generated maps produced through on-site visits can be included in a single platform along with Ransome's text to enrich our spatial experience of the story. Their work is interesting in that it encourages readers to engage materially and spatially with a work of fiction inspired by an actual place. The Lake District is also the subject of 'Mapping the Lakes: A Literary GIS', a website hosted by Lancaster University and directed by Ian Gregory, a leading HGIS pioneer (www.lancaster.ac.uk/mappingthelakes). The site maps out the 'topographic texts' of two English poets, Thomas Gray and Samuel Taylor Coleridge, who traveled through the area in 1769 and 1802, respectively. Their accounts of place are combined with GIS representations and serve as a prototype to understand how mapping can create innovative ways of thinking spatially about texts anchored in place.

Literary Studies interact with digital technologies in other ways that should interest historical geographers. The network of writers who corresponded in the early modern world saw themselves as part of a 'Republic of Letters' (republicofletters.stanford.edu). The mapping of this geography of knowledge production employs a multidimensional data set spanning 300 years and 10,000 letters. Although forever incomplete, and essentially tied to European writers and travelers, the project illustrates how European intellectuals saw themselves as transnational citizens participating in a free exchange of ideas. In a similar vein of internationally-networked study, Pietsch (2010) shows how British academics across the empire in the 19th and early 20th centuries saw themselves as part of an intellectual community that was not defined by the location of where they lived and worked. Meanwhile, a plethora of websites contain a vast array of digitized literature, some of which provide a tactile reading experience, yet remain accessible to text-mining software. Although too numerous even to summarize, the Internet Archive (archive.org), World Digital Library (www.wdl.org/en), and the American Memory project (memory.loc.gov) deserve special notice for the volume and quality of their contents. Such collections, including informal documents, images, drawings, and maps, may soon be routinely georeferenced and spatially indexed for easier use (Joliveau et al., 2011).

The visual arts have long had a mutually beneficial relationship with both historical and cultural geography. DeLyser's Associate Producer role on the Emmy Award-winning documentary film *The Legend of Pancho Barnes and the Happy Bottom Riding Club* is a recent case in point (www.legendofpanchobarnes.com). The film makes use of archival material, unpublished photos, rare footage, and interviews to explore the life and times of Florence Lowe 'Pancho' Barnes, one of the most astounding and ground-breaking female pilots of the early 20th century. Although only available for purchase on DVD, many more historical and cultural geographers are putting videos on the web for free. In the video 'Coastal Conversations' (vimeo.com/39651591), Daniels interviews geographers and artists as they discuss different aspects of our historical and cultural relationship with the sea (see also Daniels, 2010). Smith (forthcoming) argues that videos can be analyzed as an historical archive. By drawing upon the geographies of science scholarship, Smith reflects upon the Oaxacan-set video *Mujeres del Mismo Valor* (Women of Equal Worth) to show how indigenous knowledge is contingently produced and

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technologically mediated but still part of an alternative repository of knowledge about the past (see also Smith, 2012). As part of the 40th-anniversary issue of *Historical Geography*, readers of Smith's online article will be able to watch the 27-minute video with a click if they choose. In a related fashion, Garrett (2011) argues that video offers participatory, ethnographic, and multisensory experiences that can complement the production of geographic knowledge, including historical geography. Drinot (2011) monitors public reaction to the Chilean television miniseries on the War of the Pacific (1879–1884) on YouTube to understand better how memories of the past form. He argues that anonymous commenting enables the circulation and reproduction of collective memories in global and deterritorialized ways, and that this is the result of new digital technologies. Similar research by Dijck (2011), using the photo website Flickr, also shows how connectivity leads to collective interpretations of the past.

VII Digital imaginations

If the past decade is any indication of things to come, digital technologies and their integration with the web and other media will likely have broad implications and opportunities for historical geographers over the next decade. This review suggests that funding priorities, public proclivities, and institutional inertias will continue to push students, scholars, and the academy closer to digital media and their online and interactive application. Historical geography should be ready to take advantage of the possibilities that digital media provide, and to use the media to attract new practitioners who may already have a penchant for the digital, the visual, the networked, the online. The question for me is do we let the masters of digital technologies and the forces pushing them usurp or define historical geography going forward, or do we bring our own traditions and digital imaginations to the table better to shape the scope and direction of things to come? My own answer should be clear from this paper, but I hope not to have implied that historical geographers should somehow adapt their questions, research agendas, or methods to the demands of digital technologies or the institutions or interests that promote their use. To the contrary, my position is simply that historical geographers ought to explore more fully the possibilities that the technologies provide, especially when a multimedia approach might be more effective in conveying the range and quality of historical geographic research. I understand the reservations and anxieties that the specter of a digital future might incur among many geographers, historical or otherwise, and I do worry that a geoweb could become less democratic or completely commercial, or create a cognitive shift where site-surfing substitutes for thinking and learning. I am particularly concerned about the implications of digital technologies on critical thinking skills, especially upon but not limited to students. There are many more fears and inequalities that could surely be raised. Still, I would argue that the recent research outlined above suggests that historical geography is particularly well suited to multimedia presentation of scholarship, regardless of whether research approaches or questions utilize digital data or not.

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