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Situating Neogeography

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Guest editorial

Situating neogeography

Enormous amounts of online and networked data are becoming part of the layers, experiences, and landscapes of place. Geographers and other social scientists have only relatively recently begun to understand this rapid expansion of user-centered, locational media. Movements in the academy in response to these phenomena have offered a series of organising labels, with different levels of specificity and layers of connotation: the geoweb, spatial/social media, user-generated content, 'big data', as well as volunteered geographic information (VGI) and neogeography. Within geography a number of events mark these developments, including a VGI specialist meeting in Santa Barbara, USA in 2007 and an accompanying special issue of *GeoJournal* (Elwood, 2008), a World University Network seminar on neogeography in 2008, an interview with Michael Goodchild conducted by Nadine Schuurman and published by *Environment and Planning D: Society and Space* in 2009, *Progress in Human Geography* reports authored by Jeremy Crampton (2009) and Sarah Elwood (2010), a specialist meeting on space–time geographies of social networks in Santa Barbara in 2010, a preconference gathering on VGI in Seattle in 2011 reported in an edited collection (Sui et al, 2013), and numerous special sessions at the AAG meetings annually since 2008. Meanwhile, popular technology conferences like Where 2.0 have met for eight years and draw designers and engineers representing software giants and startups, as well as representatives from municipal, state, and federal governments, with only a handful of academic geographers. Since Andrew Turner's *Introduction to Neogeography* (2006), neogeographers are increasingly defining themselves in arenas outside of the academy.

These developments are united in their focus on data: proliferation, standardization, interoperability, quality/accuracy, and visualization. Locational data, created both actively/ deliberately/knowingly and passively/unconsciously/unknowingly, increasingly take on social, economic, ethical, and political relevance as geographic information becomes ever-more embedded into everyday practices. The technologies underpinning this rapid expansion are seemingly stateless, are constantly shifting, and sometimes ephemeral. Critical geographers may be consequently less prepared to respond to the various instantiations of locational media, but nonetheless must respond. Here, we consider: what are the outlines of this response? How might we situate neogeography? What are the various assemblages, networks, ecologies, configurations, discourses, cyborgs, alliances that enable/enact these technologies?

The relevance of such questions, and the need for critical interrogations of the subject, become apparent as neogeographic practices become increasingly popular, ever more visible and influential, and frequently a component of the ways in which place is enacted, augmented, imagined, and commoditised. Before outlining the work that follows in this theme issue, we wish to draw the contours of some of the most pressing lines of inquiry.

Neo? Geography?

First, what do we mean by *neo*, *geography* and the juxtaposition of the two words? Does 'neogeography' refer to a fundamentally different set of practices, assemblages, or objects than 'volunteered geographic information' or 'user-generated content'? Although it is perhaps not constructive to fix a set of definitive answers or definitions, we do hope to clarify our use of the term. For the purposes of the following discussion, we understand neogeography to be beyond the production or reproduction of digital or digitised (ie, nonproximately sharable)

spatial information. Neogeography exceeds, even, the repurposing of such digital spatial data. In other words, neogeography cannot only indicate the digitisation of geographic information, in its production, consumption, and repackaging over the Internet. In this reading, geospatially enabled 'tweets' or Flickr photos are not wholly distinct from other forms of digital geographic information, such as US Census Tiger/Line shapefiles. All are data that can be utilised in the production of geographic knowledge (albeit with differing conditions of institutional standardisation). Instead, our use of the word 'neogeography' marks digitally mediated social *practices* through explicitly spatialised data/code. Neogeography is the recognition that the production, reproduction, and repurposing of digital geographic information, as a set of practices, enacts new relationships in the coconstruction of spatial knowledge—underlining the inherent contingencies, partialities, and collaborations of these practices.

As such, the 'neo' in neogeography often signals the potentiality of new practices. In line with much of what is written about 'user-generated content', there is a widespread assumption that the newness of neogeography is an opening-up of geography and a democratisation of participation (eg, Shirky, 2008; 2010). Yet, a central concern is how in very few cases this potential has been transformed into actual practice. For instance, in Wikipedia only a tiny percentage of users ever add content to articles (Ortega et al, 2008). A similar pattern of participation has been noted in OpenStreetMap (Haklay et al, 2008). Regardless, the discourse of neogeography can easily slip into the boosterish, perhaps drawing parallels to the earliest accounts of GIS in geography: that *neo* will put Humpty Dumpty (as geography, academe, democracy) back together again (see Openshaw, 1991).

Therefore, the 'neo' in neogeography must be taken to indicate the shifting practices around geographic knowledge. By understanding the conditions that enable these practices, neogeographers might better bypass traditional mediators of geographic information, decentralise information gatekeepers, and distribute contributors of geographic information. However, there are no guarantees; the power geometries of mapped knowledge are complex, as more than a decade of critical GIS scholarship have demonstrated. Despite the reshaping, decentralisation, and distribution of networks of geographic information, the movement of content from production to consumption, for the most part, remains in the hands (and devices) of a relatively small (and often elite) group of people.

An emerging agenda
In what follows we outline five areas of research that situate the development of neogeography. This sketch is not meant to be comprehensive but instead represents a partial mapping of the pressure points of an evolving set of questions/issues/concerns that beg for the further contextualisation of neogeographic practices. To situate the *neo* in neogeographies, geographers might (1) explore the conditions that enable the emergence of neogeography, (2) unpack the implications for digital representations that are produced by and through attention and bias, (3) trace the subject formations necessary for such developments, (4) reflect on the changing role of geography and geographers, and (5) constitute the possibility for responsive interventions and interruptions.

First, by paying attention to conditions of emergence, it is difficult to miss that user-generated, locative media emerge from within the discursive, material production of digital, consumer electronics. Therefore, the situating of neogeography demands an attentiveness to the ways in which the production and consumption of locational data are entangled with technological commercialisation. In other words, the material and the digital are inextricably linked; the distinctions between software/hardware and data/device are constructed (Chun, 2004; Kittler, 1995). More specifically, the materialisations of locative media must be seen as historically and geographically contingent enactments of venture capital, the commoditisation

of technophilia, networks of natural resource extraction and product disposal, and global divisions of labour. Further, attention to the coded platforms that mediate interactions with consumer electronic devices highlights the cultures, practices, and discourses that shape how those platforms are brought into being and used. Inquiry as to these assemblages draws upon the anticipatory geographies of ubiquitous computing development (Kinsley, 2010), the histories of computation and automation (Edwards, 1996; McHaffie, 2002), the economic geographies of investment in and transport of consumer electronics and their attendant data networks (Graham, 2011a ; Leinbach and Bowen, 2004), and the ways in which urban space becomes a coconstitutive site of such technocultural innovation (Leszczynski, 2012; Rose-Redwood, 2006; Swyngedouw, 2006; Wilson, 2011a; 2012).

A second area of research highlights the concern that distributed practices of content creation will lead to the reproduction of objects of attention and bias. The 'user-generated' OpenStreetMap platform has far more comprehensive coverage in the Global North than in the Global South; Flickr images form a dense cloud of information over a few parts of the world, while large areas are left devoid of any content; Wikipedia similarly contains significant information inequalities: with a select group of places having been meticulously mapped and described (eg, every French town, village, commune, river, forest, etc has its own article), while other broad regions are barely described at all (eg, there is more Wikipedia content written about Antarctica than all but one country in Africa) (Graham, 2011b). It is not just the quantity of information overlaying a place that is of importance, but also the editorial intent, social and political bias, and various other cultural, linguistic, gendered, and political factors that shape how geography is digitally represented (Graham et al, 2012). These presences and absences matter. They influence the many ways in which place is enacted and brought into being (Graham, 2010; Zook and Graham, 2007).

There are a host of other important questions to ask about the meanings, implications, and effects of neogeography on the ways in which we interact with our world. The 'neo' in neogeography marks these new interactions made possible through spatial media, and a third area of research examines the subjects formed through these practices. These interactions are often understood as simultaneously online and offline, public and private, distant and near. Neogeography enables subjects to participate in world-making, to create the contexts of their spatial presence by coding their surroundings. As cyborgs, these subjects participate in acts of knowing that are multiple and hybrid (Wilson, 2009). These geocoding subjects encode life and living in ways that motivate particular urban imaginations (Wilson, 2011b), that create new possibilities for community politics (Elwood, 2006), that further a natural science research agenda (Goodchild, 2007), that constitute new forms of disclosure (Elwood and Leszczynski, 2011), and, further, that even inscribe the geospatial onto the body (Sui, 2008).

Within geography, we need to have a discussion about the role of geographers in processes of neogeography. Should geographers be at the forefront of practices of neogeography: innovating in new ways to represent the world, and helping to develop the rules, frameworks, and guidelines to structure those processes? Or is the role of geography to document, map, and measure already ongoing processes? This fourth area strikes at the heart of the sustainability of the discipline—playing to our own neuroses about the relevance of geographical inquiry. Indeed these are old questions, but ones renewed as we ponder the death of cartography (Wood, 2003) and, more broadly, a refiguring of the techno-cartographic (Pickles, 2006a; 2006b).

As such, a central focus of critical geographers could be to map, understand, and challenge specific forms of dominance in the digital domain, and by doing so help to give voice to the underrepresented and invisible in virtual layers of geospatial content. This aim, however, leads to a fifth pressing research area about neogeographic practices. How do we map, understand, and challenge ever-more distributed, and decentralised geographic information?

What are the possibilities for interventions and interruptions? It is important to point out that maps and geographic representations are not, and have never been, immutable mobiles (Kitchin and Dodge, 2007). They are always fluid and unstable, indeterminate and context dependent. But we are now seeing an increasing amount of ephemerality and unfixity in the ways that geographic information is both produced and accessed. For instance, geographic content accessed through Google is individually (based on search history), temporally (results today are different from results yesterday), socially (based on the visible preferences of our online social networks), and geographically (results for the same search will be different in Oxford, England and Lexington, Kentucky) targeted. In other words, the content we access is shaped and made visible or invisible based on both our being in time and space and our social network's being in time and space. Therefore, not only do we transduce maps and content in unique, grounded ways, but the very content that we have available to us varies from person to person and place to place. How do we therefore challenge and contest, map and measure, in a world where there is no way to map and measure what is and isn't 'there'? More broadly, what tools, methods, and theories should we then use to better try to understand these very distributed ways in which content and code are shaped and reshaped, enacted and re-enacted?

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Contributors to this theme issue touch upon these research areas while opening up additional lines of inquiry. The issue opens with a conversation we hosted between Michael Goodchild and Andrew Turner on two central themes: first, the relationships between practices of 'neogeography' and 'volunteered geographic information'; and second, the social, economic, and political implications of these practices, as well as their implications for the discipline of geography (Wilson and Graham, 2013). Goodchild and Turner discuss how the personalisation of information created by users impacts the utilisations of these data. Are there limits to user-generated spatial knowledge? In what decision-making contexts are these limits most constraining? Furthermore, Turner and Goodchild strike at the heart of the concern around big spatial data: what does this mean for geographic knowledge production? While Goodchild draws a line between neogeography and neoGeography, Turner emphasises the opportunities of allowing 'anyone' to create, analyse, and represent geographic information. Neogeography, according to Turner, demands the recognition of these users as "cognizant individuals" and not merely citizen censors, as Goodchild (2007) has previously argued.

By emphasising the processual work of map-making, in "Mapping experience and knowledge: crowdsourced cartography", Martin Dodge and Rob Kitchin (2013) note the shifts in cartographic practices in the Web 2.0 era, with particular attention to authorship, ontology, representational partiality, and the multiple temporalities of the map. In their discussion of OpenStreetMap, Dodge and Kitchin enrol George Ritzer's notion of 'prosumption', Goodchild's use of 'citizen scientists' in VGI, and Nicholas Carr's commentary on the value of the amateur. Beyond concerns of the quality of information presumed through crowdsourcing, Dodge and Kitchin consider the opportunities of opening up mapping and the implications of this kind of crowdsourced cartography for more traditional mapping, highlighting the work of rendering maps as objective representation.

Maps are also sites of activism. In "Situating performative neogeography", Wen Lin (2013) explores Internet-based maps as rich, interactive moments for rearticulations of place. Set in an urban lake of central China, these neogeographic practices perform alternative visions of the utilisation of this lake. Lin argues, drawing on Michel de Certeau's notion of spatial practices, that the online geographic representation of the lake has enabled a spontaneous resistance to the dispossession and development of the north bank. By focusing on these moments of spontaneity, Lin demonstrates the significance of paying attention to

neogeographic practices as events, that through their performance the political emerges in ways that exceed the power of the map document itself.

This piece is followed by Muki Haklay's paper, "Neogeography and the delusion of democritisation" (2013). Here, Haklay centrally addresses much of the hype surrounding neogeography which views new technologically mediated spatial practices as inherently open and democratic. Haklay confronts these assumptions by arguing that neogeography has frequently been assigned an instrumentalist interpretation of geographic information technologies in which technologies are seen to be value free. In other words, values that are socially and technologically integrated into geospatial technologies are both ignored and naturalised. Such a naturalisation of the discourse of participation can then give rise to George Ritzer and Nathan Jurgenson's (2010) worries that user-generated labour represents a powerful new form of exploitation in which workers produce nothing but surplus value. Haklay's paper thus provides an important base from which a number of ethical dilemmas related to discourses and practices of 'open participation' can be addressed.

Issues of democratisation and participation are also the subject of Jeremy Crampton's short viewpoint piece, "Political applications of the geoweb" (2013). Crampton specifically examines the role of public participation in US congressional redistricting, through three cases: the Public Mapping Project, Dave's Redistricting App, and Esri's Districting add-on for ArcGIS. While careful not to use the language of empowerment to describe these tools, he remains hopeful that public engagement with the process of congressional redistricting in the form of crowdsourcing will provide the beginning place for greater education about and involvement in redistricting decision making.

To close this theme issue, Mark Graham and Matthew Zook (2013) explore the layered linguistic geographies of the web in "Augmented realities and uneven geographies". By examining content indexed by Google Maps, they argue that the realities presented by the geoweb are indeed fractured and uneven, presenting users with vastly different experiences of place, dependent upon spatial location and cultural context. In other words, definitions, experiences, and imaginations of place are increasingly augmented and mediated by online content that can potentially reinforce balkanisations of place.

And as is demonstrated by the map of geotagged Twitter content at the end of this issue [created by Mark Graham and Monica Stephens (2013)], the uneven geographies of online content are stark and might ultimately have material consequences for the experiences of place. How might this unevenness impact geoweb research? What is the significance for such differentiated digiplaces?

As organisers of this issue on the situating of neogeography, we feel that questions about what it means to make and use maps are precisely the places to begin, to return to, and to recognise as always-becoming concepts for those inspired/incited by the map. By starting a discussion about changing geographic practices and our expectations of what they entail, we hope to open up a space for challenges, contestations, mappings, and measurements of neogeographic practices that can ultimately build on this work and enable productive and responsive interventions and interruptions.

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