

## **Locative Networking: Finding and Being Found**

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### **ABSTRACT**

This paper argues that locative media studies offers much broader insights on the logic of new media than is currently espoused. Media scholars have largely restricted the analysis of locative technologies to hand-held and immersive gadgets and experiences. I argue for an expanded theorization of the “locative”, one that develops a broader understanding of the conditions of networking of new media platforms, users, and content. In addition to developing a geographical perspective on media consumption and use, it is argued that locative media studies should seek to analyze the means by which users both locate information on networks and are themselves located. A theory of the “locative”, in other words, helps us understand the means by which we find information and also seek to be found on various technological platforms and networks.

### **INTRODUCTION**

CAN WE BEGIN WITH THE PREMISE that locative media is part and parcel of the broader phenomenon called networked media? This seems like a relatively benign and commonsensical starting point, and not a terribly radical or polemical statement. We may add that locative media and networked media are enabled through various forms of connectivity. Again, this is nothing new. The so-called “backbone” issue, however—the source of many policy debates (Zittrain 2008), theoretical musings (Galloway 2004), and empirical mappings (Dodge and Kitchin 2000)—is rarely integrated into definitions and visions of locative media, as defined by Julian Bleeker (2006):

locative media [is] made by those who create experiences that take into account the geographic locale of interest, typically by elevating that geographic locale beyond its instrumentalized status as a ‘latitude longitude coordinated point on earth’ to the level of existential, inhabited, experienced and lived place.

Locative scholars, theorists and artists offer new media studies a personal geography—a first-person, hand-held, end-user perspective on networked media. Yet in part because locative devices are typically worn or hand-held, free of obvious networked outlets and plugs, there is always a danger in displacing the technological and economic conditions of connectivity for locative producers, researchers, and artists. As telecommunications demonstrate all too well, it is the technological protocols, interfaces, and political economies of locative harnessed networks (GPS, wireless, etc.) that enable—and restrict—the possibilities for such forms of mediated interaction, consumption and production. In other words, lateral forms of interaction, communication and display co-exist with hierarchical forms of access and infrastructure. The world is indeed flat, unless one seeks to extend beyond one's own horizon.

Yet a locative media studies also provides exceptional opportunities for networked research, in large part because it does promise to bring together “first-person”<sup>1</sup> mediation and networking within a broader networked infrastructure that calls into question existing and emerging forms of networked connectivity, interactivity, and content/service delivery. I argue that a redefined locative media agenda is, moreover, urgently required, in large part because networked media has increasingly adopted intra-net logics—where content platforms are hosted in discrete, (semi) secure databases, with closed architectures and password-protected entrees. The tremendous growth in social networking sites such as MySpace and Facebook, for example, poses a number of problems for researchers of network culture, ICT infrastructure or “cyber-geography.” How does one understand, map, and otherwise critique emergent forms of connectivity when content, links, and users are black-boxed and cyber-gated into an enclosed 2.0 universe? I propose that one answer to the growing concern about closed intranets lies in an appropriated view of *the locative*—as a logic of networked media, rather than an object of techno-fetishization (iPhone, Blackberry, etc.), embodied computing, or other hybridization of techno-embodiments. Returning to—and reconceptualizing—locative media may provide one avenue for disaggregating and mapping the new world of networked computing.

Conceptually, locative media studies has existed at the intersection between network geographies and personal geographies, a place where individual users are hailed by—yet also “speak” to—a much larger networked communications and computer infospace. To move toward this more dynamic, geographical perspective on network mapping, though a locative perspective would have to move beyond rhetoric about the death of screens and, to a lesser extent, interfaces—a popular trope most recently hyped by some of cyberculture's most revered voices. William Gibson's *Spook Country* (2007), for instance, offers a helpful point of departure, through one of the book's protagonists, Alberto, a locative media artist in Los Angeles. While Gibson writes that Alberto's locative device contains a small screen (a cell phone with a GPS device taped to it), his description of the ensuing visual experience is more akin to an immersive environment:

*She slung the duct-taped hybrid toward Sunset, seeing a crisply defined, perfectly level plane of white cruciforms, spaced as on an invisible grid, receding across the boulevard and into virtual distance. Their square white uprights, approximately level with the pavement, seemed to continue, in increasingly faint and somehow subterranean perspective, back under the rise of the Hollywood Hills.*  
(Gibson 2007, 22)

At first glance, Gibson's use of locative media might justifiably be explained as an extension of his much-quoted canonization of "cyberspace", yet upon further inspection there is more at play. Gibson's use of "the locative" is as much concerned with *re-locating* communication, networking, and in his example vision and art to another digitized environmental plane, as it is about *being located* in a post-9/11 world. And here I not only make reference to the important work of David Lyon (and others writing about privacy-related matters under the rubric of "surveillance studies"<sup>2</sup>), but also to somewhat of the inverse, the culture of everyday publicity, promotion, and celebrity seeking—the desire to *be located* or found (Andrejevic 2003).

In the spirit of network mapping, research that seeks to track, visualize and connect network actors, protocols, content, and platforms, this paper similarly builds upon Gibson's double articulation of locative media, *a logic of finding and being found*. Traditionally, locative media's objects are, one must presume, somehow effaced, hidden, displaced, or otherwise out of view, corporally or otherwise. However, to restrict this virtual nature of experience, affect, communication, interaction, history, etc., to locative media is also to restrict our abilities to speak to the social, political and economic ramifications of emergent forms of networked media.

*Finding and being found* on/through networked computing is a long-standing problem for a distributed and multi-layered communications environment that has multiple points of departure for users, be they portals, default starting pages, password protected sign-in pages, etc. For the good part of a decade search engines and default ISP registration pages have received the most visits from internet users keen to track down specific information or simply try to boil down the infinite possibilities for surfing the net. Writing in 1996, just a few short years after the introduction of the graphical web browser, Richard Seltzer, the self proclaimed "Internet Evangelist" for Digital Equipment (later Compaq), nicely summed up this phenomenon in an online essay suitably entitled "The Joy of Being Found:"

When old friends who I hadn't been in touch with for 10-30 years started sending me email—about half a dozen of them each month—at first I thought: isn't that amazing that all those people would be looking for me? And isn't it great that search engines like AltaVista make it so easy to find people on the Internet?

Then it gradually dawned on me – why should they look for me? Just like me, they probably each have a hundred or more people who they once were close

to (old roommates, business associates, etc.) who they've lost touch with. And why, out of all those others, should they actively come looking for me?

With a few quick queries I soon established that they weren't looking for me at all. They were looking for themselves. Yes, they had gone to search engines (most to AltaVista), and there they had done what most people do at those sites—they had entered their own name as the query. And since I have a lot of content at my Web site—including lots of my writing—many of my old friends are mentioned somewhere there, typically in the list of thank you's at the end of a book. Searching for themselves, they chanced upon me; and delighted at that unexpected occurrence, they sent me email.

Today however, as users—and their first-person perspectives on digital content—have become integral dimensions of networked media (particularly on mobile and Web 2.0 platforms), network geographies have become increasingly more difficult to map. This essay investigates the technologies of finding and being found—a mix of transparent and neo-panoptic technologies that litter the current networked media environment. The paper continues with an overview of cross-platform internet and network mapping—as manifest by hyperlink-centered forms of research and mapping—before moving into a more first-person/2.0 perspective focused on the use of tags and metatags, small pieces of code that provide a cross-networked index of sorts. Dating back to the earliest models of personal and networked computer (Bush 1945), hyperlinks serve today as a near-universal means of connecting users, content, and many communication and information software platforms. As such, they have served as nodes in new cybergeographies, visualizations of networks that seek to visualize connections within and across emerging information and communications technologies. Yet, as we shall see, the slow demise of geographic URL suffixes and other shifting domain name practices have slowly decoupled the information economies from their geographic/national locations, making it more difficult to geographically locate ICT users, technologies, and texts. The emergence of first-person web-based social networking platforms, including blogs, has—through the use of various tags—also transformed the geographic into a personal auto-graphic,<sup>3</sup> making it again more difficult to trace hyperlink networks across and through such closed sites. The paper thus concludes with a discussion of how the emergence of personal identification numbers, from Facebook accounts to cell/mobile phone “PINS”, has also impacted upon the politics of finding and being found in our network age.

### **DISAGGREGATING CODE: FROM LINKS TO TAGS**

A locative media studies that questions the nature of connectivity between users, clients, and servers is one that requires a dis-assembling of object-oriented icons and GUI inter-operability while looking to a broader plurality of web-based code comprising another layer of the internet's backbone (which would of course include the code that

enables such interfaces and images). To be more precise, I use the term “disaggregation” as a method of stripping, parsing, or ripping, the underlying code from interface-heavy programs and platforms. This code, or metadata, is disaggregated in the sense that it is not only held up as the instructional form of language that provides the contours and conditions of networking, it also signifies the need to recognize the multiplicity of functions that websites now serve—most importantly sites of editorial control, product placement, user tracking/profiling and signposting (pointing out recommended paths to follow on the web or internet)—in short information aggregators.

This call to disaggregate is in large part influenced by studies of hyperlink economies, protocols, and networks. The `HREF` or hyperlink tag is among the most analyzed techniques on the internet, and of course previously in hypertext programs, and in early hypermedia visions offered by Vannevar Bush and Ted Nelson. Foot and Schneider (2006) go so far as to claim that hyperlinks are “the essence of the Web”, since they serve as the conduit for distributed and non-linear networking through and across `HTML` pages. For theorists of network paradigms, hyperlinks play a central role in connecting together content, software, platforms, servers, and of course users (to name but a few actors in network culture). Visualizations of such links have almost become synonymous with digital or cyber-geography, in part because of their amorphous, genetic, distributed and, of course, cloud-like aesthetics. Where classic cartography details land, water and elevation, interspersed with more abstract political lines and symbols (typically borders and state capitals), network maps are more commonly associated with transportation-based cartography. They are maps that depict possible points of connectivity as traffic. Such points/techniques of connection within and across digital networks and software applications are, moreover, a central component in retrieval and ranking algorithms on the net, techniques for finding people and content on the net in other words.

Visualizations of such hyperlink networks and research have mirrored Paul Baran’s decentered computing diagram, implicitly—or explicitly—highlighting the non-linear form over physical space or geography. Decentered hyperlink research tends to highlight the direction of links, and in some instances the type of domain names included in networks, offering the possibility of mapping discourses, issues, and other content as articulated across link networks, and providing insight into the spread and dissemination of ideas across various domains. The govcomorg foundation offers a comprehensive list of domain name suffixes, those few letters that denote geographical location, or (to be more precise) country where the website domain is registered. These are in addition to the standard list of domains used worldwide (.com, .org, .net, .edu, etc.).

Critics of domain names—the system of internet addresses—have long noted and bemoaned the fact that the United States is one of the very few countries that does not have to use a country-specific suffix for its registered websites. Conversely, sub-

national communities in search of national independence around the globe have also argued that their aspirations to sovereignty be recognized through the use of specific, geographically indexical, domain name suffixes. Daniel Turp, for example, a member of the separatist Parti Québécois, recently launched a petition to have the Canadian Internet Registry Authority authorize the use of “.Qc” for Quebec-based sites (Smith 2008). In other words, while some jurisdictions have avoided geographic markers in the practical use of domain naming (*making it harder to “find” them*), others—such as Quebec—appeal for such addressing as a form of geo-national and political recognition (*want to be found*).

The overall picture of domain name registration, however, suggests an ongoing process of abstraction and anonymity with respect to geographical location. Domain names were once very easily tied to their actual geographic location—Matthew Zook (2005, 159), for instance, notes that in 2005, 84% of registered domain names in “whois” databases match their corporate registration filings (for zip or postal codes). However, recent changes in privacy policies have restricted the publication of geographic-specific forms of information, decoupling domain names from identifiable towns and cities. And this is to say nothing of the incredible growth of closed proprietorial social networking sites such as Facebook.

The Canadian Internet Registration Authority (2008) does not permit the publication of geographic information on domain name registrants:

6.1.1 Disclosure of Information Concerning Domains Registered to Individual Registrants.

The following information concerning dot-ca domains registered to Registrants who are individuals and who are Canadian citizens, permanent residents, legal representatives or aboriginal persons as they are all defined in the General Registration Rules (collectively referred to as ‘Individual Registrants’ for the purposes of this Part 6 of this Policy) shall be made accessible to interested third parties through the WHOIS: 1. domain name(s); 2. Individual Registrant’s Registrar’s name; 3. Individual Registrant’s Registrar’s number assigned by us; 4. the expiration date of each Domain Name Registration of an Individual Registrant; 5. the registration date of each Domain Name Registration; 6. the last changed date of each Domain Name Registration; 7. whether the Domain Name Registration has been suspended or is in the process of being transferred; 8. the Internet Protocol address of the primary name server and secondary name server(s) and, if applicable, the tertiary, quaternary, quinary, and senary name servers for each Domain Name Registration; and 9. the corresponding names of those name servers.

Finding others and being found geographically has historically been a question of finding addresses, postcodes, rural route numbers or other such location-based markers. Today, global positioning systems, replete with hand-held and even wearable devices,

have decreased our reliance upon exact and presumably unique *registered* addresses. The “Know Where Jacket”, a GPS wearable garment, thus once again highlights the personal in much less knowable—or again, *registered*—spaces:

Areas of application for the Know Where solution are nearly unlimited and range from luxury, entertainment and leisure applications (climbing or biking in the mountains, sailing, etc.) to safety and medical device technology, and extend to applications in traffic and logistics. (Anon. 2006)

Domain names have similarly gone “off-road”. Where once web pages ended with domain names that pointed to geographic places, namely countries, new domain-naming protocols, often working in conjunction with 2.0 platforms, have shed themselves of their geographic location. In lieu of such geographic forms of addressing, of being found, new forms of self-tagging, of seeking to be found, now proliferate.

#### **GETTING LOCATED: USER-GENERATED TAGS**

While the internet industry website [searchenginewatch.com](http://searchenginewatch.com) playfully insists over and over that: “Meta tags are not a magic solution. Meta tags are not a magic solution. Meta tags are not a magic solution” (Sullivan 2007), the site only serves to reaffirm the centrality of meta tags as the most important *locative* form of software code on the internet. Meta tags come in various forms, some auto-generated by software and bots, others inserted by technology-savvy users, programmers, blog and social network working site users/contributors, and designers. Prior to the Web 2.0 boom (YouTube, Facebook, Blogger.com, Flickr, etc.), web meta tags were largely hidden, in the sense that they didn’t appear on graphical user interfaces—although a quick use of a standard web browser’s “view page source” menu will render them visible. Some meta tags serve as digital versions of book titles, others relate to management of content (robot.txt), etc. Of particular interest herein, though, is the keyword meta tags, those single words inserted into a web page’s so-called “header” that serve as indexical magnets—terms that the search engines use to categorize and structure their seemingly infinite web search engine databases.

Recently, the use of tags on Web 2.0 platforms, such as MySpace and Facebook—sites designed to encourage users to be found—has moved from the backend code to front end interface profiles. While geographic tags still exist on such sites, including the institutional, regional, or city “network” that users identify as belonging to a specific location, social networking users call out to be found through their connections with friends (their friend networks), and their aggregated social, political and cultural affinities (what marketers would call their psychographics). The locative logic of social networking sites is thus more akin to a social club—one must be a member of Facebook to find others and to be found by old friends, but once in the network, affinities, tastes, likes and dislikes are easily browsed, navigated and, most importantly, located. Those

on the outside of such password-protected sites—including such power information aggregators as Google—are now finding it increasingly more difficult to locate socially networked content.

### CONCLUSION: TAGS TO IDs

Moving forward, then, locative media theorists and researchers must adapt to the new economy of links and tags, broadening the focus to include not only platforms such as Facebook, first-person interfaces, or user-profiles themselves, but also to include the digital objects that such actors upload, circulate, comment upon, and repurpose (text, images, videos, etc.). This “object oriented” geography is of course not necessarily new—objects (particularly objects of value) have been tagged with IDs, bar codes, and other forms of ID for many decades now, allowing for the near real-time tracking of goods and services. Online, however, the respective IDs for individual objects and users have become one of the few remaining means of mapping relationships, technologies, and users on the internet. Due to the demise of a geographic net (where addresses are affixed to names and places), locative media projects must now turn to discrete digital objects in the hope of better mapping the growth and impact of closed/password protected platforms and networks on the internet. Locative research on the web can thus offer a new geography of sorts—a picture of where objects and users flow, where they migrate to (but never return from), where they are reshaped and re-circulated, etc. The logic of “being found” in this object oriented approach might also offer as a counterbalance to surveillant trends online, to the degree that it places more emphasis on the life and “geography” of a range of digital “objects”, as opposed to those that necessarily produce or consume them (users and user-profiles). Regardless, this reformulated theory of locative media studies at the very least offers a more flexible framework from which to understand the shifting dynamics of networks, through their content, users, and platforms—most importantly pointing to the conditions and politics of (dis)connectivity among these web actors.

### ENDNOTES

<sup>1</sup>A term that I much prefer to “ubiquitous” that all-too-often connotes a disconnection from experiences, geographies, and techno-economic networks.

<sup>2</sup>See the journal *Surveillance and Society* for a good overview of this academic tradition: <http://www.surveillance-and-society.org>.

<sup>3</sup>Thanks to Ken Werbin for this particular turn of phrase/concept.

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