

GEOTHINK.CA

Canadian Geospatial and Open Data Think Tank



Agenda for Pre-AAG Workshop:

Citizen-Government Relations for a Digitally-Enabled and Location-Aware World

April 20, 2015

Position papers can be found online at:

<http://geothink.ca/wiki/pre-aag-workshop-position-papers/>. The password is 'geothink2015'.

Monday, 20 April 2015

Venue - Room Skyway 260, Hyatt Regency Chicago.
151 E Upper Wacker Dr.
Chicago, IL

13:00 Introduction (Renee Sieber)

Time	Title	Presenter
13:30-	Limits to Citizen Participation	<i>Piotr Jankowski</i>

13:40	<i>Much has been written and said about public participation in city planning. Cities have taken a note and some promote various forms of public participation in their planning processes and even have furnished legal conditions for it to happen. In that context, sourcing of geospatial data and tools supporting public participation in city planning has enjoyed much interest, bordering sometimes on hype in anticipation of more pervasive, sustained, broader, and qualitatively better involvement of citizens in city planning and decision making. Yet, these developments beg a question of whether the very idea of lay citizen involvement in traditionally technocratic processes has inherent limits constraining a priori hopes for pervasive, sustainable, and broad public participation? Can we expect technological developments in information delivery and processing, automated analytic methods, and networking including social networking play a role in the future of public participation in city planning? Discussing these questions and positing tentative answers will be the subject of my position paper for the Geothink Workshop at the AAG 2015.</i>	
13:45-13:55	Closing the loop? Opportunities and Barriers to Crowdsourced Local Government Geodata <i>Despite frequent expressions enthusiasm for governments to capitalize on citizens' capacity to generate spatial data, it is not clear to what extent these data and the processes by which they are generated can be aligned with local governments' needs, capacities and responsibilities. For example, while many municipalities have embarked on open data initiatives to broaden data access, there are relatively few examples where increased citizen use of government geodata is accompanied by procedures that allow citizens to enrich these data or easily alert municipal staff to possible errors. We explore the potential to 'close the loop' by surveying municipal staff for their perspectives on key opportunities and challenges in government adoption of citizen-generated data with a particular focus on spatial data quality issues.</i>	Ashley Zhang, Rob Feick, Stephane Roche
14:00-14:10	Opportunistic Natural Experiments of Spatial Behaviour Using Mobile Technology <i>Observing human spatial behaviour has traditionally been conducted through pen and paper techniques such as travel diaries, retrospectively using questionnaires or qualitative methods, and through hypothesis-driven experiments. While the former provide input on a wide range of behaviours and decision making, their validity is uncertain; the experiments are internally valid, but are generally only able to query or test one or two specific hypotheses. All of these techniques have produced meaningful insights, but can be limited in spatial and temporal resolution, or biased by recall and participant veracity. Electronic methods can provide higher fidelity records orthogonal to the subjective records; however these electronic measurement have typically been targeted at specific populations with a specific experimental motivation. Because electronic spatial behavioural monitoring can occur with much lower participant burden, it is conceivable to monitor large populations over extended periods then conduct post-hoc analysis. We describe a pilot experiment using an established smartphone data collection system. Just prior to deployment, city</i>	Scott Bell

	<i>transit employees were locked out, and the student study population - disproportionately dependent on public transit - were left to find other methods of transit to and from school. During the experiment, transit services resumed, providing an opportunistic experiment in changing spatial behaviour due to changing services. While our primary contribution is a demonstration of the utility of mobile technology for natural experiments in spatial behaviour, we also report preliminary findings related to the behaviour patterns during and after the transit lockout.</i>	
14:15-14:25	Open Data Standards: Information Gain or Loss? <i>Open government data has now become the essential ingredient in numerous applications that improve everyday life and purport to make government more efficient, economic and ethical (in terms of being more transparent and accountable). The challenge is that some of this government data is unstructured, existing in pdfs and reports. If it is structured (e.g., in specific databases or using metadata), it is not uniformly structured across governments. When we put forth the definition of open data as reusable and machine readable (http://okfn.org), we are reminded that reusability depends upon the structuration of that data into a way that can be easily deployed in an application and can be generalizable across applications and places.</i> <i>Google's partnership with Portland, Oregon in the creation of the GTFS standard for public transit is the archetypal example of civic standards. GTFS structured Portland's data and created a durable standard that was quickly adopted by many other cities. It appears to be a win-win but what is lost and gained in this standardization of city data? In this research, I am interested in the following questions: What are the challenges and opportunities to standardizing municipal data? It is conceivable that there is significant information loss and across-city homogenization of services as cities move to standards. How does a standard evolve and who is involved in that creation of that standard? Perhaps the participation of a large firm is required for this success but we know of the numerous trade-offs found in other instances of public-private partnerships. Can standards erect barriers to entry? Standards may privilege the technologically-enabled at the expense of other potential users of open data. Lastly, what new opportunities in terms of data types exist for standardization? Concepts like smart cities and the Internet of Things essentially depend on the interoperability afforded by standards. At what cost?</i>	Renée Sieber
14:30-14:40	BREAK	
14:40-14:50	Open or Closed? Licensing Real-time GPS Data <i>Currently, many transit authorities in North America and elsewhere have put in place the technology to gather real-time GPS data. Among other things, this data can be used to track the location of transit vehicles as they move along their routes. This data is in high demand in the app developer communities, because of its uses in communicating</i>	Teresa Scassa and Alexandra Diebel

	<i>predicted rather than scheduled transit vehicle arrival times. While many major municipalities have chosen to treat real-time GPS data as “open data”, the particular nature of real-time GPS data requires a different mode of access for developers than static data files. This, in turn, has created a disconnect between the “openness” of the underlying data, and the sometimes restrictive terms of use which govern access to the real-time data through transit authority APIs. This paper explores the implications of these terms of use, and, the extent to which streaming data can ever be truly open data. While the focus is on the transit data context, the lessons from this area will have much broader implications, particularly for open data in the emerging ‘smart cities’ environment.</i>	
14:55-15:05	Law's Understanding of the Virtual Environment: Tort Liability in the Geoweb <i>This paper addresses the ways in which legal institutions and legal practice regulate the virtual environment, with a focus on the legal regulation of the geoweb. The paper posits that the geoweb is a constructed environment, which exists both through legal norms and apart from legal process. The paper looks at the regulation of this geoweb environment, reflecting on the ways in which there has been a reactionary approach by law to the challenges posed by the rapidly changing geoworld. We argue this illustrates a trajectory seen in other online environments (e.g. e-commerce) in which the law initially treats the virtual as a distinct space requiring different laws, then as analogous to the physical, and, for many online environments, as an environment to be eventually subsumed within the established legal framework.</i> <i>By studying the environment of the geoweb in relation to tortious liability, we are able to see firstly, how the law grows and responds to new environments; secondly, how tangible and “real-world” scenarios are used to guide our understanding of a virtual reality; and thirdly, how the law draws on physical landscapes as a metaphor to understand and order the virtual.</i> <i>This paper will firstly explain the legal understanding of the geoweb. Secondly, it will focus on the tort liabilities that arise when the geoweb affects the physical world, drawing on two case studies: the creation of apps as portals to open-government data and intelligent transport systems as bridges between the virtual and physical. Finally using legal geographies as an area of research to systematically tackle (understand, theorize, provide insights into) technology based geographies, this paper will explore how the practice of law bears upon understandings of the geoweb as it becomes an increasingly tangible environment.</i>	<i>Elizabeth Judge and Tenille Brown</i>
15:10-15:20	Smart city planning <i>In North America, forward-looking and progressive land use planning is typically centrally “organized” by a sub-state/local government informed expert advice with democratic decision-making. When new infrastructure is laid, typically it is subject to public</i>	<i>Pamela Robinson</i>

	<i>consultation and legislative oversight such as an environmental assessment. In the new smart city, private firms are laying thousands of kilometres of fibre optics cable, installing new proprietary signal and sensor technology, and selling beyond-big data crunching software; all with real future land-use outcomes yet outside the purview of democratic planning. In light of this digital urban prospecting, this paper asks: Who is planning the smart city?</i>	
15:25-15:35	Seriously Smart and Seriously Green: effectively enabling deeply sustainable urbanism through new media technologies. <i>Since its early days, the discourse around Smart Cities has included environmental sustainability as one of its core principles. The application of new digital technologies to urban spaces and processes is celebrated for its ability to increase the wellbeing of citizens while reducing their environmental impacts. But this engagement with sustainability has been limited to a technocratic focus on energy systems, building efficiency, and transportation. It has also privileged top-down interventions by local government actors. For all its novelty, the smart cities discussion is operating with a vision of urban sustainability that dates from the 1990s, and an approach to planning from the 1950s.</i> <i>This definition of “urban sustainability” overlooks key facets of a city’s ecological footprint (such as food systems, resource consumption, production related greenhouse gas emissions, air quality, and the urban heat island effect). It also ignores the ability of non-state actors to contribute meaningfully to the design and implementation of urban policies and programs. This position paper looks at what a more complete approach to smart+green cities would look like, and lays out a series of key challenges that must be met if we are going to build cities that are seriously smart and seriously green.</i>	<i>Alexander Aylett</i>
15:40-15:50	How do we directly link project-associated transformations to digital participatory tools? <i>Disturbingly low employment rates of individuals with intellectual disabilities (ID) are evident throughout Canada. Through a community-based participatory research project aimed at helping transform employment practices for individuals with ID, we have designed and implemented a web-based interactive Employment Mapping Tool (EMT). Information on the map is crowdsourced by a network of stakeholders (including self-advocates with ID, service providers and government) who already collaborate to address employment practices for individuals with ID. This is clearly a social justice issue as we aim to use the EMT to directly address issues of exclusion in the workplace. However, we need greater reflection on what we mean by social justice and exclusion, as well as to understand how any project-associated transformations can be linked directly (or causatively) to digital participatory tools, maps and processes. It is these latter tensions that I would like the opportunity to discuss in the proposed Geothink workshop.</i>	<i>Jon Corbett</i>

15:55-16:15	BREAK	
16:15-16:25	The Past and Future of Urban Citizen Science <i>Urban citizen science should be understood with the wider context of citizen science, especially the type that intersects with volunteered geographic information (VGI) and urban sensing. Just as instrumental sensing is not free from understanding the process of data creation/contribution, its ontology and epistemology, and its transformation into useful science, citizen science is even more complex because of the agency of participants, the science with which participants engage, and exogenous factors which make citizen science compelling for scientists. We therefore need to understand how useful information came into being and what it means. This will force us to re-examine some of the basic concept of science and its power, as well as better understanding of urban space/place. By understanding the origins and meaning of this information we can then understand the future geography of urban citizen science.</i>	Sieber and Haklay
16:30-16:40	Match.com: Open Data meet the Public Librarian <i>In these early years of the open data movement, advocates are convincing public officials to liberate data and cajoling governments to take steps to provide data in useful formats. While governments release open data catalogues questions arise about how to keep these data current and whose responsibility it is to steward the data? And once these data are released will people be able to find, understand, and use it? Meanwhile, the local public library is reimagining its future beyond books, bricks, and mortar to be a site for makers and hackers with their bits and bytes. Libraries today offer physical places for people to access learning. Librarians are expert curators of information, facilitators of research and knowledge building. These characteristics make public libraries important yet ignored potential partners in the open data movement and this paper explores their future.</i>	Pamela Robinson and Lisa Ward Mather
16:45-16:55	Legal requirements and Best Practices for Accessing and Licensing Data & Research Results in Spatial epidemiological research <i>An important aspect of spatial-epidemiological research methods are the legal requirements and best practices for accessing and licensing the data and research results. The combination of public health data (including genomic data) using clinical data systems and geospatial capacity can further investigations into disease. However, researchers may face legal obstacles in accessing this data for study and various licensing schemes for downstream use of the resulting research. Given the complex relationships between public health and spatial epidemiological science, it is necessary to investigate novel, potentially interoperable licensing schemas to best integrate these disparate pieces and to maximize the public health benefits. Our paper will discuss how researchers can identify discrete aspects of their research as data, knowledge, and information, respectively, and the legal</i>	Cheryl Power and Elizabeth Judge

	<i>consequences of that characterization: what data sources are protected as intellectual property, what aspects of the research are protected, whether the receipt of government funding affects this process, and what licensing mechanisms are available for the data sources and research results. The paper seeks to inform the development and application of practical measures for data-sharing and IP licensing, including within publicly funded institutions</i>	
17:00-17:10	Cartographies of Sharing: Situating the Geoweb in the Sharing Economy in Canada <i>The purpose of this research is to critically assess the discourse and emergent regulatory issues surrounding the sharing economy and to describe its emergence in Canada. The sharing economy is particularly relevant to the geoweb as it capitalizes on web 2.0 mapping interfaces, including its crowdsourcing of the processes of production, distribution, and consumption. Geospatial media, coupled with the larger social practices of production that typically accompany the geoweb, are in many respects necessary for the sharing economy's development, and as such can be a key application of the geoweb, and encompass a variety of markets. To date, scant academic or policy research has assessed the state of the sharing economy in Canada, but Canadian cities have already begun to experience regulatory pressures and challenges from emerging sharing economy platforms such as the ride sharing service Uber and the hospitality service Airbnb. The increase in services and the wildly hyped financialization of several sharing economy companies by Silicon Valley companies and venture capital firms call for a timely interrogation of the particular regulatory challenges, and political and economic processes of the sharing economy. This will in turn allows for a more thorough understanding of how the geoweb is changing existing power structures within municipalities, as well as creating new kinds of economic markets and opportunities.</i>	Harrison Smith
17:15-17:45	Roundtable Discussion	

19:30 Dinner at Vermilion

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