Geothink

Geothink Canada Newsletter | Issue 9 December 2015

Final update for this year

With the new year around the corner, we have some final updates for 2015. While our researchers continue with projects, we have more students publishing as they near the end of their degrees.

I would like to announce an unconference event that will be occurring during the Association of American Geographers (AAG) 2016 Conference in San Francisco. Titled, **Disrupt Geo: new ideas from the front lines of maps, mobile, and big data**, this event is organized by Prof. Renee Sieber (McGill University) and Alan McConchie (PhD, University of British Columbia). It is being organized in conjunction with an OpenStreetMap Mapathon also occurring at the same time.

An unconference is different from a typical academic conference session, with shorter talks, more interactivity between speakers and the audience, and a less formal setting. Currently, there are a number of industry professionals who will be giving short talks, and we invite any Geothinkers who will be at AAG 2016 to attend the unconference. The logistics of the event are still to be finalized and will be announced in the mailing list as soon as they are set.

Visit mappingmashups.net for more details of the event.

Peck Sangiambut
Editor

Dr. Jon Corbett (UBC-O) and Ph.D. candidate Logan Cochrane visit McGill University

In This Issue

Click the headings to navigate

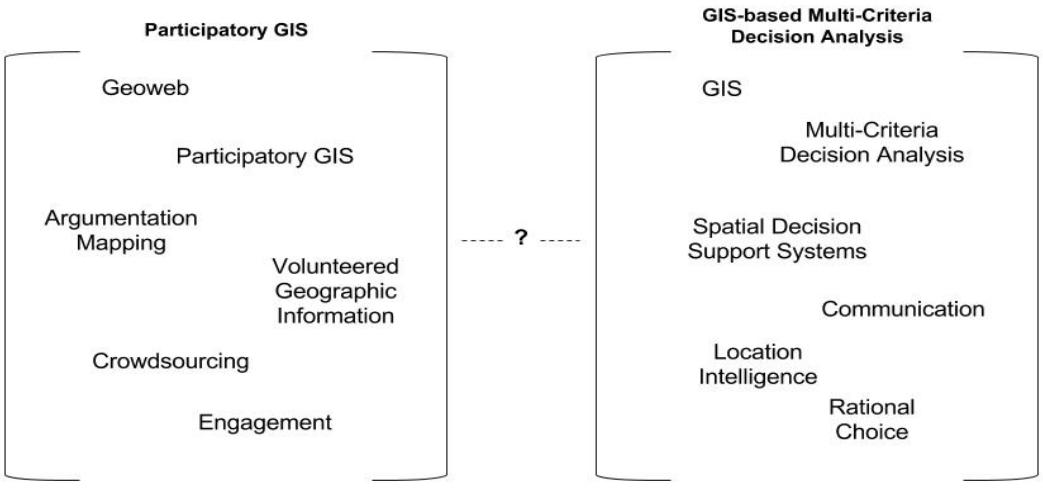
Research Profile: Dr. Claus Rinner, Ryerson University

Dr. Claus Rinner is a Professor and Chair of the Department of Geography and Environmental Studies at Ryerson University (Toronto).

Originally from Germany, Dr. Rinner teaches courses on GIS and decision support, GIScience, cartography, and geovisualisation in Ryerson's BA in Geographic Analysis and Master of Spatial Analysis programs. Dr. Rinner has two core research areas: **GIS-based Multi-Criteria Decision Analysis (GIS-MCDA)**, and **Participatory GIS (PGIS)**. He contributes to Geothink's Theme 1 (Anywhere, Anyone, Anytime) and Theme 4 (Open Everything). His work has focused around two general objectives, supporting evidence-based decision-making, and facilitating map-based communication and collaboration.

A decade of NSERC-funded research on geospatial data analytics has culminated in the co-authorship of a research monograph published with Springer in February 2015. The book, "Multicriteria Decision Analysis in Geographic Information Science", co-authored with Dr. Jacek Malczewski of Western University, aims to develop an integrated GIS-MCDA framework. Another major achievement in Dr. Rinner's GIS-MCDA research was the development of an ArcGIS add-on by a visiting research student from Germany. MCDA4ArcMap, implemented by Steffan Voss, was downloaded over 900 times and has been used by researchers for nuclear power plant site selection in Egypt and industrial site selection in Russia, among other applications.

New types of information, such as Volunteered Geographic Information (VGI), and new platforms, such as the geoweb, can help decision-makers in solving complex tasks. The geoweb is a platform that is meant to be a bridge between the power of traditional GIS and the flexibility of Web 2.0 technologies, as well as offering better forms of participation and engagement. The objective behind Dr. Rinner's SSHRC-funded research within Geothink is finding effective ways to engage citizens, often in the form of crowdmapping. In this area, his recently graduated PhD student Victoria Fast used VGI to promote participation and awareness of local food systems and assets. The project's online participatory mapping in communities in Durham Region (Ontario) was used to help citizens engage with local government in promoting local food policy.



Still in the realm of Participatory GIS, Dr. Rinner's Master's student Justin Pierre is creating and testing a new argumentation mapping platform. Argumentation maps are used to structure stakeholder preferences and provide a geographic entry point to complex debates about spatial planning decisions. Justin is working on a generic online argumentation mapping platform that will be scalable to high-usage discussions by running on the cloud computing infrastructure at Ryerson's Centre for Cloud and Context-Aware Computing (RC4). The objective is to support complex societal decision-making through use of web mapping and a threaded discussion forum, allowing decision-makers and community stakeholders to interface with each other.

Dr. Rinner is also interested in studying data themselves, and the transitions from data to information. VGI can come in varying forms, especially if it describes a heterogeneous set of objects. OpenStreetMap (OSM) is one example, where there is inconsistent application of tags to describe objects on the map. This is due to the fact that there are differences of opinion affecting the definition and classification of objects, sometimes due to cultural and linguistic differences among contributors. Richard Wen, another Master of Spatial Analysis (MSA) student in Dr. Rinner's group, is looking at the semantics around OSM data and uses neural networks to predict OSM tags based on a ruleset he is developing. If there are semantic patterns that can be extracted from the existing data, it could be possible to verify an object's (such as a road segment) descriptive tags. This type of research will help us understand how to shape incoming VGI to higher quality standards.

Outside of his students' projects, Dr. Rinner continues to ask questions of VGI. He took part in humanitarian mapping drives such as the OSM response to the April 2015 Nepal earthquake, and is interested in the nature of VGI contributions and their ability to support communication of spatial knowledge. He is also working to find a way to crowdsource the georeferencing of 20,000 aerial photos donated to his department, as well as looking at gamification as an alternative means of promoting citizen and youth engagement.

Dr. Rinner's work extends across the entire spectrum of geographic information processing, from its collection to its use in decision-making. While his research aims to impact government and communities in a serious manner, Dr. Rinner remains, first and foremost, a map-maker driven by curiosity and a belief that almost everything we do has a geospatial component to it.

Visit http://www.ryerson.ca/~crinner/ for more information on Dr. Rinner's research, or read his blog at http://gis.blog.ryerson.ca/.

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Rinner, Claus, & Fast, Victoria (2015). A Classification of User Contributions on the Participatory Geoweb. Advances in Spatial Data Handling and Analysis (pp. 35–49). Springer. Retrived from: http://www.ryerson.ca/~crinner/pubs/GeoTPMA2014-Proceedings-p234.pdf

"Volunteered Geographic Information" (VGI) is the term most widely used to describe a variety of user contributions on the participatory Geoweb. These contributions range from coordinate locations and geometries to categorical observations, attribute tags, numeric measurements, and content ratings, as well as complex narratives, photos, and videos. Although researchers are creating and studying Geoweb applications, different types of VGI, and the related phenomena of neogeography, citizen science, and crowd-sourcing, systematic characterizations of user-contributed local knowledge are scarce. In this paper, we propose criteria to distinguish types of user-generated data and contents, and relate these to types of Geoweb applications. The proposed classification provides a conceptual framework to examine the participatory Geoweb, facilitate the processing of user contributions, and identify possible gaps in the data/content types currently used. This approach could help improve the effectiveness of current Geoweb applications, and increase the uptake of the valuable geographic information they generate.

Participatory Mapping of Regional Food, Mental Health, and Accessibility Assets using Volunteered Geographic Information Systems

By Victoria Fast, Ph.D.

Victoria is one of the first Ph.D.s to come out of Geothink. She is also one of the first two Ph.D. graduates from Ryerson University's Department of Geography and one of six annual recipients of the Ryerson Gold Medal, Ryerson's top award for academic excellence. From her research, she has become a local food systems champion and continues her work as a trusted advisor in the Durham Region.

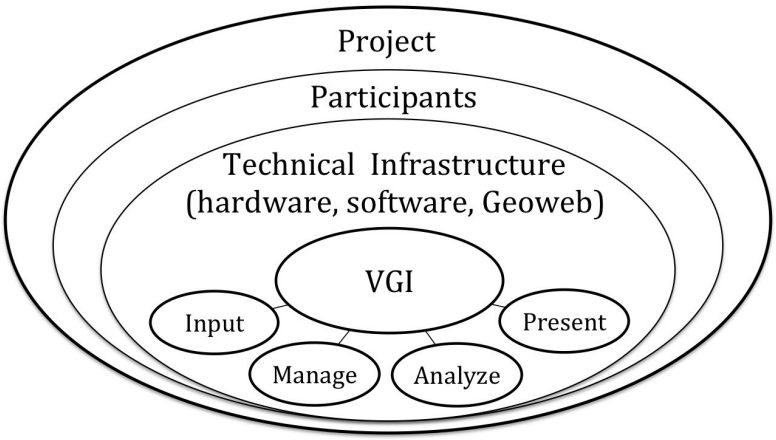
I recently received my Ph.D. from Ryerson University in the Environmental Applied Science and Management programme. My thesis, titled the **Participatory Mapping of Regional Food Assets using Volunteered Geographic Information Systems**, was part of a larger specialization developing participatory mapping practices to support the growing number of community crowdmapping needs.

Food systems were my first main area of research. My PhD work built on my Master's in Geography (Brock University), where I applied principles of precision agriculture and geospatial technologies to promote sustainable vineyard management in the Niagara Region, Ontario. I realized we needed a stronger connection between the geospatial intelligence being developed and the winery's decision-making processes. We needed participatory mapping methods integrated with the decision-making environment, which led me to my Ph.D. project.

My Ph.D. project was rooted in strengthening local food systems, which are increasingly being studied in response to the multi-faceted threats—climate change, urbanization, population pressures to name just a few—imposed on global agri-industrial food systems. Central to local food is the community who is imagining and implementing diverse and hyper-local food assets, which are making a significant, but largely unknown, contribution to food security, resiliency, and sustainability. It is important to align these assets with broader regional food policies, programs, and regulations. However, there are few mechanisms to engage stakeholders or share local information. One possible mechanism to learn about local food assets was volunteered geographic information (VGI); a phenomenon that blends crowdsourcing, citizen science, and online mapping. It is currently being studied for its ability to engage and gather information from diverse and underrepresented groups.

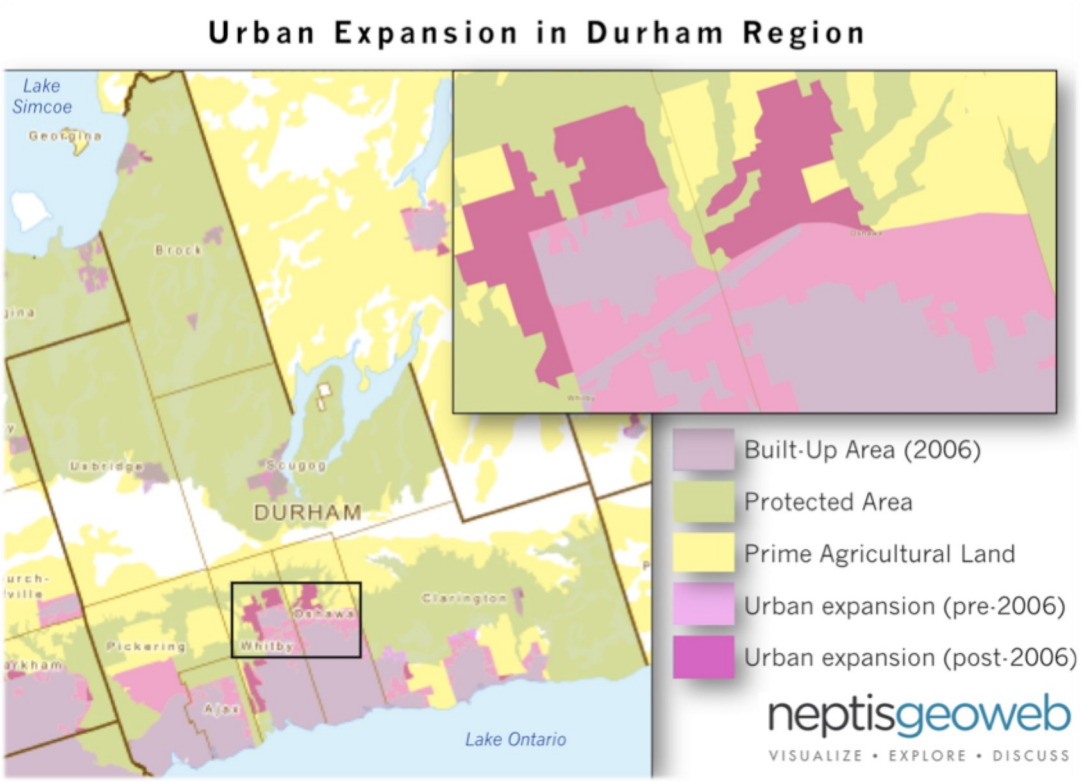
The purpose of this research was to investigate how VGI can be used to engage a wide range of food system stakeholders in order to add local information to the broader regional food policy arena. I began by asking **what processes support the creation of VGI?** Building on the research strength of my supervisor, Dr. Claus Rinner, I began investigating participatory mapping methods and related technologies. I viewed VGI as unique mix of Geoweb technologies, crowdsourcing, and open data that had the capacity to connect the public to decision makers.

However, given the novelty of the concept, I was not sure how to operationalize a VGI project. After attending various conferences and reviewing the limited literature related to VGI at the time, I noticed that VGI was commonly referred to as a type of geographic data. For example, "the VGI dataset generated in this study…" In contrast, Claus and I viewed VGI as *an information product resulting from a system of interacting components and functions*. From here, we asked: **what systems support the creation of VGI?** We viewed VGI as a complex arrangement between the project and its initiators, the participants who volunteer relevant geographic information, and the technical infrastructure that is comprised of hardware, software, and geoweb components. Together, these components serve as the building blocks for VGI, which guided the development of my main project.



VGI Systems Framework

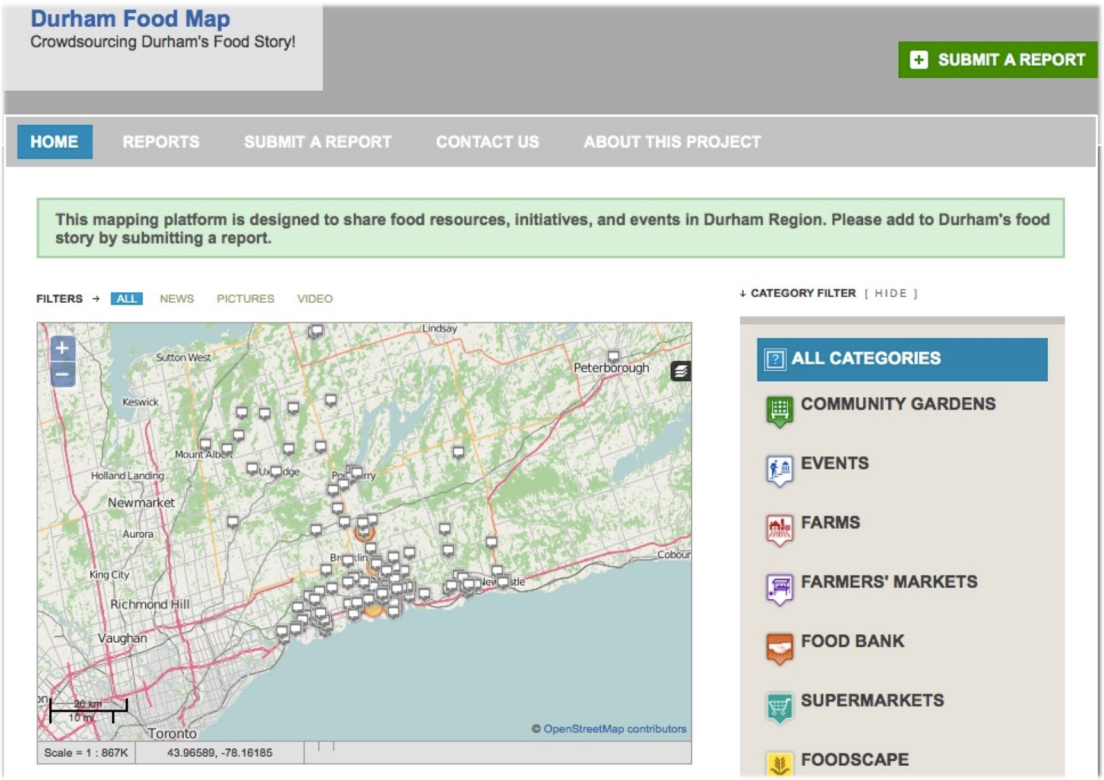
Paralleling the conceptual development of VGI systems, I was getting to know food system stakeholders in the Durham Region; a regional municipality east of Toronto consisting of eight lower tier municipalities and a rapidly growing urban population with approximately 750,000 inhabitants and growing. Paralleling the urban growth, the Region is facing unprecedented and sustained loss of agricultural lands, while importing a record high proportion of food despite the agricultural base and facing severe food security issues. The Regional government, municipal governments, and the Durham Food Policy Council were struggling to understand what needs and strengths exist within the regional food system in order to determine future policy and program support.



Armed with a systems framework and a better understanding of the Regional food system in Durham, I then asked: **what does VGI contribute to Durham's food system and its stakeholders?** Collaborating with the Neptis Foundation (a Geothink partner), Durham Food Policy Council, and a number of other government, not-for-profit, and community groups I developed web-based participatory mapping solutions to start conversations, build capacity, and strengthen resilience between the public and policy makers regarding regional food system planning.

The VGI systems framework guided the development and deployment of the Durham Food Map. Adopting an asset-based approach that focused on the strengths within the existing food system, the project was rooted in capturing the distributed intelligence of Durham's most active food system stakeholders. Participants were sought using a promotional strategy targeting engaged food stakeholders through a series of meetings and public presentations, which focused on the challenges and strengths in the regional food system and the importance of building collaboration between the public and decision-makers. The Ushahidi Crowdmap platform was the Geoweb technology that supported data collection. The volunteered contributions (VGI) were of location-based food assets, which include locations, descriptions, and media attributes related to farms, farmers' markets, community gardens, foodscapes, events, and other innovative food assets.

Active data collection occurred between January and May 2015, in which over 250 contributions on food assets in Durham were gathered. We learned about the innovative Harvest Trading Table, where inner city residents trade home grown fruits and vegetables and surplus was donated to local shelters. We learned about the Seed Library, an initiative of the Oshawa public library where residents can 'check out' free vegetable seeds. We learned about unique neighbourhood garden initiatives, which are different from plot-based community gardens because the garden is a common resource for the entire neighbourhood. Overall, the community identified urban food assets, not previously known to regional decision-makers, as a central strength of the regional food system.



Collecting user contributions through Ushahidi Crowdmap

The Harvest Trading Table - residents trade home grown produce and donate surplus to local shelters

The Seed Library - residents can 'check out' free vegetable seeds

Neighbourhood gardens where the entire plot is treated as a common resource

In addition to the individual VGI contributions, four NGOs working on food security issues in the Region were willing and eager to contribute their in-house (and quite detailed) datasets related to community gardens, farms, backyard garden vegetable yields, and other food assets in the Region. These volunteered datasets, previously held privately and inaccessible, were edited, standardized, and integrated with the individual VGI contributions. While there was a wealth of relevant regional food system data, there were equally grand challenges to realizing the value of open data from NGOs. Primarily, there was a general unawareness of the sensitivity of spatial information and privacy concerns. For example, one dataset contained the location of all shelters in the Region while another contained address information for private residences.

The responsibility to protect sensitive spatial information was subsequently deferred to the project initiator (myself), in which the Ryerson University Research Ethics Board and a personal ethical guide were used to vet the contributions. This not only emphasizes the need to learn more about privacy concerns with VGI, open data, and the Geoweb, but it also highlights the role the intermediary plays in developing online mapping tools. Through this research, I've discovered that crowdmapping is redefining, but not diminishing, the role of GIS and of geography professional in this brave new Geoweb world. It is important to continue to explore the role of intermediaries and in many cases, infomediaries, which support the development of open data and VGI initiatives. Moving forward, Claus Rinner and I have proposed a special issue of URISA journal on "Open Data and Volunteered Geographic Information: The Role of Intermediaries and Infomediaries". Collaborating with other Geothink researchers, the purpose of this special issue is to explore the digital literacies needed to use open geospatial data and VGI, and to discuss the emerging roles of intermediaries and infomediaries who negotiate the gap between open data providers, VGI contributors, and end-users. These emerging roles promise to increase the societal and economic benefits of open data and the level of citizen engagement through VGI projects.

Emerging from this work, the Durham's regional government and the Durham Food Policy Council were connected to the regional food community. The data enabled the creation of an online Food Assets map and associated open dataset available on CartoDB. Further, a Crowdsourcing Urban Food Assets report is currently being used by the Durham Food Policy Council to support regional food planning, policy, and program development that is rooted in the assets identified by the regional food community. In particular, this research led to the initiation of a new urban agriculture policy, currently under development, which supports innovative community-led food programs and urban food production. Given the interest in urban food production, the Region is currently working on an inventory of available urban lands that can be used/leased for food production.

One example of how research is being used: this research is currently being used to support the development of Durham Region's coordinated climate change adaptation plan, which is comprised of seven sectors: flooding, natural environment, buildings, electrical, human health, roads, and food security. I serve as the lead on the Food Security sector, and academic affiliate on the project. The goal is to devise a coordinate plan to protect all sectors against risks associated with a changing climate by first, identifying actions to prevent, reduce, or respond to the risks, and second, coordinate sectorial actions into a Region-wide adaptation program. This research presents a unique opportunity to formally incorporate volunteered geographic information into the planning process, while studying one of the earliest coordinated climate change adaptation plans at a regional scale. This work has the potential to influence the development of regional adaptation plans all over the world.

While this policy-relevant research informed regional understanding of food assets and the map leveraged stakeholders' knowledge to increase the transparency and accessibility of information on the regional food system, there were major limitations in the data. Primarily, the data collection method suffered from both distance and time decay. Relating to distance decay, contributions were clustered in the urban areas with fewer contributions from the rural counterparts. Not surprisingly, contributions were most dense where project promotion occurred. On the other hand, time decay is related to the sustainability of the project; when project initiators ceased the active engagement of stakeholders, new contributions also significantly declined. As such, the dataset will not continue to be updated and will soon be out of date. Stemming from these limitations, the dataset acquired is not a comprehensive representation of food assets in the Region, so spatial analysis of clusters, hot spots, dispersion, or other measures of pattern are not relevant.

The end result of this research was a prototype of the VGI systems framework, where I brought together the project, participants, technology, and VGI necessary to undertake the participatory mapping of a regional food system. This research revealed a uniquely local and community-driven perspective about food system assets within Durham Region, connected citizen and decision makers, and facilitated underrepresented groups to be heard by decision makers, which lead to meaningful changes in regional and municipal support of resilient food systems.

Through my research, I also found myself leading Durham's local food advocacy, which elevated my role from a participatory researcher to an entrusted representative for the local community. I am now serving as a member of the Durham Food Policy Council, member of the Regional Climate Change Adaptation Food Security Task Force, Chair of the Oshawa Environmental Advisory Committee, and on the board of directors for the GTA Clean Air Partnership. I am continuing to work with Durham Region, using my knowledge of community-based food assets to strengthen food system policy and program development.

Thank you to my supervisor Dr. Claus Rinner, and Geothink PI Dr. Renee Sieber, who introduced me to a network of academics, students, speciality conference and research meetings, and ways of thinking that undoubtedly enriched my personal research process. I would also like to acknowledge the support of a 3-year SSHRC Joseph-Armand Bombardier Doctoral Scholarship and contributions from the Environmental Applied Science and Management program at Ryerson University.

VGI - an information product resulting from a system of interacting components and functions

Captured urban food assets previously unknown to policy makers and connected community to decision -makers

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Food Assets Map

Fast, Victoria, & Rinner, Claus (2014). A Systems Perspective on Volunteered Geographic Information. ISPRS International Journal of Geo-Information, 3(4), 1278–1292. doi:10.3390/ijgi3041278. Retrieved from: http://www.mdpi.com/2220-9964/3/4/1278/htm

Volunteered geographic information (VGI) is geographic information collected by way of crowdsourcing. However, the distinction between VGI as an information product and the processes that create VGI is blurred. Clearly, the environment that influences the creation of VGI is different than the information product itself, yet most literature treats them as one and the same. Thus, this research is motivated by the need to formalize and standardize the systems that support the creation of VGI. To this end, we propose a conceptual framework for VGI systems, the main components of which—project, participants, and technical infrastructure—form an environment conducive to the creation of VGI. Drawing on examples from OpenStreetMap, Ushahidi, and RinkWatch, we illustrate the pragmatic relevance of these components. Applying a system perspective to VGI allows us to better understand the components and functionality needed to effectively create VGI.

Evan Hamilton: Canadian Municipal Open Data and the Role of Journalism

By Naomi Bloch

Evan Hamilton recently completed his Master of Information thesis at the Faculty of Information, University of Toronto, under the supervision of Prof. Leslie Regan Shade. The following is a republishing of Naomi Bloch's web article covering his research, found here.

Data journalists are some of the most active users of government open data in Canada. In his recently defended thesis, Evan Hamilton, a master's student in the University of Toronto's Faculty of Information, examined the role of data journalists as advocates, users, and producers of open data.

Hamilton's thesis, titled "Open for reporting: An exploration of open data and journalism in Canada," addressed four research questions:

1. Are open data programs in Ontario municipalities developing in a way that encourages effective business and community development opportunities?
2. How and why do journalists integrate open data in reporting?
3. What are the major challenges journalists encounter in gaining access to government data at the municipal level?
4. How does journalism shape the open data development at both the policy level and the grassroots level within a municipality?

To inform his work, Hamilton conducted in-depth, semi-structured interviews with three key data journalists in the City of Toronto: Joel Eastwood at the *Toronto Star*, William Wolfe-Wylie at the CBC, and Patrick Cain at Global News. While open data is often touted as a powerful tool for fostering openness and transparency, in his thesis Hamilton notes that there is always the risk that "the rhetoric around open data can also be employed to claim progress in public access, when in fact government-held information is becoming less accessible."

In an interview with Geothink, Hamilton explained that the journalists made important distinctions between the information currently available on Canadian open data portals and the information they typically seek in order to develop compelling, public-interest news stories. "One of the big things I took away from my interviews was the differentiation that journalists made between Freedom of Information and open data," said Hamilton. "They were using them for two completely different reasons. Ideally, they would love to have all that information available on open data portals, but the reality is that the portals are just not as robust as they could be right now. And a lot of that information does exist, but unfortunately journalists have to use Freedom of Information requests to get it, which is a process that can take a lot of time and not always lead to the best end result."

Legal provisions at various levels of government allow Canadians to make special Freedom of Information requests to try to access public information that is not readily available by other means. A nominal fee is usually charged. In Toronto, government agencies generally need to respond to such requests within 30 days. Even so, government responses do not always result in the provision of usable data, and if journalists request large quantities of information, departments have the right to extend the 30-day response time. For journalists, a delay of even a few days can kill a story.

While the journalists Hamilton interviewed recognized that open data portals were limited by a lack of resources, there was also a prevailing opinion that many government agencies still prefer to vet and protect the most socially relevant data. "Some were very skeptical of the political decisions being made," Hamilton said. "Like government departments are intentionally trying to prevent access to data on community organizations or data from police departments looking at crime statistics in specific areas, and so they're not providing it because it's a political agenda."

Data that helps communities

In his thesis, Hamilton states that further research is needed to better understand the motivations behind government behaviours. A more nuanced explanation involves the differing cultures within specific municipal institutions. "The ones that you would expect to do well, do well, like the City of To-

ronto's Planning and Finance departments," Hamilton said. "Both of them provide really fantastic data that's really up-to-date, really useful and accessible. They have people you can talk to if you have questions about the data. So those departments have done a fantastic job. It's just having all the other departments catch up has been a larger issue."

An issue of less concern to the journalists Hamilton consulted is privacy. The City's open data policy stresses a balance between appropriate privacy protection mechanisms and the timely release of information of public value. Hamilton noted that in Toronto, the type of information currently shared as open data poses little risk to individuals' privacy. At the same time, the journalists he spoke with tended to view potentially high-risk information such as crime data as information for which public interest should outweigh privacy concerns.

Two of the three journalists stressed the potential for data-driven news stories to help readers better understand and address needs in their local communities. According to Hamilton's thesis, "a significant factor that prevents this from happening at a robust level is the lack of data about marginalized communities within the City."

The journalists' on-the-ground perspective echoes the scholarly literature, Hamilton found. If diverse community voices are not involved in the development of open data policies and objectives, chances for government efforts to meet community needs are hampered. Because of their relative power, journalists do recognize themselves as representing community interests. "In terms of advocacy, the journalists identify themselves as open data advocates just because they have been the ones pushing the city for the release of data, trying to get things in a usable format, and creating standard processes," Hamilton said. "They feel they have that kind of leverage, and they act as an intermediary between a lot of groups that don't have the ability to get to the table during negotiations and policy development. So they're advocating for their own interests, but as they fulfill that role they're advocating for marginalized communities, local interest groups, and people who can't get to the table."

Policy recommendations

Hamilton's research also pointed to ways in which data journalists can improve their own professional practices when creating and using open data. "There needs to be more of a conversation between journalists about what data journalism is and how you can use open data," Hamilton said. "When I talked to them, there was not a thing like, 'Any time you use a data set in your story you cite the data set or you provide a link to it.' There's no standard practice for that in the industry, which is problematic, because then they're pulling numbers out of nowhere and they're trusting that you'll believe it. If you're quoting from a data set you have to show exactly where you're getting that information, just like you wouldn't anonymize a source needlessly."

While Hamilton concentrated on building a picture of journalists' open data use in the City of Toronto, his findings resulted in several policy recommendations for government agencies more broadly. First, Hamilton stressed that "as a significant user group, journalists need to be consulted in a formal setting so that open data platforms can be better designed to target their specific needs." This is necessary, according to Hamilton, in order to permit journalists to more effectively advocate on behalf of their local communities and those who may not have a voice.

Another recommendation is aimed at meeting the needs of open data users who have different levels of competency. Although he recognizes the challenges involved, in his concluding chapter Hamilton writes, "Municipal governments need to allocate more resources to open data programs if they are going to be able to fulfill the needs of both a developer class requiring technical specifications, and a general consumer class that requires tools (for example. visualizations and interactives) to consume the data."

Finally, Hamilton recommends that municipalities engage in more formal efforts "to combat internal culture in municipal departments that are against publishing public information. Data should be viewed as a public service, and public data should be used in the public interest."

For the full article, visit Geothink.ca.

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Recent Publications

Scassa, T., & Singh, N. (2015). Open Data and Official Language Regimes: An Examination of the Canadian Experience. JeDEM - eJournal of eDemocracy and Open Government, 7(1), 117–133. Retrieved from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2689271

The open data moving is gathering steam globally, and it has the potential to transform relationships between citizens, the private sector and government. To date, little or no attention has been given to the particular challenge of realizing the benefits of open data within in an officially bi- or multi-lingual jurisdiction. Using the efforts and obligations of the Canadian federal government as a case study, the authors identify the challenges posed by developing and implementing an open data agenda within an officially bilingual state. Key concerns include (1) whether governments may use open data to outsource some information analysis and information services to an unregulated private sector through open data initiatives, thus directly or indirectly avoiding obligations to provide information analysis and information tools in official languages; and (2) whether the rush by governments to support the innovation agenda of open data may leave minority language communities both underserved and under-included in the development and use of open data.

Quesnot, T., & Roche, S. (2015). Quantifying the Significance of Semantic Landmarks in Familiar and Unfamiliar Environments. In Spatia Information Theory. Fabrikant, M. Raubal, M. Bertolotto, C. Davies, S. Freundschuh, & S. Bell (Eds.), Spatial Information Theory (Vol. 9368, pp. 468–489). Springer International Publishing. doi:10.1007/978-3-319-23374-1. Retrieved from: http://link.springer.com/chapter/10.1007/978-3-319-23374-1_22

During navigation, people tend to associate objects that have outstanding characteristics to useful landmarks. The landmarkness is usually divided into three categories of salience: the visual, the structural, and the semantic. Actually, the roles of visual and structural landmarks have been widely explored at the expense of the semantic salience. Thus, we investigated its significance compared to the two others through an exploratory experiment conducted on the Internet. Specifically, 63 participants were asked to select landmarks along 30 intersections located in Quebec City. Participants were split by gender and familiarity with the study area. Unsurprisingly, the results show that unlike strangers, locals tended to focus on highly semantic landmarks. In addition, we found that women were more influenced by the structural salience than men. Finally, our findings suggest that the side where travelers move compared to the road impacts on the landmark selection process.

Continued next page...

Johnson, P. A., Corbett, J. M., Gore, C., Robinson, P., Allen, P., & Sieber, R. (2015, September 26). A Web of Expectations: Evolving Relationships in Community Participatory Geoweb Projects. ACME: An International E-Journal for Critical Geographies. Retrieved from http://acme-journal.org/index.php/acme/article/view/1235

New forms of participatory online geospatial technology have the potential to support citizen engagement in governance and community development. The mechanisms of this contribution have predominantly been cast in the literature as 'citizens as sensors'., with individuals acting as a distributed network, feeding academic or government with data. To counter this dominant perspective, we describe our shared experiences with the development of three community-based Geospatial Web 2.0 (Geoweb) projects, where community organizations were engaged as partners, with the general aim to bring about social change in their communities through technology development and implementation. Developing Geoweb tools with community organizations was a process that saw significant evolution of project expectations and relationships. As Geoweb tool development encountered the realities of technological development and implementation in a community context, this served to reduce organizational enthusiasm and support for projects as a whole. We question the power dynamics at play between university researchers and organizations, including project financing, both during development and in the long term. How researchers managed, or perpetuated, many of the popular myths of the Geoweb, namely that it is inexpensive and easy to use (though not to build, perhaps) impacted the success of each project and the sustainability of relationships between researcher and organization. Ultimately, this research shows the continuing gap between the promise of online geospatial technology, and the realities of its implementation at the community level.

Visit Geothink.ca for a summary article on this paper.

Geothink Research Themes

Theme 1: Anywhere, Anyone, Anytime

We believe that the Web 2.0 and its associated technologies will dramatically shift the way cities talk to their constituents and others. People can communicate with cities from anywhere, outside of a jurisdiction, and at any time, for example, which means outside formal venues like city council meetings. Anonymity implies that you do not know the identity of the contributor. This challenges traditional definitions of community, citizen, and participation. We will evaluate the processes of technology development and that impact on its city and the citizen.

Theme 2: Spatial Authenticity, Accuracy, and Standards

The moment you bring up volunteered geographic information (VGI) (e.g., with Open 311), you worry about the quality of data. This theme considers questions of data structures, standards, and documentation practices used by public agencies. The research produced also aims to develop consensus on terminology, data standards, and dissemination regarding the opening up of government data and acceptance of VGI .

Theme 3: Laws, Norms, Rights and Code

Data related to governance is not simply a technical matter. Issues that are policy-related and legal in nature will be a primary focus as we try to understand the way Geoweb 1) fits within existing laws and policy, and 2) shapes new policies and law. Specific legal domains of interest are privacy, intellectual property, access to information, access to justice, and the interplay between norms, codes and technology with regards to governance.

Theme 4: Open Everything

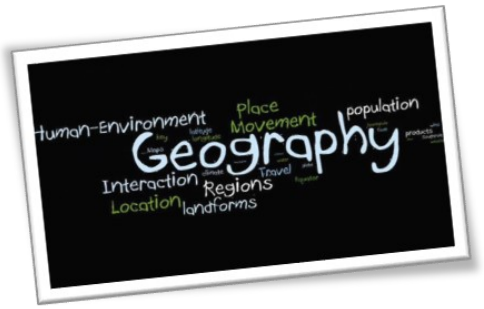
We will track municipal open data engagement over time, theorize about the impacts of open data on governance, and understand and develop best practices. We also have the opportunity to document these approaches and track the evolution of open data practices over time.

Theme 5: Social Justice

We will explore aspects of Geoweb – Society relationships as they pertain to social justice. We will identify the success and failures of Geoweb for community development. Using a case study approach we will employ participatory research to identify emerging concepts of place, the intersection of community, engagement and social justice, and accessibility to the Geoweb.

Theme 6: Geoweb Political Economy

This theme will focus on understanding the political economy of the Geoweb as it concerns ownership structures, institutions, and policies. Power relationships between actors and processes of inclusion and exclusion among social media owners and users also will be our focus.



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Your participation in Geothink

For us to have the broadest impact with Geothink, we would greatly appreciate your input. This can mean providing monthly contributions to our social media outlets, writing blog posts, research updates, and being involved in future events. If you wish to be involved in our media output, please contact the editor or our digital journalist.

Summer Institute 2016: 9-11 May 2016 @ Ryerson University

Topic: Open Data
More details to come as we proceed with planning

AGM 2016: 11-13 May 2016 @ University of Toronto

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