



Geothink Canada Newsletter | Issue 4

September 2014

#### First year milestone

In this issue, we have an update from our Annual General Meeting (AGM), held in June 2014. This was the annual meeting to discuss current progress and future plans for the project, and marked the first full year of the project. We also have some more student introductions, as well as some partner spotlights.

The layout of the newsletter has also been changed. I hope you will find that it has improved in terms of readability and legibility. The table of contents at the bottom right-hand corner of this page is clickable and will link you directly to individual sections.

I would also like to take the opportunity to remind you that maintaining up-to-date contact details is essential. Please take a few minutes to see if your name is on the contact list on the back pages of this newsletter, and if your contact details are correct. If you find an error, please email Jing (jing.teo@mcgill.ca).



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### **Geothink Research Themes**

Here is a reminder of our six research themes.

#### Theme 1: Anywhere, Anyone, Anytime

We believe that 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. It challenges our traditional definitions of community, citizen, and participation. We will evaluate the processes of technology development and that impact on the 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 by this theme also will affect consensus on terminology, data standards, and dissemination regarding opening up government data and accepting VGI.

#### Theme 3: Laws, Norms, Rights and Code

Data related to governance is not simply a technical matter. Issues that are policy and legal in nature will be a primary focus as we try to understand the way Geoweb 1) fits in existing law 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

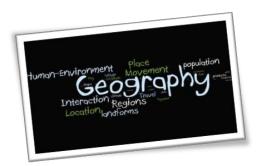
We will track municipal open data engagement over time, theorize about the impacts of open data on governance, and from a practical perspective understand and develop best practices. We also have the opportunity to document best practices and track the evolution of open data practices over time.

#### 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 use participatory research to identify emerging concepts of place, the intersection of community, engagement and social justice, and the accessibility to 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.



### **Annual General Meeting: June 2014**

Alex Taciuk contributed to this article.

The recent AGM, kindly hosted by the University of Ottawa, was held in June 2014 in Ottawa. This was a two day event, attended by 37 members of Geothink, including eleven coapplicants, fifteen collaborators and partners, and nine students. Our largest presence came from the University of Ottawa, where we have our core of faculty, students and partners from law.

"Geothink takes a risk to reach out and figure out how other disciplines solve problems". This attitude was exemplified throughout the AGM. The incredible variety of topics covered and discussed showcased Geothink's diversity, as we transitioned from tort liability, to the state of open data in Canada, to geoweb innovations in journalism. During Day One we debated the role of geoweb technology and open data in society and student involvement in the partnership.

We had a combination of informal gatherings, formal presentations, discussion sections, and smaller group meetings. Presentations were made on both days. Our first day consisted of nine presentations from our co-applicants or their students. The second day nine of our collaborators and partners presented on their own projects and organizations. We concluded the presentations with Prof. David Fewer's talk on the Canada Post vs Geolytica case. Canada Post vs Geolytica case. Geolytica is a one-person company that crowdsourced Canada's postal codes. David Fewer is a grant collaborator and Director of the Canadian Internet Policy and Public Interest Clinic (CIPPIC). CIPPIC is representing Geolytica pro bono.

A hand drawn 'Spectrum of Open Data' generated heated debate. For example, is citizen engagement in democracy a higher goal than commercial apps that shave a few minutes off our commute? Issues like marginalized communities, digital inequities, and privacy featured heavily in our discussions. Attendees remarked that these insights and critiques could only have resulted from the diverse group of participants sitting around the table. This is one of the first times in our partnership that we have had in-depth conversations among partners, practitioners, students, and researchers.

The relationship building and flow of ideas at the meeting has already led to new projects. One of these was with Malcolm Shookner, Nova Scotia Community Counts, who volunteered his organization and contacts to set up a study on end user perceptions on the value of open data. The University of Waterloo will send a co-op student to Halifax to conduct the study. End-user impressions are a large unknown in open data.

Indeed, as Michael Lenczner of Montreal Ouvert points out, open data, with its emphasis on 'repurposeability', means we don't know how data will be used by end-users. This is what makes the research important and working with a partner who knows his end-users valuable.

The following pages contain additional details on the AGM.

Visit <a href="http://geothink.ca/geothink-2nd-annual-general-meeting">http://geothink.ca/geothink-2nd-annual-general-meeting</a>
<a href="http://geothink.ca/geothink-2nd-annual-general-meeting">-ottawa-on-canada-2014/</a>
to see a list of attendees and the meeting's proceedings.

#### **General Comments**

Any partnership grant experiences communication issues. Several of the partners and collaborators called for greater transparency during the AGM. We encourage partners and collaborators, as well as researchers looking for help or collaboration, to be more vocal in expressing their needs. We encourage you to make the rest of Geothink aware of your research interests and needs. To that end, Alex Taciuk (our Project Manager) is calling each one of you to find some of the interesting things in your research that you're doing this Fall. He'll be tweeting these at @geothinkca, blogging them at geothink.ca, putting them in the listsery and adding them to the newsletter.

We encourage you to contact other members of Geothink directly or send an email to <a href="mailto:geothinkca@gmail.com">geothinkca@gmail.com</a> with inquiries on whom to contact. You can also send an email to the Geothink listserv itself. James McKinney has sent a few messages to the listserv (thanks!). Feel free to use the listserv--it's for you.

#### Other decisions

Our first book will be about the geospatial web — what geospatial open data means between citizens and cities, and the importance of open access.

We started to set plans for our first Summer Institute in 2015. Our first summer institute for Geothink students will be held before the AGM in Summer 2015 in Waterloo, Ontario. We will have two main topics, one of which will be 'crowdsourcing'. If you are a collaborator and would like to send your student to participate, you are very welcome. Please contact us if you wish to send along students to participate, or if you would like to contribute to the programme.

#### Theme Presentations

Members of our 6 research themes made presentations that reflected the work they (and their students) have been doing over the past year. Turn to the next page to see select abstracts from presentations.

View abstracts for presentations at: <a href="http://geothink.ca/geothink-2nd-annual-general-meeting-ottawa-on-canada-2014/">http://geothink.ca/geothink-2nd-annual-general-meeting-ottawa-on-canada-2014/</a>

#### Theme 1: Anyone, Anywhere, Anytime

Renée Sieber – What Shapes Open Data from Cities?

#### Theme 2: Spatial Authenticity, Accuracy, and Standards

Claus Rinner - What is VGI, Anyway?

#### Theme 3: Laws, Norms, Rights, and Code

Teresa Scassa, Alexandra Diebel, and Amy Conroy – IP, Privacy, and Open Data

Elizabeth Judge, Cheryl Power, Tenille Brown, and Laura Garcia – Implied License and Waiver for Downstream Uses of Copyrighted Information on the Geoweb

#### Theme 4: Open Everything

Pamela Robinson (Presented by Peter Johnson) - Civic Hackathons: Innovation, Procurement, or Civic Engagement

Peter Johnson – Framework for Assessing the Value of Open Data

Daniel Paré – You Can't Get There from Here. Or Can You? Toward an Understanding of Design-Reality Gaps in the Implementation of Open Government in Canadian Municipalities

#### Theme 5: Space, Place, and Social Justice

Jon Corbett – Putting Ourselves on the Map: Exploring Under -Represented Groups Use of the Geoweb as a Deliberative Tool to Transform Space to Place

Mike Evans – Opening New Partnership through Sharing Landed Histories

#### **Theme 6: Geoweb Political Economy**

Leslie Shade – Open and Free? The Political Economy of the Geoweb

Reproduced below are two selected abstracts. One from a co-applicant, and another from a partner.

#### Civic Hackathons: Innovation, Procurement, or Civic Engagement? Prof. Pamela Robinson, Ryerson University

At all levels, governments around the world are moving towards the provision of open data, that is, the direct provision to citizens, the private sector, and other third parties, of raw government datasets, controlled by a relatively permissible license. In tandem with this distribution of open data is the promotion of civic hackathons, or 'app contests' by government. The civic hackathon is designed to offer prize money to developers as a way to spur innovative use of open data, more specifically the creation of commercial software applications that deliver services to citizens. Within this context, we propose that the civic hackathon has the potential to act in multiple ways, possibly as a backdoor to the traditional government process, and as a form of civic engagement. We move beyond much of the hype of civic hackathons, critically framing an approach to understanding civic hackathons through these two lenses. Key questions for future research emphasize the emerging, and important, nature of this research path.

### Nova Scotia Community Counts (NSCC) and the Geoweb: Making the Connections. Malcolm Shookner(Chief Statistician, NSCC)

Nova Scotia Community Counts is a publicly supported website that provides information for and about communities and 14 other levels of geography in Nova Scotia. Community Counts (CC) provides a common platform for statistics that count for communities. Most of the data comes from Statistics Canada (SC). Community Counts adds value by converting the SC standard geographies into geographies understood by Nova Scotians, e.g. counties, municipalities, communities. The data is also provided in multiple formats – tables, charts, graphs, maps, profiles, policy views – for easy use. The Map Centre offers over 40,000 maps that are dynamically generated based on user requirements and provides tools for thematic mapping and asset mapping. Community Counts relates to these research themes: Spatial Authenticity, Accuracy, and Standards; Space, Place and Social Justice. Malcolm Shookner will make the connections in his presentation

Prof. Jon Corbett's presentation is also available online for easy viewing: <a href="http://youtu.be/hIRR4bBLZel">http://youtu.be/hIRR4bBLZel</a>

#### **Partner Presentations**

Below is a list of our presentations from our partners.

- Marcy Burchfield The Neptis Geoweb
- Barbara Poore United States Geological Survey and Citizen Science
- David Fewer Canada Post Postal Code Database Copyright Lawsuit
- Don Aldridge IBM and Geothink
- Malcolm Shookner Nova Scotia Community Counts and the Geoweb: Making Connections
- April Lindgren Ryerson Journalism Research Centre: The Geoweb, Open Data, and Journalism: Challenge and Opportunity
- Melanie Miller-Chapman Office of the Privacy Commissioner of Canada
- Stéphane Guidon Open North: Open Data and Civic Technology
- Michael Lenczner Montreal Ouvert: Transitions of an Open Data Civil Society Group

A big thank you to all those who attended, and to those that presented. If you could not make it this year, we hope you will be able to attend next year's meeting. It is quite a long journey for some of you, but we greatly appreciate and value the feedback and contributions of all our partners.

#### **Recent Publications**

Here are some recent publications from Geothink members.

Scassa, T. (2014). Privacy and Open Government. Future Internet, 6(2), 397-413.

Baculi, Edgar. "Content and Growth of Municipal Open Data Catalogues". *Geomatics Canada*. http://www.gogeomatics.ca/magazine/content-and-growth-of-municipal-open-data-catalogues.htm#

Johnson, P., & Robinson, P. (2014). Civic Hackathons: Innovation, Procurement, or Civic Engagement?. *Review of Policy Research*, *31*(4), 349-357.

#### **Geothink Working Paper Series**

Geothink will produce a working paper series. The first working paper is now at <u>geothink.ca/geothink-white-paper-series</u>. It is entitled, *How the Geospatial Web 2.0 is Reshaping Government-Citizen Interaction* by Harrison Smith, PhD Candidate at The University of Toronto working with Prof. Leslie Shade, our colleague in the Faculty of Information at University of Toronto.

Harrison Smith and Leslie Shade introduce us to what the political economy of communication is and how we can look at the Geoweb through this framework. Smith and Shade present three concepts related to the political economy of the Geoweb. They first outline the concept of political economy as a toolbox to understand the Geoweb. Second, they apply these tools to produce a working understanding of the political economy of the Geoweb. Finally, they highlight future research priorities for political economists of the Geoweb.

### **Partner Spotlight: City of Toronto**

The City of Toronto is one of our municipal partners. I had a brief chat with Keith McDonald, Open Data Lead at the City of Toronto, on the current state of the City's open data, and what to look forward to in the future.

### What is your position in the City of Toronto?

I am the Open Data Lead with the Information and Technology (a division within the City of Toronto) side of Open Data. We are partnered with the City Clerk's office to evangelise and support the release of open data to the public. I'm involved in supporting the team and with partnerships, such as with Geothink, and community developers, in order to make the dream of open data a reality in Toronto. We've been in play since 2009. We have found ourselves working on: creating an open data policy, licensing, and the processes for managing datasets as they come to us from various divisions. The future is looking great. I think we'd like to see a lot more datasets available on the website, but we're on our way, to be sure.

### Was your position created specifically for open data?

Actually, we're in a bit of a transition state. Back in 2009, there was no position for open data. So when we got rolling, it was all job shared. We were all involved, but we were in different positions, loaned to the initiative. We had a 'virtual manager' – her actual job title was elsewhere, but she became known as the Open Data Manager. The Information and Technology area created a business intelligence unit,

and so open data is now going to have an official home in this unit, and we are creating some full-time open data positions. When the virtual Open Data Manager left the City, I took on the work of the Open Data Lead. Over the next couple of months, we will see our permanent home take shape and be able to start leveraging staff and budgets. I think a lot of cities are also in the same situation, where, if you ask them the same question, they'll tell you "well, it's a little complicated". It's interesting, and a challenge, to move to a new kind of structure, but also very welcome to see.

# Do you see further organizational changes to governments and their open data?

We've heard from other cities that they are moving in a similar direction, towards big data, business intelligence, and trying to formalise internally the way staff are collecting data and making good use of it. When open data started up around five years ago, the mission was to get the data up to the website. Now that we've been around for a little longer, we are starting to be able to examine the next steps. One of them seems to be that we could enable our own staff to start using data in ways they haven't thought of before. From the business intelligence side, we are thinking of providing desktop dashboards to provide tools for staff to start doing their own analytics, even if they don't have any technical experience. Even if they don't know how to handle raw data, they could use tools to create graphs, charts, and other representations for them to use. The other questions we are looking at are

where to put data and what to do with it. In other words, data governance. There is a lot of internal data that is not public, such as staff payroll. It may not be public, but it's still data, so we need to think of what we can do with it. I certainly think that it's a good fit to put open data inside a business intelligence unit.

Your organisation is changing and becoming more permanent, but how do you avoid become 'yet another unit' within government? And how do you address fragmentation in the City's structure?

So far, we are a small, lean, agile group of people that haven't necessarily had some of the same structures that you are implying you would get when you have a more formalised arrangement. I want to be optimistic that, because of the work we've done already and the connection and response from the community, we are perceived that we are a little pocket that functions well. Part of government's task is to be there for the community and to answer questions. I don't think they [referring to upper management] would want that to change. We are bound to change a little bit with expansion, but I hope we can keep and add to what we have been doing well.

# Open data, we hope, is eventually going to be mainstream within government as well, how will this change things?

I think we are about to see the default course of action, when data is collected, to automatically present data to the open data website. It will become part of the process. With legacy data, it's not natural yet. But when new data is collected, we are expecting that it be offered as raw and machine-readable. We want it to be a natural part of the process, rather than an exception or extra task.

# What kind of challenges do you see in fully integrating open data into government processes?

Part of it has to do with resourcing it. We started with the easy stuff. To use an often quoted term, the 'low hanging fruit'. Now that we have almost exhausted the easier data that is already raw and machine-readable, we are faced with having to clean up other data, checking accuracy, and similar issues with verifying data. So the people who manage the data might not have the time to make sure it's ready for open data release. I think this is the biggest challenge. If we get to the point where this is all part of the process, it will be much easier, but we still have huge amounts of legacy data spread out all across the City. This data also has issues of interoperability - data from different departments are difficult to combine. We are even hearing from cities in the Greater Toronto Area that data on road networks is collected slightly differently, so if we wanted to put data from other cities together, it would be very difficult. To me, this is our biggest challenge - getting resources available to those that manage data, to help clean it up and to agree on common standards.

### Is data standardisation something that your unit will have a part in?

I hope so. There has been a lot of discussion worldwide on this issue. It has to happen eventually, but it is very difficult to come up with standards, as people are used to the way they currently work. It is a hugely complex issue, and in truth, I think solutions may come from outside of Canada. There's a lot of work done in Europe, and there are already precedents that happened from the past - such as around the web. Think of consortia such as the W3C (World Wide Web Consortium). The province could make it easier if they legislated a standard, but either way, we need one. I predict that we will soon see standards emerge that eventually catch hold, and eventually everyone will jump on the trend. In that case, I'm hoping that Toronto will be an early adopter. If we take open data licensing, the federal government came out with a license last year that we and others adopted and modified only slightly (in our case, we have to quote the City of Toronto Act). This license also spread to other cities in Canada. What it meant was that a developer could use data from Toronto, Vancouver, and Edmonton, all without worrying about different wording or nuances in licensing, because they are all the same. I'd love to see the same sort of thing happen with data standards, and I hope it happens quickly.

#### Moving to the current state of open data in Toronto, what developments have there been over the past year?

One thing that has transpired is a spike in involvement. In the first couple of years, there were one or two hackathons held per year. In the past 18 months we have seen a large increase in these types of events occurring, and more inquiries being sent to us regarding open data. It probably indicates that things are starting to happen, and that there is an increase in uses of data – a critical mass perhaps. We are planning on reorganising our webpage where we list applications as this list is growing quickly. I think it's almost like cause and effect. The more data we put up on the open data website, the

more likely it is to be used. The more it is used, the more likely outcomes are created. We are definitely seeing larger demand for open data and seeing more people attending meet ups to discuss what data is needed, and even discussions on standards are happening locally.

### What is your relationship with your neighbouring municipalities?

We do have relationships with our neighbours. We are benefiting from figuring out what each of [municipalities] is doing, seeing what we have in common, and how we could combine forces. Recently, Ontario has setup an open data community of practice called PSOD, Public Sector Open Data, to talk about open data and how we can work together as cities and the Province. We are looking at how we can support each other, because the data is all connected as well, such as with road data for those who continually cross between jurisdictional boundaries. The next step is figuring out how every city could release data at the same time and in the same way. Along those lines, many cities in the world have come together to use ISO standards for data collection, which will also be pushed into their open data, so we could see some standards creep in through that way. We are hoping that in the future, we could start planning the release of datasets in conjunction with other municipalities and the province.

### What makes Toronto open data unique?

I think the easiest thing to distinguish us is our size, both in terms of the number of citizens we serve, and the size of our council. Guelph has only 12 councillors, whereas we have 44, so Guelph is more agile in terms of numbers. For us, our volumes are clearly

higher than anywhere else, which means that everything we do is magnified in terms of politics, the supply of data, and organisational structures required. We have other situations to account for as well, such as the fact that Toronto receives a lot of foreign nationals entering Canada that we have to cater to when providing services. Therefore, everything is just bigger, but I wouldn't say that this is necessarily a case of 'bigger is better', because the sheer volume just makes open data more complex.

#### In a few words, what would you say are your current top challenges?

The way we are presenting information, accessibility of data, file formats, and tools to empower those without expertise in handling data.

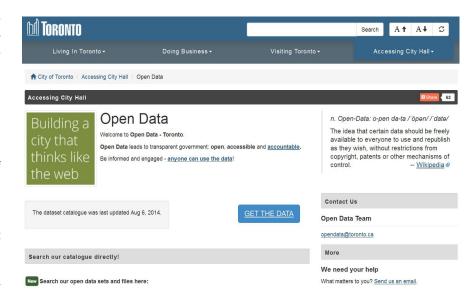
#### Any final words for other Canadian municipalities?

If you haven't started [an open data project] yet, I think there are lots of places to get more information than when we started. Other cities have already figured out a lot of things, so a city that is starting out fresh does not have to reinvent anything. This includes things like the open data license, which anyone can just adopt for themselves as it has already gone through numerous iterations and legal examinations. There are lots of cities that are already on their way, and I am sure they (and we) would gladly provide feedback and comments.

Don't feel you have to start fresh, don't feel you have to have it perfect. By all means, get started, and the rest will fall in place.

Top challenges: "presenting information. accessibility of data, file formats, and tools to empower those without expertise in handling data."

To those starting a new open data project: "Don't feel you have to start fresh, don't feel you have to have it perfect. By all means, get started, and the rest will fall in place.



# Open Data Toronto

Information and Technology Division, City of Toronto

Open Data catalogue: toronto.ca/open

Email: kmcdonal@toronto.ca

### **Partner Spotlight: Neptis Foundation**

The Neptis Foundation is a non-profit, based in the Toronto area. I spoke with Marcy Burchfield on the Foundation's activities in relation to Geothink.

#### What is your role at the Foundation?

I am the Executive Director of the Neptis Foundation. I have been with Neptis for the past 14 years, but only recently as the ED. I have a background in geomatics, applying remote sensing and GIS to understand change in urban environments. Neptis is a small foundation, in terms of staff and endowment. Because of this, we made a choice to use our funds more strategically by conducting and commissioning research rather than traditional grant-making. Our research targets land use and transportation issues related to regional urban growth and planning. Over the years, we have found that mapping and geospatial analysis not only allow us to better understand regional-scale issues, but also to communicate information from our research. Mapping is one way we try to inform policy and decisionmakers in the field of planning.

### Are you fixed to the Greater Toronto Area?

Most of our research is aimed at informing policy in the Toronto region, but we are not limited to the Toronto region, just Canadian urban regions.

### What kinds of projects has Neptis done?

Since 1999, we've published over 50 research pieces, e.g. technical transportation modelling reports that project

the region's population and employment 30 years into the future under different growth scenarios. We have analysed and compared the historical patterns of development among fastgrowing Canadian cities and analyzed how historical planning policies may have influenced these spatial patterns. In the last several years, the Province of Ontario has introduced a suite of growth management plans and policies in the Toronto region that govern how the region will grow. To inform this process and subsequent reviews of these plans, we have conducted quite a bit of quantitative and qualitative research to assess the effectiveness of these policies. Over the summer, we have been examining the Transportation Tomorrow Survey, a travel behaviour survey that is conducted every 5 years in the Toronto region. The purpose is to understand longitudinal trends in travel behaviour such as how commuting patterns have or have not changed in the region. This information is important for the public debate as our regional transit agency continues to review and prioritize transit investments as part of the regional transportation plan.

#### What makes up Neptis?

It is a mixed bag of people from different disciplines. Our founding executive director, Tony Coombes, was an urban designer and architect. I have a background in geography. We contract out much of our work and regularly work with planners, transportation engineers, political scientists, communications experts, geographers, graphic designers, and web developers.

This is where our geoweb comes in. It brings together the information we have collected and analysed over the years on a publicly-accessible platform. We plan to continually add information to the geoweb, as a way of informing the review of our three regional plans. The geoweb is meant to be a tool to inform the review process, which is happening in 2015 and 2016. We have been developing our geoweb with help from our Geothink partners at Ryerson University, who contribute for the purpose of public use and academic projects.

#### Who is your audience?

Our core audience is made up of planners, engineers, and practitioners who develop and implement plans, either from the public or private sectors, academics who are active in the planning, politicians who ultimately approve plans and policies, and finally the general public We think our geoweb project has great potential to reach out to people at all levels, especially the general public.

### What other collaborations have you had with Geothink?

Back in autumn, we participated in a regional planning forum in Regina, organized by Phillipe LeClerc, formerly of City of Regina. This was focused around open data and open government as part of any regional planning exercise. We have also been collaborating with Prof. Pamela Robinson (Ryerson University) on use of the geoweb in her planning courses. She is interested in the use of the geoweb as a tool for informing and engaging in

the review of the Greenbelt Plan.

### What opportunities are there for collaboration with Neptis?

We are very open to learning what others are doing in the Geothink network. With the intersection of disciplines involved in this grant, there is a huge opportunity to make geoweb tools better.

We like the idea of developing the geoweb to cater to more than just the technical crowd, and I think that when you bring all these disciplines together, you will get a better product, a better tool.

Neptis is also open to bringing on interns to work on our geoweb, and we are particularly interested in communications aspects of the geoweb.

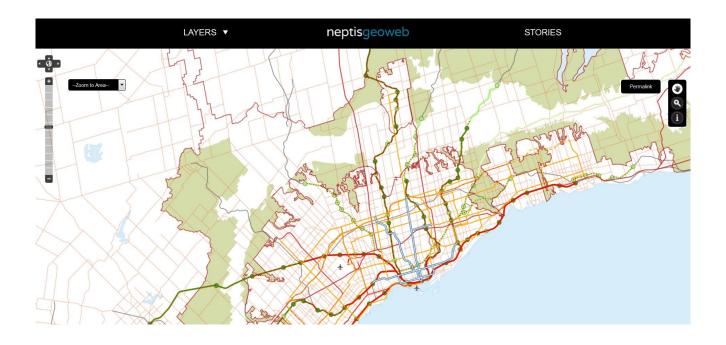


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### Partner Spotlight: David Fewer at CIPPIC

For our final interview, I spoke with David Fewer from the Canadian Internet Policy and Public Interest Clinic (CIPPIC). I asked him about the ongoing case between Canada Post and Geolytica (otherwise known as geocoder.ca). Geolytica operates geocoder.ca, a website and company that provides geocoding services and sells datasets and access to its API.

Geocoding is the process of finding the geographic coordinates (latitude, longitude), associated with non-coordinate data, such as a street address. Reverse geocoding is where a set of coordinates is input in order to return a non-coordinate data such as a street address.

### You are a lawyer, but also teach in Ottawa?

I am primarily a lawyer, but I also teach at the University of Ottawa. I am the Director of CIPPIC, which is part of the University. We are based in the Centre for Law, Technology and Society. Our mandate is to intervene on behalf of the public interest in technology law issues. We have worked on copyright, privacy, telecom, civil liberties (in the context of surveillance and police powers), and consumer protection on ecommerce issues. We are involved in legislation, take on clients, and intervene in court cases. We also do public education on technology law issues, such as copyright and privacy. Finally, we are involved in academic projects such as papers and studies.

#### I hear you and CIPPIC have worked in the now two year long case of Canada Post versus Geolytica?

Yes. So we're defending a client on a claim for copyright infringement in postal codes. The client is Geolytica, it's a business that makes money selling geodetic data. They were offering a service whereby you key in your street address, and they would give back your latitude and longitude. When people entered their street addresses, they would key in their postal codes as well. Over time, our client has realised that they had enough postal codes in their query database, that they could effectively map the postal codes onto latitude and longitude. Additionally, with an API, they were able to get big chunks of data at a time and put it up in mapping software. They were able to achieve a reasonably accurate postal code database, though one that is not identical, from what we understand, to Canada Post's database. In any event. Canada Post itself sells a database - its own database. Canada Post, of course, is in a changing business environment, where fewer and fewer people send fewer letters, and previously it made the majority of its income through its mailing services. With that business drying off, Canada Post is looking for alternative revenue streams, one source which is its postal code database. As such, it's anxious to make sure that it is competitive in the marketplace, and that may include exercising its intellectual property rights. In this case, Canada Post has taken the position that its intellectual property rights includes postal codes, the database of postal codes and individual postal codes as well.

#### Is the purpose of Geolytica's product, geocoder.ca, to recreate postal codes?

Well, it depends on what you mean by recreate. What it's supposed to do is provide geodetic data that matches up to your postal code. You key in your postal code and you would get back your coordinates. From that perspective, yes, it competes with any service Canada Post provides. It [geocoder.ca] doesn't purport to be an alternative, and in no way claims to be the authority or source of postal codes. It has always claimed that Canada Post controls the postal codes. Our client is just providing a geocoding service.

#### How do Canada's current set of laws and institutions affect this case?

There are two claims. One is that postal codes are an official mark of Canada Post. This is sort of like a super trademark, where nobody can use the phrase 'postal code', other than Canada Post. We aren't all that worried about this claim.

The second claim, which would be more relevant to those at Geothink, is that there is copyright in something as simple as a postal code. In our view, a postal code is purely a 'fact', something that exists independently of the world or any authorial contribution. Canada Post says that they are the authors of postal codes. They argue that, given that they created them, both the database [of postal codes] and the postal codes themselves are subject to copyright. This is a pretty strong claim, and we think that Canada Post will

bump into two challenges to this claim.

One is that these are facts. It doesn't matter that these were created and originate from Canada Post. If Canada Post is right, anything named by man would be subject to copyright. Street addresses would be the next obvious example. If Canada Post has copyright over postal codes, then by the same logic, the City of Ottawa would have copyright over street names in its City, and all over places in the world. This makes the argument highly problematic

The second issue is with systems. Canada Post is trying to argue that postal codes are the output of a rigorous system that they created. The problem is that one cannot get copyright in a system. A system is kind of akin to an invention or an idea, so copyright has never been granted to systems.

### What happens when one creates a map using postal codes?

These are some of the hard cases. We have to pull out the doctrine of originality in copyright that deals with this. Do you get copyright if you put effort into a creative work, or is more required? In Canada, we tend to view that more is required for creativity that just an investment of work, cash, or effort, that gets you copyright. Instead, it's the exercise of skill and judgement. When you talk about maps and databases, one looks at the selection and arrangement of the data. Maps are a great example where plainly a great deal of investment goes into the creation of a map. But, you cannot exercise rights in the information contained in the map. If you go and create a map of McGill University's campus, it does not prevent me from creating my own map: nor does it prevent me from taking measurements, in other words, taking the information in your map, and duplicating it in mine. But, it does prevent me from copying your map. However, because there is the very strong instinct to protect investment, you do have some cases that can go so far as to say that you have to recreate maps and literally re-measure distances from one location to the next. In these cases. courts have really stretched the meaning of skill and judgement in selection and arrangement [of data]. To a certain extent, I think Canada Post is hoping they will get a court judgement that is sympathetic to their investment as a crown corporation.

# What about the methods of data collection, some of which can be automated to certain degrees?

I think it does. Even though postal codes did not exist, and would not potentially exist, until Canada Post created them, it is not enough. This is why we talk about these things as 'authored facts', and it does not change the reality that they are still facts, at the end of the day. It doesn't get them out of the analogy of name conventions of human things, such as the periodic table. If we think of human created facts. where do Canada Post's arguments go? Think of something like sports. The statistics we create from sports are entirely artificial [authored facts]. The way we think of sports could potentially change depending on the results of this case.

# Does the method of collection also affect the ability for us to copyright what we produce?

It always comes back to skill and judgement, and the selection and arrangement. The method of arrangement or method of collection of data certainly affects copyright, if we can say that the method involves skill and judgement. If there is no skill or judge-

ment being used in selecting or arranging data, there is no copyright. We have to understand that, whilst that can seem unfair to the collector of data, it reflects on a policy judgement that makes that data available to the world, and allows society to benefit from it. To an extent, we can say that this kind of policy judgement [in requiring skill and judgment for copyright], reflects a desire not to hinder innovation or the quest for knowledge. For those reasons, society as a whole is better off if we permit those kinds of selections of data to be available to the public.

### Do these issues also have effects on other industries?

The more immediate area where there would be considerable interest, is the area of finance, where the market is simply a collection of numbers to be analysed. Also, as I mentioned, we have sports, where statistics are artificial as we are observing our engagements within an artificial activity. As we know, sports teams and leagues are not shy about protecting their intellectual property, and we could possibility see a move to try to control this and turn it into a revenue stream, in a way that they aren't quite at yet. In a way, we are seeing that sort of thing right now with fantasy leagues, but sports leagues are not benefitting as much from this as they would like.

### Would open data be a solution to the Canada Post case?

I don't know if it would be a solution to our client's issue. It would certainly make it easier for third parties to avoid risk. Open data is all about clearly communicating terms that are attached with the use of data – creating certainty of terms. Canada Post, of course, is not going to use an open data license. They are certainly not obliged to make their data open – they are allowed to

commercially exploit their data. Canada Post occupies a strategically advantageous position as both the source of data and a bottleneck to it. While we say that Canada Post can exercise intellectual property rights, we don't think that Canada Post can exploit control over access to that data.

## Are the costs involved really so great that this has resulted in court action?

Canada Post is the only source of the data, and while it distributes the data to third parties, it prohibits redistribution as part of the contract. Geolytica cannot go to a third party to get the data. Canada Post does provide a valuable service to other third parties, by providing up-to-date, quality data. Geolytica does not claim to compete in terms of accuracy and so could not offer the same level of service as Canada Post.

### Does it really cost too much for Geolytica?

Canada Post does not offer the data cheaply. Our client's services are therefore very valuable to non-profits. The nature of intellectual property means that Canada Post does not have to price their product at what everyone can afford, but instead can price at the point of profit maximisation. This means that you are typically going to be pricing some people out of the market.

### Are there similar cases being held in the US and elsewhere?

In the US, it is different, as the law states that the government cannot own copyright in their works. There are other cases such as a Dutch case we looked at, where a Dutch court found that there is no copyright found in postal codes. There is an instinct of some judges to protect investments, who may find it unfair that the law allows for

open competition, so we still find some outlier cases. That's the gamble that Canada Post is probably making.

This exact scenario is somewhat unique, in that it has never happened in Canada. In terms of policy, these issues have been raised elsewhere, so we aren't in completely uncharted territory.

The main thing that is unique is in Canada Post's argument. The logic of their argument is that copyright goes all the way down to individual postal codes. What they say, is that Canada Post offers all of us an 'implied license'. Following on this logic, Canada Post is therefore 'allowing' us to send letters and keep address books, which, of course, is quite a ridiculous argument.

**Essential ingredients for copyright:** skill and judgement in the selection and arrangement of data



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### New Geothink Staff: Alexander Taciuk



Alex Taciuk is the Project Manager for Geothink. He rejoined the partnership in May after working last summer as a Project Researcher for Professor Renee Sieber. In his previous role he researched how Geothink can be more effective as a partnership. This led to a survey of Geothink partners, a literature review on effective and ineffective partnership practices, and the foundation for the Rapid Response Think Tank (RRTT).

In his current role, Alex will be working alongside Jing, Geothink's Research Coordinator.

Prior to working for Geothink, Alex completed his BA in Urban Systems at the McGill's School of Environment. His thesis studied the relationship between bicycle parking and bicycle ridership levels, an active transportation issue in Montréal. Alex plans to pursue a Masters in urban planning to study how cities can create environments that are more conducive to active transportation.

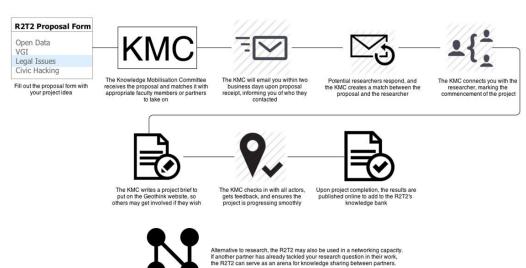
Geothink's research is important to this end, because being able to have more effective collaborate between citizens and governments will allow more opportunities for nuanced optimizations to the transportation network.

As Project Manager, Alex will aid in the attainment of research activities of the grant by identifying opportunities for collaboration, use social media to broadcast grant activities, and help coordinate grant activities such as conference calls and the summer institute. Please get in contact with Alex if you have ideas for research or educational activities, or even to check in and hear about what's happening elsewhere in the partnership.

Alex was involved in laying down the foundations for RRTT. The diagram below gives an outline of RRTT procedure.







### Student Spotlight: Alexandra Diebel



Alexandra Diebel is a third year student in the bijuridical Programme de Droit Canadien at the University of Ottawa. She has a background in international taxation and music. She is currently working with Prof. Teresa Scassa on the topic of open transit data. Prof. Scassa's approach is to consider open transit data as a case study for open data more generally and to extrapolate lessons about open

data. In particular, she is examining in greater detail legal aspects such as the juridical character of open data and the legal road blocks to its roll out.

Alexandra decided to undertake legal studies as the logical consequence of her work in international tax – an understanding of the legal underpinnings of tax arrangements being necessary to a panoramic view of the tax land-scape. Beyond this, Alexandra is attracted to the study of law because her inner child is a lawyer and she wishes to set it free.

Through Geothink, she hopes to expand the breadth of areas in which she has a working knowledge to include topics related to new technologies and topographies. In particular, she is inter-

ested in the contractual arrangements that are the precursor to access to geolocalization data under an open data rubric. This interest includes developing an understanding of the providers/owners of mapping data, the platforms and applications used to access it, and in particular the details of the commercial and non-commercial transactions which lead to such information being made "open", either on its own, or integrated into a larger parcel of data and software.

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### Student Spotlight: Niki Singh



Niki is a Research Assistant for Professor Teresa Scassa at the University of Ottawa. She is currently completing her Juris Doctor at the University of Ottawa and has a Bachelor of Journalism degree from Ryerson University.

Prior to her current role, Niki worked in marketing and communications. She was the Marketing Associate at Cision, a software brand for marketing and public relations professions. Her work involved work in writing, social media marketing and understanding trends in Canadian business. This experience opened her eyes to the emerging technology, developers and the start-up sector in Canada. She has developed a key interest in how the law intersects with these industries, leading to her research with Professor Scassa.

Her research is focused on the challenges and opportunities of open government, specific to language and law. This includes studying data licences and data accessibility. Outside of her Research Assistant role, Niki is a pop culture nerd, who loves film, photography and travel. Niki is excited to be a part of the Geothink team and is eager to learn more about various aspects of open data.

#### **CONTACT NIKI**

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### Student Spotlight: Elizabeth Marasse

Liz Marasse is a researcher and graduate student in the school of Information Studies at the University of Ottawa. Her experience includes work as a Research Assistant in public, academic and private sectors as well as in communications and online content development.

As a public sector researcher at the Canadian Heritage Information Network, Liz assisted research teams in the development of e-learning modules, database creation and administration, analysis of user feedback for three Canadian governmental websites, statistical analysis of user behaviour on governmental websites, and

research into content gaps on three government-administered websites. She also conducted a longitudinal study of network member museums across Canada and their practices with regards to social media, the research from which contributed to guidelines for best practices in social media usage for these and other museums in Canada.

As a Research Assistant at the University of Ottawa, Liz will be assisting in development of an information repository in the field of Policy Analysis for the Geothink Project on the geospatial Web 2.0. In addition to this, Liz assists in researching and developing client

materials for the Vice President of Communications in a private businessconsulting firm, Generative Leadership Group, based in Somerville, New Jersey.

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Okanagan Basin Water Board (OBWB)	Kelowna	British Columbia	Sears/Anna	anna.warwick.sears@obwb.ca
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#### Upcoming Events and a Call for Your Participation

For us to have the broadest impact with the Geothink Project, 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.

Also, please make sure to inform us of any changes in contact details.

#### **Notices**

Please email Jing (<u>jing.teo@mcgill.ca</u>) to notify us of any changes to contact details.

#### **Events**

#### AAG (Association of American Geographers) Conference

Location: Hyatt Regency, 151 East Wacker Dr., Chicago Illinois

Conference date: 21-25 April 2015 Abstract deadline: 5 November 2014

Important dates: http://www.aag.org/cs/annualmeeting/call for papers

#### **Geothink Annual General Meeting**

Location: Waterloo Date: month of June

#### **Summer Institute**

Location: Waterloo

Date: one week before the AGM

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Or email us: geothink.ca@gmail.com