

GEO THINK



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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 cur-

rently 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 us [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.

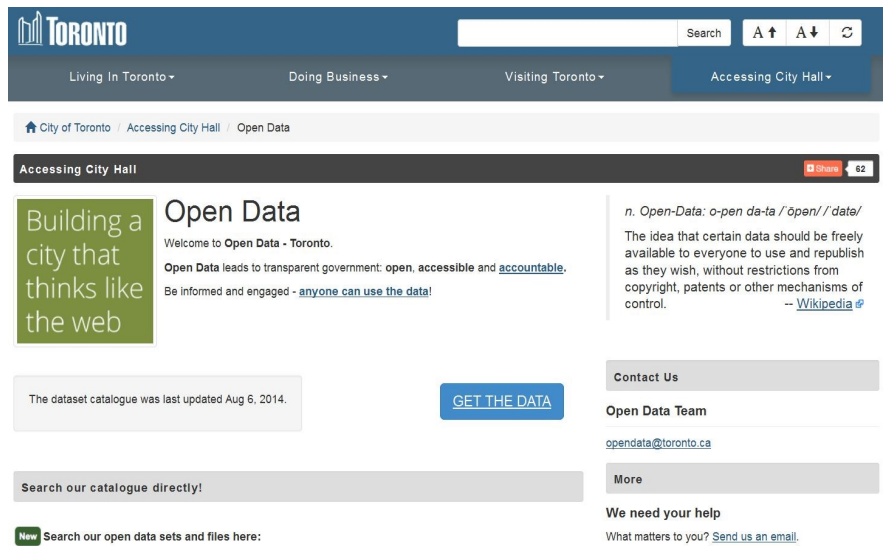
Any final words for other Canadian municipalities?

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.”*



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