Voices in the cloud: social media and trust in Canadian and US local governments

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Abstract

Purpose – This study aims to examine how 20 local governments in Canada and the USA operationalize the government–citizen trust relationship through the administration of social media by answering two questions: Can local governments use social media to increase citizen trust? and if local governments can use social media, what can be learned about the administration of social media that results in an increase in citizen trust of government?

Design/methodology/approach – Based on a normative belief that increasing the trustworthiness of government is a desired outcome, the working proposition is that social media may offer a low-barrier method for engaging citizens and supporting trust-based relationships, if social media programs are administered in a way that operationalizes this objective. Using content analysis of data collected from interview transcripts and documentary sources, this exploratory, process-oriented study emphasizes the social, organizational and functional contexts of social media and social media as records.

Findings – The study found that most cities had extensive programs featuring multiple accounts on a number of common platforms. The cities maintained tight control over content, account creation and employee and audience participation to ensure compliance with federal and provincial or state legislation and to mitigate technology and content-based risks. The cities used social media to broadcast information, respond to service requests and provide issue management. Social media results were measured sporadically on an *ad hoc* basis for operational purposes and only two cities had dedicated procedures in place for managing social media as records. Contrary to previous research, this study indicates that fiduciary trust relationships do require trust by the agent (i.e. institution) and the principal (i.e. citizen).

Research limitations/implications – To increase generalizability, an effort was made to select cities that were demographically and geographically diverse by selecting a range of population sizes and locations. However, selection was skewed towards cities with well-developed social media programs, and as a result, over half of the cities were national, provincial or state capitals or larger population centres. While these cities experienced economic advantages, the participants in the study identified challenges around resourcing and capacity, and their responses are expected to be of value to cities operating under similar constraints. Additionally, this study represents a point in time, as social media use at the local governments continued to expand and evolve during and after the data collection period.

Practical implications – This paper identifies three scenarios where social media content from local government accounts should be managed as records, including: the documentation of incidents, the on-going

collection of city content from high-profile accounts and the "on demand" collection of citizens' content where cities have asked for citizen input on topics or issues.

Social implications – This study provides an in-depth characterization of social media administration and use by 20 local governments in Canada and the USA. Considering the progress made by cities in e-government using their websites as a base, cities can develop greater capacity for open government, meaning wider participation by citizens in the decisions that affect them on a daily basis. To achieve goals of transparency, accountability and civic participation, cities will need to develop capacity around social media measurement, reporting and procedures for managing social media as records.

Originality/value – In providing a detailed and complete description of social media use in 20 cities in two countries, this study moves beyond a compliance- and requirement-driven approach to consider the larger question of government–citizen trust and the relevance of records within this relationship.

Keywords Canada, United States of America, Government, Electronic records management

Paper type Research paper

Introduction
In May 2013, Edward Snowden's disclosure of classified documents revealed several government surveillance programs, including those of the US National Security Agency and the Communications Security Establishment of Canada. The following year, governments experienced the largest decline in trust of any institution as measured by the Edelman Trust. The most significant drops in trust were in the USA, France and Hong Kong, where levels fell below 50 per cent. The level of trust in government rose slightly over the next two years, to 39 and 53 per cent in the USA and Canada, respectively. This rise was largely attributed to the increase in the level of trust among the informed public, which increased from 48 to 51 per cent, compared to the general public, among whom the level of trust increased from 41 per cent in 2015 to 42 per cent in 2016. In fact, the difference in the trust rating between the informed public and the general population increased from 7 to 9 per cent over the two-year period, suggesting the importance of information to the government–citizen trust relationship (Edelman Borlund, 2014, 2016).

Significantly, the USA (in 2011) and Canada (in 2012) joined the Open Government Partnership (OGP) and signed the *Open Government Declaration* prior to Snowden's disclosure. The *Declaration* acknowledges that "people all around the world are demanding more openness in government", and charges governments with increasing information availability, civic participation, standards of integrity and access, through new technologies to government (Open Government Partnership, 2011). In joining the OGP, countries commit to producing national action plans for open government. The US' third plan, published in 2015 (i.e. post Snowden), seeks "to promote the principles of transparency, openness, accountability and improved and more efficient public services" in seven areas:

(1) access to information;
(2) public participation;
(3) government integrity;
(4) fiscal transparency;
(5) justice and law enforcement;
(6) open government at the subnational level; and
(7) open government in support of global sustainable development (The White House, 2015).

In the plan, "subnational" initiatives encompass state, tribal and local governments and expressly focus on open data for local community use, including:

- opening federal data to benefit local communities;
- supporting the municipal data network;
- fostering data ecosystems; and
- extending digital, data-driven government (The White House, 2015, pp. 17-18).

In general, the federal government looks to leverage "the data economy" to fill gaps in their work with local communities, first, by better identifying and implementing community outreach programs related to urban blight resilience, access to healthcare, people with disabilities and food deserts, and second, by using open data to deliver value in terms of civic innovations, entrepreneurial efforts and economic growth.

While grounded in the OGP's five "grand challenges" (i.e. public services, public integrity, public resources, safer communities and corporate accountability), the Canadian action plan focuses on the importance of open government "to increase transparency, accountability, civic engagement, and trust in government" (Treasury Board, 2014, p. 2). In Canada, open government begins with the expectation that government data and information is "open by default", based on proactive release except where privacy, security and confidentiality restrictions apply (Treasury Board, 2014, p. 7). Open government is conceptualized using the three streams of open data, open information and open dialogue, and, like the US action plan, places an emphasis on open data. However, as a nation with roughly one-tenth the population of the USA, the Canadian plan seeks mobility in integrating open data access across federal, provincial, territorial and municipal jurisdictions, using a "beyond borders" approach to support harmonization of data for reuse and commercialization and to reinforce Canada's role as an international leader for open government (The Government of Canada is co-chair of the OGP's open data working group, contributor to the *Open Data Charter* and an adopter of the *Open Government License*). The second stream, open information, is viewed as a requirement for transparency and accountability and focuses on access to scientific research and data, mandatory reporting standards for extractive industries, openness on government spending and improved digital skills for all Canadians. The third stream, open dialogue, provides an opportunity for informed civic participation, which:

> [. . .] matures when citizens and civil society organizations are empowered to voice their insights and opinions, and when governments demonstrate their willingness to meaningfully incorporate that public feedback as part of [the] decision-making processes (Treasury Board, 2014, p. 22).

As per the action plan, open dialogue leverages open information and open data efforts to support civic participation, using mechanisms such as websites, consultation portals and social media.

Social media is the focus of our research. In our study, we examined the ways in which 20 local governments in Canada and the USA used social media platforms to support open dialogue with citizens and assessed the cities' capacities to incorporate public feedback received through social media into their decision-making processes. Given that our initial investigations suggested that records management teams working in local government were yet to engage with social media as records, the study focused on social media in context. We proposed to examine social media administration in local government across the information lifecycle, from creation through disposition, from the perspectives of local governments and of citizens. In the Phase 1 of our study, we focused on social media teams within the communications departments (rather than the records management teams in the city clerk's offices) to develop a rich description of the end-to-end business processes whereby social media content was created and managed.

The article begins by framing our work by briefly reviewing the history of social media, considering the literature on social media in archival and records management, public administration journals and theories of trust in government. We present our methodology, including sample selection, data collection, data analysis and limitations. In our findings, we focus on areas of importance to archives and records management, including the local government context, social media administration, policy, activities and impact. The discussion of findings focuses on the larger issues of trust, transparency and accountability as key components of open government. The article closes by suggesting that the cities' social media programs could be re-oriented to increase transparency and accountability and extended to better support citizen participation by managing social media as records.

Literature review
History of social media
Broadly speaking, social media platforms involve "the creation of a public profile within a defined system, the ability to connect with others and user-generated content" (Mossberger *et al.*, 2013). The genesis of social media platforms can be traced back to the 1970s and the early days of the internet, when computer scientists dialing into central systems found ways to communicate, share files and post messages through bulletin board systems, CompuServe and America Online discussion forums. By the 1990s, the wider public participated in online communities such as Classmates.com, SixDegrees.com and Friendster or used ICQ messaging software for real-time "chats". By the early 2000s, other networking platforms were developed, including LinkedIn for professionals and MySpace for young adults. In 2004, Facebook was launched as a social networking site for Harvard University, opening to the public in 2006, rapidly expanding after $60m of investment in 2007 and growing to one billion users by 2012. Facebook's success was attributed to open application programming interfaces, an application store for third-party developers and popular, easy-to-adopt features such as the "Like" button. Twitter, launched in 2006, used similar marketing tactics, including hyperlinking and compiled hashtags in 2009. Since 2010, smartphones have supported mobile applications, including geo-based networking (e.g. Foursquare), photo and video sharing (e.g. Instagram, YouTube) and private sharing (e.g. Snapchat). In 2011, Google launched a social layer, moving into augmented reality with Google Glass in 2013. Today, front-runner companies look to control market share through acquisition, with Facebook purchasing WhatsApp and Instagram, Twitter buying Vine and Periscope and Google securing DoubleClick and YouTube (Marrouat and Benyagoub, 2013; Digital Trends, 2016).

Social media in archives and records management
Social media platforms are browser-based, cloud-located, mobile-compatible and largely proprietary systems that allow users to contribute content in a setting where they may have limited control over data or access; as such, these platforms create new records and information challenges. In archives, initial research around social media platforms focused on archives' and archivists' use of social media and indicated that social media was primarily dedicated to promoting archival holdings (Samouelian, 2009; Crymble, 2010), with archivists' personal activity focused on professional development (Crymble, 2010). A study of Canadian archives found that by 2012, a third of Canadian archives used social media, albeit with relatively low rate of engagement (Duff *et al.*, 2013, pp. 89-90). Other studies examined the possible affordances social media platforms provided for personal archives (Acker and Brubaker, 2014) and community archives (Bak and Hill, 2015), highlighting platform limitations as well as benefits. Although social media platforms allowed

individuals, communities and institutions new opportunities to document their activities, these proprietary platforms also controlled features, access and use. For example, while the participatory benefits of a photo-sharing platform included low cost, ease of use, discoverability, geo-location tagging, user annotations, audience sharing and analytics, the data created using the platform could not easily be exported to the archives' technical environment to associate with originals, insert into reports or combine with data from other, similar proprietary platforms (Bak and Hill, 2015).

Overall, these studies suggest an approach based on a cautious and gradual entry, with archival institutions and individuals "testing the waters" by using social media platforms to support their own missions and goals and then "deep diving" to investigate the wider implications of social media within the discipline. Additionally, standards of practice for managing social media as records have been published, as exemplified by a report on federal agencies from the IBM Center for Government (Franks, 2010) and a white paper from the National Archives and Records Administration (NARA, 2013). This work is extended by recent publications relating to open data, with researchers proposing requirements (Sataslaatten, 2014), examining practice (McDonald and Léveillé, 2014; Léveillé and Timms, 2014) and identifying new opportunities (Lemieux *et al.*, 2014).

Social media and public administration

A significant amount of research has been completed in the USA around local government use of social media, particularly with respect to public engagement and citizen participation. Initially, the "amazing adoption rates" for social media appeared poised to breathe new life into existing e-government efforts intended to "reverse the loss of social capital in the USA through the use of (electronic) technology to promote citizen involvement in government (i.e. e-democracy)" (Norris and Reddick, 2013). Since local governments use more mechanisms permitting direct citizen involvement (Mossberger *et al.*, 2013, p. 351), social media was expected to lead to greater transparency, participation and collaboration at this level (Mergel, 2013, p. 330). Like the studies conducted on archives' use of social media, early public administration studies focused on social media adoption rates, reasons for adoption and types of use by local governments. A national survey of the US local government officials found that social media was largely adopted owing to pressures from within the organizations or from citizens, with Facebook, Twitter and YouTube the primary platforms adopted, and its use focused on announcements of events and activities, responses to issues and policy questions and police and crime alerts; in terms of participation, most respondents said that their cities allowed audience posts and monitored accounts daily (Graham and Avery, 2013). Similarly, a survey of municipal employees including collaborative social media platforms used within the organizations (e.g. LinkedIn, Skype, Google Docs) as well as for communication with citizens (e.g. Facebook, Twitter, YouTube) indicated that uses of social media centred on external dissemination of information, facilitation of citizen and external stakeholder activities, collaboration on internal work and feedback on service quality (Oliveira and Welch, 2013).

Other studies considered social media in relation to local government websites. A Canadian study used content analysis of medium-sized municipal websites to develop a Web interactivity index based on e-content, e-services and social media and assigned ratings to over 100 mid-sized municipalities. They found e-government features were higher in municipalities with larger, less static populations (i.e. cities where more people had moved to/from within five years) but did not find any other significant relationship between interactivity and measurements such as employment rate, age, education or income (Dolson and Young, 2012). In the USA, a national survey found that the percentage of local

governments offering information and communication applications on their websites increased from 86.6 per cent in 2004 to 93.5 per cent in 2011, with the focus on transaction-based services such as requests for services, utility bill payment and record requests. Encouragingly, the reasons for this increased effort included access to information, access to government and access to elected officials; however, only a small minority of cities included citizen participation/e-democracy in their top three choices (Norris and Reddick, 2013).

Overall, the public administration literature indicated that local governments were better at using their websites and social media accounts as low-cost broadcast channels to deliver information to, rather than engaging and interacting with, citizens. In one study, public information officers said they felt social media allowed "more control over when, how, and what message gets disseminated", reinforcing the perception of one-way use of the media (Graham, 2014, p. 14). In considering the different attitudes of stakeholders towards citizen participation, a study of elected officials, staff and citizens in four North Carolina cities found that attitudes varied by stakeholder group. Council members saw citizens as voters who elected them to make decisions in the public interest; staff saw citizens as clients who required concise, accurate and timely information to advocate for change; and citizens saw themselves as partners, requiring clearly identified and defined issues and support for authentic participation and feedback (Berner *et al.*, 2011). These differing attitudes towards citizen participation were demonstrated in other studies, where elected officials expressed the belief that most citizens contributed or participated in local government activities "in an emergency or when something affects them specifically" (Barnes and Mann, 2011, p. 62) and that "participation in the USA often occurs only when individuals are dissatisfied" (Mossberger *et al.*, 2013, p. 356). As a result, while the use of social media by local government was seen by researchers as an opportunity for local government to engage with citizens, they also cautioned that "[t]he emergence of new tools online may [. . .] not easily alter those patterns of government behavior" (Mossberger *et al.*, 2013, p. 352) and that change "if it happens at all" may be incremental, reflecting "diverse stakeholders whose interests are not synonymous and often conflict" (Norris and Reddick, 2013, p. 167). To summarize, then, existing research from the public administration literature suggests high levels of interest in the affordances and possibilities provided by social media but a growing sense of realism about inherent challenges and limitations.

Social media and trust in government
One definition of trust is the:

> [. . .] confidence of one party in another, based on alignment of value systems with respect to specific actions or benefits, and involving a relationship of voluntary vulnerability, dependence and reliance, based on risk assessment (InterPARES Trust, 2016).

Kelton *et al.* (2008) framed trust as a progression: from *individual*, as a personality trait; to *interpersonal*, or a social tie; *relational*, as an emergent property of a mutual relationship; and *societal*, as a feature of the community as a whole. Thomas (1998) also viewed trust as a progression, from mutual, to societal, to fiduciary, where the latter involves trust based on an established professional, moral and/or civic relationship. Killerby (2005, p. 1) confirmed that "trust in government is a form of fiduciary trust between society and government", noting that a main characteristic of fiduciary trust is that it exists without any reciprocal trust behaviours between the partners.

Uslaner and Brown (2005, p. 44) emphasized that "[e]quality and honesty in government [. . .] are necessary to create trust and the universalistic social policies that lead to a greater level of equality and social cohesion". Referencing the Edelman Trust studies where an

informed public exhibited higher levels of trust in government, the conclusion is that information is one of the means by which citizens can measure the equality and honesty of government. As Burkert (1999) noted, "trust is built upon a foundation of at least some measure of information". Looking back to the advent of printing, Kreis' (2000) theorized that greater trust evolved as printed materials became more accurate and available. This trajectory appears to be reflected in both the increased trust demonstrated by the informed public and also in the growing levels of trust for social media as measured by the Edelman Trust surveys.

Today, a great deal of government information resides and flows in digital form. While with print media, "we see feel and in some cases, smell authenticity, digital information lacks these sense triggers" (InterPARES Trust, 2016). With the introduction of social media, scholars have worked to understand the relationship between citizens' trust in government and the government's use of social media. Many of these findings remain tentative: for example, Das et al. (2009, p. 2) concluded:

[. . .] trust *can* play an important role in facilitating the development of e-government within a country as any digital medium is a social platform through which individuals interact or transact with other citizens, businesses, or governments [emphasis ours].

In an effort to provide a basis for understanding how social media influences the government–citizen trust relationship, our study consists of two phases, described as follows.

Methodology
Research question
This study examined whether and by what means 20 local governments in Canada and the USA operationalized the government–citizen trust relationship through the administration of their social media programs. Given that trust involves a relationship between parties, the study was designed as two phases to investigate the perspectives of the local governments and the citizens. The Phase 1 of the study (described here) used interviews and content analysis to examine social media use from the local governments' perspectives. The Phase 2 (to follow in 2017) will use online surveys in four of the 20 cities to explore the citizens' perspectives. A bridging study featuring sentiment analysis of Twitter data was also completed during the Phase 1 (Chen et al., 2016).

The questions posed for both phases were as follows:

Q1. Can local governments use social media to increase citizen trust?

Q2. What can we learn about the administration of social media that results in an increase in citizen trust of government?

Given our normative belief that increasing the trustworthiness of government is a desired outcome, our working proposition was that social media may offer a low-barrier method for engaging citizens and supporting trust-based relationships with local government if social media programs are administered in a way that operationalizes this objective. As information scientists, we were also interested in assessing the degree to which managing social media as records appeared to be a component of such operationalization.

In the Phase 1 of the study, we used interviews and content analysis to examine the local government administration and use of social media. Content analysis appears tailor-made for records-related research, as it leverages documentary sources in support of both quantitative and qualitative methodologies. As described by Berelson (1952), "[c]ontent

analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication". Holsti (1969) broadened the method to "any technique for making inferences by objectively and systematically identifying specified characteristics of messages", including latent content (Bryman, 2012, p. 289). By capturing interviews as transcripts and collecting data from documentary sources to validate the participants' views, our exploratory, process-oriented study emphasized the social, organizational and functional contexts of social media in local government.

Sample selection
Canadian and US local governments were selected for this study based on the nationalities and residences of the researchers and the perception that the municipal level of government might provide a more level field of study than the province/state or federal levels. Data from websites, social media accounts and other documentary sources were accessible, and staff were believed to be available and to have a level of interest in a social media research. With over 3,600 local governments in Canada (Federation of Canadian Municipalities, 2007) and 19,000 villages, cities and municipalities in the USA (National League of Cities, 2014), the researchers believed findings would be of practical value to these institutions.

The number of cities selected for the study was 20, based on assertions that the normal range for case studies is four to five cases and 20 to 30 cases for grounded theory research (Creswell, 2014, p. 189). A total of ten Canadian and ten US cities were selected, and given an interest in best practices in social media administration, an attempt was made to identify cities with well-developed social media programs. The selection criteria included cities with at least one "corporate" Facebook account (i.e. "city name/Facebook"), three Twitter accounts (i.e. corporate, mayor and police) and at least one other social media channel, which, in 2014, was surprisingly difficult to meet. To increase generalizability, an effort was made to select cities that were demographically and geographically diverse by selecting a range of population sizes and locations.

Following identification, profiles were completed to characterize each city in terms of history, economics, demographics, governance and social media metrics (see Table I). Of the Canadian cities, nine of the ten were among the top 25 in the country based on population; one was a national capital and six were provincial capitals; and all were represented by the council-manager form of government. Eight of the US cities were among the top 50 based on population, five were state capitals and five were represented by the council-manager form of government, while five were represented by the council-mayor (i.e. strong-mayor) form.

Unit of analysis
Overall, cities represented the primary unit of analysis. Based on the archives and records management literature and our experience, our understanding was that few of the cities were managing their social media as records. As a result, we focused on the communications departments which represented the business units responsible for social media administration. In terms of the interviews and non-public documents, the significant actors included the communications managers and subject matter experts responsible for social media. For the ten Canadian cities, the interview participants included six communications directors or media managers and five staff with social media in their titles (i.e. advisor, consultant, co-ordinator, strategist). Only seven of the ten US cities participated in the interview process as three of the strong-mayor cities did not respond to email or telephone requests. The US participants tended to prefer a group-style interview where the range of questions could be answered in one meeting. The interview participants included three communications directors, two social media managers and two press/public relations

City	Canadian cities Population	Rank	Capital	City	US cities Population	Rank	Capital	Council manager
Toronto, ON	2,615,060	1	X	New York City, NY	8,175,133	1		
Calgary, AB	1,096,833	3		Austin, TX	790,390	15	X	X
Ottawa, ON	883,391	4	X national	Boston, MA	617,594	21	X	
Edmonton, AB	812,201	5	X	Seattle, WA	608,660	26		
Winnipeg, MN	663,617	7	X	Atlanta, GA	420,003	33	X	
Vancouver, BC	603,502	8		Kansas City, MO	459,787	35		
Surrey, BC	468,251	12		Mesa, AZ	439,041	40		X
Halifax, NS	390,096	14	X	Honolulu, HI	337,256	48	X	X
Regina, SK	193,100	24	X	Raleigh, NC	403,892	52	X	X
Fredericton, NB	56,224	90	X	Riverside, CA	303,871	61		X

Source: Noss (2013), Government of Canada, Statistics Canada (2011)

Table I.
Cities in the study

managers. Also present were a records manager, three information technology staff persons and a combination IT/communications person. Where questions could not be answered, the main contacts at each city liaised with other actors including Web managers, records managers, IT staff, members of the legal team and/or the senior executives to provide documents and/or written answers in email format. Prior to contact, the study and questionnaires were approved by San Jose State University's Institutional Review Board (Table II).

Data collection
The primary method for achieving validity for this phase of the study was data triangulation based on a range of data sources, including: transcripts generated from interviews; city websites and social media accounts (public data only); and policy documents and reports (i.e. social media policies, records management policies and social media strategy documents and reports). A total of 17 transcripts were generated through interviews with city participants who responded to 27 open-ended questions relating to six areas of investigation: online presence, context, policies, resources, results and legal challenges. Participants received the questionnaire in advance and took part in member checking by reviewing transcripts and noting any corrections or edits. In all, ten Canadian and seven US transcripts were collected over a nine-month period. At least 50 Web pages and 40 social media accounts were accessed for the ten cities in each country, with analysis ranging from quick checks (yes/no) to capture for coding where the information provided was not available through another source or contained additional information (e.g. open government hubs and social media account profiles). Records relating to records management included bylaws and procedural guidelines, with 16 documents collected for Canada and 18 for the US Records relating to social media included policies, guidelines, reports and internal news stories/announcements, with 42 documents collected for Canada and 35 for the US. Other policy documents and information were collected (e.g. open government policies and audit results), totalling 20 for each country (Table III).

Title	Canada	USA
Directors and managers	6	7
Social media experts	5	0
Others	0	5
Totals	11	12

Table II.
Interview
participants

Material	Canada	USA
Interview transcripts	10	7
Web pages	50	50
Social media accounts	40	40
Records management documents	16	18
Social media documents	42	35
Other documents	20	20
Total	178	170

Table III.
Summary of
documentary
material

Data analysis
Following the completion of the first three interviews, data coding was initiated. In the first round of the data entry, categories were identified, and as more interviews were coded, repeating terms were translated into dimensions. Once all 20 files were entered, the coding manual was finalized. A second round of coding was completed and all entries were validated. During this round, latent themes began to emerge and were entered as categories. In the third round, the coder went through the files again and identified and added any other data relating to these themes. Over the three rounds, more than 50 categories and 175 dimensions emerged, and the final data were anonymized and presented in the aggregate so that individuals were not identified or identifiable. The researchers then worked collaboratively to write an 80-page report, using tables and charts to create narrative focus and visualize findings.

Limitations
Although an effort was made to identify an array of cities, selection was slanted towards cities with well-developed social media programs in place. In the end, given that one of the cities was a national capital, over half were state or provincial capitals and two were the largest cities of each nation, these cities undoubtedly experienced several advantages not the least economic. However, despite these perceived advantages, the participants in the study still identified challenges around resourcing and capacity, making their responses of value to cities that operate under greater challenges and constraints.

Additionally, social media use at the municipal government level appeared to be rapidly expanding and evolving during the nine-month period of data collection. While the Phase 2 of the study will focus on four of the 20 cities and provide a limited opportunity to further validate findings, this study does represent social media use by these local governments at a particular point-in-time.

Findings
Local government context
Under the Canadian and US Constitutions, local governments are subject to federal laws but are under the jurisdiction of the provinces or states. In Canada, each province determines the delegation of powers and its relationship with the municipalities; despite this, Canadian municipalities are largely uniform, featuring the council-manager form of government with councils elected to four-year terms on a direct-representation basis and having both legislative and executive powers, with a city manager selected and appointed by Council as the head of administration (Bish and Clemens, 2008). The US local governments are more diverse; "[t]he scope of government services [. . .] varies widely from one state to another and even within the same state" (Noss, 2013). In some states, legislation strictly defines local government powers while in others cities are given "home rule authority" and can enact ordinances. As a result, US municipal governments exist in a number of forms, the most popular being the council-manager and the council-mayor (or "strong mayor") forms. In the strong mayor form, the council and mayor are elected by the citizens, but the council holds legislative powers, while the mayor holds executive responsibility (Moulder, 2008). Beyond these differences, in both Canada and the USA, city departments and offices administer a number of functions that vary depending on the size of the city and the services provided. In terms of social media, local governments in both countries are subject to federal and provincial or state laws, which include charter or constitutional assurances around human rights and freedom of speech and legislation around freedom of information/open records and protection of privacy.

The 20 cities investigated in this study supported a wide array of social media platforms, with the number of social media accounts ranging from 15 to 130 accounts per city. All of the cities participated on Facebook, Twitter, YouTube (with one exception) and LinkedIn, as well as platforms devoted to photo sharing (e.g. Flickr, Pinterest and Instagram) and newsletter-style services (e.g. blogs, email subscriptions and RSS feeds). Actors using these platforms included: councils, mayors and councilors; communications staff; and business unit staff ranging from librarians to first responders. The official voice of each city was the corporate account carrying the city's name (e.g. facebook.com/city name or @city name). In both Canada and the USA, these corporate accounts were managed by the communications department, led by a director reporting to the city manager or mayor's office. These corporate accounts had the largest audiences, with a few exceptions: cities where the mayors had used social media successfully during election campaigns (e.g. Mayor Naheed Nenshi of Calgary, Mayor Rob Ford of Toronto and Mayor Kasmin Reed of Atlanta) or police forces that had dealt with large-scale incidents and/or "Pennant-sized" crowds (e.g. Toronto, Vancouver, Boston, Kansas City).

From a technological perspective, social media platforms were considered secondary and complementary to the cities' existing websites. All of the cities had extensive websites featuring advanced systems (e.g. transactional databases, registration systems, and/or electronic or Web content records management systems) with varying degrees of integration (i.e. patchwork to seamless). In most cases, the websites were launched in the mid- to late 1990s, and most had undergone a series of updates or even overhauls in the ensuing period. In Canada, six of the ten cities noted that the focus of their most recent redesign was content reduction, resulting in Web page extents ranging from 6,000 to 18,000 pages. The overall purpose of removing unused and outdated content was the improvement of information retrieval by citizens, and several of the redesigns included input gathered through citizen focus groups and/or online surveys. Overall, cities in both countries were adapting their websites for mobile access, and most had produced or co-produced mobile applications, including four cities that had held hack-a-thons to support local app development and increase use of open data. All of the cities featured social media icons on their home page, and most had Web "hub" pages with introductory information and lists of social media linked to accounts; some cities also featured social media icons or "share" buttons on every Web page. In general, participants saw websites and social media as a concerted effort, where the website provided a springboard for social media, social media brought "eyeballs" back to the website and mobility extended website and social media access across time and space.

Administration

The social media administration model for the 20 local governments was typically described as "hub-and-spoke", with the communications department forming the hub and the business units the spokes. For the communications departments, social media represented a continuation of efforts already underway; they saw social media as "another tool in the toolbox and not an end in itself". This influenced how they approached the administration of social media programs. As one participant noted, "Corporate communications is not responsible for the telephones or the fax machines either – they are all tools used by everyone". At the same time, as a long-term public relations manager noted:

> [. . .] social media has the same value implication as a press release, and we need to select the staff as we would any other media spokesperson so that they are approved and then equipped for success.

Given high concerns around city reputations and legal liability, the communications departments implemented tight controls over social media platforms and accounts. Only the communications staff had administrative privileges for the corporate accounts; all posts to the corporate accounts were either composed or approved by this team. Business units obtained approval from communications before setting up accounts on approved platforms, and in a number of cities, communications also had administrative privileges for all business accounts. Within the hub-and-spoke model, while communications struggled to obtain information in a timely fashion from subject matter experts inside the business units, the business units were at times frustrated by the delay to publish (or in some cases, decision not to publish) their material and in benefiting from the amplification available through the corporate accounts' larger audiences.

Policy

All but one of the Canadian and just over half of the US cities had implemented some form of policy guidance for employees using social media. Beyond variations in form (i.e. policy, guideline, procedure or administrative standard), the social media policy documents in both countries consistently contained directives to employees with regards to: account and user approval, appropriate use; maintaining the cities' reputations, consistent messaging, not sharing confidential or private information, conditions for removing audience content, requirements for legal compliance and consequences for employee non-compliance. None of these policy documents were presented to the Council; most of the documents were signed by the city manager or communications director and a few were simply released by the social media manager. About half of the policies were available online.

In terms of social media's status as records, just over half of the Canadian policy documents included general comments and instructions, for example: "posts of social media sites may be considered a record"; "the duties of the moderator include [. . .] tracking and archiving all messages and user comments [. . .] to ensure long-term retention and the preservation of organizational memory" or "social media accounts must be able to be managed, stored, and retrieved in compliance with the *[FOI] Act*". The US policies were more precise, designating social media as records, framing requirements in the context of state laws, and assigning responsibility to city departments and agencies. The US directives specifically required that social media be retained and managed as records, for example:

> Content related to city business shall be maintained in an accessible format so that it can be produced in response to a request [. . .] in a format that preserves the integrity of the original record and is easily accessible.

The US cities also assigned record responsibilities to the business units managing the accounts:

> The Department records administrator is responsible for ensuring that all city records created or maintained on city social media sites are retained according to the Department records control schedule and are properly preserved or disposed of.

In addition to the directives to employees, the majority of the Canadian and the USA cities posted social media "terms of use" policies or guidelines for citizens that defined the types of audience contributions that were considered acceptable. Beyond clauses describing the terms for content removal, a few of the Canadian cities included statements pertaining to personal information and privacy, while a few of the US cities were concerned with legal issues, including agreement based on participation and over-arching, third-party (i.e. platform) terms of use. While all of the cities posted the terms of use on their website and

most posted the terms or a link on their corporate Facebook pages, only a few posted the links on their corporate YouTube account, and only one city posted the link on their corporate Twitter account.

As the majority of the cities' records policies are formal and were adopted as legislation (either as sections in the cities' charters or as by-laws or codes), many had not been updated in the past decade and did not specifically reference social media. Of the 19 records management policies available from the 20 cities, only one included social media in the definition of a record. However, the phrases "regardless of physical form or characteristic" and/or "recorded information in any form" appeared in most of the policies in both countries, and the implication that social media contained records was confirmed by the interview participants. In the larger context, both the Canadian and US records management policies referenced provincial or state laws, with Canadian records policies citing provincial local government acts and freedom of information and protection of privacy acts and the US codes and ordinances citing states' general statutes and/or "sunshine" laws around access to information. In the Canadian cities, the responsibility for the records program was assigned to the city clerk or a records committee chaired by the city clerk; in the US cities, responsibility was assigned to the city clerk or a records committee or in two cities, a commissioner or city solicitor. In terms of compliance with the records program, the Canadian policies commonly included statements regarding employee responsibilities, while the US policies more often designated responsibility to department heads. Overall, as with the social media policies, the records management policies indicated that social media content contained records and transferred the responsibility for administration and management of social media records to the department heads and employees.

Activities
The majority of the Canadian cities adopted Facebook or Twitter in 2008 or 2009 as a result of emergency and/or in support a major initiative. In the USA, most of the cities launched Facebook or Twitter accounts in 2009 or 2010, as resources became available, at the request of council or in the regular course of business. In just over five years, many of the cities' social media efforts expanded to include a wide range of platforms, accounts and staff participation. At the same time, the interview participants repeatedly emphasized that social media was only one part of their communication strategy, for example, noting "we realize not all residents live in this realm".

The cities primarily viewed social media as a way to "inform" and "communicate" with citizens in a "one-way" or broadcast style. This "inform" or "one-way" approach was described by a participant: "social media functions a lot such as college papers or news releases, with Twitter having instant news ads with hyperlinks to deeper content, Facebook as a way to share the same message virally and WordPress for longer works". A few participants reported that their social media accounts were initially launched "with the comments turned off" to support one-way communication, and there was evidence that the broadcast approach was still in play for activities such as event promotion and branding activities. In taking an "inform" or one-way approach to social media, cities assimilated pre-existing approaches to public relations, largely based on their relationships with traditional media. Participants saw new media and traditional media reporters "influencers" and provided these posts with priority treatment to amplify their messages and correct "misinformation and rumours" with relative immediacy. At the same time, participants expressed satisfaction in their ability to publish material without the "gatekeeping" or "filtering" of traditional media – they could "speak directly to the audience".

Where a "communicate" or "two-way" approach existed, the focus was on service requests, issue management and the need to respond to comments and conversations in a timely fashion. Both Canadian and US cities highlighted service requests and issue management as their main reasons for "two-way" social media use, and only a few mentioned audience feedback as a reason for supporting social media. The participants did express aspirational views about how social media could be used in a more communicative manner. Statements included comments around the intent to: "increase access to government, build relationships with citizens, increase trust in the city, reach specific audiences on specific issues"; "open our processes, our data and our performance [. . .] so that the residents can directly shape what their government does"; "provid[e] the public with the opportunity to participate"; and ensure "a mechanism for communication between city departments and members of the public". In the meanwhile, by taking a "communicate" approach to social media and providing responses to individual queries, the social media teams provided audiences with additional grounds for trust. Some of the participants expressed concern around the "twenty-four-seven" nature of social media, given the cities' "nine-to-five" weekday business hours, with several mentioning overwork and burn-out.

Monitoring
All of the participants said that they monitored social media accounts, with the Canadians monitoring both corporate and business unit accounts and the US focused primarily on corporate accounts. Most used the same free service (i.e. Hootsuite) to monitor and schedule social media posts. While much of the monitoring activity was focused on how the cities' content was performing and in identifying comments requiring responses, the majority of the participants also said that their teams hid, blocked or removed citizen comments, including "obscene or offensive materials" and "rants, profanity or misinformation". In general, the participants felt they took a careful approach: "we are very diligent about any removal we do – the last thing we want to do is censor opinions", "negative comments provide important feedback" and "[we] use a light touch and explain why this was done to the community". While many of the Canadians said that they had banned audience members from accounts, none of the US participants acknowledged doing so. The Canadians said that banning was "done only as a last resort if the user constantly violates the terms", that it was "similar to banning people from city hall or facilities", noting that the practice was quite uncommon, for example, affecting "only two to three of 30,000 followers". In terms of monitoring, participants also emphasized the role of the audience, which "does self-regulate and respond to and correct misinformation".

Measurement
Despite the scope of the cities' social media programs, measurement was sporadic and primarily intended for operational use by communications. Metrics included: audience growth (e.g. likes, follows, new followers, follower rank, gender and age metrics); content performance (e.g. popular posts, campaigns and hashtags); impression and reach (e.g. shares, retweets, replies and favourites); and sentiment (e.g. feelings, opinions and tone). The Canadian cities focused on conversion rate (i.e. click-through to websites) and whether social media supported website activity, while the USA cities were more interested in patterns of use (i.e. high and low points for engagement in terms of day and time). The cities used free native application tools (e.g. Facebook insights, Twitter analytics, Google analytics) and tended to gather data on an *ad hoc* basis. Of the Canadian cities, half produced reports, including annual, monthly and weekly reports and custom or "on request" reports. Only one of the US cities included social media in any type of statistical summary. A number of the

participants from both countries expressed unease around measurement and reporting, citing the lack of staff resources, funding for tools and lack of expertise as barriers to more extensive efforts. Participants also expressed frustration around defining "success" for local governments' use of social media. One participant said, "4,000 to 5,000 shares is normal, and our [city name] campaign got 20,000, but we don't know if that meant people [changed their behaviour]". Another commented, "more shares doesn't mean more effective, sometimes 400 to 500 shares is good [. . .] this goes back to looking [at] engagement with a budgeting-for-results approach".

Impact
Given the lack of reporting and measurement, there was little information available regarding results of social media programs. During the interviews, the Canadian participants said that use of social media had increased citizen awareness and their ability to be responsive to citizens. A number credited social media with amplifying important messages, and a few noted they had learned of issues that might have otherwise gone unnoticed. One participant said using social media over paid advertising resulted in savings. The US participants also noted increased citizen awareness, but only two reported message amplification and learning about issues or emergencies. About half of the Canadian participants said that their best responses on social media came from campaigns on specific initiatives, while the US participants said that spikes in traffic resulted from *ad hoc* initiatives and day-to-day events rather than formal campaigns. Participants noted that business units were beginning to ask them for crowd-sourced information. One commented that:

[. . .] for business units accounts [. . .] this is much easier [if they request content] proactively as later on we have to manually find [posts] using keyword search or hashtags and it is time intensive.

At least half of the cities had won awards for digital initiatives and social media and one city had won nineteen awards. Participants expressed a range of attitudes towards awards from "we are confident about our efforts without awards" to "we are shy about seeking acknowledgement as we are in the early stages of redefining how we want to use social media" and "we avoid awards as we want council to know that we are focused on city business".

Risks
Overall, the participants did not express high concern about risks associated with social media — as one participant said, "we focus on prevention". At the same time, most of the reported technical issues revolved around access controls, passwords and employee attrition. Two of the Canadian participants reported having accounts hacked, two had investigated parody accounts, two had experienced viruses associated with free analytic software or suspicious links and one reported an issue where a city employee was physically threatened. Of the US participants, one noted that the mayor's account was hacked, another mentioned that two citizens had falsely represented themselves as city employees, another noted they depended on IT to combat viruses and one said that employees had been physically threatened. All of the Canadian participants expressed concerns around risk relating to internal content, including damage to reputation from city posts that included misinformation, were not provided in a timely manner, were not consistent with the city's brand or included confidential information. The Canadian participants were also concerned about audience content, including negative comments or other statements causing

reputational damage to the city. The US participants similarly expressed concern around employee content and use, including misinformation, inappropriate comments and mistakes (i.e. inaccurate information, grammatical errors and incorrect tone). Concerns about audience content included sharing out of context, rumours and misinformation and derogatory posts.

Records

About half of the Canadian cities had responded to public record requests that included social media, and most noted that their legal departments had asked for social media content in response to claims for damage, parody accounts, release of confidential information or proof-of-mention by a sponsor. One participant said that, "in some instances, all media are required by the City's legal department to provide descriptive communication of any emergency event", while another commented that, "in claims for damages, claimants may quote social media posts in the context of 'you told me to do X'". Of the USA cities, several had responded to public information requests including social media. Only one reported responding to a legal issue, although participants noted that they might not be aware of requests made directly to the City Attorney.

Despite the evident risks and number of legal requests, few of the cities had procedures in place for capturing or managing social media as records. In Canada, a few cities downloaded and saved all posts from corporate accounts to spreadsheets or printed screen captures in response to requests from legal, business units or citizens. None used free or paid services to capture social media. Several of the Canadian participants said they did not need to manage social media as records, noting that the public could access the social media channels themselves, that only some of the posts were records and that most of their content was available in "long form" through the websites. Of the US cities, one city used a paid service (i.e. ArchiveSocial) and another used paid and free services (i.e. ArchiveSocial and Archive-It). Despite the requirements of records and social media policies, several of the US participants said that they did not need to manage social media as records, noting "the content that we post is not currently something that the city attorney's office has determined has to be archived", "per our city attorney, social media does not fall within the guidelines for our current records retention policy" or "we haven't reached this point yet". One participant pointed out that, "the [city] archives is active on social media but is not archiving their posts or the city's posts". Beyond this, several of the USA cities did save screen shots of any content that they removed or hid.

Open government online

A general definition of open government is:

> [. . .] an approach designed to provide greater access to unrestricted information held by public bodies in order to promote transparency, accountability, and citizen engagement and participation, to accomplish a larger outcome of building and enhancing citizens' trust in their governments (InterPARES Trust, 2016).

As mentioned, the cities' implementation of open government initiatives reflected federal perspectives. While cities in both countries supported initiatives relating to open information, open data and open dialogue, the Canadian cities made a concerted effort to connect the streams under the umbrella of open government. Two of the Canadian cities had adopted open government policies, and several had developed open government hubs on their websites with links to the three streams. In comparison, none of the US cities had open government policies and only a few featured open government pages on their websites.

Drilling down into the three streams, all of the Canadian cities had Web hubs for open information that explained freedom of information and privacy legislation, and all provided online record request forms that could be submitted electronically to the city clerk's office or a privacy coordinator. Most of the cities listed records that were routinely available, including links or access information. Several provided summaries of freedom of information requests and/or the released records where applicable. Of the US cities, most had public or open records' Web hubs and at least half had online request forms. In the USA, record requests were either centrally processed by the city clerk's office or a public records advocate or by business units representatives. Over half of the US cities provided public record listings. Again, the open information details were regularly listed on the Canadian open government hubs but less prevalent on the US pages.

All 20 cities had open data portals, launched between 2013 and 2016. All of the Canadian cities had policy documents relating to open data, including open data policies, terms of use and/or open data licenses (about half referenced the Open Government License). Most of the US cities had policy documents, including open data policies or terms of use. In both countries, most cities' data catalogues were defined by data sets, with each data set representing a variety of materials including reports, spreadsheets, lists, metrics, data, maps and drawings; cities had from ten to 300 data sets. The data portals were typically organized by service category (e.g. business and economy, community, environment, health and safety, land and development, recreation and culture and transportation) or alphabetically, by data set title. A few featured search engines, but more often navigation depended on category and/or topic filters. While several Canadian cities connected their open data portals to their other open government initiatives, half of the US cities said that open data represented their sole open government initiative. One of the USA sites included the comment, "performance data is open government" in the data portal introduction.

While both Canadian and USA cities undertook "open dialogue" initiatives, Canadian efforts tended to be more formalized. Half of the Canadian cities had introduced citizen engagement or public involvement policies and/or strategies, and the cities had Web portals or hubs devoted to citizen engagement. In contrast, only two US cities had Web portals or hubs, and although all of the USA cities did support a wide array of community engagement initiatives (ranging from task forces to community funding and civic education programs), these were largely *ad hoc* and outside of the open government umbrella assigned to open data. In both countries, few, if any, of the engagement initiatives specifically mentioned the role of social media; rather, the engagement portals were designed to "pull" online content to a single point of access. In some cases, this meant that forums were open for set periods and then closed off once decisions were made and projects launched. Overall, there was no evident connection between the open government programs where they existed and the cities' social media programs.

Discussion

To summarize, this study investigated whether social media can be used to increase trust in local government and sought to identify aspects of social media administration that support this aim. In the Phase 1 of the study, content analysis of websites and social media accounts, policies and reports and interview transcripts led to a characterization of social media use by 20 local governments in Canada and the USA. The study found that most cities had initiated extensive social media programs featuring multiple accounts on a number of common platforms, with their communications departments administering the programs in a hub-and-spoke model. The cities maintained tight control over corporate account content, business unit account creation and employee participation to ensure compliance with federal

and provincial or state legislation and, to a certain extent, mitigate technology and content-based risks while providing a structured environment for audiences. The cities used social media to broadcast information, respond to service requests and provide issue management and results were measured on an *ad hoc* basis for operational purposes. While social media posts were considered records, and all of the cities (but one) had records management policies that assigned record responsibilities to managers or staff, only two of the cities had dedicated procedures in place for managing social media as records. Within the larger context of open government, the cities reflected federal approaches, with the Canadian cities including open information, open data and open dialogue in their concept of open government and the US cities focused on open data.

Social media and trust
In the context of the government–citizen trust relationship, the cities took a cautious, exploratory approach to social media, implementing a variety of procedural controls to develop a foundation for trusting their employees and audiences. These controls, combined with the terms of use put in place by the social media platforms themselves and with the audiences' own self-regulating activities, meant that over time the communications teams became more trusting of their audiences, as evidenced by their ambivalence in updating social media policies to incorporate new platforms or linking terms of use to new accounts. As agents of the cities, the interview participants understood they provided an "official version" that audiences could trust, and they emphasized their own trustworthiness in terms of professionalism, factual correctness, timeliness and/or non-partisanship. Participants also emphasized the importance of timely and correct responses and described significant efforts to engage business units as subject matter experts. They appeared innately aware of the relationship between the quality and timeliness of their responses and citizen trust. Overall, the approach taken by the cities parallels findings that suggest "process-based trust" can be increased "by improving interactions with citizens and perceptions of responsiveness" (Tolbert and Mossberger, 2006, p. 354).

Trust in government is categorized as a fiduciary trust, involving an asymmetrical relationship between the trustee or agents and the principal (Thomas, 1998, p. 170). In the cities' use of social media, the relationship is asymmetrical because citizens lack the ability to control the cities' social media activities and must trust that the social media teams will not take advantage of this privileged position to arbitrarily ban users, remove content, withhold crucial facts or conduct similar undertakings. In our study, we found that social media teams acted as the creator, publisher and arbitrator of social media policies and terms of use, and therefore assumed the role of agents, meaning that they had a fiduciary responsibility that implied a set of required ethics. While these were only partially addressed by policy, the participants we interviewed appeared to understand their ethical responsibilities as framed by: their professional education as media spokespersons, communications experts and/or journalists; the organizational culture of local government; and the evolving social norms of online behaviour.

At the same time, our findings did not support other assumptions relating to fiduciary trust. Thomas (1998, p. 170) believed that fiduciary trust depends on "the unilateral obligation of the trustee to act in the other's interest". Trust exists without reciprocity between the partners: the principle (i.e. citizens) trusts the agent (i.e. social media teams and local government) "but the agent need not trust the principal". The 20 cities in this study implemented numerous controls before engaging on social media to create an environment of trust not only for their audiences but also for the institutions themselves and for their employees. As a result, the government–citizen relationship evidenced through social media

would appear to involve trust on the part of the agent or institution, as well as the principal. While our research questions whether social media could be administered in a way that increased citizen trust in government, it appears that we should have also considered whether social media can be administered in way that helps governments trust citizens. The interview participants' observation that the lack of social media measurement, reporting and records management was because of the lack of resources, tools and expertise is supported by previous studies. In discussing two-way communication using websites, Welch *et al.* (2005, p. 387) noted that:

> [...] many-to-many interaction for productive policy and management input would require a great deal of planning from the government's perspective; work processes need to be redesigned to better exploit online interaction.

However, the public administration literature also suggests a political dimension where public officials are not confident in or do not necessarily agree with open government ideals (Barnes and Mann, 2011; Berner *et al.*, 2011; Mossberger *et al.*, 2013). Given that the Phase 1 of the study focuses on the government side of the trust relationship, we continue by considering social media in terms of transparency, accountability and civic participation, believed "to accomplish a larger outcome of building and enhancing citizens' trust in their governments" (InterPARES Trust).

Transparency
A simple definition of transparency is: "provid[ing] information for citizens about what their Government is doing" (Mergel, 2013, p. 330). In this view, social media supports transparency through one-way "push" tactics that support goals of information access and education and where mechanisms include visits to social media home pages, views, unique visits, follows and likes. Here, social media "provides transparency" and results in outcomes of accountability and trust (Mergel, 2013, p. 332). In our study, just under half of the participants included transparency as a goal or outcome of social media use and equated transparency with increased access to information. These participants reflected the view that social media produced greater transparency because "more information was available over more channels". This view of transparency was an extension of the cities' "inform" approach, where social media provided a mechanism for broadcasting information to a listening audience.

However, researchers also suggest that "[f]or social media to meet its potential in expanding democratic procedure and transparency, token or one-way use is inadequate" (Graham and Avery, 2013, p. 287). Beyond the volume of materials released and the number of channels in place, transparency requires greater openness around the processes by which governments make and implement policy decisions. Here, the cities that posted their social media policies and terms of use increased transparency by advising citizens of the conditions of social media participation and the consequences of misuse. The cities could further extend transparency by taking greater care to provide links to social media policies and terms of use on all platforms and accounts. Additionally, as cities become more practiced in using social media, including descriptions of the cities' purposes for and uses of social media would increase the audiences' understanding of the local government context. We observed that the cities used social media platforms and accounts in specific ways that were not necessarily communicated to their audiences. For example, Facebook was considered more relevant and useful for supporting events, community issues and opportunities; Twitter was primarily for posting important, immediate news; YouTube was a promotional vehicle for programs and initiatives; and Instagram was for sharing

meaningful original photos about locational history and events. Similarly, some participants said their cities' tone on social media was generally light or amusing, while others stressed the importance of professionalism and being the "voice in the discussion [. . .] that comes from the city with authority".

Further, cities may need to consider that mere volume of output does not necessarily correspond to greater transparency; the more complex definition focuses on providing information about the processes by which governments make and implement policy decisions. As an example, with hundreds to thousands and even tens of thousands of people in their employ, some local governments monitor and assess employees and job candidates using social media. A study of US county and city governments in four southern states revealed that about half of the 48 local governments surveyed either monitored or tracked employees' social media use. Six also accessed personal accounts using passwords captured without the employees knowledge, and only six notified employees of these monitoring activities (Tufts *et al.*, 2015). Monitoring employees use of social media has legal implications, both in Canada, which has a *Public Servants Disclosure Protection Act* and a *Human Rights Act*, and in the USA, where government employees' freedom of speech rights are supported by First and Fourth Amendment rights and where applicants' social media privacy is protected in at least ten states to prevent discriminatory hiring practices (Herbst, 2013; Mahurin, 2015; Tufts *et al.*, 2015). There are situations where monitoring may be necessary (e.g. security positions, criminal investigations) and these could be defined and included in the appropriate policies. In considering transparency, governments may need to become more self-aware of how hidden policies are experienced by both internal and external audiences. As citizens become more educated about their governments, they may require deeper levels of transparency that better support the government–citizen trust relationship.

Turning to look at citizen transparency, we note that the audiences participating on the cities' accounts remained largely opaque as none of the cities collected metrics around audience composition. At the same time, the interview participants were aware of issues of audience representation, noting for example the impact of small but well-organized lobby groups (e.g. bicycle campaigners) and influencers (e.g. council watchers, bloggers and traditional media). While citizens involved in traditional forms of participatory government (e.g. council meeting delegations and speakers) formally identify themselves as part of the process, social media account holders may use assumed names and identify their interests only through content or behaviours (e.g. shares or retweets). Given that fraudulent product reviews products are relatively common place (The Economist, 2015), greater transparency around the makeup and motivations of social media audiences may be needed. Beyond this, the participants noted that not all of their constituencies participated in the online "realm", and a number of the cities had policies around inclusiveness that signalled concerns about online access by marginalized groups. Going forward, assessing the representativeness of social media audiences and their opinions poses a significant challenge within the democratic context. Again, the reciprocal nature of trust is underlined: the citizens require transparency from the government to trust that decisions and actions are fair; and, increasingly, the governments need to take the measure of their audiences to trust the feedback and direction provided.

Accountability
Accountability, "the obligation to answer for actions for which one is responsible" (InterPARES Trust, 2016), was addressed by the participants with regards to the social media accounts they approved, contributed content to and/or monitored. In this regard, the

participants' ability to respond to negative feedback reflected their role as issue managers involved in a question-and-answer exchange based on facts. Although acting as agents of the local governments, the social media teams were not politically accountable, and an increase in internal reporting would appear to be a prerequisite for greater accountability. In this study, there was some indication that citizens were aware of the operational nature of the corporate accounts and directed their more political commentary to the accounts of elected officials or police. In at least two cities, the mayors' and police chiefs' social media accounts became the centre of accountability debates following large-scale police incidents, at times resulting in overt conflict between the mayor and police chief or commissioner.

Notably, the participants were clear that social media accounts belonging to elected officials and the police were out of their scope of work and they were uniform in taking an arms-length approach to the day-to-day activities beyond minor exchanges of content (e.g. event information or public safety messages). However, despite these perceptions and practices, social media conversations involving public officials are subject to additional requirements and remain the local governments' responsibility. For example, under some states' *Open Meeting Acts*, communications between a quorum of city council about public business "no matter the forum or the time" can be considered a public meeting where mandatory requirements such as 72-h notice and written agendas apply (Mahurin, 2015). Whether a province or state has implemented such legislation, cities may be held accountable for social media conversations between elected officials and/or other parties. One example is in the use of social media by public officials during political campaigns (Herbst, 2013); at least one city in the study had implemented a policy around the use of city resources by officials during civic elections. Additionally, while the participants were clear that they corrected rather than deleted mistakes and misinformation on corporate accounts, elected officials have come under fire for content deletions, with sites such as Politwoops providing an "archive of public tweets, deleted by USA politicians" (Sunlight Foundation, 2016). Although the social media accounts of elected officials are beyond the communications departments' mandates, the cities remain accountable and their use of social media should be addressed in by-laws or codes of ordinance around public meetings, elections and/or the conduct of elected officials.

Conversely, the cities' police departments in this study implemented their own dedicated social media policies to respond to criminal investigations, police communications and other specialized requirements. These policies are informed by the model policy and guidelines published by the International Association of Police Chiefs (IACP) in 2012, along with numerous case studies available through the IACP Center for social media. While two of the Canadian police departments had won awards for their use of social media during crisis (i.e. Vancouver Police Department, Calgary Police Service), three of the USA cities had experienced significant challenges. The Boston Police Department came under criticism for not responding quickly enough to correct misinformation when a missing person was incorrectly identified as a Boston bombing suspect on Reddit. Two other police forces faced difficulties associated with deleting content: in Riverside, the sheriff's department deleted their own tweet describing an officer shooting because of legal implications; and in Honolulu, the police department was ordered to pay $31,000 in lawyers' fees to the Hawaiian Defence Foundation after an officer deleted negative comments by an audience member from an official Facebook account (Franks and Evans, 2015; Walden, 2014). As a result, the bodies responsible for police services (e.g. police board, police commissioner or chief of police) may need to ensure that police social media policies address these and other issues of accountability.

Having established a number of ways that cities are responsible for social media activity, we also note that our findings demonstrated ways that citizens were held accountable by the social media teams. While only the Canadian cities banned users, interview participants from both countries stated that they regularly removed or hid content that contravened citizen terms of use. Through the citizens' terms of use, the cities were able to define rules and enforce sanctions against unacceptable online behaviour, and the interview participants cited several incidents of scenarios where their legal departments had been consulted regarding scenarios where citizen accountability could extend to legal action (e.g. physical threats against employees and parody accounts). The 2011 Vancouver Hockey Riot represents a specific example as charges were laid against 300 alleged perpetrators on the basis of over 5,000 h of digital evidence submitted by witnesses or collected by police online (Franks and Evans). These examples also reflect the collaborative aspect of social media, where the cities and their audiences work together to develop an environment of accountability, based on a reciprocal trust relationship.

Civic participation

Civic participation means "to involve those who are affected by a decision in the decision-making process" [International Association for Public Participation (IAP2), 2007]. Participation is often expressed as a progression of goals (e.g. "inform, consult, involve, collaborate, empower"), resulting in increased levels of political impact for citizens. At the local government level, traditional mechanisms for civic participation include voting, public hearings, citizen advisory committees, citizen panels, citizen surveys, focus groups, public consultations and open meetings (Kim and Schachter, 2013, p. 458). As an instrument of participation, social media is believed to provide new opportunities for participation by removing "boundaries of time and space for government processes, which traditionally involved physical attendance" (Graham and Avery, 2013, p. 280).

In an ideal world, social media could become a mechanism whereby local governments crowdsource organizational learning through "new or refurbished processes" connecting administrators who "have information on the process" with constituents "who have information on their own preferences" (Kim and Schachter, 2013, p. 457). In our study, the ability of citizens to impact government decisions through social media was quite limited. There were few mechanisms to support collection or internal distribution of audience comments, and efforts to respond to internal requests were problematic or non-existent. As mentioned, significant policy development, project planning and work process design is required to collect inputs (Welch, Hinnant, and Moon); however, on a more optimistic note, the cities were experimenting with a variety of *ad hoc* tools, ranging from engagement portals to "archived" live-streamed events, posted transcripts for town halls and "rumour versus fact" pages designed to counteract audience misinformation.

Unfortunately, researchers have also found that civic participation initiatives may increase costs, reduce proportionality, lack representativeness, result in wrong decisions and/or be characterized by "persistent selfishness" based on personal gain (Irvin and Stansbury, 2004). Again, this points to the need for cities to know more about their social media audiences while at the same time complying with federal and provincial or state regulations around privacy. For example, while the USA *E-Government Act* of 2002 applies to email and static website content, it does suggest appropriate practices with regard to collection of personally identifiable information and, in particular, the use of persistent cookies (Mergel, 2013, p. 328). While amortization of data may represent one option, at least two cities had taken a different route, implementing engagement portals where citizens registered as members, divulging a certain amount of personally identifiable information to

participate in private forums and online surveys. Although social media platforms such as Facebook and Twitter may remain useful to cities for broadcasting information and responding to service requests, engagement portals may provide a better forum for civic participation.

Local governments also face competition from new social media platforms (e.g. NextDoor, Everyblock) targeted at communities and neighbourhoods that operate beyond cities' social media programs and which may exclude them from conversations or debates. As one interview participant commented:

> Our experience with [Product X] has been mixed. It is a great tool to disseminate info to specific people or neighborhoods [. . .] [but] some of the posts we send out via the City [i.e., on Facebook or Twitter] can generate a lot of negative feedback [. . .] We cannot see what neighborhoods post on [Product X] and this can be problematic if the City is mentioned or inaccurate info is being shared.

Beyond these commercially driven platforms, cities also need to consider how to respond to civic rights movements, such as the #idlenomore and #MMIW (Missing and Murdered Indigenous Women) Indigenous movements in Canada and the #blacklivesmatter and #Ferguson movements against racism and police violence in the USA (Anderson and Hitlin, 2016). Once more the reciprocity aspect of the trust relationship is underlined: citizens look to levels of government to be accountable for and to address historic, systemic issues; and governments look to citizens to express themselves through political processes. Our study suggests that if social media is to contribute to political processes, local governments need incorporate citizen feedback mechanisms in social media program administration.

Implications for archives and records management
Given these observations, we pause to consider implications for archives and records management units in local governments. With regard to social media, Mossberger *et al.* (2013, p. 355) suggest that governments must know "how to moderate discussions, how to set ground rules for public participation and for employees, and how to keep records of public comments". In this paper, we presented a life cycle view of social media in context and considered the affordances and limitations of social media in promoting trust and open government by promoting transparency, accountability and civic participation. While the participants in the study believed that social media content was readily available on the social media platforms, was available in other formats or was not worth the effort of managing given the volume and/or brevity of posts, we point to counterarguments, including the certainty that social media platforms do not commit to preserving posts over any period of time, social media contains unique content in which advice may be given, and social media is considered to be "broadly discoverable" and "highly relevant" in litigation (Patzakis, 2012). Based on this, our view is that managing social media as records is necessary to administrative processes associated with transparency, accountability and civic participation. By this we mean that social media should be:

> [. . .] maintained in an accessible format so that it can be produced in response to a request [. . .] in a format that preserves the integrity of the original record and is easily accessible (as per US cities' social media policy directives).

As collecting all content from every social media platform and account does not appear a practical undertaking, we suggest a risk-based approach responding to the incidents and liabilities identified by the participants. There are at least three scenarios where social media should be managed as records, including: the documentation of incidents, the on-going collection of city content from high-profile accounts and the "on demand" collection of

citizens' content where cities have asked for input on a topic or issue. First, in terms of documenting incidents, while screen captures are not considered adequate for legal cases (Patzakis, 2012), using screen captures as the basis for a procedure for reporting incidents would allow the social media team to learn about incidents, provide a response and track incidents over time. Second, on-going collection of city content can be based on identifying accounts that pose the greatest risk to the local government; these may include the corporate, mayor and police accounts, which typically have the largest audiences and highest profiles. Third, cities can continue to expand on the *ad hoc* efforts detailed earlier to build capacity for gathering citizen input.

With regards to staff responsibilities, while we recognize the role of social media account administrators (i.e. communications teams, business units) in managing social media as records, we suggest that the larger duty lies with the records management teams. Although records teams may face significant resource constraints and barriers, assigning responsibilities for managing records to other units without providing the necessary advice, tools or training is unlikely to result in compliance. Further, we suggest that the lack of capacity for managing social media as records may perhaps point to a larger underlying problem associated with "functional equivalency" for digital records. Functional equivalency implies that the policies, programs and procedures for digital records are as developed and as entrenched as they are for physical records (Currie and Coughlan, 2012, p. 294), and both the study and our experience suggest a lack of digital records management in many local governments. As a result, social media may provide a unique opportunity for records management teams to extend their existing capacity for managing digital records through one or more small, focused projects.

Digital record procedures may take some time to research, develop, test, and implement – after all, "e-government is not cheap and is a net add-on to already cash-strapped local governments" (Norris and Reddick, 2013, p. 173). However, procedures for social media as records can be automated using free tools from social media platforms (e.g. Facebook Insight, Twitter Analytics), common applications (e.g. MS Excel), open source initiatives (e.g. Code for America, Documenting the Now) or paid subscriptions (e.g. ArchiveSocial). Further, cities do not exist in a vacuum and many of the participants in this study shared policies, information and ideas with colleagues in neighbouring cities on an on-going or as-needed basis. At an institutional level, the Federation of Canadian Municipalities and Local Government Managers Association in Canada and the National League of Cities in the USA, along with a number of professional associations' special interest groups (e.g. Association of Canadian Archivists, Society of American Archivists, ARMA International), support the activities of local governments and provide opportunities for cities to work together to develop and implement solutions.

Conclusion

Records managers and archivists tend to take a prescriptive approach to research and this study is no exception. However, in providing a detailed and complete description of social media administration in 20 cities in two countries, we moved beyond a compliance- and requirement-driven records and information approach to consider the larger question of how social media can support the government–citizen trust relationship. In the Phase 1 of this study, we examined the government side of the trust relationship and observed that in administrating social media, cities implemented control over accounts, access and content to develop confidence in their employees and audiences and to reduce risks, focusing largely on one-way broadcasts and one-to-one service delivery. These behaviours suggested that, in contrast with previous research, fiduciary trust may require reciprocal rather than one-way

trust behaviours between the agent (i.e. local government) and the principal (i.e. citizen). We emphasized the reciprocal nature of the government–citizen trust relationship by identifying ways that governments could provide increased transparency, accountability and civic participation through the administration of their social media programs while also observing the ways that the local governments demonstrated that they held similar expectations for citizens. In closing, the extent to which social media is used to engage citizens is in part a political question; in considering this, we will begin the Phase 2 of our study which will use online surveys to examine the trust relationship from the citizens' perspectives.

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