Leveraging Online Engagement in Rural Municipalities

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Introduction

Local governments have a responsibility to communicate with and engage citizens, and today's digital media offers more possibilities for connecting than ever before. Electonic government (e-government) tools allow governments to efficiently provide quality services to citizens, solicit feedback and open dialogue. Moreover, easy-to-use platforms allow citizens to conveniently access government services and information, provide input, submit requests, and track progress or receive answers in real-time (Angelopoulos, Kitsios and Papadopoulos, 2010, citing Carter and Belanger, 2005; Mossberger, Wu and Crawford, 2013). Online tools open new channels for dialogue and collaboration, and require organizations to listen to their stakeholders and respond in real time. The concept of two-way information flow represents a paradigm shift for governments that have traditionally played the role of decision-making bodies concerned with service provision, information delivery and policy enforcement (Chun, Shulman, Sandoval, & Hovy, 2010).

Against this backdrop, rural municipalities have the particular challenge of marshalling limited resources and scale to meet citizens rising expectations for e-government, improved municipal service delivery using online tools and two-way information flow. A starting point for Canadian rural municipalities is to take stock of how well a sample group of rural municipalities have leveraged online engagement. With this information, rural Canadian municipalities can assess whether changes is needed.

The following research accordingly benchmarks the level of online engagement between Canadian municipalities and citizens, the resources required to attain these levels, and the

online services and tools that municipalities are currently using. In addition, the municipalities' perception of online performance is compared to how citizens are actually receiving their local governments' online engagement efforts. To this end, the research used a two-pronged approach: first, a survey of Canadian municipalities was conducted to inventory online activities and organizational factors and second, a telephone survey of 300 citizens in ten cities across Canada was used to measure how citizens perceive municipal online engagement efforts.

In agreement with Mossberger, Wu and Crawford (2013) findings, the research revealed that while governments are showing signs of greater openness towards online dialogue, change has been slow. In addition, the research found that the online services municipalities are currently offering do not necessarily match the citizens' expectations. Grounded in fundamental theory that views the primary purpose of public relations activities as building two-way, collaborative relationships with stakeholders (Grunig, 1992), this paper argues that encouraging relationship-oriented communications activities, and identifying and implementing online services that bring value to citizens, requires organizational social and cultural changes as well as technical changes.

The research was conducted at the local, or municipal, government level, because research at this level of government is lacking, and also because local governments interact with citizens more than any other level of government. Local governments are responsible for providing good government, developing and maintaining safe and sustainable communities and for providing services, facilities and infrastructure that influence day-to-day lives (Municipal Government Act, 2015). Communicating with citizens on important regional issues can lead to positive relationships, and many people feel that governments have an obligation to include

citizens in important decisions that directly affect them. According to fundamental public relations research, “organizations generally make better decisions when they listen to and collaborate with stakeholders before they make final decisions rather than simply trying to persuade them to accept organizational goals after decisions are made” (Hon and Grunig, 1999, p. 8). In short, taking a proactive, public involvement-oriented approach leads to better decision making and better democratic outcomes.

At first glance, electronic government tools appear to open the door to cost-effective, convenient and accessible solutions for promoting public engagement, dialogue and collaboration. Put simply: “Electronic government (e-government) suggests the use of information technology (IT) and systems to provide efficient and quality governmental services to citizens, employees, businesses and agencies. Moreover, it increases the convenience and accessibility of government services and information to citizens” (Angelopoulos, Kitsios and Papadopoulos, 2010, p. 95-96, citing Carter and Belanger, 2005). Many authors highlight the potential of the internet and social media to open dialogue, build relationships and redefine interactions between governments, citizens and stakeholders (Bakardjieva, 2009; Bonsón, Torres, Royo, Flores, 2013; Coleman and Gøtze, 2001; Gil-Garcia, 2012; Reinwald and Kraemmergaard, 2012).

In reality, the internet and social media have collapsed time and space, caused a seismic shift in social organization, communication and content distribution (Macy and Thompson, 2013) and rapidly transformed public expectations and behaviour, both on and off-line. Social media sites allow citizens to quickly and easily connect to governments on a more personal level (Alberta School of Business and the City of Edmonton, 2014). For governments, using

digital tools means new ways of doing business, including listening to their stakeholders and responding in real time. Viewed through a broader perspective that includes the interplay between the technology, policy and participants, and the added challenge of the historically-founded government setting, e-government becomes an important and complex phenomenon (Angelopoulos, Kitsios and Papadopoulos, 2010). E-government draws from multiple disciplines, including public administration, information systems in organizations, and information science and includes an array of technical tools and applications, as well as social and organizational factors that surround the technical artifacts (Gil-Garcia, 2012). Although the interplay between the technology, systems and participants is complex, the ultimate goals of e-government are to improve service delivery and to promote democratic values, participation and knowledge transfer.

Understanding how traditional government roles and communication methods differ from the interactive communication tools that dominate today can help to overcome the complexities and successfully implement e-government technologies. To this end, the following section will discuss the evolution of e-government, levels of engagement and organizational success factors necessary to achieve these levels. Citizen perceptions of governments' online engagement efforts will also be discussed. This paper will contribute to the existing literature by addressing the following questions:

a. What tools and online services are Canadian municipalities using to engage with citizens and at what level are municipalities engaging?

b. How are citizens receiving their local governments' online engagement efforts; or is there a match between how the municipalities perceive they are performing and what citizens perceive?
c. Do the citizens perceive a larger or smaller difference between the municipalities that perceived themselves as high-performing and mid-performing with respect to their engagement efforts?

Literature Review

The following literature review will: trace the evolution of e-government; describe the levels of online engagement and then discuss organizational success factors that influence e-government success. In addition, the literature review will explore how citizens may perceive the governments' online engagement efforts.

Evolution of E-government

According to Gil-Garcia (2012), e-government is a new label for an important and complex phenomenon that surfaced several decades ago: government information and communication technologies. E-government may be defined as "the selection, design, implementation, and use of information and communication technologies in government to provide public services, improve managerial effectiveness, and promote democratic values and participation mechanisms, as well as the development of legal and regulatory framework that facilitates information intensive initiates and fosters the knowledge society" (Gil-Garcia, 2012, p. 17, citing Gil-Garcia and Luna Reyes 2003, 2006, 2008). Put more simply: "Electronic government (e-government) suggests the use of information technology (IT) and systems to

provide efficient and quality governmental services to citizens, employees, businesses and agencies. Moreover, it increases the convenience and accessibility of government services and information to citizens" (Angelopoulos, Kitsios and Papadopoulos, 2010, p. 95-95, citing Carter and Belanger, 2005). Authors often fail to reach consensus on the definition of e-government, as it draws from multiple disciplines, including public administration, information systems in organizations, and information science (Gil-Garcia, 2012, citing Scholl, 2009), and includes an array of technical tools and applications, as well as the social and organizational factors that surround the technical artifacts (Gil-Garcia, 2012).

Gil-Garcia (2012) conducted a comprehensive literature review that summarizes the concept of e-government into three main approaches: the definitional approach, the stakeholder-oriented approach and the evolutionary approach. The definitional approach identifies four basic conceptual elements for defining e-government: "(a) the use of ICTs (computer networks, internet, telephones, faxes), (b) the support of government actions to provide information, services, administration, products, (c) the improvement of government relationships with citizens (through the creation of new communication channels or the promotion of citizen engagement in the political or administrative process), and (d) the use of strategy to add value to the participants in the process" (p. 8-9, citing Gil-Garcia and Luna-Reyes, 2006). The stakeholder-oriented approach categorizes relationships types that exist between government and other agencies, for example: Government to Citizen (G to C), Government to Business (G to B), Government to Government (G to G), as well as more specific categories such as Government to Employees (G to E). Finally, the evolutionary approach describes developmental stages that government organizations may progress through as they

adopt digital technologies (Gil-Garcia, 2012). The evolutionary approach will be used here to illustrate the tensions or complexities that arise as government agencies progress from traditional digital government to interactive technologies that allow for shared governance.

E-government initiatives that support and redefine interactions with citizens have been studied in various stages of evolution. The first stages, often referred to as Web 1.0 based e-government or Government 1.0, mainly focused on streamlining or automating processes and shifting from paper-based tasks to digital ones. The next stage of e-government is based in Web 2.0 technologies and known as Government 2.0 or open government. In a widely cited paper, Siau and Long (2005) proposed a five-stage maturity model or road map for progressing from Government 1.0 to 2.0. The researchers argue that the first three stages (web presence, interaction and transaction) describe Web 1.0 based processes that primarily require organizations to make technological adjustments to achieve, but the fourth and fifth stages (transformation and e-democracy) describe Web 2.0 based processes that require increasingly complex cultural and political shifts to achieve.

Under Web 1.0, information flowed in one direction, public feedback was limited and processes were largely output-oriented (Abdelsalam, Reddick, Gamal and Abdulrahamn, 2013; Chun, Shulman, Sandoval and Hovy, 2010). For example, governments established a digital presence on passive, information providing websites, provided online transaction services such as tax payments or license renewals, and introduced web-based interactions such as emails to citizens, stakeholders or other government agencies. In the 1980s, some governments also shifted to a customer-service or results-oriented approach known as the New Public Management (NPM) model that focused on applying private-sector, business management

principles to the public sector. Under NPM, e-government technologies allowed the public sector to become more responsive to citizens as customers and to take citizen input into account, but this approach neglected to acknowledge the important role of citizens as collaborative partners in public service delivery (Abdelsalam, Reddick, Gamal and Abdulrahamn, 2013, citing Denhardt & Denhardt, 2000 and Chadwick & Ma, 2003).

By contrast, Web 2.0 involves interactive websites that encourage two-way information flow and involvement through RSS feeds, virtual town hall meetings or widgets that link to the organization's social media sites and blogs (Mossberger, Wu and Crawford, 2013). Individual citizens are actively involved in actively creating, editing, rating and sharing web content and ultimately forming interactive, linked social networks (Chun, Shulman, Sandoval and Hovy, 2010). Under Government 2.0, the government's former role as a decision-making body that provides services, delivers information and enforces policy is transformed into a shared-governance model, where citizens and community partners collaborate to enhance services, share information and negotiate to create policy, shown in Table 1 (Chun, Shulman, Sandoval, & Hovy, 2010). Embracing the philosophy of Government 2.0 also means shifting from one-way, top-down communication approaches to two-way, balanced communication methods, where information is both

Table 1: Evolution of E-government

TRADITIONAL DIGITAL GOVERNMENT	SOCIAL MEDIA-BASED DIGITAL GOVERNMENT
Web 1.0: automating processes	Web 2.0: interactive, social networking
Internal decision making body	Shared governance
Provides information, pushes out information	Shares information, interactive communication
Delivers services/service provision model	Collaboration to enhance services/service demand model
Policy enforcement model	Policy making and negotiation model
Technological changes	Technological, social, cultural and political shifts

taken from and provided to citizens, and the focus is on stakeholder interactions (Grunig, Grunig and Ehling, 1992). Some researchers also refer to this concept as the New Public Service (NPS) model, where e-government centres on citizens' needs and governments are responsive to citizens. This outcome-oriented approach permits bi-directional information flow, increased access, and collaboration (Abdelsalam, Reddick, Gamal and Abdulrahamn, 2013). Diverse examples of Web 2.0 initiatives by governments include American President Obama's virtual town hall chats on YouTube, Google+ and Twitter; the White House's SAVE Award, a crowdsourcing initiative that allowed federal employees to suggest ways to save money; the Canadian Department of National Defense's "write a letter to the troops" feature; the European Union's Open Data Portal; the Australian government's open government framework initiatives; and the use of 311 or public reporting platforms by many cities worldwide.

Levels of Online Engagement

Although Web 2.0 emphasizes user-generated content and interaction, users may employ different tactics online to achieve varying levels of engagement. Mergel's (2013) framework for measuring social media interaction will be used here to describe the various levels of online engagement. Mergel's framework is based on the U.S federal government's Open Government Directive (OGI) that required federal agencies to achieve key milestones in transparency, citizen participation and collaboration (The White House, 2009). Each of the milestones is associated with a level of online interaction: push, pull or networking tactics. Push tactics use one-way communication methods to push out information or inform and educate the public in order to achieve transparency. Examples may include posting content on static websites or social media feeds, but not responding to comments or questions online. One-way

push tactics represent the most basic level of online engagement and involve measurements such as number of Facebook Likes, Twitter followers, YouTube views or webpage visits. Pull tactics represent the next level of engagement, and use two-way communications methods to pull citizens in by asking them to submit their views, provide content such as videos or photos or comment on social media sites. Pull tactics may be used by governments to increase citizen participation and problem solve through consultation and deliberation, and measurement may include the number of comments on Facebook or blogs, Twitter retweets and hashtags, YouTube ratings or time spent on webpages. According to Mergel (2013), networking tactics represent the most complex and proactive level of online engagement: collaboration supported by social media. This highest level can be difficult to quantify, and is reached when citizens actively interact with government agencies, contribute their own content without solicitation, start new conversations, and take offline actions such as volunteer for public good or develop solutions for government issues.

Based on interviews with 25 social media directors from 15 American federal departments, Mergel (2013) asserts that push strategies dominate in government, and despite the possibilities, agencies are largely using online tools simply to broadcast information. Similarly, Bonsón, Torres, Royo, Flores (2013) researched social media use in European Union local governments and found that push strategies are often employed to provide information and increase transparency but " concept of *corporate dialog* and the use of Web 2.0 to promote e-participation are still in their infancy at the local level " (p. 123). In a 2-year study of the use of social media and interactive tools in 75 of the largest U.S. cities, Mossberger, Wu and Crawford's (2013) research showed that although push strategies dominate, there are signs

that local governments are beginning to encourage online participation and dialogue through pull and networking strategies. The researchers argue that local governments have a strong tradition of citizen participation, and larger cities with more sophisticated website are usually the first to adopt new e-government technologies. As governments begin to evolve toward pull and networking strategies, agencies must consider that stakeholders of e-government (government agencies and citizens) are complex (Axelsson, Melin and Lindgren, 2013), and the interplay between the technology, participants and policy creates a multifaceted phenomenon that introduces new levels of complexity (Angelopoulos, Kitsios and Papadopoulos, 2010).

The online environment is increasing dramatically, especially through mobile technology (Ellison and Hardey, 2014), and the private sector is rapidly evolving digital technologies. As external stakeholders or the citizens become more familiar with technology and more aware of the possibilities, their expectations also change. At the same time, digital tools such as social media represent a paradigm shift for governments (Chun, Shulman, Sandoval & Hovyd, 2010; Hong & Nadler, 2012). According to Abdelsalam et al (2013, citing Fountain, 2001), organizations often adopt and use technologies in such a way as to maintain existing organizational relationships. To truly embrace Web 2.0 technologies and move toward open, honest, transparent and relationship-oriented communication activities, government organizations must work toward an internal environment where staff feel confident and assured in their relationships and communication roles, so that they are willing to share information and engage in conversations.

Organizational Success Factors for Online Engagement

Pull and networking strategies focus on dialogue, collaboration and relationships between governments and external stakeholders. The following section will examine the internal, organizational factors that form the foundation of relationship-oriented communication activities. Strong organizational cultures that foster knowledge exchange and sharing gain the competitive advantage of social and intellectual capital. According to Nahapiet and Ghoshal (1998, p. 250), "the ability to recognize the value of new knowledge and information, [and] also to assimilate and use it, are all vital factors in organizational learning and innovation. […] Moreover, an organization's absorptive capacity does not reside in any single individual but depends, crucially, on the links across a mosaic of individual capabilities."

It is important to note that organizational dynamics are one of several factors that may increase the probability of e-government success. Different authors emphasize various e-government success factors, that Gil-Garcia and Pardo (2005) have classified into five main categories: (1) data and information factors such as data management, quality, structure and compatibility; (2) technology-related factors such as technological compatibility, acceptance and IT technical skills; (3) organizational factors such as the internal relationships, structures, processes and communication channels; (4) institutional factors or the rules, regulations and legislation; and (5) contextual factors that include political, social, economic and demographic variables. Due to the limited scope of this paper, only organizational factors will be discussed here.

Organizational factors may be defined as the "characteristics, processes, structures, and relationships that take place within an organizational setting, including the project,

organizational, and individual levels" (Gil-Garcia, 2012, p. 26, citing multiple authors). According to Gil-Garcia's (2012) research, three main organizational factors influence the success of e-government initiatives: (1) management strategies and practices, (2) general organizational characteristics, and (3) the availability of financial resources. These factors will be discussed below, from a communication perspective and within the context of Canadian local government agencies.

Management strategies and practices. Management strategies and practices that may influence an organization's ability to successfully implement e-government initiatives include: (a) the ability to align communications initiatives with organizational goals; (b) the communication strategy or ability to identify user needs; and (c) the role of communications within the organization (Gil-Garcia, 2012).

Alignment with organizational goals. The importance of aligning communication objectives with organizational goals forms the basis of public relations research. The relationship between communication and an organization's success began to gain attention in the 1960's, when researchers named an organization's communication system as the most significant factor in explaining the overall behaviour of the organization (Grunig, Grunig and Ehling, 1992, citing Walton, 1969). Several decades later, fundamental public relations research showed that public relations activities add value when they assist the organization in achieving its goals (Grunig, 2006). The researchers argued that effective organizations achieve their goals by first identifying and then building mutual relationships with strategic stakeholders and publics, using two-way communication methods. By contrast, ineffective organizations often fail to achieve their goals because they have not built relationships with publics; and publics will

not support, or will outright oppose, goals they consider to be illegitimate because they were developed without public input (Hon and Grunig, 1999, p. 8).

Framed in this way, communication managers must remember that websites, social media and other online applications are communication tools, and the primary purpose of these tools is to assist the municipality in achieving its goals. Mergel (2013, p. 332) asserts: "government professionals need to interpret data in the light of their own agency's mission and the levels of engagement they are aiming to achieve." In smaller municipalities with limited resources and ad-hoc approaches, communications task may be shared between departments or IT resources may be contracted out, affecting the quality and consistency of online efforts. Gil-Garcia (2012) asserts that government websites are significant communication channels, and agencies have the ability to shape the characteristics, quality and currency of the information they provide online. He argues that aligning communication strategies with overall organizational goals, clearly defining responsibilities and ensuring coordination through regular meetings are important success factors in e-government initiatives.

***Communication and marketing strategy*.** In an analysis of social media application data gathered from 250 information technology public servants from Central Mexico, Picazo-Vela, Gutiérrez-Martínez and Luna-Reyes (2012) assert that governments' use of social media may provide many benefits, but to realize these benefits and avoid the risks, a strong implementation strategy is necessary. Existing research shows that although organizations acknowledge the importance of having a strategy, they often lack long-term strategies for implementing new, rapidly evolving e-technologies, and this results in ad-hoc efforts, little

coordination, varied results and few effective ways to share lessons learned (Picazo-Vela, Gutiérrez-Martínez and Luna-Reyes, 2012; Wilson, Guinan, Parise and Weinberg, 2011).

Bonsón, Royo and Ratkai (2015) also emphasize the importance of having a good online strategy. He argues that that online applications need to be mutually beneficial to both entity and audience (p. 58), and content must be relevant to citizen. Gil-Garcia (2012, p. 150) asserts that marketing efforts such as surveys or focus groups can be used to "help to identify information and services that users want, as well as some of the characteristics that they would like applications to have." His research shows that the number of marketing media used, the intensity of marketing efforts and the marketing of the agency's website are positively correlated or frequently associated with e-government success.

Role of communications. In a case study of a large, western Canadian municipality, Killingsworth (2009) found that lack of understanding of the strategic role of communications presented a barrier that translated into an undervalued municipal communications department and limited the ability for effective communication practises. This idea is consistent with previous research findings that argue public relations or communication departments are often seen primarily as a "messaging, publicity, and media relations function" (Grunig, 2006, p. 151), whose main activity is to buffer the organization against change. This reflects public relations as a purely administrative function, concerned primarily with content generation or one-way, push messaging, and the associated, most basic level of online engagement. Given resource and budget constraints, communications tasks may be shared between departments or undertaken by another department, most often marketing. The result is an undervalued communication function that ultimately translates into fewer resources, a leaner budget and qualified

communicators leaving the public service for organizations that offer them more respect and better salaries (Liu and Horsley, 2007, citing Garnett, 1997).

General organizational characteristic. General organizational characteristics discussed here will include resources such as (a) the size of the communication or IT department and (b) investment in staff training (Gil-Garcia, 2012). This section discusses both IT and communications personal, as implementing information and communication technologies often include an overlap between both departments.

Number of communications or IT staff. According to Gil-Garcia (*Ibid*, p. 153): "in statistical analysis, 'the number of people working for the IT organization' as a measure of size was a significant indicator with a positive direct effect on government-wide functionality. It also has an indirect impact through its direct impact on the management strategies and practices." The findings imply that more staff dedicated to information and communication technologies, combine with a strong overall strategy, may indicate a higher organizational commitment to online technologies. Progressing from individual, ad-hoc efforts to integrated, organization-wide approaches shows a higher level of support for online initiatives (Camiade and Claisse, 2011).

Training and skills. Training and skills are other important organizational considerations. According to Gil-Garcia (2012), staff skills are essential to successful e-government initiatives, and training could help staff develop the necessary technical or communication skills. From an IT perspective, shortage of IT skills in the public administration presents a significant barrier and hampers the government's ability to offer innovative e-government services (Angelopoulos, Kitsios and Papadopoulos, 2010 citing multiple authors).

Bertot, Jaegar and Grimes (2010, p. 268) assert: “There is also often a substantial need to provide training, and engage in usability, functionality, and accessibility testing to ensure broadcast ability to participate in e-government services and resources."

From a communication perspective, Liu and Horsley (2007, p. 390) argue: "Government communicators need to have technical training, as well as strategic management skills, to address large and complex public issues and provide reliable information to the public." Hamrefors (2010) identifies four major areas that communicators must develop leadership skills and acquire knowledge to contribute to organizational effectiveness: processes, structure, social interaction and organizational-wide relationships. He asserts that both ideological leadership skills - developing and communicating the organization’s position - and contextual leadership skills are required: “Contextual leadership must develop the organization’s relationships to all parties relevant to the network. Thus, this leadership must develop the organization’s ability to foresee coming events in the environment and create balanced relationships with many different categories or actors” (p. 143). Mergel (2013) emphasizes the importance of having tools in place that allow governments to understand and follow issues, so that interactions are effective and meaningful. Communications personal operate in a turbulent environment, and must have the skill to foresee issues and “serve a number of constituencies, none of which are necessarily friendly and any one of which can come into conflict with the organization or impede or block its performance” (Ehling, White and Grunig, 1992, p. 363).

Availability of financial resources. The growing e-government phenomenon requires substantial investments that are not always easily quantifiable and introduce change within the organization. “Such dramatic change is problematic in any organization, and the political,

managerial and cultural environments set within government present an additional challenge. This complexity is historically founded and consistently embedded through a structure of co-operation between executive officers, elected legislative members and citizens, who form the foundations of the democratic process" (Angelopoulos, Kitsios and Papadopoulos, 2010, p. 97, citing Hackney et al., 2005).

Budgeting for IT and communication staff, software, adequate training and other tangible resources is a challenge for many municipalities that are already working within tight budgets and balancing other capital projects or infrastructure needs. Communication managers interviewed in Killingsworth's (2009) case study repeatedly identified public perception as a barrier to communication endeavours and stated that the municipality's ability to effectively communicate was undermined by "the belief that municipal spending on advertising and communication is a waste of tax payer dollars" (p. 71). Since online tools allow for the efficient transfer of large amounts of information at a relatively low cost (Bonsón, Royo and Ratkai, 2015; Bertot, Jaeger and Grimes, 2010; Chun, Shulman, Sandoval and Hovy, 2010), they can offer a cost-effective solution for public sector communications. At the same time, governments must take into account that relationship-oriented communication activities are complex, and implementation requires strategy, time and planning, resources that are not easily quantifiable.

The difficulty in quantifying the value of communication efforts or the inability to measure return on investment often compounds the barriers discussed above (Killingsworth, 2009). According to Larson and Watson (2011): "Organizations lack valid and reliable measures for social media effect, without which they remain unable to align their social media initiatives

with organizational goals and ultimately create business value." Meng and Berger (2012, p. 332) found that although organizations recognize the importance of measuring the success of internal communication initiatives, limited metrics have been applied. They list improved job performance, altered employee behaviour and increased employee engagement as aspects of internal communication initiatives that may contribute to organizational success and financial performance.

The Institute for Public Relations published a series of booklets on measuring and evaluating public relations effectiveness, developing measurable guidelines for public relations and building effective relationships. In the latter publication, Hon and Grunig (1999, p. 2) state that "the fundamental goal of public relations is to build and then enhance on-going or long-term relationships with an organization's key constituencies." The authors acknowledge that measuring relationships and behaviour can be difficult because, "there are many times when good relationships do not lead to changes in behaviour immediately […or] there may be a long lag between the development of a good relationship and a behaviour" (p. 10). The qualitative characteristics of public relations means that the benefits of investing time and resources into e-government initiatives can be difficult to measure; but the underlying principal is that all public relations endeavors, whether off-line or online, require relationships in order to succeed.

Citizens' Perception of Government Online Efforts

In general, citizens may access government websites or social media sites to find information, complete a transaction, access a service or to share their opinion, provide input or participate. As discussed above, making information available or permitting online transactions primarily requires governments to make technical adjustments, but enabling relationship-

oriented communication activities and encouraging online participation introduces new challenges and increases complexity (Chun, Shulman, Sandoval and Hovy, 2010; Siau and Long, 2005). The next section will discuss citizen expectations in relation to: (1) the efficient and effective service delivery and (2) public involvement and citizen engagement. The underlying assumption here is that citizens or rate-payers expect a certain level of service delivery, and governments are responsible for providing good service. In addition, democratic governments have an obligation to include directly affected citizens in important decisions, in an effort to reach consensus and to attain favourable outcomes.

Efficient and effective government electronic service delivery. E-government promises to provide many benefits to citizens and other stakeholders, such as efficient, effective, high quality, convenient and accessible government service delivery; the provision of resources and services tailored to the needs of users; and ultimately cost savings as a result of increased efficiencies (Bertot, Jaeger, and McClure, 2014; Bertot, Jaeger and Hansen, 2012, Angelopoulos, Kitsios and Papadopoulos, 2010, citing Carter and Belanger, 2005). However, researchers argue that "there is a dilemma: to develop citizen-oriented E-Government services that achieve cost savings implies that governments know what citizens want from E-Government, want to meet citizen expectations and needs, and actively seek to discover what citizens want from E-Government. These sorts of information collection by governments, however, are rare at best" (Bertot, Jaeger, and McClure, 2008, p. 137, citing Heeks & Bailur, 2007) and introduce new challenges and considerations.

For example, researchers argue that a multi-dimensional approach is required to achieve true citizen-centred government. According to Garcia-Garcia, Gil-Garcia and Gomez

(2014), organizations must consider three aspects: the organizational or "back office" processes and structures discussed previously; the usability and functionality of the "front office" services offered to citizens (i.e. website); and the capabilities and needs of the citizens themselves. Lindgren and Jansson (2013) argue that public e-services are broad and complex and may be understood as processes in which someone is being served and value is created for that user. As such, electronically mediated service "should be understood in relation to [their] intended use and users, meaning that issues such as accessibility and usability are important aspects" (Lindgren and Jansson, 2013, p. 166).

Focusing on user needs, accessibility and usability highlights two key differences between public and private organizations. First, public organizations are required to serve all citizens and second, public services do not operate in the free market, but expectations of service level may be measured against it. To adequately serve all citizens, governments must ensure broad legal frameworks exist, consider democratic and economic values (such as equality, social inclusion and cost-efficiency), balance asymmetrical relationships with citizens, safeguard individual and constitutional rights and ensure access for all (Lindgren and Jansson, 2013). The relationships between government agencies and citizens are complex, abstract and extensive, and may also involve different power levels, urgency and legitimacy in relation to e-service (Axelsson, Melin and Lindgren, 2013). According to Bertot, Jaeger, and McClure (2008), the sheer diversity of citizen groups accessing e-government services, especially within today's global context, may increase, rather than reduce, the cost of e-government services. "Users of e-government comprise a number of groups—citizens employing government information and services; residents and immigrants seeking information about their new country; government

employees using e-government in their job functions; people in other countries wishing to know more about a nation; and on and on" (p. 137). Yet, as the private sector increasingly adopts electronic processes (such as internet banking), and the public becomes progressively familiar and comfortable using the internet, citizens' expectations of the government's ability to efficiently and effectively provide a similar level of service increases (Ebrahim and Irani, 2005).

Participation and citizen engagement. Public demand for the opportunity to be heard and for increased accountability, as well as frustration with inefficiency, has put pressure on government agencies to consider communication approaches that focus on opening dialogue, listening to stakeholders and allowing for citizen input. Coleman and Gøtze (2001) argue that new relationships between citizens and government agencies must emerge to avert "a crisis of democratic legitimacy and accountability." They assert that two separate but related developments will influence the strength of democracy: a more active citizenry that is dissatisfied with conventional methods and the capacity of citizens to use social media. Dahlgren (2003) argues that democracy is at a precarious, historical juncture where new politics can inspire and renew traditional government, provided fundamental democratic principles remain in place. Bakardjieva (2009, citing Beck, 1997) asserts that the political landscape is expanding beyond the traditional, symbolic concept of political institutions into new, small-scale, individualized processes of citizenship called subactivism that are "submerged in the flow of everyday life." According to Bakardjieva (2009): "New formats of interactive civic relations are necessary, designed to capture and channel the powers of the Internet to the benefit of a thoroughgoing democracy." An increasingly informed and connected public is pushing

governments to realize that “the alternative to engaging the public will not be an unengaged public, but a public with its own agenda and an understandable hostility to decision-making processes which appear to ignore them” (Coleman and Gøtze, 2001). At the very least, governments have an obligation to include citizens in important decisions that directly affect them. Taking a proactive, public involvement-oriented approach leads to better decision making and better democratic outcomes.

According to fundamental public relations research, “organizations generally make better decisions when they listen to and collaborate with stakeholders before they make final decisions rather than simply trying to persuade them to accept organizational goals after decisions are made” (Hon and Grunig, 1999, p. 8). The authors go on to assert that public relations practitioners must be skilled at maintaining relationships both with managers and with multiple stakeholders, all of which may have competing goals: “Public relations makes an organization more effective… when it identifies the most strategic publics as part of strategic management processes and conducts communications programs to develop and maintain effective long-term relationships between management and those publics” (p. 9).

Macy and Thompson (2013) emphasize that smart social media conversations combine listening and learning with adding value. They liken social media to any other conversation, emphasizing that one would not walk into a party and shout out, “Hey everyone! I bought a new car!” Instead, one would join a group of people, listen for a while and then add something meaningful to the conversation. According to Macy and Thompson (*Ibid*, 2013), ‘social customers’ expect organizations to listen to the conversation, seek to understand what customers want and then provide meaningful input: “What matters most is engagement and

collaboration on their terms. Authenticity and transparency are even more important than consistency of brand message." McNutt (2014, p. 49) agrees: "If there is one lesson public administrators should take from this discussion of Web 2.0 and social media, it should be that in digital environments influence is earned through social reputation, not bureaucratic authority."

Communication can create value for the organization through, "dialogue, access, transparency and understanding of risk-benefits. Dialogue and interaction are central in this context" (de Beer, 2014, p. 142 citing Johansen and Andersen, 2012). According to de Beer (2014, p. 142): "Value is not created by or within an organization alone, but is created through relationships with others. Two aspects that are relevant in building trust and resilience are: The nature and quality of the organizations' relationships with key stakeholders; How key stakeholders' legitimate needs and interests are understood, taken into account and responded to." Bonsón, Royo and Ratkais' (2015) findings show that "content and media types have an impact on stakeholders' engagement on Facebook" (p. 59), and citizens preferred municipal content directly related to their daily lives, rather than broader organizational interests or marketing-related information. The researchers found that "municipalities should identify the most relevant topics for citizens in their jurisdictions in order to meet citizens' needs, provide useful information for them and collect their opinions on these sensitive topics" (*Ibid,* p. 59).

In summary, to provide an acceptable level of service delivery and to understand and meet the diverse needs of citizens, governments must begin by listening to and dialoguing with the citizens themselves. A multi-dimensional approach is required to achieve online success, and governments must take into account internal processes and structures, the usability and

functionality of the technology, and the needs and capabilities of the users (Bertot, Jaeger, and McClure, 2014; Lindgren and Jansson, 2013). Fundamental public relations research suggests that the goal of public relations activities is to build two-way relationships of mutuality with stakeholders (Grunig, 1992), so adopting a relationship-building approach to online communication may allow governments to gain an understanding of citizens' needs, contribute meaningful content and ultimately engage in two-way conversations that add value for both the government and the stakeholders. To adopt relationship-oriented communication activities with external stakeholders, government organizations must also consider the complimentary, internal shifts required to facilitate the process of change.

Methodology

The current research project used a two-pronged approach: first, an online, structured questionnaire was used to inventory online activities of small to mid-sized Canadian municipalities and determine what organizational factors influence engagement; and second, a telephone survey of 300 citizens in 10 municipalities was conducted to measure how citizens are receiving these engagement efforts. Questions contained in the telephone survey mirrored questions contained in the online survey so comparisons could be made. All participants were given the option of responding in English or French, participation was voluntary, and surveys were designed to maintain anonymity.

The sample group includes rural Canadian municipalities with populations between 5,000 and 500,000 residents, based on Statistics Canada census criteria for population centres.

As the study focuses on rural municipalities, large urban centres with populations over 500,000 were omitted. In addition, small population centres with fewer than 5,000 persons were not included, as these municipalities would likely not have dedicated communications staff. The following section will describe: the sample group selection, contact methods, ranking and survey tools; and the online and telephone surveys.

Sample Group Selection, Ranking and Survey Design

As described above, the sample included two groups of participants, a convenience sample of Canadian municipal communicators for the online survey and a random sample of citizens for the telephone surveys. To begin, a list of Canadian municipalities was developed and analyzed at three levels: small, medium and large. The initial list was developed using Statistics Canada census criteria for population centres, defined as "areas of population of at least 1,000 and no fewer than 400 persons per square kilometre" (Statistics Canada, 2011). A list of Canadian municipalities was developed using Statistics Canada (2011) census criteria for population centres and population size levels, including, small (1,000 to 29,999 persons), medium (30,000 to 99,999 persons) and large (100,000 to 500,000) population centres. After small population centres with fewer than 5,000 persons and large, urban centres with over 500,000 persons were removed, and any duplication was eliminated (i.e. in some cases multiple population centres corresponded to only one municipality), a total of 327 population centres remained, including 249 small, 54 medium and 24 large. The researcher acknowledges that although comprehensive, this list does not include every Canadian municipality, and some municipal districts or counties may have been omitted.

Online Surveys. To establish an email list for the online survey component, the population centre list was used to search corresponding municipal websites for contact information. An initial email was sent to each municipality, briefly explaining the survey and requesting the contact information and email for the municipality's communications department. According to the research methodology, participants in the online survey were communications professionals employed by municipalities across Canada. The initial email stated that participation was voluntary, and anonymity of individual municipalities would be maintained with reference only to municipality size or average outcomes. Correspondence was sent in English to all provinces and territories, with the exception of Quebec, where correspondence was sent in French with an English translation below. Of the 327 municipalities listed: 187 municipalities were contacted through the generic emails (generic emails may include: information@ or info@ for English websites; communication@ for French websites; or in some cases the contact information for the executive assistant to Chief Administrative Officer or council); 46 were contacted using an online "contact us" form; 86 were contacted by direct email addresses; and 8 municipalities were deleted, as the municipal websites either did not list online contact information (i.e. only a phone number was listed) or, in one case, the online contact link was broken. Of the 86 direct email addresses, 37 municipal websites provided a direct email for the communications department. In addition, it is worth noting that direct email addresses were readily available for the majority of Albertan municipalities due to the existence of an Alberta Municipal Communication group. The Alberta Municipal Communication group appears to be the only such regional network for municipal communications in Canada.

Of the remaining municipalities that were initially contacted through a generic email address or a “contact us” form, 69 responded and provided direct email addresses for communications or other appropriate staff, and two municipalities declined to participate due to lack of resources. Online survey data was collected in April, 2015 and municipalities were contacted three times. In total, surveys were sent to a total of 307 municipalities, with half sent via direct email to communications staff (153 total) and the remainder using the generic email addresses (154 total). Online survey data was collected in April, 2015, by a professional research firm using a proprietary system that utilized PHP and HTML. The research firm contacted the municipalities three times by email, including an initial email and two reminders, with each email containing a project description and survey link. All participants were given the option of responding in English or French, participation was voluntary and the survey was designed to maintain anonymity to ensure candid answers at that moment in time.

The response rate for the online surveys was 28.66%, with a total of 88 responses received, including responses from 61 small, 21 medium and 6 large municipalities. Regional responses, based on Statistics Canada (2011) regional categories were as follows:

- British Columbia and Yukon yielded 20 responses;
- Prairies, NWT and Nunavut yielded 43 responses; and
- Ontario, Quebec and Atlantic region yielded 25 responses (Statistics Canada regional categories were combined into one group due to few responses received).

The fact the survey was conducted in Alberta, and that an Alberta Municipal Communicators network already exists in that province, may have contributed to a larger number of responses from Alberta.

Telephone Survey Selection. Telephone surveys were conducted by a professional research firm, and included a random sample of 302 adult citizens from 10 municipalities that had participated in the online survey. To ensure a representative sample for the telephone surveys, participating municipalities were sorted first by size level (small, medium and large) and then by region. The municipalities were then ranked according to their responses to the scale questions contained in the online survey, as described below. Seven "top-performing" municipalities were chosen as follows: in each of the 3 regions, the highest-scoring small and the highest-scoring medium municipality was selected (total 6 municipalities). One large municipality with the highest overall score was also chosen for this category. Three "mid-performing" municipalities were also selected in each region, using the median score, so that the municipalities that perceived themselves as top-performers could be compared to the municipalities that perceived themselves as mid-performers.

Survey Development

The following section will first describe the basic, benchmarking information that was collected from municipalities only, and then perception components contained in both municipal and citizen surveys.

Municipal Benchmarks. The research began with an online structured questionnaire given to a convenience sample of Canadian municipal communicators. Benchmarking information collected in the municipal online survey was based on the three main organizational factors, or internal factors, that influence e-government success: general organizational characteristics, the availability of financial resources and management strategies and practices (Gil-Garcia, 2012). The online municipal surveys began by gathering basic

information such as the population size and location, as well general organizational characteristics such as the approximate number of full time equivalent (FTE) staff, not including seasonal staff, and the number of communications staff employed by the municipality was recorded. Communication staff was described as staff that planned, developed and implemented communications strategy, policy and plans on behalf of the municipality and oversaw initiatives including public engagement, online engagement, media relations and writing.

In addition, data was collected on the staff resources and budget dedicated to managing the municipal website and social media platforms. Staff hours were described as the time spent per week on the development and implementation of the municipality's online strategy, as well as the development, design, management and analytics of all interactive elements, online services and social media platforms. In addition, municipal participants were asked to choose the statement that best described the municipality's online efforts, using statements that were partially based on Mergel's (2013) framework.

Municipal participants were then asked to rate 12 potential challenges that using social media may present for the municipality, using a 5-point rating, ranging from 1= never a challenge to 5= extremely challenging. The challenges were developed using AUMA/AAMDC (2015) *Social media resource guide* and the HootSuite Enterprise (2014) whitepaper *Social Media in Government: 5 Key Considerations* and included: (a) Starting the municipality's social media presence; (b) Attracting a sizeable audience; (c) Reaching the target audience for particular message or topic; (d) Keeping voice consistent across channels; (e) Choosing which social media channels to use; (d) Finding the time to post regularly during business hours; (f)

Managing the 24-7 nature of engagement; (h) Responding to the volume of comments in a timely manner; (i) Developing a response strategy for positive and negative feedback; (j) Developing a strategy and measuring performance; (k) Engaging senior management in the planning or decision making; (l) Working together, across departments; as well as an open-ended "other" category.

Perception Components. To compare municipal perceptions with citizen perceptions, the following matters were measured, and are described below: interactive elements and online services; efficiency and effectiveness of online service delivery; trust and control mutuality; and public engagement.

Interactive elements and online services. Municipalities indicated if particular identified the elements were present on their website (Table 3), and citizens rated the importance of offering these service online service elements (Table 12) and if they had accessed these service services online in the past (Table 13). The list of elements was derived from a combination of the interactive elements listed in *Connecting citizens and local governments: Social media and interactivity in major US cities* by Karen Mossberger, and *Local e-government 2.0: Social media and corporate transparency in municipalities* Enrique Bonson *et al.,* as well as a list of 10 online services commonly offered on municipal websites.

Municipalities were asked what types of interactive elements and online services were present on the official municipal website. A value of "1" was assigned if an element was present on the website and a "0" was assigned if the element was absent. Municipal online surveys included 27 elements and services (Table 3), while the citizen telephone surveys combined these into 21 interactive elements, in order to ensure smooth and concise verbal delivery

(Table 4 and Table 11). For example, in the online survey, specific social media sites were listed for both the municipality and elected officials (i.e. as Twitter for municipality and Twitter for elected official), but in the telephone survey specific social media were listed only once (i.e. Twitter for municipality).

Efficiency and effectiveness of online service delivery. Municipalities and citizens provided assessments of efficiency and effectiveness of online service delivery, ranked on a 7-point scale.

Following the methods described in Churchill (1979), a series of scale questions were used to measure how municipalities perceive their online engagement efforts. Churchill's procedure includes specifying the construct domain, generating a sample, collecting and purifying the data, and then recollecting the data, assessing reliability and validity, and developing norms. Although the data collected from municipalities was recollected (i.e. tested) against citizen perceptions, Churchill's final formulas for assessing reliability and validity, and developing norms were not applied, as these steps for scale development were outside the scope of this study.

Municipal participants were given 16 scale statements pertaining to the municipality's commitment to online engagement and organizational factors. Municipal participants were asked to rank their extent of agreement or disagreement using a 7-point scale, with 1= strongly disagree; 2= disagree, 3= disagree somewhat, 4=neutral, 5= agree somewhat, 6=agree, 7=strongly agree. The portion on the efficiency and effectiveness of service delivery included statements on management strategies and practices such as: leadership and the ability to align communications initiatives with organizational goals; the communication strategy or ability to

identify user needs; and the communication roles and responsibilities within the organization. Scale questions also covered general organizational characteristics such as investment in staff training, the support staff received and the measurements or key performance indicators used by the municipality (AUMA/AAMDC, 2014; Gil-Garcia, 2012; HootSuite, 2014). Additional scale statements were given to both municipalities and citizens and included statements on efficiency and effectivity of online service delivery, for example: organization of the municipal website; whether essential information is conveyed in simple, easy to understand language; and whether the municipality responded to online inquiries in a timely manner.

Trust and control mutuality. Using a 7-point scale, both municipal participants and citizens were asked to rank general statements on control mutuality and trust developed by Hon and Grunig (1999) in *Guidelines for Measuring Relationships in Public Relations.* The authors (1999, p. 3) define control mutuality as: "The degree to which parties agree on who has the rightful power to influence one another. Although some imbalance is natural, stable relationships require that organizations and publics each have some control over the other;" and trust as: "One party's level of confidence in and willingness to open oneself to the other party. There are three dimensions to trust: integrity: the belief that an organization is fair and just … dependability: the belief that an organization will do what it says it will do … and, competence: the belief that an organization has the ability to do what it says it will do." Hon and Grunig's guidelines for measuring relationships also contain sections on satisfaction, commitment, exchange relationship and communal relationship, but these statements were not included, as they were deemed to measure relationship outcomes beyond the scope of this study.

Public engagement. To gain an understanding of overall commitment to public engagement, municipal participants were asked to rate the relative proportions of online public engagement activities that they had been involved in. All participants were asked to rate their perceptions of the municipality's public relations efforts by responding to questions mirrored in both surveys, using a 5-point rating ranging from 1=inadequate or not at all useful to 5=excellent or extremely useful. Ratings included: (1) overall commitment to public engagement; (2) usefulness of input received from municipal public involvement activities; (3) overall satisfaction of citizens and other stakeholders with the municipality's communications efforts. Municipalities were also asked how they perceived overall satisfaction of the municipal staff and political officials with the municipality's communications efforts. Perception results are shown in Table 11.

Results

Data collection was done on the premise that achieving maximum benefit from communication efforts requires a focus on building two-way relationships with stakeholders. Towards this end, the results include the following: assessments of the level of municipal online engagement; an overview of the online services municipalities are offering as compared to the services that citizens perceived as being important to access online; consideration of resources dedicated to communication and online engagement; and comparison of municipal

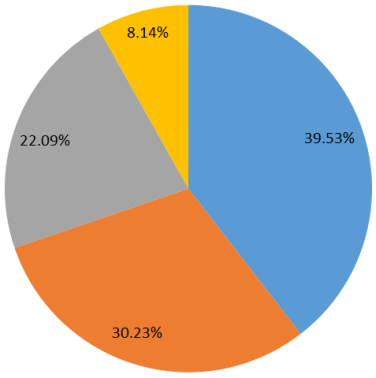
officials' and citizens' perceptions of municipal performance to determine if there is a match between the perceptions of administrators and citizens'.

The results reveal that, in general, municipalities rated their online performance as higher than citizens perceived it to be. The research also shows that while citizens believe it is important for municipalities to be online, the online services that municipalities are currently offering do not necessarily match the citizens' expectations. On average, Canadian citizens showed a preference for accessing real-time scheduling information on services or events and being able to carry out practical actions online such as completing the municipal census, registering for programs or voting in an election. General statistics for citizen respondents are provided in the Appendix (Table 14), but the average respondent was over 25-years-old (with the majority in the 45 to 64-year-old category), had an average household income between $50,000 and $150,000, and held a university degree or post-secondary diploma. An equal number of male and female respondents were surveyed.

Levels of Engagement

Municipalities were asked to describe the municipality's level of online engagement by choosing from a series of statements based on Mergel's (2013) framework. As shown in Table 2, one-way push strategies dominate, with most municipalities (39.53%) reporting that they primarily send out information online, using online newsletters, website updates or downloadable information but provide

Table 2: Levels of Online Engagement



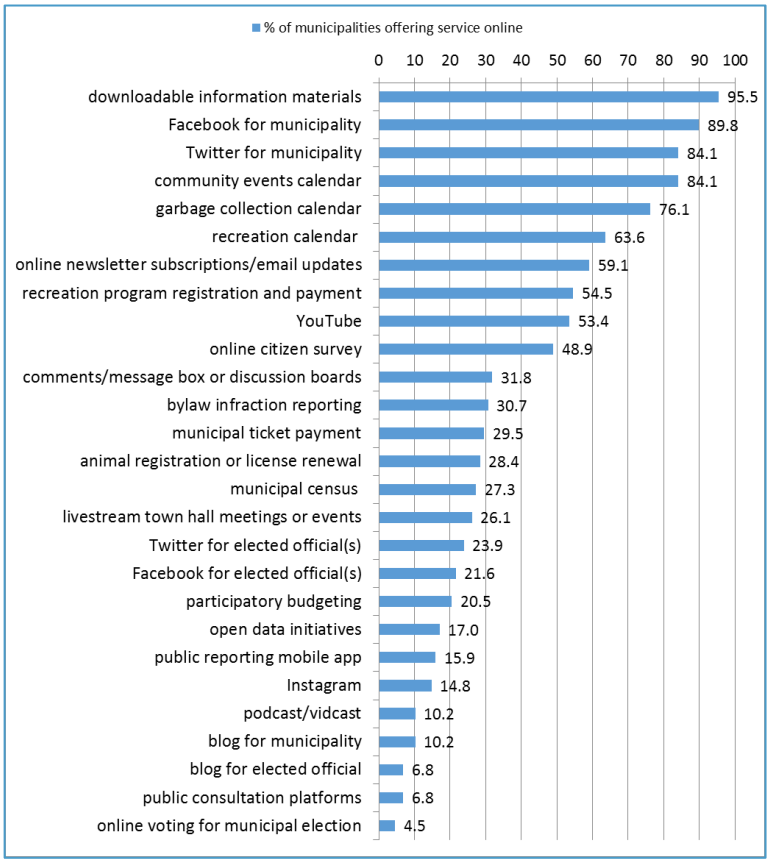
little or no chance for citizens input. Approximately one-third (30.23%) of municipalities use 2-way pull strategies to occasionally invite input or tests ideas through online surveys, opinion polls or questions on social media sites. Another 22.09% of municipalities describe their level of online engagement as pro-active, purposeful consulting, where online tools such as Twitter or Facebook Groups are used to explore different perspectives, share ideas and allow citizens to have a say in the decision-making process. Only 8.14% use networking strategies, where online tools are used in creative and innovative ways to collaborate, interact or allow citizens to make recommendations and develop solutions online.

Online Services Offer vs. Online Services Citizens Consider to be Important

Online services offered by municipalities. Various types of interactive elements and online services that may be found on municipal websites were measured. The list of elements was derived from a combination of the interactive elements listed in *Connecting citizens and local governments: Social media and interactivity in major US cities* (Mossberger, 2013) and *Local e-government 2.0: Social media and corporate transparency in municipalities* (Bonson, Torres, Royo and Flores, 2012), as well as a list of 10 online services commonly offered on municipal websites. The municipal surveys contained a total of 27 elements and services. In an effort to ensure smooth verbal delivery of the telephone survey, these elements were combined into a total of 21 elements for the citizen telephone surveys (e.g. specific social media sites were listed only once for the citizen surveys, rather than listing these social media sites for the municipality and then listing the same sites for elected officials).

The top five items offered online by over three-quarters of all municipalities (shown in Table 3) consist of downloadable information (offered by 95.5% of municipalities), municipal Facebook pages (89.8%), municipal Twitter feeds (84.1%), community events calendars (84.1%) and garbage collection calendars (76.1%). The majority of municipalities also offer recreation calendars, online newsletter subscriptions, recreation program registration and YouTube channels.

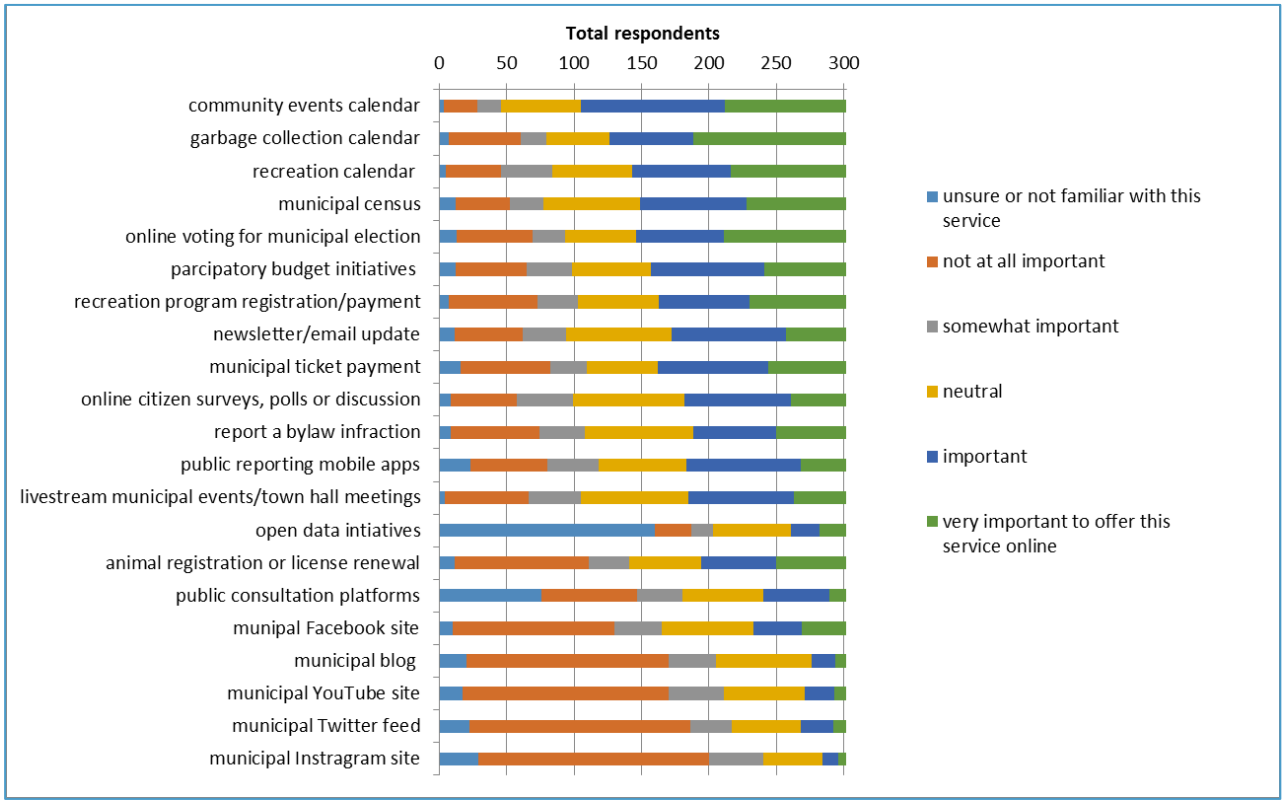
Table 3: Online Service Offered by Municipalities



Online services considered important to citizens. By comparison, the top five online services, rated as "very important" or "important" by the majority of citizens, consist of online events calendars (for community events, garbage collection and recreation events, respectively), municipal census and online voting for municipal elections. Participatory budget initiatives, online payment options and newsletter updates were also rated as "very important" or "important" by most citizens (Table 4). When the citizens were read the same list of services again, and asked if they had ever accessed the service on any municipal website (see Appendix, Table 12), the majority of respondents reported that they had accessed online calendars for

community events, recreation and garbage collection. Roughly a third of citizens had accessed municipal newsletter or email services; registered or paid for programs online; participated in online surveys, polls or discussions; and visited the municipal Facebook site.

Table 4: Online Services that are Important to Citizens



Social media perceptions. The majority of municipalities are making concentrated efforts to connect to citizens on social media, especially Facebook and Twitter (offered by 89.8% and 84.1% of municipalities, respectively), but the citizens rate municipal social media sites (including Facebook, YouTube, blogs, Twitter and Instagram) as the least important elements to offer online. Many citizens said it was “not important at all” for municipalities to offer social media sites. When citizens were asked if they had ever accessed municipal social media sites, (see Appendix, Table 13), nearly a third of the citizens surveyed (26.82%) had

accessed a municipal Facebook site, but only 8.61% and 8.28% of citizens, respectively, had accessed municipal Twitter or YouTube sites.

The lack of citizen interest in municipal social media may be interpreted in various ways, but seem to speak to the importance of having a good online strategy, getting to know your target audience and providing content that is mutually beneficial and relevant to both government entity and citizens (Bonsón, Royo and Ratkai, 2015). When asked to rate the top challenges to using social media, municipalities reported that their top challenges were: (1) Managing the 24-7 nature of engagement; (2) Developing a strategy and measuring performance; (3) Reaching the target audience for particular message or topic; and (4) Working together across departments. The next challenges were tied for 5th place: (5a) Attracting a sizeable audience and (5b) Engaging senior management in the planning or decision making. Addressing such challenges, however, raises the different challenge of providing leadership to help implement these changes.

Online calendars. To expand upon the online services that citizens rated as important, we will begin with online calendars. When citizens were asked if they had ever accessed online calendars on any municipal website, the majority of citizens (72.85% of citizens surveyed) indicated that they had accessed online community events calendars, 69.54% had accessed recreation calendars and 53.64% had accessed garage collection calendars. Although the majority of municipalities surveyed indicate that they do offer online community events, garbage and recreation calendars, the results do not show if these calendars are updated in real time or if they are simply documents that are posted online and available for downloading. Citizen results would seem to show a preference for online calendars that show real time

changes to service levels or schedules; for example if a community event is cancelled due to the weather, if garbage service is delayed or if the swimming pool or arena is closed unexpectedly.

Online municipal census. Citizens also placed a high importance on initiatives such as completing the municipal census online, voting online and participatory budget initiatives. The idea of offering the municipal census online has been gaining popularity and acceptance in recent years. Across Canada, approximately one-quarter (27.3%) of the municipalities surveyed currently offer an online municipal census. An online census can offer citizens an easy-to-access alternative to the traditional paper census, and can increase efficiency for governments, reduce the number of enumeration staff required, as well as providing other benefits. For example, The City of Calgary's (2015) website states that 85,000 Calgarians completed the municipal census online in 2015, resulting in a reduction of 500,000 printed pages since 2013. When offering an online census, municipalities must take into account the cost of implementing and training workers on specialized software, guaranteeing that the information collected online is secure, and ensuring that the tools are easily accessible and user friendly.

Online voting for municipal elections. Cost, security and access present challenges for governments similar to those arising from online voting initiatives. Only 4 respondent municipalities indicate that they had offered internet voting for municipal elections, and all of these respondents are from Ontario. An article published in the *Globe and Mail* (Goodman, 2014) reported that in an effort to increase voter participation in Ontario's 2014 municipal elections, internet voting was offered by 97 out of a potential 414 communities holding elections. As was the case in Ontario, attempting to increase voter participation is a prime reason for offering internet voting. According to the 2011 Elections Canada Survey of Electors,

57% of non-voters said that they would have voted online using the Elections Canada website, had an online voting option been available (Laronde, 2011).

Participatory budgeting initiatives. Participatory budgeting initiatives were also considered to be "very important" or "important" to the majority of citizens surveyed. Participatory budgeting (PB) began in Brazil and is now offered around the world. PB engages citizens in identifying and prioritizing community projects, and then reaching consensus on how a portion of a public budget is spent and on the project(s) (The Participatory Budgeting Project, 2015). Only 20.5% of rural Canadian municipalities surveyed have offered PB initiatives. While the majority of respondents were from medium to large municipalities, some smaller municipalities have also offered PB initiatives. Well-known Canadian PB initiatives related to community projects and public housing are offered by the cities of Toronto, Hamilton, Guelph and West Vancouver, and more information is available on these cities' websites.

Overall, citizens rate two-thirds of the services listed as being between 4=important and 3=neutral to offer online (see Appendix, Table 12). Of note is that over half of citizens indicate that they are not familiar with open data initiatives, but, when the responses of citizens who are familiar with open data are taken into account, open data importance ranks fairly high, above many popular social media. Open data initiatives involve making certain data openly available for public use, without copyright restrictions or other controls (Auer *et al*, 2007).

Municipal resources

To develop benchmarks for municipal resources dedicated to online services, the average number of FTE communication staff by population size was calculated, as well as average resources dedicated to municipal website and social media management, including

annual budget and staff resources. For the website and social media sections, the answers varied greatly and were not consistently related to the population size of the municipality or the region of Canada.

Communications staff. The average number of full time equivalent (FTE) communications staff employed by each municipality was analyzed by the population size and also compared to the total number of non-seasonal staff employed by each municipally (Table 5). The total staff number was calculated as a weighted average for each population size category. It should be noted that numbers of IT staff were not surveyed in this study; although IT forms an integral part of information and communications technologies. We encourage future research to consider this.

In general, staffing increased with population size but not proportionally. On average, most small municipalities, with populations of 19,000 or less, employed about 1 FTE communications staff. In this category, 10 of the 49 respondents reported that they did not employ any communications staff; instead administrative assistants, clerks, economic development, marketing or IT staff took on the communications role. By comparison, municipalities in this size category employed between 65 and 136 employees. On average, the small to mid-sized municipalities with populations between 20,000 and 65,499 employed about 2 FTE communications staff, and a total of 243-418 employees. Surprisingly, 20% of (or 3 of 15) respondents in the medium category (30,000 to 65,499 population) also indicated that their municipality did not employ communications staff.

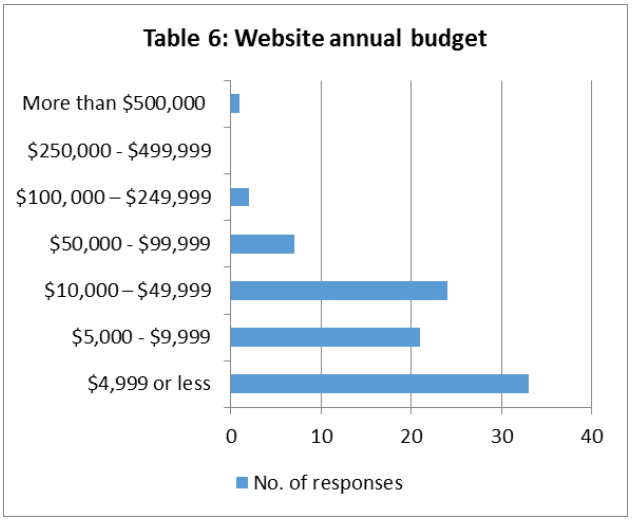
On average, medium to large municipalities with populations between 65,000 and 500,000 employed between 4 and 9.5 communications staff, with mid-sized municipalities

employing a total of 736 staff and larger municipalities employing 2050 staff. Results varied greatly within the large size category, and respondents indicated that their municipalities employed between 2.5 to 17 communications staff. Due to the few responses and large variation in the latter medium and large categories, these results are not statistically significant.

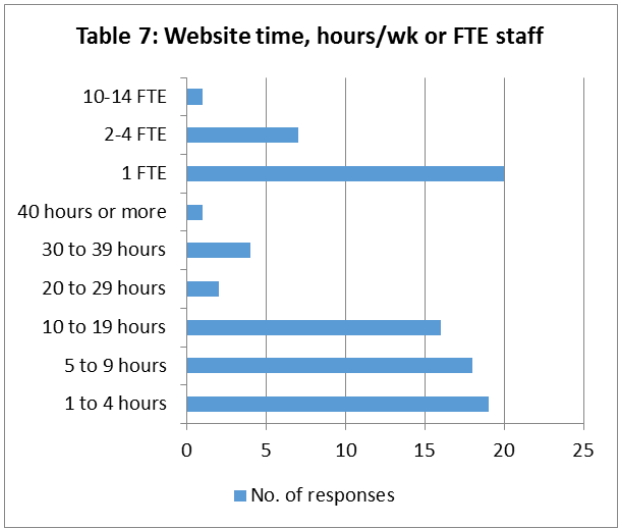
Table 5: Number of communication staff by population size

Population size	Average number communication staff	Number of municipal staff (weighted average)	Number of muicipalities that do not employ communication staff	Number of respondents
5,000 to 9,999 (small)	0.89 FTE (SD 0.78)	65	5	18
10,000 to 19,999 (small)	1.35 FTE (SD 1.01)	136	5	31
20,000 to 29,999 (small)	1.93 FTE (SD 1.08)	243	0	12
30,000 to 65,499 (medium)	2.23 FTE (SD 2.44)	418	3	15
65,000 to 99,999 (medium)	4 FTE (SD 4.1)	736	0	6
100,000 to 500,000 (large)	9.58 FTE staff (SD 5.83)	2050	0	6
Total respondents				88

Website budget. The majority of rural Canadian municipalities spent less than $50,000 annually on their municipal website (Table 6). The analysis included resources required for managing the official website, including all interactive elements and online services offered. Many municipalities (37.5% of respondents) spent $4,999 or less annually on their website; roughly one-quarter (23.9%) spent between $5,000 and $9,999 annually; and 27.3% spent between $10,000 and $49,999 annually. For the remaining municipalities that spent more than $50,000, staff salaries were included in annual budgets for most, but not all, respondents. One large municipality's (representing 1.1% of respondents) annual website budget exceeded $500,000 and included salaries for 10 to 14 website staff.

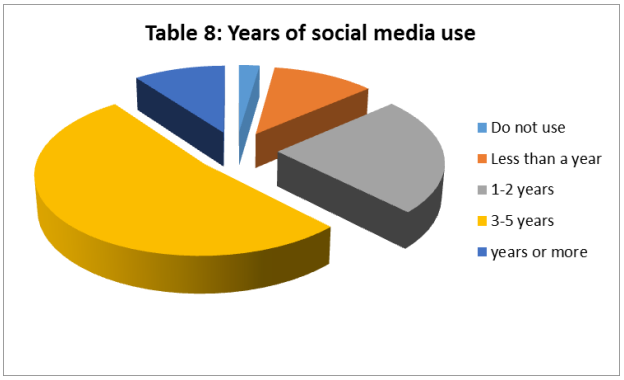


Website time. The number of full time staff or staff hours per week dedicated to website management was then calculated (Table 7). The staff time spent on the website was defined as including, but not limited to, tasks such as website strategy development, website development and design, posting content and analytics. Approximately two-thirds or roughly 60% of municipalities spent 19 hours or less each week maintaining the website, with respondents almost equally divided



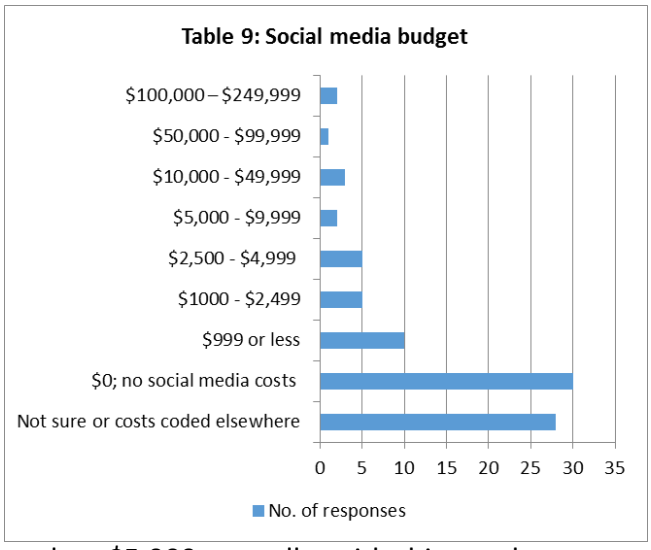
between these three categories (21.6% spending 1 to 4 hours per week; 20.5% spending 5 to 9 hours per week; and 18.2% of respondents spending 10 to 19 hours per week). Another one-third, or 31.8%, of municipalities, employed at least one full time staff member for website maintenance and management. Results indicated a clear trend toward hiring a FTE staff member for municipalities spending more than 20 hours a week on website maintenance.

Social media use. Almost all of the municipalities surveyed currently use social media. For this survey, social media was defined as including tools that allow people to interact and collaborate online, such as: blogs; podcasts/vidcasts; social networks such as Facebook, Twitter; video sharing sites; wikis. As shown in Table 8, just over half (52.3%) of the municipalities have used social media for 3 to 5 years, while 23.9% have used social media for 1-2 years; 11.4% have used social media for less than a year; and 10.2% have used social media for 5 years or more. Two municipalities said that they do not currently use social media, but they are working today using social media in the future. One municipality responded that they are "still developing a policy and procedures, [but] senior management has worries about workload impact and risk." These two municipalities are excluded from the following results.

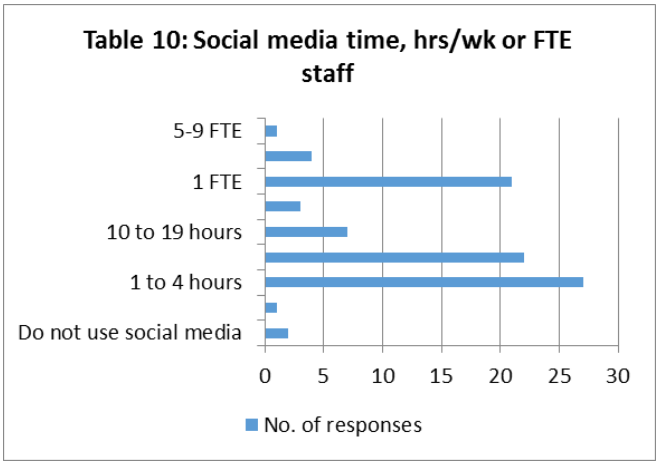


Social media budget. Municipal budgets for social media management and advertising were substantially lower than annual website budgets. The majority of municipalities (67.5%) indicated that they have no dedicated social media budget (Table 9); of these, 34.9% indicated

that they have no costs associated with social media and 32.6% stated that they were not sure of the costs or costs were coded elsewhere. Another 11.6% (or 10 respondents) spent less than $999 annually, and 11.6% spent between $1,000 and $4,999 on social media management. Few municipalities spend more than $5,000 annually, with this number generally including salaries for up to 9 staff members dedicated to social media. Again, the answers varied greatly and were not consistently related to the population size or the region of Canada.



Social media time. The number of full time staff or hours per week dedicated to social media management included, but was not limited to, developing and posting content, analytics and strategy development, was also calculated. Time spent per week on social media varied greatly, with 31.8% of (or 27) respondents spending 1 to 4 hours per week on social media management, 25.9% (or 22 respondents) spending 5 to 9 hours per week, and approximately one-third (30.6%) of respondents employing one or more FTE staff to manage social media (Table 10). Of the municipalities that employed social media management staff, the vast majority of these employed 1 FTE, with only six respondents employing 2 or more staff for



social media management. Again, like website management, the results indicate a clear trend toward hiring a FTE staff member for municipalities spending more than 20 hours on social media. One municipality indicated that they had used Twitter only once, for the 2014 municipal election, so this municipality was excluded from the above results.

Municipal perceptions as compared to citizen perceptions.

The final portion of the results compares the municipalities' perceptions of performance to citizens' perceptions. Ratings categories included online engagement, relationship-building and public engagement. Overall, in all categories, the results showed that the municipalities rated their performance better than citizens perceived the municipal performance to be (Table 11). In addition, the citizens rated municipal performance as average or slightly above average in all categories. Citizens perceived little difference between the top-performing municipalities and the mid-performing municipalities.

Online engagement. The online engagement section asked participants to rate general statements such as: if staff and elected officials were professional and courteous online; if relevant information was posted online; if inquiries were responded to in a timely manner; if the website was well organized and conveyed information in simple, easy to understand language; if the municipality used online media to test ideas and develop solutions; and if online input was shared beyond the communications department). Scale questions for online engagement were rated on a 7-point scale, ranging from 1=strongly disagree and 7=strongly agree. On average, top-performing municipalities perceived themselves as 5.57 (compared to citizen ranking of 5.06), while mid-performing municipalities ranked themselves as 4.96 (compared to citizen ranking of 4.68). The citizen perceptions differed only slightly between

top- and mid-performing municipalities, and citizen rankings were more closely matched to the mid-performing municipalities. This pattern emerges for all subsequent categories.

It is interesting to note that the municipalities that perceived themselves as top-performers in the online engagement category also perceived themselves as receiving above average support for online initiatives. Most top-performers had developed an overall communication plan and/or online strategy, and generally felt that their municipality was committed to online engagement. The top-performers, in all population size categories, reported a high level of senior management support; indicated that team members know their responsibilities, feel supported in their roles and have adequate resources to perform their jobs effectively; and reported that training is provided to ensure both staff and elected officials are professional and courteous, and understand their roles, responsibilities and accountabilities online. In addition, most of the top-performing municipalities indicated that they have a clear and deliberate online strategy or guidelines to support two-way communication, citizen engagement and dialogue. By contrast, the mid-performing municipalities reported that they either had no guidelines or general guidelines, and stated that their main online objective were to inform, provide accurate, consistent and accessible information, increase awareness and/or drive traffic to the municipal website.

Table 11: Municipal perceptions vs citizen perception of performance

1. Online engagement: Municipality 7-point scale	1. Online engagement: Citizens' rating 7-point scale	2. Control mutuality and trust: Municipality 7-point scale	2. Control mutuality, trust Citizens' rating, 7-point scale	3a. Commitment Municipality rating out of 5	3a. Commitment Citizens rating out of 5	3b. Usefulness Municipality rating out of 5	3b. Usefulness Citizens rating out of 5	3c. Satisfaction Municipality rating out of 5	3c. Satisfaction Citizens rating out of 5
Average top cities									
city	citizen	city	citizen	city	citizen	city	citizen	city	citizen
5.57	**5.06**	**6.44**	**4.37**	**4.00**	**3.22**	**3.86**	**3.20**	**3.86**	**3.28**
Avg mid cities									
city	citizen	city	citizen	city	citizen	city	citizen	city	citizen
4.96	**4.68**	**5.70**	**4.22**	**3.67**	**3.17**	**3.00**	**3.07**	**4.33**	**3.14**
ONLINE ENGAGEMENT		**CONTROL MUTUALITY, TRUST**		**COMMITMENT**		**USEFULNESS**		SATISFACTION	
1 Strongly disagree		1 Strongly disagree		1 Inadequate		1 Not at all useful; participating seems like a waste of time		1 Inadequate	
2 disagree		2 disagree		2 Weak		2 Not useful		2 Weak	
3 Somewhat dsagree		3 Somewhat dsagree		3 Fair		3 Sometimes useful, sometimes not		3 Fair	
4 Neutral		4 Neutral		4 Good		4 Fairly useful		4 Good	
5 Somewhat agree		5 Somewhat agree		5 Excellent		5 Extremely useful, I make a big difference when I participate		5 Excellent	
6 Agree		6 Agree							
7 Strongly agree		7 Strongly agree							

Relationship-building. Using portions of the scale statements outlined in *Guidelines for Measuring Relationships in Public Relations,* developed by Hon and Grunig (1999), both municipal participants and citizens were asked to rate statements on control mutuality and trust. Hon and Grunig (1999, p. 3) define control mutuality as: "The degree to which parties agree on who has the rightful power to influence one another. Although some imbalance is natural, stable relationships require that organizations and publics each have some control over the other;" and trust as: "One party's level of confidence in and willingness to open oneself to the other party. There are three dimensions to trust: integrity: the belief that an organization is fair and just … dependability: the belief that an organization will do what it says it will do … and, competence: the belief that an organization has the ability to do what it says it will do." On average, again using a 7-point scale, top-performing municipalities ranked themselves above average, at 6.44 (compared to citizen ranking of 4.37), while mid-performing municipalities ranked themselves at 5.70 (compared to citizen ranking of 4.22). Again, it is worth noting that

citizen perceptions of top- and mid-performing municipalities were nearly identical and citizens rated municipalities as average, while the municipalities rated themselves much higher.

Public engagement. Both municipal and public participants were asked to rate three public engagement statements, using a 5-point rating ranging from 1=inadequate or not at all useful to 5=excellent or extremely useful. Participants were asked for their assessment of the overall commitment of the municipality to public engagement (Table 11, 3a); the overall usefulness of input you have received from (o provided during) public involvement activities (Table 11, 3b), and the overall satisfaction of citizens and other stakeholders with the municipality's communications efforts (Table 11, 3c). Responses to all three public engagement questions on (3a) commitment, (3b) usefulness of input received and (3c) satisfaction were similar, with the top-performing municipalities rating themselves, on average and out of 5, as "Good" (4.00. 3.86 and 3.86, respectively) and citizens ratings these municipalities slightly lower, as "Fair" (3.22, 3.20 and 3.28). On average, mid-performing municipalities rated themselves between "Fair" and "Good" (3.67, 3.00 and 4.33), and citizens rated the mid-performers, on average as "Fair" (3.17, 3.07, 3.14). In addition, municipal participants were asked to rate the overall satisfaction of the municipal staff and political officials with your municipality's communications efforts. Both top- and mid-performing municipalities rated themselves as "Good," scoring 4.14 and 4.33, respectively. Again, in public engagement questions, municipalities generally rated themselves as above average, while citizens rated the municipalities as average.

Discussion and Conclusion

While most rural Canadian municipalities are at a basic level of online engagement, and concentrate on pushing out timely, accurate information or beginning online conversations, there is movement towards opening two-way communication, dialogue and citizen engagement. The results revealed that while citizens believe it is important for municipalities to be online, the online services that municipalities are currently offering do not necessarily match the citizens' expectations. In addition, in the areas of online engagement, relationship-building and public engagement, municipalities perceive their performance to be above average, while citizens generally rated municipal performance as average. Municipal governments could strengthen their online communication efforts by identifying what online services and issues are important to their citizens and then investing resources to ensure those services are user friendly and accessible (Bonsón, Royo and Ratkai, 2015).

In today's online environment, the emphasis must be on developing a strategy for listening to, dialoguing with and being responsive to citizens. To accomplish this, governments must know why they are online, what they would like to accomplish and have effective supports in place. On average, Canadian citizens showed a preference for accessing real-time scheduling information on services or events, and being able to carry out practical actions online such as completing the municipal census, registering for programs or voting in an election. There are diverse issues and concerns that matter to citizens across Canada, so municipalities would benefit from developing relationships with citizens in their jurisdiction and communicating on issues that are most important.

Real-time, interactive services can provide many benefits, such as increasing the accessibility, efficiency and transparency of government, and increase citizen involvement by providing convenient platforms to provide input. At the same time, governments must carefully weigh the benefits against the challenges and costs. Implementing these types of services requires careful planning, leadership, resources, support and expertise; and aspects such as policy, data storage and privacy legislation must also be considered. Whether implementing services such as online municipal census or voting will actually translate into increased response rates, and the factors that may influence response rates, is beyond the scope of this study, but these are potential areas for further research. As online technologies become more complex and platform choices increase, establishing an online presence with clear objectives in mind becomes increasingly important, so that adequate staff resources, monetary investments and support can be calculated for future planning.

It is also important for governments to remember that online services, social media and other e-government tools are just that: tools. For digital engagement tools to be effective, they must be grounded within a larger public relations or community engagement strategy. In other words, “using social media and other digital tools is not a “fast food” approach to public engagement” (McNutt, 2014, p. 67); and e-government tools do not provide a quick fix for relationship-oriented communication activities. The citizens’ average ratings of the overall commitment, usefulness and satisfaction of municipal public relations efforts reflect the fact that, on average, the public relations efforts of Canadian municipalities remain at a basic level, although the municipalities surveyed are making concerted efforts to improve communication and citizen engagement.

The research also highlights the primary purpose of public relations activities as building two-way, collaborative relationships with stakeholders (Grunig, 1992). Embracing two-way engagement will require governments to make social, cultural and political shifts within their organizations in addition to technological changes. This includes new ways of learning and working together as an organization. Developing links across an organization includes considering the organizational factors recommended for e-government success. Due to the limited scope of this study, a clear correlation between these organizational success factors and municipal performance could not be made, but overall, the top-performing municipalities perceived themselves as having more support in these areas. The relationship between this internal dynamic and e-government success warrants further study.

Providing effective, efficient and accessible services is the responsibility of every municipal government. Engaging with citizens in directing these services is becoming increasingly expected. E-government tools provide many options for meeting these expectations, but also introduce new complexities and changes to both internal and external systems. As such, online presence must be grounded in the municipality's overall communications strategy, as well as the elected officials' strategic plan or priorities, and requires careful consideration, planning, leadership and support. To truly embrace two-way, online communications, government organizations must develop new ways of working that encourage organization-wide knowledge exchange, trust and sharing. Building strong internal relationships is the first step toward encouraging relationship-oriented communications activities that meet citizens' expectations of openness and transparency, and ultimately gain the trust of citizens.

Appendix

Table 12: Average importance to citizens of offering online

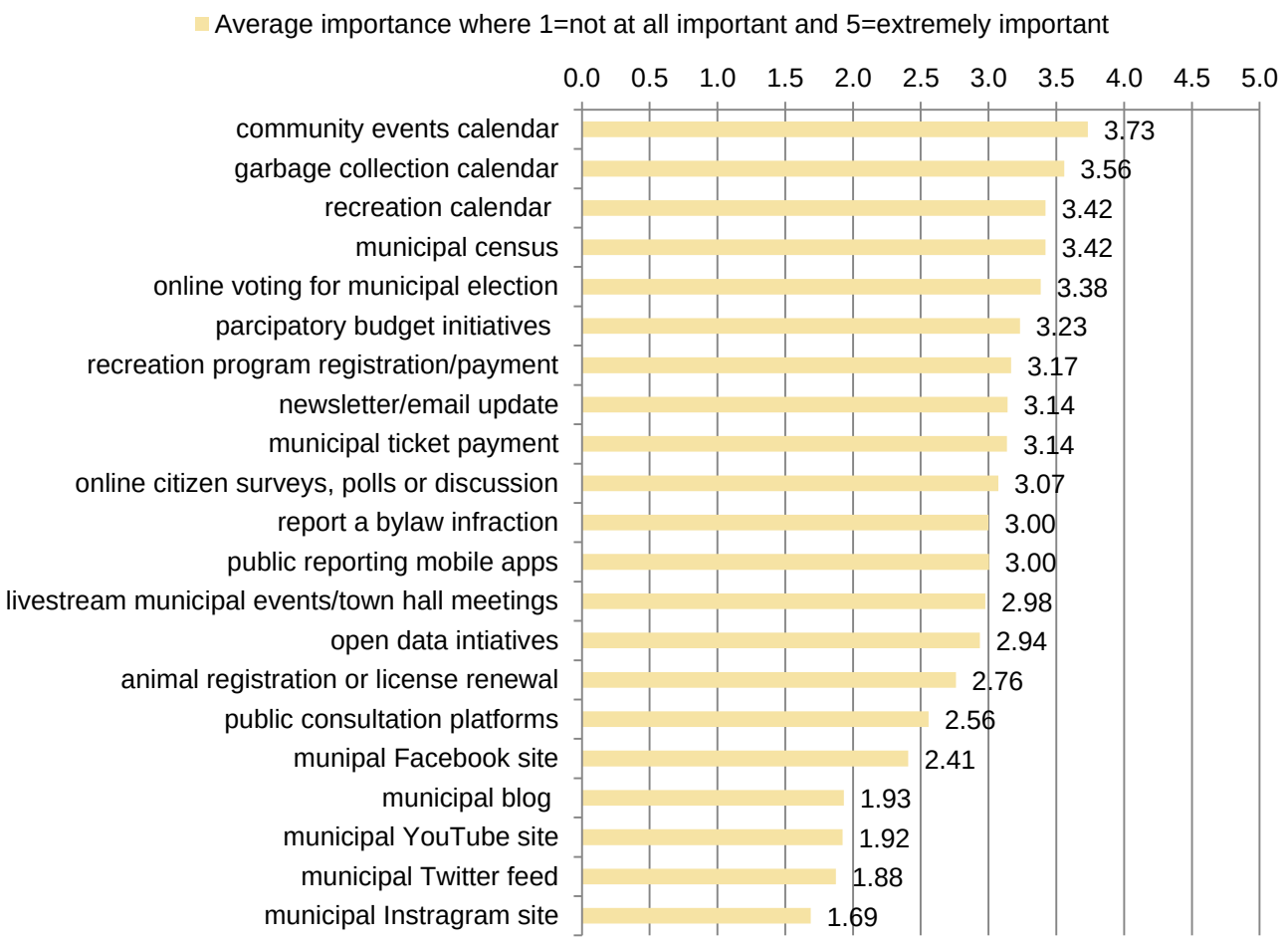


Table 13: Percentage of citizens surveyed who have accessed service online

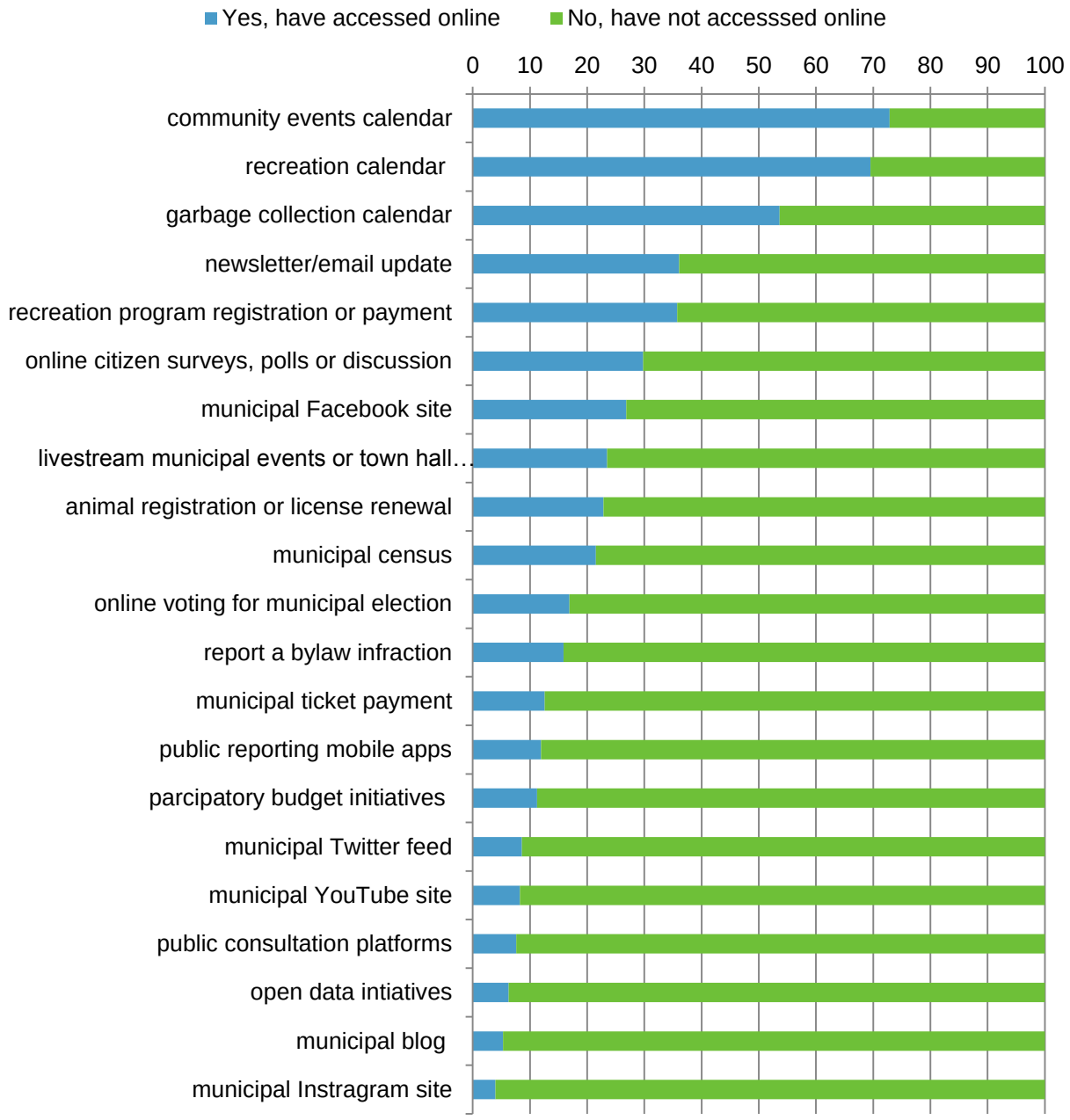


Table 24: Overview of Citizen Respondents

AGE	
18 to 24	4.30%
25 to 44	20.86%
45 to 64	53.64%
65 or older	20.86%
Refused	0.33%
	100.00%
INCOME	
Under 35,000	9.27%
$35,000 to $50,000	11.26%
$50,000 to $75,000	16.23%
$75,000 to $100,000	13.25%
100,000 to $150,000	17.88%
$150,000 to $200,000	7.62%
$200,000 and over	5.96%
Refused	18.54%
	100.00%
EDUCATION	
Less than high school	3.97%
Graduated high school	14.90%
Non-university post- secondary certificate	33.11%
University undergraduate degree	35.43%
University Master or PhD	10.93%
Refused	1.66%
	100.00%
GENDER	
1=M	49.67%
2=F	50.33%
	100.00%

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