

Social Media & Government 2.0

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EXECUTIVE SUMMARY

With over half of all Canadian citizens owning a Facebook profile, social media is no longer a novelty, but a part of the reality of 21st century life in the Western World. Governments need to be responsive to this reality, but to do so they will require a better understanding of Internet culture, increased openness, updated legislation and an appreciation for social media itself both as a set of policy tools (e.g. for crowdsourcing and event planning), and for the roles they play in policy issues (e.g. cyberbullying).

While the history of the World Wide Web is short, the way people use it has changed dramatically over the past five to ten years. The static pages of the “old” web or Web 1.0 have changed to a more interactive and social web, called Web 2.0, with less editorial control and more two-way communication. Social media is an extension of Web 2.0 that involves using Web 2.0 to create an online identity, build a network of “friends” or “followers” and engage in social conversations online. While the open, unvetted conversations of Web 2.0 and social media are at odds with the more controlled values of the bureaucracy. Government 2.0 has emerged as a response to the disconnect between social media values and those of governments.

Government 2.0 is more than using new tools or adding technology to existing processes. It is a philosophical shift in the way services are delivered, built on a foundation of collaboration, accessibility, and decentralization. It is characterized by engagement, where the role of the citizen shifts from service recipient to both client of, and contributor to, policy development and decision making. Leadership is crucial in this endeavor, as the transition to Government 2.0 requires a change in organizational culture away from hierarchy and toward collaboration and innovation. Chapter 1 explores the impact of Web 2.0 on government, discussing some of the key opportunities and challenges associated with social media and the second generation Web.

Web 2.0 provides a wide and varied range of tools that can be used by governments to increase public engagement and improve services. Social media tools need to be pursued with a goal and a purpose. Chapter 2 explores six key tools in the social media tool box, analyzing advantages and disadvantages for each. Tools examined include:

Blogs and Micro-blogs

A blog is an informational or discussion based website where an author creates content in the form of journal-like entries and encourages readers to react and engage in dialogue. Micro-blogging, commonly known as tweeting, has exploded in popularity since the launch of Twitter

in 2006. It can develop and speak directly to an audience of interested and committed stakeholders in a concise and popular medium.

Collaborative Projects

Web-based collaborative projects produce pooled content and are essentially a networked source of evolving information. For example, Wikipedia, as well as other internal or external wiki projects, provides quality social-driven knowledge, which is generated and consumed by many engaged users.

Content Communities

The purpose of content communities is for users to share media content with one another. Content communities encompass a range of different mediums, including print, photo, and video. Currently, the most popular content communities are YouTube for video sharing and Flickr for photo sharing. The strength of content communities lies in their popularity and accessibility to citizens. Content communities have a low cost hosting component and low technical competency requirements making it relatively easy to post information for effective, wide, and quick distribution to citizens.

Social Networking Sites

Social networking sites (SNS) are online spaces where communities may form based on the shared interests of the participants. Through this tool, governments have the opportunity to tap into existing social networks, a more efficient and cost effective option than trying to create a new network or website specific to a policy. Creating a profile and posting information is a user friendly exercise.

Virtual Game Worlds

Online virtual game worlds offer a personalized character and interaction with potentially thousands of other users in a virtual community through a computer-based simulated environment. Virtual game worlds present the opportunity for personal freedom and engagement in deeper relationships as interface combines a high level of social interaction with online media richness allowing organizations, governments and individuals to step into the Internet.

Virtual Social Worlds

Virtual social worlds allow users to experiment in a realistic online environment with the participant's presence personified by a 3D digital representation, often called an avatar. These virtual spaces are an ideal environment for public consultation, human resource recruiting and

political campaigning. Because virtual social worlds are so realistic, the opportunities for use are almost limitless. They have been used in the fields of education and medicine for simulations, recruiting, advising and virtual classrooms and work areas

Chapter 3 considers return on engagement exploring how social media may be used to foster public participation. Information technologies (ITs) have the potential to improve the lines of communication between government and citizens with emerging e-participation tools becoming increasingly common. This chapter explores e-petitions, e-panels, wikis, internal collaborations, virtual worlds, and citizen-sourcing. Despite the potential of these tools there remain a number of issues associated with social media engagement. Issue of digital inclusiveness, encouraging engagement, and levels of civic literacy are thus also discussed in order to help government sidestep potential pitfalls.

When deciding to invest in social media it is essential to carefully consider several key aspects. Chapter 4 explores social media and return on investment. Social media is an information good, so it functions quite differently from a number of other goods. The longer social media is utilized the less costly such an undertaking becomes due to the continuously low marginal costs. From this perspective the adoption of social media depends on the organization's current infrastructure, tasks and obligations, and the amount of control it must maintain. These variables can then be measured in the relative terms of the opportunity costs and the active trade-off between control and attention.

Chapter 5 turns to a discussion of how the Government of Saskatchewan's accountability structures may not be responsive to the specific challenges and concerns of social media. Records management, citizen access to information and the protection of privacy must all be considered as government expands its Web 2.0 presence. While these responsibilities may at times impede the roll out of social media, they ensure that information is managed in an accountable and appropriate manner.

Social media present unique challenges to policy evaluators. Chapter 6 provides a review of the main evaluation approaches and measures for social media initiatives. First, it will describe three general approaches and models to evaluation – results-based, maturity (organizational learning), and outcomes-based. Then it will attempt to summarize some of the most popular measures starting with baseline website statistics and progressing through search engine optimization, third-party ranking tools, input and output measures, and finally social media outcome measures.

Finally, the conclusion briefly summarizes the preceding six chapters before presenting six inter-linked concrete recommendations for the government of Saskatchewan regarding how to best realize the untapped potential of social media including:

- Formation of a Social Media Steering Committee composed of senior government officials (at the DM or ADM level)
- A strategic document that provides vision and direction for the public sector's engagement with social media
- Policy guidelines that establish a framework for social media use by the government
- Administrative structures that ensure proper implementation of and accountability for the social media framework
- Capacity development for the public sector, relevant stakeholders, and citizens-at-large
- Pilot projects utilizing the established framework and administrative structures, in accordance with developed policy capacity

These six recommendations are sequentially linked in a logical manner and represent a first step for the government of Saskatchewan to engage and use social media to improve efficiency in public administration and enhance effectiveness in public policy. This could initiate a process of embracing the Government 2.0 ethos, which represents the future direction of public sector governance not just in Canada, but liberal democracies all over the world.

GLOSSARY

App: Short for application, usually referring to a small software program designed to be downloaded and run on a mobile device such as a phone or tablet. Apps are typically free or very inexpensive, varying from games to mini websites to business tools.

Blogs: Blogs are personal websites that combine text, images, and links to other Web content. Blogs are often described as online journals or diaries that allow the blogger to update content continually while readers are able to comment on the post and share the blog's content through various social media tools. This form of Web publishing technology provides opportunities for the organization to hold conversations with stakeholders, share information, provide service and respond to individual questions and concerns.

Content Communities: A content community is an online space that allows users to share multimedia material which may include video, photo, print or PowerPoint slide formats.

Co-production: Refers to the working relationship between policy-makers and citizens to make decisions and/or design services that suits the needs of both parties. This approach is built on the principle that those who are directly affected by a service are better positioned to design it. Co-production also promotes the idea that all perspectives are valued and all participants are treated equally.

Crowdsourcing: A mode of engagement where governments outsource an activity to the citizenry (the crowd) to enable widespread participation. In this type of participative online activity, an individual or organization broadcasts an issue to a known or unknown audience and then proceeds with an open call for solutions. The entity that broadcast the problem benefits from the ideas and solutions offered, while the contributors are compensated monetarily or with recognition.

Hashtags: A system of categorization or classification of tweets; used to draw attention to the tweet or associate it with other tweets on the same topic. Denoted by a "#". e.g. #glossariesarehelpful

Microblog: A type of blog that allows users to exchange small bits of online content usually in the form of text. Micro-blogging, commonly known as tweeting, has exploded in popularity since the launch of Twitter in 2006. Political leaders and celebrities, for example, use this social media tool to reach their audience directly, consistently and personally.

Open Platform: an environment that allows users and third parties to create solutions, collaborate, and share information without the direct intervention of the host. Often used in the context of software (e.g. mobile phone platform) or the web (e.g. app stores, Google adSense).

Open Source: Open source is a term used in software production where the programming code is shared so that users can change or re-purpose it in other applications. Open source is often contrasted with proprietary software model where the source code is hidden to prevent piracy. The term “open source” has been co-opted by others to represent an open, sharable and collaborative working environment. For instance, “open source politics” refers to a model of political decision making through grassroots collaboration.

Photo Sharing: Photo sharing (PS) refers to uploading digital images onto a website where they are stored, shared and tagged. Flickr, Instagram and Picasa are popular examples of photo sharing websites. These user-generated sites typically allow viewers to comment or share the photos through various social media channels.

RSS Feeds: RSS (rich site summary) is a Web feed format that publishes frequently updated Web content such as a new blog entry or the addition of a new video. RSS feeds allow publishers to syndicate content automatically and provide subscribers with continual updates.

Social Bookmarking: Unlike the traditional practice of saving a bookmark to a personal computer, social bookmarking (SB) is a method for Internet users to save bookmarks to public websites and tag their bookmarks with keywords. Social tagging refers to how these resources are organized with social bookmarking services acting as recommendation systems determined by the aggregate sharing of information and user collaboration.

Social Networking Sites: Social Networking Sites (SNSs) are profile-centric online communities that build loyalty through meaningful engagement and provide opportunities to identify and connect with individuals. Social networking sites offer various opportunities for relationship development activity.

Social Plugins: A social plugin (SP) is an application or tool that may be added to a website or blog to enhance its impact and performance. A popular example of a social plugin is the Facebook “Like Box” which can be embedded on websites and blogs so that Facebook members can simply click the button to share their interests with their network of friends.

Video Sharing: Video sharing (VS) refers to the various services that host video and allows the user to upload video clips to the host website where they can be searched and viewed by the masses. These user-generated sites typically provide free services and provide viewers with the capability to comment

or share the video through various social media channels. While YouTube is the most popular of these video sharing websites, others such as Vimeo and Yahoo!Video are also available.

Virtual Community: An online community not limited by geographic location that provides support, information and friendship between its members.

Virtual Social World: An 3D online space that takes place in real time where users are represented by 3d representations often called avatars.

Wiki: Wikis are large-scale knowledge-sharing projects that seek a communal pooling of knowledge. A "wiki" - from the Hawaiian word for "quick" - is a type of website that can be easily edited by anyone.

INTRODUCTION

By

Ryan Deschamps

INTRODUCTION

That people use the Internet to talk with friends, family and people with shared interests is no longer a novelty, but a reality of life in the 21st century. As Clay Shirky (2008) predicted, the technical aspects of the World Wide Web have become routine and the use of the Web has become socially interesting. The Wikileaks controversy, the Arab Spring, protests in Montreal and the Occupy Wall Street phenomenon are just a few examples of how the Internet has effected social change. What this means for Saskatchewan is uncertain, but we can assume that the use of the Internet is a given for a large portion of the province.

When considering these responses, Saskatchewan might consider car manufacturer Henry Ford's apocryphal quote: "If I asked my customers what they wanted, they would have said a faster horse." Becoming responsive to a socially networked Saskatchewan does not mean taking current government practices and making them more efficient. With services like Twitter, Facebook and YouTube, the Internet is not the same as it was even ten years ago. Instead, a new way of thinking must emerge from government that embraces the Web 2.0 ethos both culturally and organizationally.

On the other hand, new approaches are rightfully constrained by the basic principles of law and democracy. Equitable access to government and the protection of privacy are just two examples of the basic principles that the public service will want to preserve as it becomes more responsive to a socially networked Web.

This document will explore current and future impacts of social media on the province of Saskatchewan, and how governments can respond to them, beginning with a definition of social media and a description of what can be called the "social media landscape" including demographic information, Internet culture and challenges for government.

WHAT ARE SOCIAL MEDIA AND WEB 2.0?

Early uses of the Web focused primarily on the Internet as one way information broadcasting. This early Web or "Web 1.0" saw web services as digital copies of formal government processes. Governments experimented with e-consultations using government-controlled technologies hosted on government-controlled servers (Borins and Brown 2008). For this reason, these experiments required the support of specialized Information Technology (IT) professionals. The emergence of Web 2.0 challenges this model of service. Blogger and Wordpress.com provide online services that enable ordinary users with little IT

knowledge to create effective websites simply by creating an account and typing into a box. Wikipedia takes this model even further by letting multiple users edit a single website collaboratively. Using this model, Wikipedia has developed into the largest encyclopedia in the world. The World Wide Web has become more ubiquitous, creative and collaborative than the static web pages that were indicative of a Web 1.0 environment. The term “Web 2.0” describes the process through which easy-to-use web tools facilitate creative and collaborative uses of the Web (DiNucci 1999; O’Reily 2005).

People who sign up for Web 2.0 tools like Wikipedia and Wordpress.com are commonly asked to create a profile through which they identify themselves to the online public. This process of creating and viewing identities through online tools is the basis for most social networking sites (boyd and Ellison 2007). Social media goes beyond looking at individual profiles however. Social networking sites such as Facebook, Twitter, and YouTube use the profile feature to connect users to each other socially. For example, Facebook users can share a photograph with “friends” that in turn can comment on, like or share with others on the service. Some call this sharing with friends or followers the “social web” or the part of the Internet that uses Web 2.0 techniques to encourage people to connect socially (Chi 2008). Social media is now a popular way for governments, journalists, businesses and other organizations to communicate.

One of the major differences between the social web and Web 1.0 or the “static” web is the process of creating an account to build a website, instead of controlling the web service itself. Using social media services means relinquishing some control of the message in return for a more socially dynamic web environment. The benefits will include ease of use and increased engagement; however, related costs can include privacy and unpredictable responses to public posts. These costs are not guaranteed but remain a possibility to be considered.

SASKATCHEWAN: A PROVINCE WITHOUT BORDERS?

As the world becomes more socially connected through Web 2.0, the borders that divide provinces and nations become less meaningful. Citizens are just as likely to read an interpretation of a government act on Wikipedia as they are to read the legislation found on Government of Saskatchewan servers. Not only that, but they are also likely to share information about Saskatchewan to the world through social media as well. This change of focus does not mean that national and regional identities are not important to online users. On the contrary, Internet users do want to identify with their locales and exhibit considerable pride in their communities online. However, these identities can reach beyond simple geographical aspects.

Adoption of social media within the Saskatchewan Government has been mixed so far. MLAs for constituencies closer to the urban and suburban areas are more likely to use a wide variety of social media tools (see Appendix A). This reflects the lower use of the Internet in rural areas in Canada (Dewing

2010). Use by ministries and agencies of the Saskatchewan Government suggest an ad hoc approach with some Ministries using social media extensively, while most use them sparsely or not at all (see Appendix B). While some ministries or agencies may not benefit from the use of social media, the system could benefit from a more consistent approach to its use.

While the ties with which social media binds its users are not sufficiently strong to represent a kind of Internet citizenship, this does not mean that the Internet can be assumed free of unique social norms. Engaging citizens online is similar to having a conversation in a new territory. The Internet has a unique demographic make-up that is not the same as all of Saskatchewan. For example, over 55% of the Canadian population and 70% of online public have a Facebook profile, with a near 50-50 gender ratio (Socialbakers 2012). The largest demographic of Facebook users in Canada is the 25-34 age bracket followed by the 18-24 range, with 35-44 age range being the second fastest in terms of growth (Socialbakers 2012). Despite this diversity, the Internet does not include all Saskatchewan citizens. Strong barriers such as digital literacy, socio-economic status and access to broadband Internet pose challenges to some members of society and can exacerbate political disempowerment in some groups (Hacker and Morgan 2011; Verdegem 2011). Engaging social media networks should not be confused with engaging a representational sample of the public.

Another border that should be considered with social media is the one between the private and the public (Cammaerts 2008). As e-commerce and other web-based work coincides with the social web, so will the blending of private and public life. Citizens may use a professional social network like LinkedIn to promote their career while inviting friends to a private party on Facebook. Common delineations between work and play are being challenged with new media.

THE INTERNET AS A CULTURE

While social media can act as a tool for engagement, services and efficiency, particular attention needs to be paid to the Internet as a culture or “cyberculture.” While cyberculture existed before Web 2.0, the ease with which photos and videos can be shared has increased the dissemination of online Internet symbols or “memes.” A popular example of a meme is “lolcats” or the sharing of cat photographs with clever captions. According to Cook and Garduño-Freeman (2011), conceptions of cyberculture have a tendency towards oversimplification, confusing social media systems with the communities that gather within them. Thus, there is no such thing as a Facebook community, although a number of communities may gather using the Facebook platform.

The open source movement is one example of cyberculture that translates into a desire for increased openness. “Open source” software refers to software that the user has permission to change, share or redistribute. Examples include the Internet Browser Firefox and the Apache Web Server. The open source movement argues that technical innovations should be shared freely to encourage learning, to

make software products accessible and most importantly, to change it to suit personal needs if so desired. This stance does not imply simply a tendency toward piracy and “free” software, but also an ethos in favor of mutual sharing and collaboration. Some politicians such as Howard Dean have attempted to apply the open source ethos into an “open source politics” (Hindman 2007). Similar terms such as e-Democracy and Government 2.0 have been applied to the ways in which the openness and transparency of cyberculture can be applied to the transformation of government activities. Chapter 1 will elaborate further on the relationship between Government 2.0 and a more open society.

Ministries that wish to engage the online public may need some basic level of cultural understanding in order to be effective. A government ministry that wonders how social media can help make policy decisions may be applying a government ethos to Web 2.0. Conversely, advocates of Web 2.0 practices may expect governments to openly share all public information in formats that are suitable to the needs of online users. Applying social media to government practices may require a different worldview than those that have been practiced in the past. Social media will not be useful to decision-making unless some level of trust is developed over time. No matter the tool, one cannot expect citizens to apply significant knowledge to government decision making unless 1) they trust that the knowledge will be accepted and appreciated, 2) some established person-to-person trust relationship exists, and 3) that relationship respects those norms and practices indicative of the community for which the tools of social media serve. Stated in another way, social media is not only a potential means to solve policy problems, but also a policy problem in and of itself. The extent to which governments can engage citizens (and non-citizens, because the virtual world has no borders) in such an environment will continue to be a policy debate in the future.

WHAT SOCIAL MEDIA MEANS FOR GOVERNMENT

The increased use of social media over the past decade represents both a set of tools for policy analysis and the introduction of a number of policy problems. On the one hand, the World Wide Web makes it easy to disseminate information across wide social networks; on the other, these networks have changed social life in ways that need government attention. New media permits regular citizens to “tweet” comments directly to Ministers inside or outside their constituencies; it also means that those in areas with strong broadband connectivity have an advantage over those who without. Digital formats make it easier for governments to share information in a more open manner – a process some call “open government;” however, the interpretation of that information is open to a wider public that may or may not have the expertise and/or the appropriate degree of trust to provide meaningful comment on its implications for society. How social media can be used by government and what government ought to do about it are key questions for the 21st century public sector.

Beyond the opportunities and challenges of social media is the reality that an increasingly online public is a condition of governance in the 21st century. Like changes in the economy or the weather, activity on

social media is hard to predict and can place stress on government ministries whether they try to engage social media channels or not. As citizens share more of their private lives in public forums like Facebook and Twitter, they come to expect the same kind of openness from government. Citizens increasingly expect the opportunity to provide comments and ask questions on a wide variety of online channels placing greater demand on government websites. Whether posting comments on a website is an example of participatory democracy (democracy that engages citizens beyond the electoral process), what is key is that political comments on social media are not vetted through representatives or media channels. Why call your constituency office when you can tweet directly to a Minister in full public view where it can gain the attention of your friends and a variety of media sources? That social media will be influential to government policy may be a reality whether governments decide to engage Web 2.0 tools or not. This report will further explore these ideas and others in the following six chapter:

Government 2.0

Government 2.0 is a set of principles to respond to some of the challenges that Web 2.0 presents to the public service, including moves toward more open and transparent government activity. Chapter 1 will describe these principles in detail as described by its advocates.

Social Media Toolbox

Web 2.0 provides a wide and varied range of tools that can be used by governments to increase public engagement and improve services. Chapter 2 will cover these tools in detail, providing advantages and disadvantages for each.

Return on Engagement

Chapter 3 will examine the ways in which social media tools have been successful in engaging an online public, and increasing democratic participation.

Return on Investment

Chapter 4 will assess the costs and benefits of social media and the conditions through which social media is a good investment.

Accountability 2.0

While engaging in social media, governments do have legal obligations with respect to their privacy, and the right to access records pertaining to the administration of policy. Chapter 5 provides the legislative context for privacy and freedom of information in Saskatchewan and how they relate to government social media endeavours.

Evaluating Social Media

Social media metrics usually focus on results-based measurement for increased sales in the private sector. Chapter 6 examines some of the major models for evaluating social media including the benefits and challenges for each in government.

CHAPTER 1 - GOVERNMENT 2.0

By

Jeremy Phillips & Shari Tremaine

INTRODUCTION

Government 2.0 is a broad term with an evolving meaning. It draws its roots from the now ubiquitous term Web 2.0. As seen in Figure 1.1, Web 2.0 is more than technology and standards; it is a platform underpinned by a simple, usable, participatory, self service, and decentralized model combined with a philosophy of transparency, honesty, trust and reputation (Zambonini 2006).

Figure 1.1
The Web 2.0 Platform



At the most basic level, Government 2.0 is simply an adoption of Web 2.0 tools (Nam and Sayogo 2011). But a consensus has emerged that it is more than just the adoption of technology. In fact, adopting technology to existing processes is more rightly understood as Government 1.0 or perhaps e-government; integrating new tools must bring a change to the culture of government, one characterized by participatory governance built on a foundation of transparency and trust (Roy 2012; Australia 2009b; Dixon 2010; Hinchcliffe 2009; Di Maio 2009). Just as Web 2.0 is not simply about technology, Government 2.0 must be built on a foundation of collaboration, accessibility, and decentralization. It is

not an incremental change to service delivery and it is not modernizing long standing processes, and it is not “paving the cowpaths” (Hinchcliff 2009). Instead, Government 2.0 is a philosophical challenge to the underlying principles of the modern bureaucratic approach to the way we govern ourselves.

Gartner has identified several characteristics which highlight the challenge that the Government 2.0 philosophy pose to the current order: it is citizen-driven, employee-centric, it keeps evolving, it is transformational, and it calls for a new management style (Di Maio 2009). These stand in stark opposition to the intransigence or “clay layer” typically displayed in modern public management and the hierarchical public service culture (Fyfe and Crookall 2010). It is worth considering whether modern bureaucratic structures are innately hostile to the kind of ongoing change demanded by this new philosophy. The public sector is expected to address three nearly overwhelming challenges at once: presenting an integrated front-end face to the citizen, reconfiguring and integrating backend service delivery, and facilitating collective intelligence within and without (Roy 2012).

Given the potential clash between current practice and what Government 2.0 promises, it is important to remember that Web 2.0 is a term used to describe changes that have already taken place on the Internet. These changes were not implemented centrally or with forethought. No committee of intelligent people gathered together to map out the evolution of the Web. Rather the Web evolved as technology advancements opened new doors and private companies and nonprofits developed tools and destinations that attracted millions of users all around the globe.

It is thus unlikely, then, that Government 2.0 will be achieved through a central policy decision or coordinated effort. It is far more likely that change will come as fast as the culture changes in government and allows experimentation, collaboration, and openness with citizens. That culture change will come with generational change, as those comfortable with the ethos of Government 2.0 come to occupy positions of influence. Then, only after, will we be able to look back and describe Government 2.0 accurately and completely.

For now we must content ourselves with a framework that describes both the past and present, and looks to the future. The following model describes the various stages that governments traverse as they integrate and adopt modern technology (based on Moon 2002):

- Stage 1: Simple information dissemination (static web pages, bulletin boards)
- Stage 2: Two-way communication (electronic forms, email)
- Stage 3: Service and financial transactions (apply for or pay for service)
- Stage 4: Vertical and horizontal integration (internal realignment to improve service delivery)
- Stage 5: Political participation (Government 2.0)

It is not hard to identify how the Government of Saskatchewan has navigated these stages; the first two stages occurred in the mid to late 1990s with the launch of www.gov.sk.ca and the government electronic mail system (GEMS). Stage three began early in the following decade as transactions migrated to electronic platforms, and the recent amalgamation of several administrative functions and ministries into the Ministry of Central Services suggest that Saskatchewan is beginning to explore stage four.

What does Government 2.0 look like, practically speaking? Government 2.0 incorporates many of the most well known features of Web 2.0: social media, open data, and integrated mobile access. Internationally and across Canada, there are numerous examples of Government 2.0 initiatives including:

- In 2007 the New Zealand Police launched a “Police Act wiki” engaging citizens to contribute ideas and participate in a rewrite of the 1958 Police Act (New Zealand Police 2007). In a similar vein, the City of Melbourne in Australia set up a “Future Melbourne” wiki in 2009 to engage citizens as they developed an official ten-year city planning process (Furnas 2012).
- In 2008, President Obama made openness and transparency a primary focus of his new administration, including a focus on open data, access to information, and social media for citizen engagement (Bertot et al. 2010).
- In 2011, Iceland invited consultation as it began the process of rewriting its constitution. The process featured opportunity for citizens to comment on draft clauses through Facebook, a Twitter account to keep citizens informed, and a YouTube channel with interviews of council members (Siddique 2011).
- In 2012 the Government of Canada released its Open Government Action Plan building on the Open Government Initiative and Open Data Pilot Project launched in 2011. The Action Plan focuses on three primary areas: open information, open data, and open dialogue (Government of Canada 2012).
- In the United States, the National Archives hosts “Our Archives,” a wiki encouraging researchers and citizens to share stories of what they have found in the archives.
- As an example of the internal change required for Government 2.0, the FBI has created “Bureaupedia,” U.S. intelligence agencies have created “Intellipedia,” the Department of State has created “Diplopedia,” and the Department of Defence has created “Techipedia.” Each are

secure wikis driven by internal communities, designed to improve information sharing and knowledge retention, bypassing existing information hierarchies (Barnett 2011; Nam and Sayogo 2011).

- At the provincial level in British Columbia, the Ministry of Labour, Citizens' Services and Open Government has emphasized citizen-centered services, open data, and citizen engagement as important parts of its mandate in order to increase accountability and coordination between ministries (British Columbia 2012). For example, two websites are used to share data with citizens: Open Information (openinfo.gov.bc.ca) and DataBC (data.gov.bc.ca). In addition, the B.C. Public Service's report *Citizens @ the Centre: B.C. Government 2.0* outlines a strategy that responds to the changing needs and expectations of citizens, and discusses how the use of technology can contribute to providing more efficient service. The report also considers how the B.C. Public Service requires change in order to overcome the "complexity of government and the need for more accessible services to citizens." According to the report, each government ministry will be responsible for demonstrating how they will support the strategy (British Columbia 2010). Finally, B.C. facilitated a *Conversation on Health* that used electronic and online methods to encourage discussion with citizens around topics related to changes to the healthcare system (Davidson 2008; British Columbia 2007).
- In Manitoba, the government created a central social media directory linked to the main government website. It includes a list of government services, public service organizations, and social networks as well as moderation and privacy notifications. (Government of Manitoba 2012). This embracing of social media was put to practical use during the 2011 provincial flood, when the government used Facebook, Twitter and YouTube to assist with evacuation and devastation protection plans in real time with those affected (Government of Manitoba 2011).
- In Ontario, Service Ontario uses social media tools including Facebook, Twitter and YouTube in order to answer questions, provide information and direct citizens to services (Service Ontario 2012). In addition, the Public Service has an internal professional networking wiki called OPSPedia that allows government employees to communicate and collaborate (Bermonte 2011).
- Closer to home, the City of Regina launched a mobile app in 2011 (Global Regina 2012), providing access to road closures, program registrations, social media, and more; it now also provides access to information from the Regina Qu'Appelle Health Region (Regina Qu'Appelle Health Region 2012).

- The City of Regina also launched an open data initiative in 2012 (City of Regina 2012) along with Hack Regina, encouraging interested citizens to build apps based on the data the city has made available (Hackdays 2012).

THE ESSENCE OF GOVERNMENT 2.0

Fostering more consultative and collaborative online engagement

As discussed above, Government 2.0 means more than just the adoption of new technologies to existing processes. For government to effectively move towards Government 2.0 and foster consultation, collaboration and online innovation, a shift in thinking, culture and leadership is required. This shift will significantly affect how government decisions are made. The discussion below outlines the values that characterize a government that is making the transition towards Government 2.0 through fostering more consultative and collaborative online engagement and innovation in government.

Openness

An open government is committed to “bridging the gap” between itself and the citizenry, working towards an administration that engages and consults with citizens. An open government directive can outline and confirm an administration’s commitment to principles of “transparency, public participation, and collaboration” (Executive Office of the President of the United States 2009). Australia made a declaration of open government as its first step towards Government 2.0 and the principles of engagement and access to public information (Australia 2009a).

In 2011, an Open Government Declaration was signed by the United States, Brazil, Indonesia, Mexico, Norway, the Philippines, South Africa and the United Kingdom (Open Government Partnership 2011). This declaration acknowledged that more openness was required and recognized that citizens all over the world were asking for this approach. A commitment to the following principles of open government was made:

- increase the availability of information about governmental activities;
- support civic participation;
- implement the highest standards of professional integrity throughout our administrations; and
- increase access to new technologies for openness and accountability (Open Government Partnership 2011).

Government 2.0 supports public sector information being made available and accessible for citizens to use and re-use. Administrations must adjust and adopt a principle of openness to facilitate and maximize access to public sector information (OECD 2008). Open government and the principles of access to public information obviously allow for enhanced transparency and accountability, and these

efforts are facilitated by Web 2.0 tools and the accompanying culture (Osimio 2008).

Facilitate participation

Online consultation and collaboration facilitate public participation in decision making and can stimulate debate (Osimio 2008). These tools have the potential to create an arena where citizens can “talk, listen, debate, argue and contribute their ideas,” and this in turn may contribute to the redesigning of democratic discussion and allow citizens to participate and influence decisions in new ways (Australia 2009b).

Web 2.0 tools can be combined with traditional consultation methods to increase participation (Australia 2009b) and openness (Dunleavy and Margetts 2010) between citizens and governments. These technologies have the ability to not only communicate information and knowledge, but can also encourage increased engagement with citizens (Dixon 2010). Dixon argues that “[w]eb 2.0 technologies hold the promise of increasing community engagement and public participation in politics and policy” (Dixon 2010). Technology may facilitate the “proactive cultivation” of public participation more easily than traditional methods, but citizen participation should not be taken for granted (Osimio 2008). Once again, technology is only part of the answer.

New technologies, the availability of vast amounts of information online, and the ability of citizens and groups to come together, can facilitate what Dunleavy and Margetts (2010) refer to as the “co-production of services.” Individuals, groups and government can collaborate together to develop solutions to common problems that have proven difficult to solve. Government can provide a platform for this type of co-productions through various activities that allow citizens to actually address local civic problems (O’Reilly 2010). In fact, Web 2.0 tools are changing the way citizens are able to participate, and this has led to a blurred distinction between production and consumption (Valtysson 2010). Citizens are coming to expect a distinct and more direct role in developing solutions.

In fact, consultation and collaboration has the potential to foster knowledge development and sharing, and can lead to “large-scale problem solving” (Thomas and Sheth 2011). Individuals of all backgrounds can learn from one another and arrive at a place where problems can be solved and decisions be supported (Australia 2009b). O’Reilly has suggested that “the real heart of Web 2.0 is harnessing collective intelligence” (Thomas and Sheth 2011). Improved problem solving through collective intelligence is indeed one of the most promising aspects of Government 2.0.

An additional focus of an online consultative and collaborative government is to develop citizen focused services by understanding what citizens require and expect (Osimio 2008). Government must ensure that citizens can find the information they need, and assist when they do not have the skills to use that

information (Jaeger and Bertot 2010). A government that is able to facilitate increased citizen consultation and collaboration will see benefits both internally and externally. Internally, consultation and collaboration allow for public sector employees to be better networked and connected. This in turn leads to better solutions and increased efficiency horizontally (Osimio 2008) as well as improved knowledge management (Dixon 2010). Externally, consultation and collaboration allow access to expertise, experience and knowledge found outside of government, and thus, in theory, to better policies and services. This is primarily accomplished through improved access to knowledge, experts, and their networks, facilitating information sharing and problem solving (Australia 2009b).

In order to facilitate online consultation and collaboration with citizens, public sector employees need to be supported and feel they have the opportunity to experiment and engage with citizens (Australia 2009b). Government workplace policies, however, are more likely to be strict and very structured, limiting the extent to which citizens feel they are able to contribute to a meaningful discussion with the public sector (Australia 2009b).

For example, social media tools provide organizations with flexibility and the ability to acquire and distribute information very quickly (Husin and Hanisch 2011). Guidelines around the use of social media and online consultation that are permissive and supportive can give public sector employees the opportunity to increase engagement (O'Reilly 2010). Traditional workplace policies, however are not typically permissive and do not align with the characteristics offered by social media (Husin and Hanisch 2011). These conflicts must be resolved in order for public sector employees and government to have the means, freedom and support to enter into meaningful engagement with citizens (Australia 2009b) and be able to take advantage of all that Government 2.0 has to offer (Husin and Hanisch 2011).

MOVING TOWARD GOVERNMENT 2.0

Leadership

As with any significant organizational change, leadership is essential. The move toward Government 2.0 is primarily facilitated by an environment that builds trust, collaboration, and knowledge, and requires “strong strategic motivation” (Osimio 2008). Coordination, endorsement and championing Government 2.0 principles from the top are the only way to facilitate the cultural shift required (Australia 2009a).

The Government of Australia Government 2.0 Taskforce report highlighted that strong leadership from the top “is the first pre-condition to make the important cultural shifts articulated by Government 2.0 actually translate into practice” (Australia 2009a). As a result, Australia has made a declaration of open government and established a lead agency to be responsible for advancing the Government 2.0 agenda in coordination with other relevant agencies.

In the United States, this leadership is evident in the Open Government Declaration made by newly elected president Barack Obama immediately following his inauguration. It requires every government department to develop an open government plan to foster transparency, participation and collaboration (The Whitehouse n.d.).

In Canada, the President of the Treasury Board of Canada, Tony Clement, announced Canada's Action Plan on Open Government in March of 2011. This plan intends to demonstrate Canada's commitment to openness, accountability, participation and efficiency through three streams: open data, open information and open dialogue (Government of Canada 2012).

Culture

The biggest challenge facing the public sector in the pursuit of Government 2.0 is a culture that embraces secrecy and hierarchy (Roy 2012). The Institute of Public Administration (IPAC) calls this impediment the "clay layer" in management and the hierarchical public service culture (Fyfe and Crookall 2010). In fact, in the context of social media they go as far as to assert:

Impediments do not rest with privacy, security, information management and official language policies and legislative frameworks...The problems linked to information management, privacy and security are simply new manifestations of old phenomena; there have always been risks of improper disclosure and misuse of government information.

The public sector needs organizational change, developing a culture of trust and openness that will allow public servants to take advantage of the benefits that social media offer (Fyfe and Crookall 2010, 3).

This assertion is worth careful exploration. If information management, privacy and security are real risks to manage but not significantly new, then they must not distract from the central challenge of culture change. It is also worth considering what entrenched interests may be threatened by a call to culture change and thus fall back on traditional objections to openness and collaboration.

Put another way:

It is a cliché that public sector managers – and possibly the Ministers to whom they report – are risk averse. But often they are not so much risk averse as innovation averse. That is, there is a high 'burden of proof' against doing something differently even where it involves relatively low risks (Government of Australia 2009b).

Thus the primary obstacle to the evolution toward Government 2.0 is culture, and culture change is exceedingly difficult. It is difficult because culture change either involves changing attitudes, or changing people. Both are very complex and thorny in the public sector.

CHAPTER 2 - SOCIAL MEDIA TOOLS

By

Robert Hanna, Jr. & Kim Shaw

INTRODUCTION

Before the Government of Saskatchewan commits to widespread social media use, it is important to learn about the different online tools and how each might benefit a public organization and its employees. This chapter assembles a social media tool box designed to build awareness of what social media has to offer the public sector. An overview of six core social media tools will be provided including blogs/micro-blogs, collaborative projects, content communities, social networking sites, virtual game worlds and virtual social worlds.

Drawing on classic communication-media research, Kaplan and Haenlein (2010) provide a spectrum of social media uses premised on two key dimensions: social presence/media richness and self-presentation/self-disclosure. As shown in Figure 2.1, the vertical axes represent the degree of self-presentation/self-disclosure (the type of image presented and the degree of information revealed), while on the horizontal axes the degree of social presence and media richness is plotted (the degree of auditory, visual, and physical contact achieved through two communication partners).

Figure 2.1
Kaplan and Haenlein (2010) Social Media Spectrum

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

BLOGS / MICRO-BLOGS

A blog is considered to be the first social media tool and remains one of the most common in use today. Pioneer blogger Peter Merholz coined blog in 1999 through a combination of “web” and “log” and this

term quickly spread to describe people who publish online journals (Blogworld 2011). It can be defined as a non-static, informational or discussion based website where individual owners or small groups continually create content in the form of separate, journal-like entries. Blog posts tend to be short and often unedited, consisting of text, pictures (photoblogs), videos (vlogs) and links to other blogs and websites. Links to other blogs are referred to as the “blogroll” which lists a collection of an author’s recommended blogs typically along the side of his/her blog page (The Economist 2006). Successful blogs are interactive, encouraging debate and dialogue between the audience and the author.

Blogs, traditionally authored by a single individual, have expanded in recent years to include multi-author blogs, collaborative blogs, filter blogs and micro-blogs. Multi-author blogs are typically professionally edited with content produced and refined by numerous authors resulting in longer, more polished posts. Businesses, media outlets, academic institutions, interest groups and public organizations are inclined to operate multi-author blogs to communicate and interact online. Collaborative blogs work similar to multi-author blogs, but are set-up as a way for single author bloggers to pool resources to compete with the corporate multi-author blogs for readership. Thus, collaborative blogs tend to reflect more of a grassroots perspective and the original Web 2.0 ethos. Filter blogs are yet another type of multi-author blog. This kind of blogging sifts through information from mainstream media and then aggregates knowledge focused on politics, current affairs or other themes, and finishes by adding opinions or analysis to it (Wei 2009).

A good example of a government agency blog is Health Quality Council’s Q-Review (blog.hqc.sk.ca/). Blog posts occur just about every day and come from a variety of health system professionals including their CEO, staff, Board members and guest contributors. This blog page has a well organized archives component, available daily HealthClips updates and a useful “tag cloud” that helps locate blog topics. In addition, people can subscribe to the Council’s blogroll, which links them to many more health care stories and viewpoints.

Micro-blogs are one last blog format worth mentioning due to the rise of microblogging giant Twitter. Micro-blogging, commonly known as tweeting, has exploded in popularity since the launch of Twitter in 2006. Millions of users post tens of millions of tweets per day, each no more than 140 characters, and this format has revolutionized information consumption. People, not corporations and media outlets, have been empowered to act as sensors or sources of information and openly share their observations and opinions leading to potential feelings of elation, power and creativity (Dhami 2009; Pronin and Wegner 2006). Twitter has allowed celebrities, politicians and anyone else with a following to bypass traditional media outlets and reach their audience directly, consistently, and personally. For the public sector, Twitter offers the opportunity to develop and speak directly to an audience of interested and committed stakeholders in a concise and popular medium.

Bloggging offers a number of important opportunities to the content producer. The first is authenticity, as much of bloggging is about the raw, unpolished voice of an individual or group – what you see is what you get – and this can be refreshing for people who perceive traditional mass media as having increased bias and decreased credibility. Free expression of ideas through writing done quickly across a wide audience also invites discussion and builds a sense of community. The combination of sincere, quasi-real time communication and active engagement can be accomplished in blogs, in turn leading to increased transparency and trust in media. Another pro is blogs can provide a wide scope of communication. Blogs can be easily organized into in-depth themes, they can be open to the public as a whole or only to a logged-in group and since content is continuously updated, it automatically flows into user-friendly progress reports of issues and events. The cost of creating a blog is low and often free depending on the platform. Blogs have “given millions of people the equivalent of a printing press on their desks” (Blood 2003, 61) due to the low cost of entry, production and distribution of this media. Finally, perhaps the key benefit of blogs is bloggers and readers have become part of the media process, and therefore, have revived the democratic and participatory ability to mobilize debate and action (Rutigliano 2007).

Blogs have their share of downsides too. Administratively, blogs are time intensive and are even more so as they grow in popularity. Moving past one way communication where information is placed on a static website, to two or multiple way communication involves much more time and effort. There are also challenges associated with monitoring blogs as editorial controls and other approvals are necessary to deliver a message. Organizational investment in additional tech-savvy employees and training for existing staff is most likely going to be required to effectively blog and meet the expectations of engaged citizens. On the flip side, starting a blog does not guarantee readers. There is a risk that nobody will read the blog/micro-blog or care about what the blogger has to say, which in the case of government could impact legitimacy. Similarly, opening a blog makes people vulnerable to criticism and ridicule. Negative comments, spamming and protest blogs can become a by-product of this communication platform, which damages the reputation of a blog or the individual/organization behind it and takes away from its original intention (Ward and Ostrom 2006). Moreover, strict blog policies, ethics and policing must be completed for internal protection in organizations as employees “might regret a blog post or comment written in haste” (Arnold 2007, 176), situations may arise where there is a conflict of interest between personal and professional lives or (micro)postings from employees may be inconsistent leaving the audience confused about the organization’s messaging.

COLLABORATIVE PROJECTS

Web-based collaborative projects create pooled content and are the top community-oriented social media tool. Projects can span “the whole range from enterprise-operated repositories for professional knowledge management and crowd-funded international productions all the way to the most leisurely

acts of content production through the likes of Facebook” (Lowgren and Reimer 2012, 2). All of the content in an online collaborative project is generated and consumed jointly among two or more users, who work together to realize shared goals. Shared goals could be in the form of knowledge transfer, building consensus or improving publishing, but the underlying idea is that the outcome of using this social media tool is greater than what anyone could achieve separately (Kaplan and Haenlein 2010).

Online forums, bulletin boards and chat sessions are indeed collaborative, yet differ from collaborative projects in this context because their posts are done through turn-taking and single author communication, and do not necessarily deliver a unified body of content. Hence, the distinguishing feature of a collaborative project is a coherent group effort emerging from the interrelated collection of its authors (Wikipedia 2012a). Two distinct types of Web-based collaborative projects, wikis and social bookmarking, characterize the feature.

Wiki can be defined as a website developed simultaneously by a community of users who add, remove or modify text, videos, experiences, links, etc., to keep the progression of content in a valuable state (Wikipedia 2012b). It is essentially a networked source of evolving information. The collaborative wiki website can serve different purposes, but generally focuses on knowledge management such as research projects and online databases. Users, both contributors and consumers, can be either public or private depending on how the wiki was initially set-up. The best example of a public wiki is, of course, the online encyclopedia Wikipedia. “Its 23 million articles, read by 365 million people, have been written collaboratively by volunteers around the world and as of November 2012 there are editions in 285 languages” (Wikipedia 2012c). A good example of a private wiki with access controls is an internal government-wiki such as the FBI’s Bureaupedia, which operates to learn from the wisdom of its staff by filling in information gaps when employees leave or retire (Nam and Sayogo 2011). Staff are encouraged to use this internal wiki to share best practices and subject matter expertise, and in turn, the FBI benefits from the growing community of practice.

A second example of web-based collaboration is social bookmarking, which is an advanced version of a personal bookmarking system or favourites list. As Eastment (2008) explains: “[y]ou join a community of users and when you find something interesting, you share it with them; in return, you get to see the bookmarks that they have created” (217) The centralized online service of shared bookmarks enables a whole community of similar-minded users to pool web resources to collect, categorize, rate and disseminate Internet links and media content. Individuals establish profiles on social bookmarking websites such as Digg, StumbleUpon or Delicious, and then begin “tagging” content by connecting the bookmarked reference to the online service website via links or keywords. It is unlike file sharing as the resources themselves are not saved. Other users do the same tagging and everyone, including visitors, can search for bookmarks by topic, date, tags, popularity and/or user profile. Collaborative social

bookmarking efforts are stored continuously on an open or secure server and can be accessed from any computer or browser. Overall, social bookmarking manages online content by helping users communicate and listen to perspectives on information and resources as well as collaboratively rank its quality (Educause Learning Initiative 2005).

Collaborative projects produce high quality products created by the expertise of many engaged users. The power of multiple viewpoints and varied expertise translates into comprehensive and authoritative online content. A second common benefit is that the group ethos acts as a natural safety check to keep the collaborative project legitimate and on-task. Ongoing and thorough editing, blocking of malicious users and debating of facts or sources must occur within the group to ensure the content is improving (Ramos and Piper 2006). Cost of access and ease of use is a third pro of collaborative projects. Many wiki and social bookmarking sites offer free hosting with minimum to no login information required and some wiki applications can be freely installed on a local server. Once a user is plugged into a collaborative project, it is relatively easy to create and update content or tag information through simple markup language on the web browser. Project tutorials are even available to support users on some sites. Another bonus is content edits can be made, challenged and accepted in real-time among users, which increases efficiency in communication and accuracy in modifications (Wikipedia 2012b). Finally, use of collaborative projects tends to be beneficial for knowledge management in start-up or high turnover organizations where internal information sharing is critical (Grudin and Poole 2010).

Collaborative projects, however, can also produce a lack of trust in general, particularly in projects where group members have never met each other. Readers must exercise caution, as not everything written in wikis is accurate, vandalism is not uncommon, and copyrighted materials may be used in an unauthorized manner (Boulos et al. 2006). Likewise, social bookmarking is primarily done by amateurs on an ad-hoc basis resulting in inconsistent and questionable use of tags that could point to poor information. Biased opinions due to all users thinking the same or opposing content with no general consensus are other disadvantages. “Empty wiki syndrome” can be one more potential pitfall when collaborative projects are deployed without a clear purpose or do not have the right internal organizational culture to bring them to life, and ultimately, yield a site with no meaningful activity (Lau 2009).

CONTENT COMMUNITIES

The purpose of content communities, also known as media sharing networks, is for users to share media content with one another (Kaplan 2010). Content communities encompass a range of different mediums, including print, photo, and video. Currently, the most popular content communities are YouTube for video sharing, Flickr for photo sharing, Bookshare for print sharing, and Slideshare for slide sharing. The content is diverse but the communities share similarities. A profile is required to post

content but not to view content. Some content communities also allow further community engagement by giving space to comment on the posted content.

The purpose of content communities is to share information in its many formats. Content is often user generated and although there are generally rules governing appropriate content posting, the volume of content is almost impossible to regulate. Most content communities endorse a community policing method to discover and remove inappropriate material. For example, users of YouTube may report inappropriate material at any time and if YouTube agrees then the company will remove the offensive material (YouTube 2012). Most content is posted by individual users, but organizations of all types are able to use and post on content communities.

Content communities are driven by the concept of user generated content or UGC. This typically consists of photos, video, posts and commentary. The key benefits of UGC are the ability to produce material in a cheap, quick and often highly creative manner. The material is authentic and the users have more attachment to material they create than to professionally created content (Ingram 2010). The challenge with UGC comes in the lack of control over the relevancy, quality, legality and purpose of the material.

The strength of content communities lies in their popularity and accessibility to citizens. For example, a staggering 71% of Canadian Internet users have been on YouTube at some point in the last month (Mann 2012). Because content communities have a low cost hosting component and low technical competency requirements, it is relatively easy to post information for effective, wide and quick distribution to citizens. Another positive aspect lies in the ability to interact between a content community, such as YouTube, and a hosted site. Space for moderated conversation may be hosted on an organization's website while the content, such as photos and video can be linked to communities such as YouTube that have greater user numbers and an accessible platform for posting. Many content communities have further supports to analyze viewing and consumption of posted material.

The Ontario Ministry of Health and Long-Term Care has embraced content community use and UGC for public health campaigns. During the H1N1 epidemic, the ministry used YouTube videos embedded in Facebook pages to provide young adults with information about H1N1 symptoms and immunization protocol. The messages pulled viewers to the Ministry's website, where traffic increased tenfold over other flu seasons (Schein 2011). When traffic began to slow, a UGC component was added that allowed citizens to inform one another about their experiences with H1N1 (just how sick they were) and their experiences with the immunization (Schein 2011). The UGC increased citizen engagement and through analytics, public health officials were able to measure how the message was being received by the community (Schein 2011).

There are a few challenges to using content communities. The sheer volume of content and users is both a positive and negative for government use. The access to a large number of users comes with a corresponding difficulty in managing messages and building and maintaining a following (New Zealand 2011b). Second, there are often third party advertisements over which users have no control and those advertisements have the potential to conflict with desired messages. A third challenge is that content community platforms run the risk of becoming hosts of copyright-protected material (Kaplan 2011). Finally, most content communities allow commentary on posted content by community users; while this can be used as a tool of engagement, comments may also be inappropriate and misinformed.

SOCIAL NETWORKING SITES

The most common example of a social networking site is Facebook, but there are a wide variety of sites that allow users to connect and interact online often making visible their extended offline networks (boyd 2008). Social networking sites (SNS) are online spaces where communities may form based on the shared interests of their participants. This can occur in multiple contexts: personally such as Facebook, professionally such as LinkedIn or in regard to special interests, such as Dogster. A 2007 article by boyd and Ellison defines social networking sites “as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (2).

SNS have many common characteristics. Most SNS allow users to exchange private or public messages, and maintain personal profiles with links to audio, video and photographic material. Further, there is an exchange of ideas, interests and activities between users. SNS support many smaller group communities that have very specific needs and experiences, such as parenting groups, animal welfare groups and groups organized around social activism. There is also a system of recommendations, such as the “Like” button in Facebook. Recommendation systems are driven by a trust relationship between users and they are broad in scope and include comments, ideas, media, commerce, and government policy. Another characteristic of SNS is the ability to control privacy settings allowing the user to decide who sees their profile within their network and outside of their network.

One of the primary benefits of SNS is that they are popular and mainstream. Over 70 percent of people with Internet access in Canada are on Facebook (Techvibes 2012). Through this tool, governments have the opportunity to tap into existing social networks, a more efficient and cost effective option than trying to create a new network or website specific to a policy. Creating a profile and posting information is a user friendly exercise. One of the greatest benefits of SNS is that content creators are able to locate the target audience where the audience is spending its time. Social networking sites are changing the

way citizens communicate and organize as they have made it more convenient and accessible for citizens to organize grassroots campaigns.

Social networking sites can be combined with other applications to become a multipurpose platform and provide access to a wide range of specialized networks. Content communities and social networking sites often overlap, and a great portion of their power lies in the interaction between different formats and lines of communication. For example a blog can link to a social networking site and also to a content community with site interactions linking networks of people and new sources of information. Locally, the Saskatchewan Physician Recruiting Agency is using this model. They host a website with career related information and then have links to videos on YouTube that feature local physicians recommending Saskatchewan as a place to practice and a Facebook page to answer questions and post event information (Saskdocs.ca).

The US Army uses Facebook, YouTube, Flickr and Twitter as part of its recruitment campaign to reach young adults where they are spending time. The Facebook page, which currently has over 170,000 “Likes” (Facebook 2012), is active, friendly and informal compared to the hosted site which has more comprehensive information and a formal look. The YouTube channel has over 2 million views and show videos of basic training, personal testimonials from reservists and officers, and symbolic and inspirational videos (YouTube 2012). The campaign is highly polished and the tone of the messages is appropriate for each platform.

The challenges of SNS are similar to content communities, both have a high volume of users making it difficult to attract and maintain citizen interest amidst competing messages. Indeed, even third party advertisements offered by the host site can be included in those competing interests (NZ 2011). In addition, adequately monitoring and engaging on a social networking site requires time and resource commitment. Protection of private or confidential information is always a concern but can be mitigated by appropriate training and guidelines for employee use. In fact, it is important to remember that social interaction online come with all the benefits and challenges of any social interaction that happens between citizens in other ways. The key risk is that SNS offer an opportunity to operate quasi-anonymously leading to an environment where bullying, identity theft and stalking can be more easily undertaken. The interplay between removal of face to face interaction and the desire of users to create public images online compounds this negative social interaction (boyd 2008).

VIRTUAL GAME WORLDS

Online virtual game worlds offer a personalized character and interaction with potentially thousands of other users in a virtual community through a computer-based simulated environment. Objectives vary depending on the particular game world (i.e. fantasy, sports, sci-fi, war), but the purpose largely focuses

on entertainment. Social interaction unrelated to the game world naturally occurs between users and relationships can develop through familiarity; however, users acknowledge that the focus is on completing objectives and adhering to strict rules of the multi-player online role playing game. If users desire more open social interaction replicating real life, their social media tool of choice would be virtual social worlds, which is discussed next. Lastly, access to some virtual game worlds is free, although users may need to purchase software or pay monthly fees to gain entry into the higher ranked worlds.

The biggest advantage of virtual worlds is that they demonstrate the highest level of interface in terms of social interaction combined with online media richness (Kaplan and Haenlein 2010). Accordingly, both virtual gaming and social worlds present the opportunity for personal freedom and engagement in deeper relationships with users, and indeed allow organizations, governments and individuals to step into the Internet (Messinger et al. 2009). Furthermore, an enhanced learning experience can be attributed to this social media tool. Since people learn best “from observations, active participation and concept formation then it is not surprising that game-based and virtual world interactions can leave such an indelible memory” (de Freitas 2008, 10).

In addition to these benefits, there are also potential problems. Virtual game worlds require an adequate amount of technical knowledge to navigate effectively. Equally problematic, many categories of games and brands within each make it difficult for beginners to know which one to use and in which contexts. Time spent on these applications can quickly rack up too as many users try to master their online environment, and even more so, if the social interaction in the game world has a higher degree of self-presentation and self-disclosure

VIRTUAL SOCIAL WORLDS

Simply put, virtual social worlds (VSW) allow participants to live another life online; the online presence is personified by a digital representation, often called an avatar. According to Kaplan (2009), virtual social worlds have three distinguishing characteristics that separate them from other social media formats. First, the interactions take place in real time, as opposed to a content community where an image or video is posted and then consumed at another time. Second, virtual social worlds contain digital representations of the user as opposed to a profile. Third, virtual social worlds are in a 3D format rather than a 2D format like most social media. Within VSW, users communicate through text, visual gestures, sounds and graphical icons. The environment is based on concepts similar to real life such as gravity, real time communication, similar means of transportation and movement, but fantasy elements, such as teleporting are also common. The most popular and well known virtual social world is Second Life, with over 700,000 users logging in every month (Second Life 2011), but there are many others with target audiences based on age such as Disney’s ToonTown for kids, Whyville for teens (Papp 2010) and Kaneva for adults (Govloop 2012).

Although a smaller portion of the population is plugged into virtual social worlds, the unique format creates opportunities not found in other social media tools. Researchers have been using VSW to gain a better understanding of citizen motivation and opinions. These virtual spaces are also an ideal environment for public consultation, human resource recruiting and political campaigning. Because VSW are so realistic, the opportunities for use are almost limitless. They have been used in the fields of education and medicine for simulations, recruiting, advising and virtual classrooms and work areas (Papp 2010).

Private companies have been innovative in their approach to utilizing VSW. Technologically advanced companies such as eBay have accessed VSW for human resource opportunities; because they mirror reality and nearly any real life human resource situation can be role played, companies can hold career fairs, information sessions and even interviews all in a VSW such as Second Life. Companies have also utilized Second Life for marketing, advertising and research. For example, Toyota runs a virtual store that displays models of their cars (Kaplan 2009).

Virtual social worlds are currently less popular and mainstream than other social media tools. They are a relatively new tool, and are primarily used by those completely “plugged in.” The users of VSW tend to view their virtual life as a very real extension of their life and act accordingly. In fact, some companies have struggled using VSWs when they do not adequately prepare for the intensity and seriousness of participants use of the tool (Kaplan 2009).

Practical concerns when engaging in a VSW is the expectation of real time interaction; companies that have been unsuccessful when using VSW as a marketing or sales tool have underestimated the amount of time and responsiveness the users required. Higher technical competencies are also needed for interaction in VSW than in other social media tools, which has obvious implications for employee training and development.

CHAPTER 3 - RETURN ON ENGAGEMENT

By

Benjamin Orr & Laura Willcocks

INTRODUCTION

As social media expands, governments have an opportunity to utilize these tools and the ethos that accompany them to promote citizen involvement. Integrating citizens in government decision-making has traditionally been challenging, as citizen involvement has often been based on 1st generation participation: “except during election campaigns, the views of the public are not actively sought or, importantly, listened to and taken in to account” (Macintosh et al. 2002). In many instances, engagement is based around controlling the message and one-sided interactions between government officials and citizens, most notably in the consultation phase. These highly controlled consultations are considered non-deliberative as “participants in such negotiations use threats, such as threat of leaving the negotiation, as standard and accepted features of the interactions. They may also use forms of parliamentary strategy, such as manipulation for political success” (Mansbridge 2009, 2).

These controlled processes are being increasingly replaced with deliberative methods of engagement, as these are being integrated into online public engagement tools. Examples include e-petitions, government-wide wikis, 3D virtual reality worlds and crowd sourcing; all providing forums for social learning and input. Social media and IT have the potential to provide engagement processes that have deliberative criteria including fairness, mutually respectful discussion, social learning and most importantly, that public input is valued and considered.

UNDERSTANDING DELIBERATIVE DEMOCRACY AND ITS BENEFITS

Deliberative democracy is a classic political method that is re-emerging with social media tools. The term deliberative was first used to refer to political discussions, as early as 1489, within a restricted group of politicians (Gutmann and Thompson 2004). Since the term was first used, definitions of deliberative democracy have taken a “deliberative turn” in that the legitimacy of decision-making became linked to the notion of deliberation and public reasoning (Kuyper 2012). Deliberative processes within government include ordinary people who are not only consulted but also add value to the decision making process of a particular policy or issue (Ryfe 2005). With the rapid expansion of social media and IT, classic deliberative processes can have positive implications on government decision-making, resulting in a high return on engagement.

There are significant merits in providing an environment of engagement and government needs to consider deliberative processes as “participation that improves the moral, practical and intellectual

qualities of those who participate: it makes them not just better citizens, but also better individuals” (Cooke 2000, 948). With the promotion of education, community and fairness, governments can have productive deliberation sessions that produce quality outcomes (Cooke 2000). Finally deliberative democracy is the model that makes the most sense for Western society and omitting it would require a fundamental change in social and political thinking. These qualities will provide government with the rationale to use new engagement tools that strengthen the concept of e-democracy.

What is e-democracy?

As society moves forward with technology and innovation, government often lags behind. Government institutions and decision-makers can be “too one-dimensional for complex societies with increased interdependencies and technological mediation” (Anttiroiko 2003, 121). e-Democracy aims to increase citizen participation at a local and regional level through the use of advanced technologies (Batty et al. 2005). An essential part of Government 2.0 is the focus on e-democracy, and the role of technology and its influence on connecting policy makers with ordinary people. It provides interactive and collaborative tools promoting public engagement in the decision-making processes that are discussed throughout this work. The primary challenge arises when trying to determine the proper mix of technologically innovative mechanisms to meet the requirements of e-democracy.

E-PARTICIPATION TOOLS

e-Participation tools are becoming prevalent in the promotion of citizen engagement and e-democracy. These new tools resulted from major concerns in recent political discourse as government has become both removed from and unresponsive to its citizenry (Logue et al. 2006). A common argument is that information and communication technologies (ICTs) have the potential to improve the lines of communication between government and citizens with the evolution of e-participation tools (Logue 2006). What follows is a variety of e-participation tools that have proven effective in promoting e-democracy.

e-Petitions

e-Petitions represent the most likely avenue for e-participation (Hansard Society 2007). They encompass an ease of use compared to other forms of engagement and involve low commitment while still maintaining a high level of impact (Freeman and Rogers 2002). e-Petitions promote discussion around single-issue politics. This enables citizens to engage in topics that are important to them but may have been overlooked by institutional agendas (Miller 2009; Pangiotopoulos et al. 2012). For example, since its launch in 2006, the United Kingdom’s Prime Minister’s Office e-petition website has received over 29,000 petitions and 5.8 million signatures (Miller 2009). Engagement leads to engagement (Wong and Welch 2004; Tolbert and Mossberger 2006), and e-petitions represent an accessible first step.

The Scottish Parliament is another excellent example of e-petitions at work, as these new IT technologies have been built into the policy process (Seaton 2005). While e-petitions with only one signature are allowed, they can only be submitted after proving that there have been other attempts to resolve the issue (Miller 2009). A permanent parliamentary committee reviews and acts on e-petitions. Each is given time to gather signatures during which a forum is provided to allow discussion and for information to be provided to put the issue in context. After an allotted time, the e-petition is submitted and reviewed by the committee that can either investigate the issue itself or refer it elsewhere. Throughout this process, petitioners can track the e-petition's progress. This system has encouraged real participation by citizens who may not have otherwise done so (Seaton 2005).

e-Panels

New forms of e-consultations are being introduced with an emphasis on moving away from controlled online dialogue into more sophisticated versions known as e-panels. e-Panel consultations include inviting self-selected or recruited groups of citizens to provide and exchange their views via online discussions forums, online surveys, live chats, single polls, or votes centered on a common topic or policy initiative (Tomnoka 2009). The key difference with e-panels is they facilitate horizontally among citizens, but also vertically between citizens and decision makers. Opinions and views expressed by citizens are highly valued in an e-panel consultation, as they are often used throughout the decision making process. For example, the Ontario Provincial government, Ministry of Government Services, is beginning to use e-panels in November 2012 to host a panel discussion on digital skills and literacy and how new broadband technologies will provide opportunities for enhanced citizen engagement (Ministry of Government Services 2012).

More recently, e-consultations are being designed to provide a one stop shop “devoted to a specific or multiple policy campaign with multi-level interactive features targeting various audiences at once” (Tomnoka 2009, 3). For example, within the United Kingdom, the City of Bristol’s *Ask Bristol* e-initiative is an online forum enabling citizens to provide opinions and commentary on various issues within the city. e-Consultations have the capability to be on-going online forums for social learning on key issues and an environment to post concerns and commentary by the public.

Internal collaborations

Internal engagement is also a struggle for large government organizations, given their structure and culture. To address this challenge, various government institutions have been exploring alternative forms of internal collaborative tools. One important example is the Government of Canada and their implementation of a government-wide wiki. Known as *GCpedia*, it is accessible to over 250,000 employees in more than 100 departments nationwide (Braybrook 2010). The amount of information available to government employees is extensive; over 15,000 contributors have created over 6,700

articles on over 300 communities and topics and there have been over 3.2 million page hits (Braybook 2010).

The United States Government has also been progressive in the use of government-wide wikis, most notably within the Department of Defence (DOD). In 2008, the DOD wanted to stay ahead of growing competition with foreign militaries (Kiniti and Standing 2011) and launched a new government wide wiki in October named *DoDTechnopedia*. The wiki was designed to create an environment that promotes communications and collaborations between the government’s science and military departments, community development agencies, industry, and academia. Alternate forms of DoDtechnopedia include Defencesolutions.gov, a collaborative engagement tool open to academics and other key stakeholders outside government to submit innovative ideas and get funding (Kiniti and Standing 2011). When implementing a government-wide wiki, special consideration is required for there needs to be a “clear purpose for the wiki, a culture of collaboration, knowledge management capability and formal innovation process and a clear management intention or purpose” (Kiniti and Standing 2011, 291).

Virtual worlds

As indicated in the previous chapter, virtual reality worlds are being used for social, economic and political interaction. Governments are beginning to explore the use of virtual worlds such as Second Life. For example, the Swedish government recently opened an official representation in Second Life, and during the last presidential campaign, French politicians promoted their platforms in-world (Hendaoui 2008). On a national scale, the Government of Canada has also used Second Life as a form of virtual citizen engagement.

The Public Service Commission of Canada created a Second Life site where young people seeking employment can use an avatar to explore the dimensions of a job such as a firefighter; rather than just reading about it, they can experience it indirectly (Fyfe and Crookall 2010). The Public Service Commission’s Second Life private island includes informational booths, presentations on jobs and a chance to interact live with federal bureaucrats and ask questions about employment opportunities. This provides an internal opportunity for the Public Service Commission to respond to the public service renewal initiative. Virtual worlds are increasing in popularity and are promoting horizontal collaboration, employee training and recruitment from various locations around the world.

Facebook

Facebook has the potential to be an important tool for engaging citizens. It is important, however, to use Facebook effectively; simply having a Facebook presence should not be confused with engagement (Hand and Ching 2011). Without the values and principles of Government 2.0, Facebook and similar endeavors simply provide information in a top-down fashion (Cooper et al. 2006). It is even possible to

disable commenting, precluding engagement and taking away the voice of the citizens (Hand and Ching 2011).

The advantage and opportunity of Facebook is the potential for “many to many” communication. A page can provide a forum for government to interact with citizens as well as for citizens to interact with each other. This type of communication requires more effort but it is more effective in promoting engagement, which often needs to be encouraged. For example, page moderators should post questions and respond to comments instead of simply using the site to share information (Hand and Ching 2011). In contrast to e-consultations and e-petitions, Facebook provides a long-term platform for citizens to engage their government (Morse 2006) and bestow the benefits of engagement on an on-going basis.

Citizen-sourcing

Citizen-sourcing refers to the out-sourcing of conventional government functions to its citizens. In the past, these functions would have been out-sourced to non-profits or private companies, but now governments can rely directly on the knowledge of citizens, reaping the benefits of collective intelligence as well as cost savings (Nam 2012).

Often citizen-sourcing is done through contests where the prize is a much smaller cost to government than the cost of the service. Tourism Saskatchewan has used this strategy very effectively through multiple contests. Their most recent is the “I Love Saskatchewan Summer” video contest where participants produce a short YouTube video promoting Saskatchewan. This contest yielded 50 promotional videos as participants competed for a \$4000 cash prize. The National Aeronautics and Space Administration (NASA) have also used contests in this way. In 2009, they posted a challenge to develop a formula that would accurately predict solar flares. This approach worked, even though the problem was highly technical (Nam 2012).

Open data is a prerequisite for many forms of citizen-sourcing. NASA had to make large amounts of data available to the public for their contest. Often simply making data available can result in crowd sourcing without there even needing to be a contest. In 2009, the city of Edmonton was rewarded for making some of its data available with an app called MyStops that uses Edmonton Transit Data to let citizens know about bus arrivals and/or delays. This was the result of a private citizen taking initiative and using the publicly available data (Mah 2009). Citizen sourcing is an effective way for government to take advantage of a unique resource: the expertise and knowledge of its citizens. It carries all the advantages of engaging citizens and it can provide solutions to issues at little or no cost.

ISSUES OF ENGAGEMENT

Digital inclusiveness

Digital exclusion represents a key barrier to e-participation. There is a gap between those who are connected to the Internet and have the skills to meaningfully participate in engagement and those who do not. Closing this gap is a serious policy issue. At its simplest level, this is an issue of access, though there is increasing recognition that digital literacy must also be addressed (Mordini et al. 2009; McNeal et al. 2008; Reddick 2011).

Access refers to the physical infrastructure needed for citizens to use the Internet, and is closely linked to digital inclusiveness (Kamal 2009; McNeal et al. 2008). Unless a citizen has access to the Internet, their voice cannot be heard. Factors including income, education, and age are correlated with low engagement in e-participation programs (McNeal et al. 2008), as the digitally excluded are often the socioeconomically disadvantaged (Williamson 2007). Demographics are also a factor; for example, seniors and individuals living with a disability are generally underrepresented in online communities as they require assistive technology (Mordini et al. 2009).

There are several consequences of digital exclusion. Without the ability to participate meaningfully, citizens may not feel as connected to government or to society (Lloyd et al. 2010). The benefits of closing this gap will not be limited to the digitally excluded, as e-engagement encourages a diversity of experiences, opinions and knowledge that can lead to improved outcomes and extend the amount of information available to policy makers (Surowiecki 2004).

Digital Inclusivity is a worthy goal, but until fully realized, it is important to be mindful of the gaps in access and digital literacy when engaging in e-participation. It is crucial to remember that e-participation opportunities did not create this exclusion; it is merely a new manifestation of an old problem, reaching the entire citizenry.

Civil literacy

Civil literacy is both a pre-requisite and result of meaningful democratic engagement. The process of e-engagement leads to citizens becoming more aware of the complexity of policy issues and enables them to learn from each other (Nam 2012). At the same time, citizens need to understand both the issue and the context (Hughes 2011). This requires that they be provided with relevant information and that misinformation be corrected where possible.

Improving civil literacy can take several forms. In the Scottish e-petition system, misinformation is corrected by staff that monitors the discussion (Seaton 2007). During an e-consultation about rewriting their Water Act, BC provided data as well as a technical primer (BC 2010).

Encouraging democratic engagement

Low participation negatively affects the legitimacy of any democratic engagement exercise and is a primary concern for government (Phippen and Locohee 2006) because it is a common barrier to successful programs (Pangiotopoulos et al. 2012). The government cannot expect participation from citizens simply by being willing to have a conversation with them; many will need to be encouraged. This does not devalue the importance of engagement; rather, this encouragement will lead to a more meaningful conversation.

The predominant concern with engagement is access to ICTs, but a growing body of literature stresses the necessity of motivating citizens to become engaged (Carter and Belanger 2005; Kamal 2009; McNeal, Hale, and Dotterweich 2008; Reddick 2011). For instance, Kamal (2009) argues that the effectiveness of engagement is maximized when citizens are committed to and have proactive attitudes towards the policy-making process.

Encouraging engagement goes beyond advertising. Transparency is crucial. If citizens believe that the government is open and accessible, they are more likely to engage (West 2004; Wong and Welch 2004; Tolbert and Mossberger 2006) and efforts towards transparency are rewarded (Riddick 2011). Conversely, low levels of confidence in government tend to result in low levels of engagement (McNeal et al. 2008).

BENEFITS OF ENGAGEMENT

Benefits of engagement include: improved civil literacy, policy outcomes, and legitimacy both for policy and the government. Improved civil literacy not only improves e-engagement (Macintosh and Whyte 2008; Hughes 2011), it also benefits from it. As citizens engage with issues, they gain a greater awareness of government processes and policy issues. Dialogue leads to citizens learning from each other (Lukensmeyer and Torres 2008). Engagement can be used to educate citizens about the complexity of issues and to get relevant information in circulation.

e-Participation can also lead to more effective and responsive policy as various stakeholders have the opportunity to share their opinions. With e-participation, policies can easily assess impacts and program evaluation could be greatly facilitated (Kamal 2009). In addition, citizens can contribute to problem solving as they represent a large body of expertise and innovation that the government can access. Even if citizens' suggestions or ideas are not implemented, they are more likely to positively evaluate policies

and processes they have participated in (Farina 1997; Tyler 2006; Nam 2012; Kamal 2009). This in turn leads to greater policy acceptance. Government does not need to let the engagement process dictate every aspect of a policy in order to satisfy citizens; often, it is enough to have the conversation.

FUTURE OUTLOOK ON ENGAGEMENT

Social media has the potential to enhance democratic engagement. Engagement will not be limited by geography. With access to the Internet, a digitally literate population will bring forward issues that directly affect their lives. Social media has the potential to provide a deliberative democratic environment that empowers citizens with a knowledgeable voice. The digital future is moving forward with the rapid expansion of social media and the government needs to have a position and a response.

CHAPTER 4 - RETURN ON INVESTMENT

By

Benjamin Sipple

INTRODUCTION

This chapter is designed to outline the economic factors that contribute to evaluating the effectiveness of adopting social media. The first section is a detailed outline that demonstrates the unique character and behaviour of this particular good. These unique behaviours result in a framework which can be utilized when determining which social media outlet ought to be adopted as seen through network externalities. As the behaviour of social media in economic terms becomes clearer, the potential for adopting such tools can be evaluated in terms of opportunity costs and trade-off. Before the merit of investing in social media can be determined, it is first necessary to understand what sort of good social media is as this will depict its expected behaviour.

SOCIAL MEDIA AS AN INFORMATION GOOD

Social media can be understood as an information good, which are “products whose value comes not from their physical characteristics but from the information they embody” (Krugman et al. 2006, 547). Social media is a valuable tool because of the conversations and information sharing it allows. This is a necessary classification because it describes the way in which the market is expected to function.

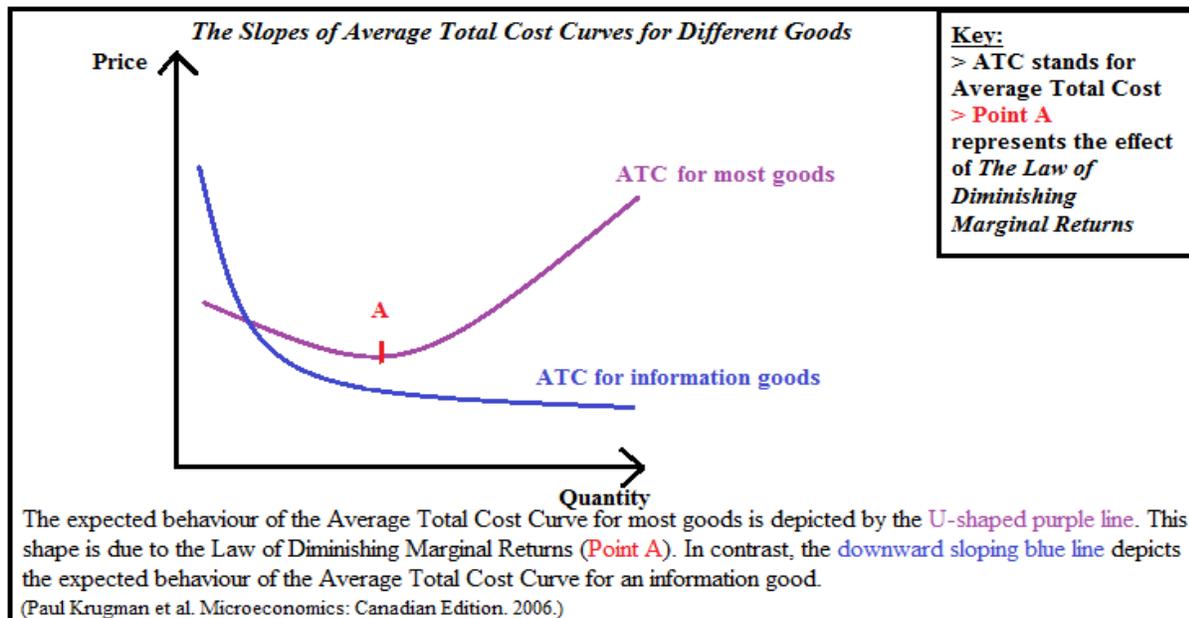
The first key concept is that an information good carries a “high fixed cost and a very low marginal cost” (Krugman et al. 2006, 547). A fixed cost is defined as “a cost that does not depend on the quantity of output produced; the cost of a fixed input” (Krugman et al. 2006, G-3). The fixed costs of using social media can include obtaining the needed equipment, establishing a social media method and culture, hiring the needed expertise, possible organizational changes as the focus may shift towards decentralization, as well as regulating the use of such a tool (Pilat 2004). This means that the initial investment in such a good can be relatively high. But, this is accompanied by a low marginal cost.

Marginal cost is “the additional cost incurred by performing one more unit of an activity” (Krugman et al. 2006, G-5). This is quite low because anyone can reproduce the information easily, and writing one more post can be done with little effort. These two costs can be made clearer through an analogy.

The initial effort of creating a Facebook page is the fixed cost. It will require more time and effort to initially form and produce. But, once the page is created, writing one more message or uploading one more picture through this medium becomes rather simple. This is the marginal cost and demonstrates

why it is expected to be quite low. These aspects of an information good cause it to function quite differently from most other goods as seen through evaluating the average total cost curves outlined in Figure 4.1 below, with average total cost referring to the “total cost divided by the total quantity of output” (Krugman et al. 2006, G-1).

Figure 4.1



The average total cost of an information good functions in an adverse manner to more traditional goods. The average total cost may begin at a high level, as dictated by the required fixed costs, but over time it continually slopes downward due to the continuously low marginal costs. Most other goods experience a U-shaped average total cost curve due to increasing marginal costs. The difference in marginal cost is caused by the presence of the law of diminishing marginal returns.¹

This law states that “as a firm uses more of a variable input, with a given quantity of fixed inputs, the marginal product of the variable input eventually diminishes” (Parkin and Bade 2006, 223). Ultimately this means that as more resources are utilized to produce one more unit of a good, the additional resources become less effective over time. This causes fewer goods to be produced relative to the increased inputs.

Due to this, marginal cost continually increases for most goods. As this occurs, it will eventually cause the

¹This law alters the ATC Curve for normal goods at point A on the graph above.

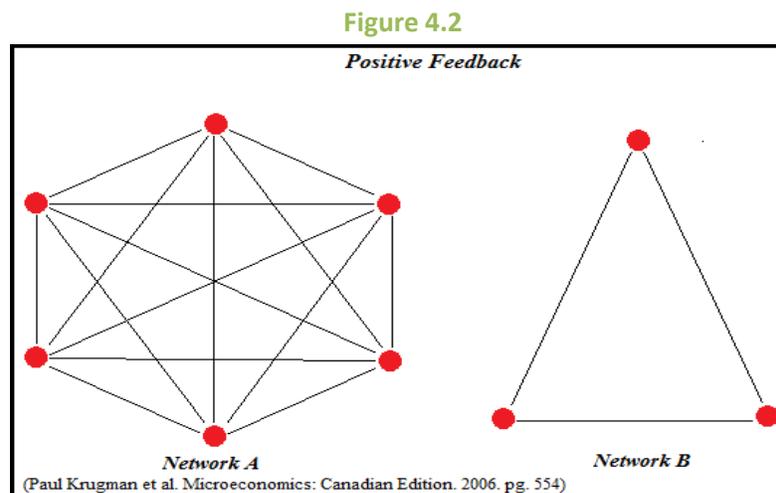
average total cost to transition from a downward sloping curve to an upward sloping curve causing the U-shape above. But, an information good is not altered by this because any information provided can be copied and used an infinite number of times and marginal costs remain low throughout the process. This is why the curve continually slopes downward.

The main distinction is that over time, it becomes more costly to produce higher quantities of most goods; however, this is not the case with information goods. Due to the downward sloping average total cost curve, continued production and participation in social media will become less expensive over time. In addition to these unique cost behaviours, social media is also subject to network externalities.

DETERMINING THE VALUE OF A NETWORK

A network externality occurs “when the value of the good to an individual is greater when a large number of other people also use that good” (Krugman et al. 2006, 553). Communication tools, such as social media, clearly fall into this category because “the value of the good is derived entirely from its ability to link many people possessing the same good” (Krugman et al. 2006, 553).

Creating a social media account becomes more valuable as more people obtain the same account. These externalities lead to specific situations which depict the strength of a given network. The first notable externality is positive feedback. “If large numbers of people buy the good, other people become more likely to buy it. If people don't buy the good, others become less likely to buy it. So both success and failure tend to be self-reinforcing” (Krugman et al. 2006, 554).

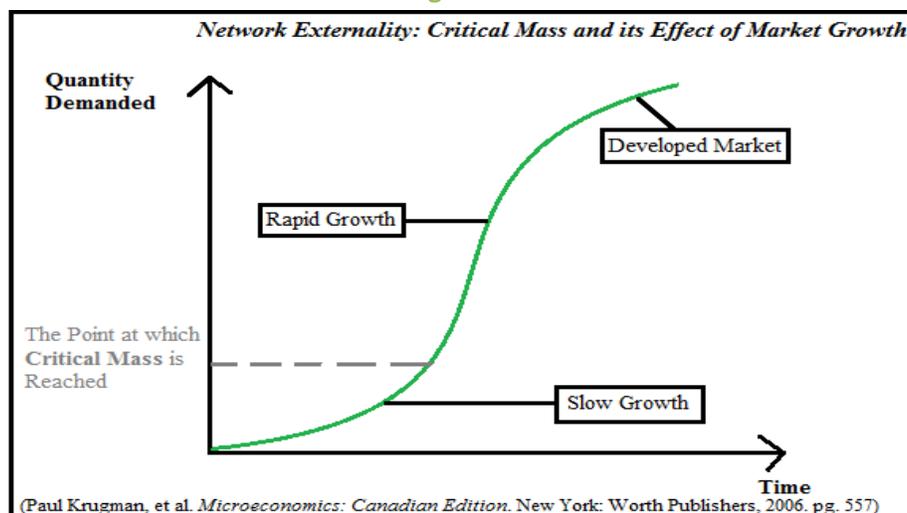


This idea is demonstrated in Figure 4.2 above. Network A benefits from positive feedback as more

people join this social media outlet, reinforcing and expanding upon its success. However, Network B would become less relevant due to the adverse effect of positive feedback which would reinforce the failure. This leads to the notions of threshold network size and critical mass.

Threshold network size describes the behaviour of an individual participating within a network. For a given individual, it is “the smallest number of current members of the network that leads the individual to join the network” (Krugman et al. 2006, 555). This threshold is the number of people who must join a network before a certain individual will choose to follow along. Any given individual is also identified as either an unconditional or conditional user.

Figure 4.3

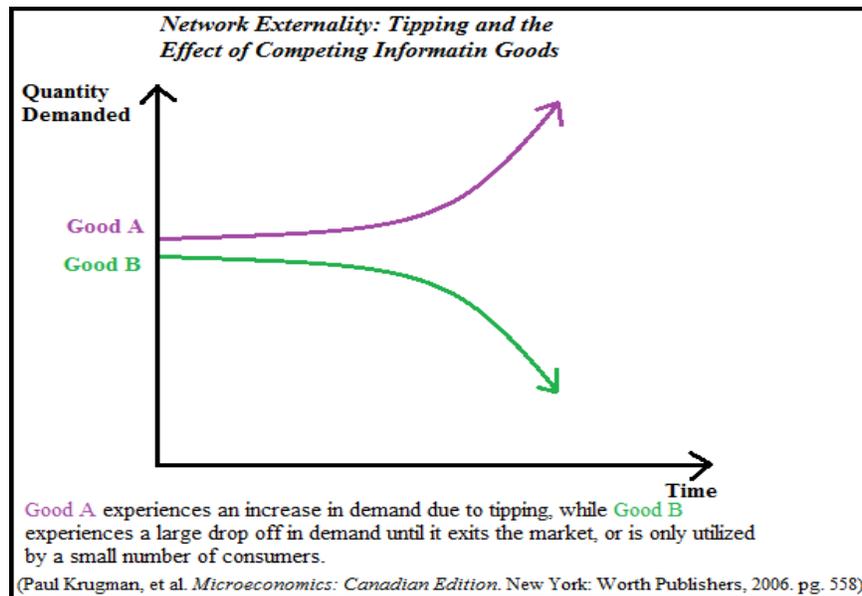


An unconditional user will use the network regardless of the cost and the number of other people using the same good, whereas a conditional user will only join the network at a point where both cost and the number of participants reaches an acceptable level (Krugman et al. 2006, 555). Although the aggregate amount of users is the sum of both unconditional and conditional users, the primary focus ought to rest on conditional users as their behaviour is subject to change. Once the network achieves a certain level of use, it experiences critical mass. This term describes the behaviour of the network itself. “The critical mass of a network is the size at which it suddenly begins to grow rapidly” (Krugman et al. 2006, 557). This is illustrated in Figure 4.3 above.

Initially the network grows slowly with time, until it reaches critical mass. At this point, a large number of conditional users decide to join the network rapidly causing its use to erupt in a very short amount of time. This begins to slow down once the network has reached a more developed stage. This action causes the network to be more valuable as a communication tool. These previous concepts have dealt

with the evolution of a single network, but this next part of the evaluation looks at competing networks and the effects of the externalities.

Figure 4.4



The competition is characterized as tipping. This “occurs when positive feedback due to network externalities causes consumers to swing to one of two competing good or technologies” (Krugman et al. 2006, 557). This situation is depicted in Figure 4.4 above. Consider two competing social media outlets, A and B. Initially neither network has a notable advantage. But, after positive feedback perpetuates the use of A, the number of users begins to climb while simultaneously the number of users of B begins to diminish. At a certain point, A will reach critical mass and experience rampant growth, while B will only retain unconditional users. At this point, the two networks begin to experience large differences in their demand. This sequence of actions will eventually drive B out of the market or, at best, it will continue to exist with only a small number of unconditional users.

However, adopting and participating in more than one technology can be advantageous. According to one study, firms performed better if they took on other technologies along with information and communication tools (Pilat 2004, 13). There even seems to be a “symbiotic relationship among various social tools” that reduces the amount of people who are excluded from participating in the conversations and information sharing, and it encourages more people to work together (Shirky 2008, 35). Instead of functioning as a strict competitor, different social media venues may function more as complements in consumption. These expected market behaviours should act as a guide.

Due to the possibly substantial initial investments required to adequately use social media, it seems necessary to only invest in those which stand the highest chance of success. These seem to be those networks which have withstood the test of the market by experiencing the positive effects of network externalities. Now that a foundational understanding of expected social media effects has been outlined, it is possible to progress into a more detailed evaluation.

UNIQUE CHARACTERISTICS OF SOCIAL MEDIA

This section will discuss more specific trends that characterize the behaviour of social media networks. Through evaluating the reduced costs of failure and the potential improvements in organizational structures, as well as the components of a carefully constructed social media message, the expected tendencies of social media will become clearer. One of the largest advantages is the low cost failure.

Pursuing a social media undertaking is similar to becoming actively involved in a conversation. These communication tools have become “flexible enough to match our social capabilities” (Shirky 2008, 20). Due to this, it is essential to approach social media like a selective conversation. The message can be heard by a large audience that is composed of each active account on the particular medium that is being used, but it will only become a success when those interested enough actively choose to participate in it.

This has led some to speculate that “new social systems have to tolerate enormous amounts of failure” (Shirky 2008, 233). People using social media must hear the message and then choose to respond to it. However the potential of failure, from an economic perspective, is no longer a disincentive to participation.

This is largely due to the low marginal costs associated with social media that were mentioned before. “Failure is free, high-quality research, offering direct evidence of what works and what doesn't” (Shirky 2008, 236). Failure can be seen as a low cost ramification of participation. It will improve the use of social media over time. This leads to a sort of trial and error approach (Shirky 2008, 236). Producing one more message in a social media venue carries a low cost which means experimentation is advantageous. It should also be noted that there is always the possibility of a “potential negative reaction” (Shirky 2008, 234). But from an economic perspective, this potential risk is largely mitigated. From this reduced cost of failure, social media through new organizational structures, also has the ability to exploit currently ignored resources.

The use of social media has the ability to alter the role of the institution and remove some of the current cost barriers. At the current moment, typical organizations cannot utilize the infrequent participant. Such an individual may only contribute one or two good ideas to a process and therefore become more of a cost than an asset to traditional institutions. Such a structure must rely on consistent actors in order to

function since they steadily contribute. From this model, it becomes clear that potentially brilliant ideas, however sparse, are currently being overlooked (Shirky 2008, 250). The current situation is not exploiting all of the resources it has at hand and is therefore in some ways inefficient.

This can be seen by evaluating the ideas that lead to the implementation of certain strategies. When an institution “finds a strategy that works, the drive to adopt it and stick with it is strong;” there is a risk and a cost in attempting unproven strategies, which means that locating a more effective alternative “can be prohibitively expensive” (Shirky 2008, 247). A substandard policy may be adopted simply because it was the first one that was discovered, and searching for a more effective option would require the organization to take on more risks and costs. Social media has the ability to rectify this inefficiency.

Due to the dramatically reduced costs of failure, it is possible to explore alternatives. These social tools allow an organization to reduce or eliminate “the cost of experimentation” (Shirky 2008, 248). This reduces the costs of searching for viable alternatives. Through social media, it is possible to exploit all of the available resources at low costs. The infrequent participant who may only contribute one good idea could be fully exploited. In this way, organizations have the ability to alter their structures so that they become more efficient.

However, the sort of undertakings social media is most capable of addressing must be understood. It seems to be most effective in overcoming activities that experience “relative difficulty” as opposed to “absolute difficulty” (Shirky 2008, 39). Relative difficulty refers to an activity that could be rather costly if the proper tools are not utilized, whereas absolute difficulty is an activity that consistently carries high costs. For example, social media is a very effective tool for sharing information or coordinating a group of people and has thus dramatically reduced the costs of these activities. However, it seems less capable of assisting in the endeavour of humans travelling to space. With these activities in mind, it is possible to discuss the necessary parts of a well crafted social media undertaking, namely managing both the social media tool being used and the inevitable trade-off. The most basic aspect is determining which social media outlet to utilize.

This is a necessary step because the message must match the outlet. For instance, manufacturing benefits more from internal networks and communication, whereas service oriented initiatives benefit more from external networks and the resulting conversations (Pilat 2004, 12). The structure of the organization choosing to undertake social media in some ways dictates the effectiveness of the chosen tool. The social media tool that is being utilized must also adequately meet the demands of the task (Shirky 2008, 265). The form of communication must be capable of handling the desired activity. From this point, it is possible to consider the trade-off between the organization and the audience.

A trade-off in economics is “a constraint that involves giving up one thing to get something else” (Parkin and Bade 2006, G-8). This can be thought of as what needs to be given up in order to achieve a desired end. In social media, it seems to be a relationship between control and attention.

The trade-off affects the way in which both the initial supplier and the audience will behave and interact. It is seen as the most complex aspect of creating a social media message because it is an agreement formed by both parties; it is not dictated by either (Shirky 2008, 270).

The audience provides the necessary attention and activity that keeps the initiative relevant, ultimately making it more attractive to others. In return, the creator is expected to become more open about the activities being pursued as well as relinquish a certain amount of censorship and control (Shirky 2008, 10). The release of control is an active step that ought to be taken to ensure a more successful social media venture. This is a crucial step as it determines the possibility of participating in social media for an institution.

If the relevant organization is incapable of becoming more open and less controlling, then this agreement quickly falls apart and the once interested audience will move away from the message. The level of censorship is also difficult to manage. Letting the message go without any level of control as well as attempting to micromanage it brings about complex and unforeseen effects (Shirky 2008, 13). When determining the possibility of pursuing an activity through social media, this step ought to be carefully considered because if the message becomes successful, this will prove more challenging and demanding as the audience grows and desires more. From these foundational aspects of costs and trends, it is apparent that a cost-benefit analysis is not an adequate tool for evaluating social media.

EVALUATING SOCIAL MEDIA

The initial requirement of a cost-benefit analysis seems to render it ineffective in this circumstance. “The first step...is to identify all the impacts of the policy under consideration and categorize them as either costs or benefits” (Weimer and Vining 2011, 385). In order to create an accurate analysis with this tool, the nature of each resulting consequence must be determined. In regards to social media, this is highly improbable and it will be highlighted by two prominent examples.

The notion of failure is seen as a benefit in one way due to its low costs and resulting research through trial and error. However, it is also viewed in an adverse manner because the potential for negative public reaction remains a constant possibility. Since this would have to be separated and defined as both a benefit and a cost, the boundaries between the two areas begin to break down. This same idea applies to the required trade-off.

This agreement between both parties cannot be determined before the activity is undertaken. However, this trade-off could require that the relevant organization sacrifice a large amount of control. In some

ways, this can be seen as a cost as the institution will be more open to the public, but it could also be seen as a benefit because the public will be more aware of the functions it performs. This inability to clearly separate the costs and benefits of using social media flows throughout the entire process. This analysis also fails in regards to its system of measurement.

The sufficiency of a cost-benefit analysis and whether or not it ought to be utilized depends on the ability to state the value of an activity and its notable impacts in monetary terms (Weimer and Vining 2011, 384). In order to use this tool appropriately, the consequences of an action must be stated in monetary values. This is problematic in regards to social media because determining the dollar amount of a specific message or picture posted online is not constant. If a message is posted and it ultimately fails to attract attention, then it carries a higher cost. But, if it experiences notable popularity then the cost drops.

However, this could also change because as more and more attention is required for the conversation, the opportunity cost climbs. At a certain point, it may be more beneficial to stop using social media and pursue the next best alternative. From these examples, it is clear that social media functions within a spectrum of costs and benefits, and cannot be strictly separated into either one. Even though this more traditional form of evaluation fails to meet the requirements of social media, there is a set of fundamental economic ideas that can be utilized to determine its effectiveness.

These principles are the opportunity costs of both initially undertaking and then participating in social media, as well as the trade-off required with each message between the organization and audience. An opportunity cost is “the highest valued alternative that we give up to get something” (Parkin and Bade. 2006, 10). This means the cost of undertaking an activity is the cost of foregoing the next best option; it is a relative way to evaluate costs. The trade-off refers to the previous principle mentioned. These notions are capable of accurately assessing the costs of social media use. The initial opportunity cost is possibly the easiest value to determine.

This investment could include such things as increasing the current technological infrastructure and training employees. It has the possibility of either being rather negligible or posing a large barrier to undertaking this activity. This cost should be evaluated as an opportunity cost. In other words, what else could be achieved with similar funds? If the opportunity cost is low and the second best alternative for the funds is undesirable, then the initial investment seems viable. However, if the opportunity cost is quite high and the second best alternative is more appealing, then this initial investment could be a deterrent. The opportunity cost of participation also plays a significant role in determining how feasible investing in social media is.

If an individual is capable of completing his or her work in a more efficient manner or an organization is currently using an ineffective strategy, the opportunity cost may be quite low because allocating another task to personnel would not require undue costs. In this instance, adopting social media would be beneficial. However, if current staff is already handling a workload that is too large or if they provide absolutely essential services, then the opportunity cost could be quite high because foregoing these obligations is not a practical option. The opportunity costs of both the initial investment and participation also have the ability to fluctuate and change as more or less infrastructure and time are required.

The consequences of these costs could be determined either by the specific organization wishing to pursue social media or by an overarching structure if the adaptation of social media is a consistent goal. It may be more appropriate for each separate organization to determine these costs as they are more familiar with both their current resources as well as responsibilities. However, a larger overarching structure could also play a role in this evaluation as social media will affect the entire entity. This perspective would also disperse the costs as opposed to concentrating them within one organization. The most important idea to spend significant time considering though is the trade-off.

The trade-off naturally grows out of the relationship between the creator and the interested audience. In a fundamental way, it shapes the behaviour of the institution when carrying out a social media message and its related goals. In order to obtain more notoriety and activity from the audience, the organization that created the message may need to become more open and less controlling. This activity is well suited for some institutions which do not need to maintain a high level of control and can allow the resulting activities to flourish on their own. However, it seems as though other institutions need to maintain high levels of control or even a sort of opaqueness with regards to the public in order to function properly. The organization must be able to meet its stated purpose; social media is a tool utilized to accomplish this end, not the end in itself. This will need to be determined by the specific organization wishing to perform such an action. It is also important to note what should not be considered in this evaluation.

The sunk costs of an organization should not play a role in determining whether or not social media should be adopted. This is “a cost that has already been incurred and is non-recoverable. A sunk cost should be ignored in decisions about future actions” (Krugman et al. 2006, 183). Expenses that are already spent and cannot be recouped should not be considered when making future decisions. This can be thought of as the current number of staff. Since personnel cannot be released nor hired immediately, the wage they receive falls into this category because that money has already been spent. This is one of the reasons that opportunity costs play such an important role as it determines the effectiveness of allocating certain tasks to staff members. From these criteria, it becomes clear that evaluating the costs and benefits of social media exist on a spectrum. The advantages and disadvantages can be most

accurately determined through the relative perspective of the specific organization that would ultimately implement a social media strategy.

CONCLUSION

Social media has the potential to be a very valuable tool. In order to facilitate the potential success of this tool, the proper network must be pursued. It ought to demonstrate positive feedback by already achieving critical mass as well as fall on the advantageous side of tipping. More importantly though is that the required initial investment, in terms of opportunity cost, should be carefully studied. Any message should also utilize an appropriate medium, carefully evaluate the continuous opportunity cost of participating within such a venue, and finally find the adequate trade-off between control and openness. These costs seem to exist on a spectrum of possibilities as opposed to definite areas within clear boundaries. Therefore, the effectiveness of social media and the plausibility of its adaptation must be determined by the organization itself. Social media is ultimately a means to achieving a desired end which ought to be the purpose of the organization.

CHAPTER 5 – ACCOUNTABILITY 2.0

By

Richard Hall

INTRODUCTION

Social media companies have a checkered history when it comes to obeying government regulations. Facebook has been involved in at least eight newsworthy incidents since 2006 related to privacy and the way the company handles its members' personal information (Schwartz 2012). Twitter, Google+, and LinkedIn have all went through their own controversies, mostly due to the way they manage the information entrusted to them. This type of incident usually falls under the federal jurisdiction of the Office of the Privacy Commissioner of Canada, specifically *The Personal Information Protection and Electronic Documents Act* (PIPEDA). PIPEDA sets rules around the collection, use and disclosure of personal information by private organizations, including social media companies (Holmes 2008).

While some provinces (Alberta, B.C. and Quebec) have implemented their own legislation similar to PIPEDA, Saskatchewan has not (OPCC 2004). This means that social media companies operating within this province must comply with PIPEDA, which does not always mesh with their operations. Jennifer Stoddart, Canada's Privacy Commissioner, told the House of Commons Standing Committee on Access to Information, Privacy and Ethics that her office "is giving serious thought to how the current regime, which predated all these novel technological developments, should be modernized to keep up with the times...Canada has long been a leader in terms of privacy protection laws, but we now risk falling behind" (Stoddart 2012).

The province of Saskatchewan, therefore, is not mandated to ensure social media companies comply with PIPEDA – that is a federal responsibility. There is, however, a provincial legislative structure in place that government agencies must consider as they branch into social media.

LEGISLATIVE ENVIRONMENT

The Freedom of Information and Protection of Privacy Act (FOIP) applies to all government institutions, and has two key principles: that public records should be accessible to citizens, and that personal information must be protected (Saskatchewan 1992). FOIP makes records accessible to citizens through a formal application process that agencies must respond to, in writing, within 30 days. This does not mean that all information is available; the act contains a number of exceptions which must be applied before material is released. For example, an agency cannot release records that would reveal trade secrets, or records that contain the personal information of someone other than the applicant. The definition of personal information within FOIP is a lengthy one but, generally speaking, it is information

about an identifiable individual. Although this is not an exhaustive list, it can include material related to race, religion, or family status; educational, employment or criminal history; identifying numbers or symbols; and even opinions expressed by an individual (that are not about another person) as well as opinions expressed by someone else about the individual; so for example, Individual A's opinion about Individual B could potentially be considered Individual B's personal information (Saskatchewan 1992).

The Local Authority Freedom of Information and Protection of Privacy Act (LA FOIP) applies the same principles as FOIP, but to a designated set of local authorities such as urban/rural municipalities, universities, etc. *The Health Information Protection Act (HIPA)* establishes a further definition for personal health information, applies to organizations/individuals designated as trustees, provides the right to access personal health information, and sets out rules for its collection, use and disclosure (Saskatchewan 1999).

Operating alongside government's access and privacy responsibilities is *The Archives Act, 2004* which establishes the mechanism for government to accountably dispose of its records, and allows for the permanent preservation of historically-significant government information. The Act mandates records management responsibilities to all provincial government institutions. It forces government agencies to protect and keep usable all records until they can be disposed of according to a records schedule, and after approval from the Provincial Archivist has been received. This process allows the Saskatchewan Archives Board to acquire historically-significant records for permanent preservation and ensures records are retained long enough to meet legislative, fiscal or other statutory requirements (Saskatchewan 2004a).

These pieces of legislation have significant implications for government use of social media. It is essential that these implications be considered before social media use becomes commonplace within the Government of Saskatchewan.

FOIP defines a record as "a record of information in any form and includes information that is written, photographed, recorded or stored in any manner, but does not include computer programs, or other mechanisms that produce records" (Saskatchewan 1992). *The Archives Act, 2004* contains a further definition of a public record as "a record created in the administration of the public affairs of Saskatchewan" (Saskatchewan 2004a). Perhaps the most relevant definition is that of a government record, found within the Saskatchewan Records Management Policy, published by the Saskatchewan Archives Board. A government record is "recorded information that relates to the transaction of government business, regardless of form, including documents, maps, electronic records, e-mail...which are received, created, deposited, or held by an office of a department, crown corporation, agency...of the government of Saskatchewan" (SAB 2006).

As government begins to interact with the public, engage in two-way conversation and conduct business over social media, records of these interactions will be created and stored. Based on the definitions above, this social media activity will create records that the public may wish to access under FOIP, and that must be retained and eventually disposed of in accordance with the standards laid out in *The Archives Act, 2004*. The Key Considerations section of Executive Council’s *Social Media Guidelines* confirms this, saying “government must ensure that all necessary records are being captured, retained, filed and managed appropriately” and “the laws and policies in place to protect privacy and information access apply to social media” (Executive Council 2012).

RECORDS MANAGEMENT CHALLENGES

The problem of how to provide access to social media transactions is nested within the larger problem of social media records management. If records are stored, sorted and disposed of correctly, then efficient facilitation of access requests should not be a problem. There are, however, a number of issues that must be confronted before government reaches that stage. Facebook conversations, Tweets and YouTube comments are stored by third-party, non-government agencies in formats that are not always easily converted or migrated to other systems. Under Saskatchewan’s current records management structure, those social media records must be retained for an appropriate period of time. Retention periods vary based on record function but are rarely shorter than two years due to provisions of *The Limitations Act* (Saskatchewan 2004b). At any point during a record’s life, it’s possible for a citizen to formally request access. If the record does not fall under any of the mandatory or discretionary exemptions listed within FOIP, then access must be provided to the applicant.

It’s also possible that social media records will be required as evidence in court. A 2010 report published by Gartner, a technology research institution, estimated that by 2013 more than half of all American companies will have been asked to provide social media records for the purposes of “e-discovery” (Madhava 2011). While the U.S. may typically be more litigious than Canada, such responsibilities must still be taken into consideration. This makes it imperative that government agencies not rely on social media companies to maintain these records because the responsibility to provide access, protect, and ultimately dispose of them is the legislated responsibility of the Government of Saskatchewan.

In many ways, government use of social media is moving faster than its ability to manage use. There are, however, a number of options available and lessons that can be learnt from other jurisdictions. The National Archives of Australia advises that social media records be captured in a variety of ways, such as exporting tweets into a plain text format and saving them alongside other electronic records (NAA n.d.). The Australian State of Victoria suggests capturing screenshots and saving them as .pdf files, or printing and filing a hard copy (PROV 2012). Another option is to rely on emerging technological applications to retain and archive social media communications. The U.S. National Archives and Records Administration

uses “Archive-IT” to collect and retain a series of blogs. NASA uses the same service to store its activity on Facebook, Twitter, YouTube and Flickr (Fyfe and Crookall 2010).

Despite these examples, it seems likely that most government offices, including those in Saskatchewan, will not be able to consistently store, retain and provide access to their social media records at a level consistent with the requirements of provincial legislation for some time. The opportunities provided by social media makes it implausible that its use will slow enough for government agencies to implement comprehensive access and records management strategies.

A report published by San Jose State University entitled *How Federal Agencies Can Effectively Manage Records Created Using New Social Media Tools*, while written specifically for the U.S. Federal Government, lists a number of challenges and recommendations that are applicable to Saskatchewan. Of particular note is a “Technology Challenge,” which states that “Current technology is not up to the challenge of capturing, managing and preserving electronic records, especially social media records” (Franks 2010). The report goes on to list a number of other technological issues, including the rapid pace at which information technology changes, an inability to know the best way to capture and store social media records in a manner that maintains context, as well as the difficulty of effectively analyzing large volumes of social media information. One result is that “government employees express frustration at being unable to locate information in a timely fashion in response to [access] requests” (Franks 2010). The author lists a number of best practices and recommendations, but also includes the proviso that “it is apparent that a fundamental transformation in the way the government conducts its overall records management responsibilities must take place” (Franks 2010).

PROTECTING PRIVACY

The responsibility to protect personal information is a separate problem. As mentioned, the broader social media privacy issues which typically receive coverage in the mainstream media are a problem for the federal government under the terms of PIPEDA. FOIP and LA FOIP are concerned with the protection of personal information that is held by government, and lay out rules for how and when it should be collected, under what circumstances it can be disclosed, and how it can be used. It also allows an individual to access their own personal information held by government and if necessary, request correction of any errors or omissions (Saskatchewan 1992). For the most part, HIPA includes comparable responsibilities, although these apply to personal health information trustees as opposed to government agencies. It also includes a number of health services specific clauses, such as the right to refuse to provide a Health Card Number as identification for non-health related services (Saskatchewan 1999).

The sections respecting the protection of personal information in this type of legislation should not be a significant concern when social media is used as a one-way broadcasting tool. An example of this can be seen by the Ministry of Highways and Infrastructure’s Highway Hotline Twitter account -

@SkGovHwyHotline. While the account occasionally posts pictures or answers questions, the bulk of its tweets are updates of road conditions throughout the province. A typical tweet from November 2012 read “#SKHwy1: Broadview to Grenfell, Travel Not Recommended, Snow Drifts, Drifting Snow, Reduced Visibility” (Twitter 2012). It’s unlikely that the ministry will encounter or collect personal information while operating this type of social media account. While a comprehensive survey is not available, it seems fair to say that at this point in time, much of the Government of Saskatchewan’s social media presence is this type of outward-facing, broadcast-style messaging.

What then, of a more conversational, two-way approach to social media use? What happens when government begins answering specific questions (as opposed to general ones), engaging with citizens, or offering services on social media sites? How can a government agency offer individual-specific services on social media such as student loan assistance, labour relations, or pension benefit inquiries, which by their very nature are more likely to contain personal information? Personal information is not just “important things” like Social Insurance Numbers or bank account numbers; it can also include names, home addresses, telephone numbers, age, education history and marital status. Is it possible to respect the spirit of privacy legislation and still utilize social media to its full capabilities?

To date, there have not been many examples of a government’s privacy protection responsibility being tested in a social media environment. The most applicable case might come from Newfoundland and Labrador. In January 2012, the province’s Privacy Commissioner, Ed Ring, received a complaint under *The Access to Information and Protection of Privacy Act* (ATIPPA) from two individuals against the town of La Scie when a town employee had used their personal Facebook account to send a message containing financial information (of the complainants) to one of the two complainants (OIPC NL 2012).

The Commissioner found that this usage of Facebook did violate a number of sections within ATIPPA, but more relevant to this document, he also issued a strong warning to government agencies in his province about the use of social media. “I feel the need to stress that the use of Facebook and other social media websites by public bodies for the purpose of communicating personal information is a practice this Office discourages...there is no way to ensure that personal information is properly protected on these websites,” Rings writes in the official report of the investigation. He goes on to praise the broadcasting abilities of social media by saying that, “Facebook is a great tool for municipalities to inform people about festivals, application deadlines, respond to inquiries about operating hours of facilities, etc, but it is not a means for municipalities to use or disclose personal information” (OIPC NL 2012). Among the concerns Ring cites about disclosing personal information on social media platforms are an inability to easily verify who you are communicating with, the ease with which a user could accidentally turn a private message into a public one, and the fact that Facebook and similar companies utilize only a single password for security. He also recommends that if a public body

uses social media in a way that contains personal information, they should obtain the express consent of the individual acknowledging that privacy cannot be guaranteed (OIPC NL 2012).

This example highlights the need for privacy and the protection of personal information to be considered before, as opposed to after, an agency begins using social media. It may not be possible to completely satisfy concerns around the collection, use and potential disclosure of personal information on third-party social media platforms. However, with comprehensive internal privacy policies, as stringent of security measures as are possible, and perhaps, as proposed by Newfoundland's Privacy Commissioner, a process whereby users explicitly consent to the weaknesses of the system, it may be possible to exercise enough discretion to balance the public's right to privacy with the desire to offer services.

WHY BOTHER?

There can be no doubt that internal accountability mechanisms have the potential to be a significant obstacle to government's effective use of social media. But, it's also important to remember that these structures are in place for a reason and are not meant to be bureaucratic red tape. As Doug Moen, the Deputy Minister to the Premier said in his memo to government employees in recognition of Privacy and Security Awareness Month 2012, "Protection of privacy, security of information, supporting access rights to individuals, and good records management continue to be important for each and every one of us in the Government of Saskatchewan" (Moen 2012). Premier Brad Wall (2010), who addressed government in a memo prior to the same month in 2010, said "Our real strength lies not in the laws themselves, but in the people of government who work with this information each day to deliver our programs and services. Privacy is in our hands. Accountability is ours."

The Supreme Court of Canada has declared that access and privacy legislation is "quasi-constitutional because of the role it plays in the preservation of a free and democratic society" (Geist 2006). This means that these types of laws typically take precedence over conflicting pieces of legislation. Justice Gerard La Forest, speaking for the court in 1997, said that "The protection of privacy is a fundamental value in modern democratic states" (Dagg v. Canada 1997). He also spoke of the importance of access to information legislation when he said that "It helps to ensure first, that citizens have the information required to participate meaningfully in the democratic process, and secondly, that politicians and bureaucrats remain accountable to the citizenry" (Dagg v. Canada 1997).

Access to information legislation, sound records management principles, and restrictions around the use of personal information should be seen as appropriate checks and balances designed to prevent the misuse of government resources. If an agency cannot use social media in a way that respects these principles, then perhaps social media is not the right instrument for that particular agency. Certain information may be too sensitive to be exchanged without absolute verification of identity, security

measures, and assurances of confidentiality. Social media should be one tool in the government employee's tool box, not the only tool and not the tool utilized because of cost savings, ease-of-use or convenience.

That being said, government must change as society changes. Legislative amendments may be required. FOIP became law in 1992; ancient history in the age of Web 2.0. The world's first social media website, SixDegrees.com, didn't even exist until 1997 (boyd and Ellison 2007). FOIP has been described by Saskatchewan's Information and Privacy Commissioner Gary Dickson as an "Edsel" and by his federal counterpart, Jennifer Stoddart, as a "Model T" (Dickson 2010). Dickson has been advocating for legislative updates to FOIP for nearly a decade (OIPC SK 2005). There are, of course, no guarantees that changes brought forward even five years ago would be any more appropriate to the current social media environment. Similarly, at the end of 2004, the year Saskatchewan's record management legislation was updated, Facebook had about 1 million users; less than eight years later, in September 2012, over 1 billion users logged on each month (CNBC 2012). While the rise of social media may not require changes to *The Archives Act, 2004*, a set of comprehensive procedures on how to manage records created by social media interactions would be a valuable asset for Saskatchewan government agencies.

WHERE DO WE GO FROM HERE?

It would not be hyperbole to say that social media has and will continue to bring about changes to the way society views certain values and institutions. One initiative which is of particular relevance to government's freedom of information process is the concept of Open Government. "Think of Open Government or open data as moving to a push dynamic where the public body, government, now undertakes to push data to the public" Gary Dickson told the Saskatchewan 3.0 Summit in April 2012 (Dickson 2012). Government agencies would no longer wait for access requests before releasing information. Instead, they would be proactive in releasing information online at no-cost to the public. While social media use and open government are two different things, there is the potential for significant overlap. Social media platforms can be an excellent venue to release information, and also provide citizens with the ability to interact with government employees in real time. It should be noted that open government does not remove the need for access legislation; the same exemptions for confidential and personal information still apply. As Dickson (2012) said at Saskatchewan 3.0, "FOIP provides the mechanisms, tests, and thresholds, as well as oversight mechanism to resolve conflicts."

The second change that may happen is not a formal process, but a gradual change in the way society views privacy. It's been suggested by some that the evolution of privacy legislation should include a shift from "a binary, all-or-nothing, approach towards a more nuanced view of limited information disclosure" (Zansberg and Fischer 2011, 4).

A number of commentators have noted the differing privacy expectations of those who've adopted Internet use later in life, considered "digital immigrants" compared with "digital natives," who have grown up with the Internet and in particular Web 2.0. Digital immigrants are more likely to say that there should be no expectation of privacy online, while digital natives believe barriers, whether those are site-specific privacy policies, or user-controlled settings, should provide a form of information protection for material placed on social media and the Internet (Newell 2011). Digital natives want to make information, including personal information, available to their social network, but they do not necessarily want to make it public. One possible explanation for this viewpoint is that many digital natives have been using social media for ten years or more. This may make them predisposed to handing out their personal information, perhaps through trust or perhaps through "naïve commitment" (Dowding 2011). It should be mentioned that this stance by digital natives runs contrary to a lot of conventional wisdom which has held that youth do not care about online privacy. Several studies have shown that this is not the case (Garber 2012).

To go back to the idea of limited information disclosure, this could mean that digital natives will eventually want to see a form of privacy legislation which allows individuals to decide how and when their personal information needs to be protected and how and when it can be used or disclosed. As one social media researcher said, "Privacy is a sense of control over information...Information is not private because no one knows it; it is private because the knowing is limited and controlled" (boyd 2008). An accountability structure based around this concept may make it easier for government to engage with citizens on social media in ways that might currently represent violations of privacy legislation. Exactly what such legislation would look like and how it would work remains to be seen.

Social media will change the way governments operate. It's no longer possible to consider a platform like Facebook, which has signed up nearly one out of every seven people on the planet, a fad or passing interest. The current accountability structure in place in this province and much of the rest of the world is not responsive to the specific challenges and requirements of social media. Still, it is incumbent upon government agencies to comply with legislation as it is written and not how it should be written. Until, and if, updates are made, Saskatchewan must continue to try to manage 21st century communication practices under 20th century legislation.

CHAPTER 6 - EVALUATING SOCIAL MEDIA

By

Ryan Deschamps

INTRODUCTION

Social media present unique challenges to policy evaluators. On the one hand, citizens of all stripes record their daily lives on social media channels, leaving an unprecedented amount of information about themselves online. On the other hand, no standard approaches to ascertaining the validity of socially disseminated information exist; often the data sits in multiple platforms, with different interfaces, and within different contexts -- both social and virtual (Kim and Ahmad 2012; Papadopoulos et al. 2010). At the same time, governments rely heavily on information dissemination to produce policy outcomes because they tend to require the least amount of burden both on the government and on targeted individuals (Hood and Margetts 2007; Margetts 2009; McNutt 2010). Social media sounds like one way to make policy more effective. Proving it may be more difficult. The outcomes of public policy need to be measured to ensure that they achieve their desired result in an effective, efficient and morally acceptable manner. Evaluation of e-government activities is particularly important because e-initiatives are often carried out in order to save costs, but making services accessible and sustainable can result in user dissatisfaction and long-run costs that outweigh initial savings (Ramnarine and Endeley 2008). The social dynamics of policy development and service provision are also poorly measured, making it hard to assess their impact in terms of fairness (Shan et al. 2011). While inherently offering some social dynamics as part of an e-government service, social media initiatives are no less a challenge to measure effectively.

Translating social media measures across government ministries is another challenge. Capacity, degree of community need, security-levels and opportunities will differ from ministry to ministry. Outcome planning must take into account internal and external complexity, changing community needs, staff development, available infrastructure, and budgets. Large centers with high information technology infrastructure like Saskatoon and Regina will have different expectations for social media than many rural areas. Crown corporations such as SaskTel would be expected to have a higher level of internal capacity to perform social media than a smaller quasi-judicial agency such as the Provincial Mediation Board. Other challenges for organizations include staff awareness of social media, perceived return on investment, industry or community need, and uncertainty in terms of benefit (Michaelidou et al. 2011). The approach to evaluation of social media will need to be as robust as the initiatives themselves.

This chapter provides a review of the main approaches and measures for social media initiatives. First, it will describe three general approaches and models to evaluation – results-based, maturity (organizational learning), and outcomes-based. Then it will attempt to summarize some of the most popular measures starting with baseline website statistics and progressing through search engine optimization, third-party ranking tools, input and output measures, and finally social media outcome measures.

PERFORMANCE APPROACHES

While metrics for social media can vary, only a few frameworks exist to approach this measurement. Results-based measures focus on the performance of managers to meet stated objectives. Maturity measures try to acknowledge that effectiveness in social media requires growth and development of organizations over time. Outcomes-based measures try to tie activities to actual policy outcomes. Overall, the approach to measurement will frame how success is determined.

Results-based models

Results-based measurement, popularized by Peter Drucker (1954), has existed for a long time, usually including the acronym SMART (for specific, measurable, attainable, relevant and timely) as a mnemonic for developing objectives (Doran 1981). Already popular to e-government evaluation, these measurement approaches work from the principle that managers should understand clearly what they are trying to achieve before engaging in project activity. The approach usually involves setting organizational goals as a base for which specific objectives can be iterated, justified, resourced and evaluated. Often metrics are separated into input, output and outcomes (Shan et al. 2011). For social media, setting results-based measures involves monitoring sites of specific interest (usually because they are influential with a specific target), identifying interactions that can be used as indicators for success, and taking actions that are likely to produce results along those indicators (IBM 2012; Radian6 2012). Results-based measures are often touted as a means to tie resources to activities that are related to organizational goals and away from activities that encourage waste. However, results-based performance has been criticized for attempting precisely to measure areas of government performance that are not conducive to such measurement (Heinrich 2002).

Maturity models

Some measurement models focus on the constant development of the organization over time. Maturity models attempt to manage internal and external complexity in governments by setting goals, expected outcomes and performance measures based on the degree of sophistication of the ministry or agency (Lee and Kwak 2012; Working Together 2008). High-level outcomes (entailing a higher level of risk) are not attempted until some evidence of mastery in lower levels has been achieved. The initial position – assumed to be held and maintained by all ministries - considers organizational fundamentals such as service excellence, information accuracy and clear communication. Then a series of “stages” provide

stepping-stones for the organization to increase the level of service. For example, Gupta and Jana (2003) offer cataloguing, transaction, vertical integration, and horizontal integration as the four stages for e-government. Lee and Kwak (2012) offer data transparency, open participation, open collaboration and ubiquitous engagement as the second to fifth stages for social media-based public engagement. A key advantage to the maturity approach is it enables the agencies of decentralized organizations to grow at their own pace, while still providing a model for excellence.

Outcomes-based models

The final measurement model, outcomes-based models focus primarily on broad social and economic indicators to provide a report card of overall performance. Useful for broad political outcomes such as the economy and health care, outcomes-based models are too broad to tie a social media campaign to actual results. However, some outcomes can be examined along with indicators provided by the other two models.

WHAT TO MEASURE?

Since social media represents a wide range of communication tools, determining what to measure is an important first step to understanding social media metrics. The answers to this question are as many and varied as the number of social media tools. Each social media site has its own way of collecting and storing data, all of which affect the way each site can be measured. Also, a wide range of formats – text, photos, video, sound – exist within each social media site, and each has a different way of being understood. For example, recording a “hit” to a video page is likely meaningless unless the video has been viewed. Despite the level of ambiguity, one usually begins measuring social media through website statistics first, followed by more sophisticated measures like affect analysis and social network analysis.

Baseline performance – website metrics

Social media and website performance are closely linked. As corporate websites share information such as board composition, Ministerial responsibility, organizational strategic planning activities and overall purpose, including a website link on social media profile pages helps an entity gain trust with an audience. Much social media activity involves sharing content on the Web, including links to a main website where official information or e-services can be provided. In general, if social media activities are successful, they will draw users to a website where they can access information and services pertinent to their lives.

Website statistics are measured in one of two ways: 1) by capturing information stored in server logs (server-side statistics), or 2) by using a client-side language such as javascript to capture and count “clicks” made by users. Server side measures are the easiest to implement, because the server captures log data regardless of the need for measurement. However, data caching (a method of storing information for efficiency purposes) affects the validity of server-side measurements, often resulting in

under-reporting. Session time measurements are quite accurate on the other hand (Yun et al. 2006). Google Analytics is by far the most influential client-side tool for website statistics. While client-side statistics do not have the same issue with caching that server logs do, they also cannot distinguish computer based usage (from robots and crawlers) from human-based usage. Multiple computer/mobile device use is another complication for client-based measurements, especially since IP addresses will change as users move from wireless zone to wireless zone (Yun et al. 2006). While client-side statistics are in vogue, it is still beneficial and cost-effective to include some level of server-log measurement. A further summary of effects from server-side versus client-side information is included on Table 1.

Table 6.1:
Server vs. Client-side Measures

	Server-Side	Client-Side
Visitors	Caching results in under-counting, but can detect computer-based access.	No caching issues, but no detection of computer-based usage.
Page Analysis	Can be “fooled” by pages on a website that use scripts (e.g. A login page).	Can detect page refreshing.
Time-used	Accurate measurement based on session logs.	Can only detect users who accessed one page and then left (bounce rate).
Privacy	Can record IP address only.	Potential for client-side service to collect information on personal computer usage.
Usability	Can only detect aggregate usage of individual pages.	Can provide analysis as users traverse from page to page and/or such interactions as “hover-overs.”
Operating System and Browser Detection	Can detect the main operating systems and browsers, but difficult to remain current.	Up-to-date detection.
Geo-location	Available but inaccurate because it is based on IP.	Easy detection of location if permissions exist.
Opt-in / Opt-out	No opt-in / opt-out, except through IP cloaking.	Clients can opt-out of tracking.
Flexibility	Can use (or develop) a variety of different software to examine	Creating server-side analytics is expensive and requires “buy-in” by

	log-files.	users. (Google analytics already has buy-in.)
Downloads	Can accurately measure download information.	Can only measure “clicks” on links that suggest a download.
Reliability over time	Assuming same software used, statistics are reliable.	Third-party tools can change the way they record information, potentially causing reliability issues over time.
Reliability across servers	Influenced by type of web server used (e.g. Apache vs Windows).	Influenced by website designs only.

Whatever model of statistics collection, a standard language has developed for the measurement of websites. Unfortunately, some attention must be given to what is being measured. The term “visitors” purports to measure the number of unique people who visit a website; what it actually measures are the number of Internet Protocol (IP) addresses. Actual human “visitors” may be under-reported as different family members use the same home computer or different members of the public access a computer in a library. Another popular measure, “visits” sounds like it measures the number of times a person visits a website, but it actually measures sessions that have an amount of inactive time between them (Google Analytics, n.d.). Page views represent the number of pages viewed by a user, although some pages such as search forms may have multiple views as a user makes multiple searches on the same page. Table 2 outlines some of the most popular measures and what they imply from a user context.

Search engine measures

In addition to traditional measures, website can be examined by their influence on search engines, the most influential of which is Google. In general, search engines apply an algorithm to the processing of search query, preferring some websites over others based on a ranking. In Google’s case, the ranking system is called Page Rank. Among other things, Page Rank examines the number of websites that link to a site, weighted by the Page Rank of the linking sites. If a more influential site links to a page, this will have a greater influence on the page’s ranking than a site with a low Page Rank. A higher page rank has the ability not only to increase the amount of traffic to a website, but also to increase the added value of the website to a visitor (Karthikeyan and Sangeetha 2012). Besides page rank, websites can be analysed 1) by how optimal the design is for search engines in general, and 2) how a website shows up on search engines for various search terms that are considered important for service goals, a process called Search Engine Optimisation or SEO. In general, users of search engines tend to look at top results and ignore the rest, so increasing page rank can be important for information dissemination (Gisbergen et al. 2006). General techniques for optimizing design include using keywords, using designs that encourage “deep linking,” and using metadata that is descriptive of the site.

Table 6.2:
Common Website Statistics and Their Definitions

	Estimates	Actually Measures
Visitors	Total number of individuals that access the site.	Total number of IP addresses (computers) that access the site in a given time period.
Visits	Number of times all users access the website.	Given a specified inactive time (30 minutes for Google Analytics) the total number of times any IP address accesses the website.
Page Views	The content that users access.	Total number of website pages accessed (excluding usage of files like photographs, scripts, stylesheets etc.)
Hits	No longer used as a reliable measure of website access.	Total number accesses of all files on a server (including images, scripts etc.).
Entry (for page views)	A measure of influence for a particular page in terms of bookmarking, links etc.	Number of times a particular page was accessed first in a single session.
Exit	A measure either of user frustration or of user satisfaction.	Number of times a particular page was accessed last in a single session.
Time used	Overall measure of utility of a website.	Length of time of a single session.

Search term assessment involves setting policy objectives and recording the ranks of a website on search terms that are relevant to those objectives. In general, a change in rank for a search term can be an indicator of increased influence for that particular term. For instance, if a website ranks higher on a search engine for the term “economic development” then this means it has gained influence as a resource for economic development. While assessing search terms is interesting for the management of web presence, identifying valid key terms is fraught with problems. Many search engines use location-based data in order to determine rankings that can distort the term as a performance indicator, especially if the key target audience is outside the jurisdiction of the searcher. It also assumes a heavily

competitive field for the term, whereas the dynamics of success in policy-making may require a level of collaboration instead.

Tool-specific indicators

Most social media tools provide indicators on their own. The administration page on Facebook will post the number of “likes” a page has accumulated over time, plus provide an assessment of whether people on Facebook are “talking about” the page. Twitter provides a tally of the number of followers, who is being followed and what lists the account has been mentioned on. Hootsuite.com, a third party social media management tool, will measure the impact of links mentioned on websites, based on their link-shortening owl.ly tool. Other third-party tools such as Klout and Twitalyser offer “scores” that assess a level of influence based on data provided by a Twitter account. However, the details of how the scores are developed are rarely shared, making them problematic for effective program measurement.

Input and output measures

While the purpose of social media activity is to provide some kind of result or outcome, input and output measures are also important because they examine the level of quality and efficiency of social media activities. Input measures are those that measure activity on Government accounts. Output measures count the production of those activities. In general, the purpose of input and output measures is to hold programs accountable for the level of work they perform (Scott and Jacka 2011). Table 3 provides some common examples of input and output measures.

Table 6.3: Input and Output Measures for Social Media			
AREA	INPUT	OUTPUT	RATIO MEASURE
Communication	Total number of blog posts, status changes or tweets per month.	Number of replies, comments, likes, shares, and retweets.	Total responses / replies per post.
Promotion	Cost of promoting activities (time spent on follow requests, Facebook ads, SEO activities, design tweaks, usability activities).	Changes in number of followers, connections, visitors, commenters over time.	Change in follower numbers / cost of promotion.
Citizen Engagement	Total number of engagement	Total number of advocates (people who	Advocates / engagement

	interactions (replies, comments, mentions, links to other organizations).	promote, retweet, or share a policy without being prompted); Advocate frequency (how often they mention the government).	interactions. Mentions / advocate.
Customer Service	Number of responses to citizen questions.	Resolved issues.	Resolved issues / responses.
Issue Engagement	Number of hashtag uses on Twitter or YouTube.	Number of hashtag uses by citizens.	Citizen use of hashtag / account use of hashtag.
Human Resources	Jobs posted on Social Media Channels	Total online applicants.	Total applicants / posting.
Innovation / Crowdsourcing	Number of issues posted	Number of conversations.	Conversations / Issues posted.

Research-Based Measures

Some research has been conducted that look at measurement methods for social media using quantitative and qualitative data collection (Golbeck et al. 2010; Papodoupolos et al. 2012; Xiong et al. 2012; Woolley and Limperos 2010). While they tend to be robust in the sense that they offer what may be the closest to what may be called “outcome” measures, with the exception of traditional satisfaction surveys, they also require either considerable data collection ability or proprietary software to be effective.

Citizen satisfaction

Possibly the most straight-forward measure of social media effectiveness is simply to promote standard citizen satisfaction surveys on social media channels. Many online survey tools provide robust options for requesting information based on survey responses, and most social media tools permit the promotion of such items online.

Affect analysis

Affect analysis is a kind of content analysis that measures emotional responses in texts based on some combination of words and punctuation. For example, one can measure general attitude on chat networks based on the number of “smilies” :) versus “frownies” :(used inside statements. More sophisticated analysis uses the scoring of words from a lexicon that suggests either a positive or negative tone in the text (Gefenstette et al. 2004). Early studies in affect analysis used manual lexicons

to study texts, but more recent studies have taken on the study of emotion in writing through computer algorithms that are tested for validity (Chen 2012). The advantage of the affect analysis approach is that data can be analyzed consistently across social media platforms; the tone of a particular organization or policy can be examined across all media. Thus, one can examine a particular media campaign or policy launch and assess the degree of response on a variety of online channels as well as on traditional media. Affect analysis has also been used effectively in coding responses received during an e-consultation (Loukis and Wimmer 2012). The disadvantage of this approach is that it requires either the linguistic and technological know-how to create a valid algorithm. Often affect analysis is conducted using pre-developed software whose lexicons are rarely shared for intellectual property reasons.

Social network analysis

Social network analysis (SNA) examines relationships among individuals on networks. While SNA has been used in policy for a long time (see Adam and Kriesi 2007; Coleman and Skogstad 1990), the availability of data on online networks opens up the opportunity to examine networks in a much broader sense. While a variety of analytical techniques exist, social network analysis can provide an assessment of whether social media activities are engaging influential players (nodes) within a topic area and whether an account itself has a level of influence (Hanson 2011). Xiong et al. (2012) have measured the “infectiousness” of tweets (status posts on Twitter) by examining how frequently they are re-tweeted. Papodopoulos et al. (2012) offer a method of detecting communities around specific terms on social networks, potentially offering a measure of “building community,” a commonly cited goal of social media efforts.

Causality models

Use of Granger causality models is another interesting movement in the research (Meraz 2011). Granger models test whether changes within one indicator correlate with other indicators over time. For example, does a post from a right-leaning blogger result in a post from a left-leaning blogger the next day (Meraz 2011)? As a social media success indicator, one could imagine measuring whether posts on social media channels result in news articles or changes in the number of social media users discussing a particular topic of interest. The main weakness of causality models is that they are limited to those datasets for which Granger causality is an applicable measure. Feedback relationships – both negative and positive – have a tendency to impact the reliability of Granger results, as are cases where changes in an indicator increase over time. As with affect and social network analysis, assessments using Granger causality can be complicated and difficult to perform properly without skilled researchers.

CONCLUSION

While a number of methods to manage and measure social media interactions exist, no robust standard for measuring performance of social media in government exists beyond traditional measures of website visits and customer satisfaction surveys. While proprietary tools exist to conduct more detailed

measures of performance, many are tied to traditional business objectives such as sales and cost-reduction, rather than to policy-based measures (IBM 2011; Radian6 2012). However, research is quickly catching up to the need for more in-depth testing of social media for public policy, and new techniques may develop to efficiently and effectively measure social media performance for governments.

RECOMMENDATIONS

By

Wayne Zhu

In the preceding six chapters, this report has highlighted a means for the government of Saskatchewan to come to terms with the ubiquitous nature of social media in the 21st century. Rather than view this development as simply a threat to defend against or a risk to mitigate, it is imperative the government cultivates a deeper understanding of this phenomenon, which can help provide guidelines or sign posts for efficient public administration and effective public policy that grasps the full potential of social media.

Chapter 1 discussed the concept and idea of Government 2.0 in a broader context, illustrating the linkages to Web 2.0 and how it is about much more than simply new channels of offering services, new ways of administration and management, and new means of public engagement; Government 2.0 actually encompasses a new mentality and mindset regarding the role of the public sector in governance and vis-à-vis citizens and stakeholders. It represents an ethos with foundations based on the same principles and philosophies underpinning Web 2.0 and applied via social media: participatory, open, and collaborative. Chapter 2 moved in a more practical direction, offering a social media tool box for governments, examining the variety of instruments that are available and how they may be best utilized. Chapters 3 and 4 then analyzed the political/social and economic returns, respectively, of social media use for governments. Chapter 5 focused on a particular issue that poses an important obstacle to the public sector's increasing application of social media: freedom of information and privacy. Finally, Chapter 6 provided some criteria to help evaluate and measure the effectiveness of social media instruments.

With the above mentioned discussions in mind, this concluding section offers a concrete set of recommendations for the government of Saskatchewan regarding how to best realize the untapped potential of social media. Though they are given in sequence, it would be best to consider these in a holistic manner. This could initiate a process of embracing the Government 2.0 ethos, which represents the future direction of public sector governance not just in Canada, but liberal democracies all over the world.

RECOMMENDATION #1

- **Formation of a Social Media Steering Committee composed of senior government officials (at the DM or ADM level)**

Above all, adoption and development of a Government 2.0 ethos and the concomitant realization of social media's true potential requires leadership at senior levels of government. A Social Media Steering Committee at the DM or ADM level will set the tone for the entire government of Saskatchewan, demonstrating a serious intention to move in this direction. The committee will not only provide leadership, overview, and guidance, it will also designate a working group to draft a strategic document (*see recommendation #2*) and a set of guidelines that provide a framework for social media use and engagement (*see recommendation #3*). It will also strike a sub-committee to explore and examine how social media fits into the current legislative framework and if new legislation or changes to current legislation is required. The latter's work will be ongoing and necessitate evaluation of processes and outcomes through empirical evidence generated by pilot projects (*see recommendation #6*).

RECOMMENDATION #2

- **A strategic document that provides vision and direction for the public sector's engagement with social media**

"Social media is one policy instrument to further public sector activities and initiatives; it is not an end in and of itself." This statement should be the vision for a governmental strategic document regarding the public sector's engagement with social media. Time and time again, research into government's uses of social media reinforce the simple formula that successful applications see social media playing a supportive role to facilitate better administration and management while improving public sector activities and initiatives. It is when social media is used for the pure sake of using social media that the outcomes are suboptimal. Furthermore, social media tools should not replace traditional policy instruments that remain relevant when it comes to program delivery and public engagement. A digital divide exists today and will continue to exist in the near future. Not everyone will be plugged into social media, so established policy tools and instruments remain important. The two should be used in conjunction, allowing the government to reach a broader section of the population and offering citizens their preferred means of interacting with the public service.

The strategic document should include directional statements that indicate the government of Saskatchewan intends to adopt the ethos of Government 2.0, becoming a pioneer of public sector renewal that not only pursues new ways of doing things, but also new ways of thinking about governance and the role of the public service. Since social media represent practical applications of principles and philosophies in line with this ethos, it is a worthwhile aspiration for the government.

RECOMMENDATION #3

- **Policy guidelines that establish a framework for social media use by the government**

Whereas the previous document focused on an overarching vision and direction for the public sector’s strategic social media engagement, these guidelines should be more practical, offering a checklist for how the government actually goes about using social media in its services, programs, and policies, along with a set of criteria to evaluate and measure the effectiveness of social media instruments. Drawing on smart practices from around the world, and the social media toolbox from Chapter 2, they should provide a framework that outlines the necessary process for government entities to use social media, both internally and externally.

Internally, social media tools and instruments can play an active role in improving and enhancing public administration and management, creating efficiency gains in line with Saskatchewan’s LEAN initiatives and streamlining conventional bureaucratic red tape. Policy guidelines in this regard ensure public employees use social media in an appropriate manner consistent with relevant legislation and regulations. For instance, when it comes to social media background checks, a centralized set of policy guidelines (like what already exists in British Columbia) will make certain privacy-related issues are respected and addressed.

Externally, government entities can boost the effectiveness of public policies and programs from proper usage of social media tools and instruments. An established framework that guides and directs public employees to suitable tools depending on the context and specific circumstances facing the government entity means social media is never used solely for the sake of using social media. It should be noted that there are times when social media may not be the appropriate means of accomplishing public policy objectives; the established social media usage framework will identify such instances.

RECOMMENDATION #4

- **Administrative structures that ensure proper implementation of and accountability for the social media framework**

Once a social media usage framework has been established via policy guidelines disseminated throughout government, administrative structures need to be put in place to ensure proper implementation and maintain accountability. A mixture of centralized supervision and decentralized operationalization is the ideal manner of applying the framework; current practices in government related to the application of Freedom of Information (FOI) and privacy policies serve as a constructive model for replication. The government should establish a centralized administrative unit with a mandate for overarching authority over social media strategy and implementation (similar to the Access and Privacy Branch within the Ministry of Justice that is the lead unit on FOI and privacy). This central Social

Media Strategy Branch (possibly located within the Ministry of Central Services) will coordinate social media usage amongst all other government entities.

At the same time, each government entity should have their own Social Media Officer (similar to the Privacy Officers embedded within every government institution) whose duty it is to ensure that all social media usage within the entity is in line with the government's strategic vision for social media engagement. Such a management approach draws on the strengths of both centralization and devolution, thereby addressing the institutional weaknesses of each administrative style when used in isolation.

RECOMMENDATION #5

- **Capacity development for the public sector, relevant stakeholders, and citizens-at-large**

In order for such administrative structures to function, social media policy capacity must be developed for all relevant employees; in other words, social media training. These need not necessarily be new hires, but could build upon already existing capacity in the various government entities. Initially, a strong core of social media specialists and experts should be brought together in the centralized administrative unit. The abundance of capacity in this one location can then be used to link into interested and capable public employees in other government institutions, starting a domino effect wherein a network of social media competent individuals within the Saskatchewan public service comes into existence. The Social Media Officers for different government entities could be chosen from members of this network. In addition, the network could coordinate with human resources to develop training workshops for the rest of government.

With this policy capacity developed and concentrated, the individuals in question should be given the authority to innovate (*if people want to build something, let them*), collaborate (*break traditional information silos*), and experiment (*making the "right mistakes," which requires strategic considerations*).

At the same time, depending on which issue-areas and policy sectors the social media instruments will be used in, relevant stakeholders and citizens-at-large should also receive appropriate training. Since these groups and people will interact directly with government-sanctioned.

RECOMMENDATION #6

- **Pilot projects utilizing the established framework and administrative structures, in accordance with developed policy capacity**

With strategic vision and direction, an established social media framework for guidance, administrative structures in place to ensure proper implementation and maintain accountability, and developed policy capacity in relevant employees, the next step should be some pilot projects designed to generate practical experience and empirical evidence. First, a government-wide consultation should take place to discover the most pertinent areas and subjects for public sector social media engagement. Once these have been designated, the central administrative unit for social media strategy, in conjunction with the appropriate government entities, could design the pilot projects. These should then be implemented and evaluated. The outcomes and results will be assessed against criteria developed beforehand, thereby initiating a feedback loop which makes the necessary modifications to the social media framework, administrative structure, and training program.

These six recommendations are linked in a logical and holistic manner, representing a first step for the government of Saskatchewan to engage and use social media to improve efficiency in public administration and enhance effectiveness in public policy. They bring Saskatchewan's public service into the conversation.

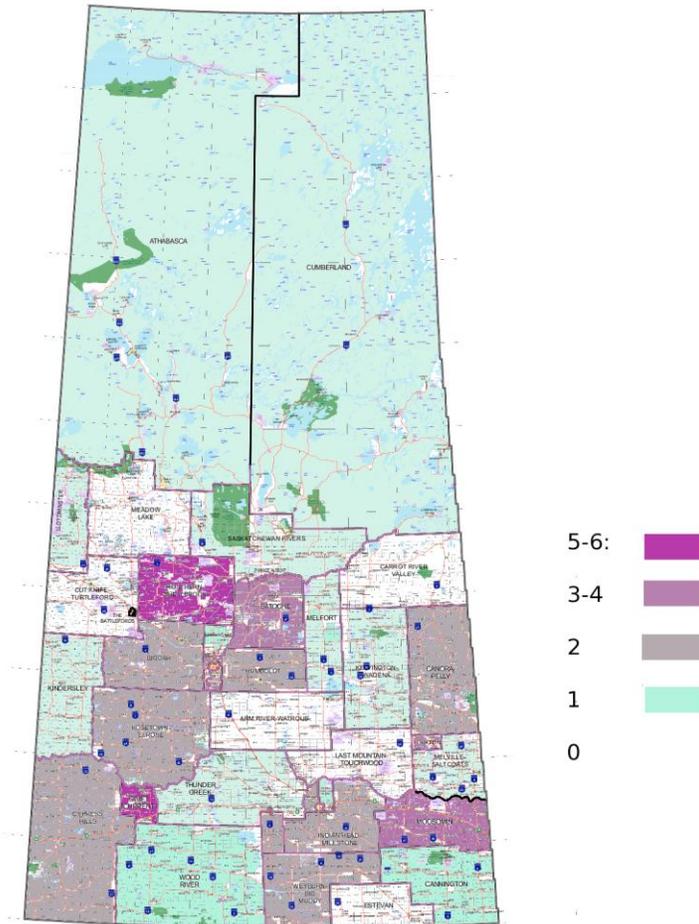
APPENDIX A

Uses of Social Media by Saskatchewan Members of the Legislative Assembly

The map following shows social media use by MLAs, with the colors representing the number of types of social media tools use by the MLA in each constituency. The categories include:

- Blogs
- Social Networking Sites
- Microblogs
- RSS feeds
- Social Bookmarking Tools/Plugins
- Video Sharing Sites
- Photosharing Sites

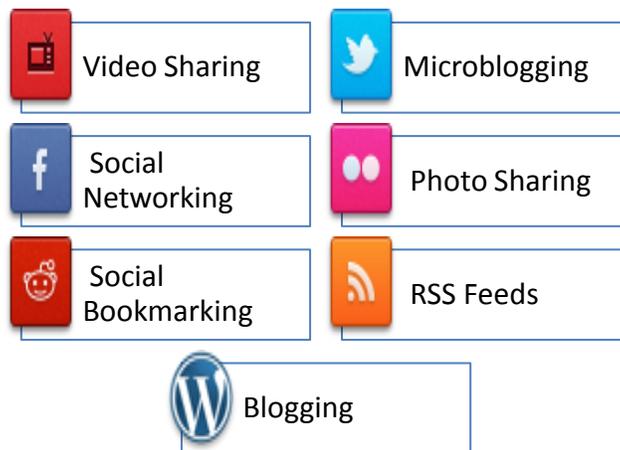
In general, the closer an MLA is to a suburban or urban centre, the more likely it is that he or she will use a variety of social media tools.



APPENDIX B

Uses of Social Media by the Ministries and Agencies of the Saskatchewan Government

The chart below ranks Saskatchewan Government Ministries and Agencies by the number of categories of tools used (the maximum possible use is seven). Ministries and Agencies that only used one category are excluded. In general, if only one tool was used, it was a social plugin (the ability to “like” or “bookmark” a page using a button on a website).



Total Number of Categories Used	Ministry or Agency	Categories of Social Media Used (see Legend)
6	Tourism Saskatchewan	
	Health Quality Council	
5	Apprenticeship and Trade Certification Commission Executive Council and Office of the Premier Saskatchewan Research Council SaskPower SaskTel	

	Saskatchewan Pension Plan	
4	Parks, Culture and Sport	
	Physicians Recruitment Agency of Saskatchewan SaskGaming	
	Saskatchewan Government Insurance	
3	Advanced Education	
	Agriculture	
	Labor Relations and Workplace Safety	
	Saskatchewan Arts Board	
No Social Media Presence	<p>Economy Farmland Security Board Government Relations Highway Traffic Board Law Reform Commission of Saskatchewan Legal Aid Saskatchewan Saskatchewan Archives Board Saskatchewan Crop Insurance Corporation Saskatchewan Grain Car Corporation Saskatchewan Health Research Foundation Saskatchewan Human Rights Commission Saskatchewan Labor Relations Board Saskatchewan Liquor and Gaming Association</p>	

	Saskatchewan Municipal Board Saskatchewan Opportunities Commission Teachers Superannuation Commission
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