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Tweeting the Government: Preliminary findings from a genre analysis of Canadian federal government tweets

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ABSTRACT

Social media is rapidly becoming an integral part of the Canadian Federal Government's communication plan. Its use has been institutionalized with the adoption of the *Guidelines for External Use of Web 2.0*, which provides policy guidelines for government agencies on using social media tools. Twitter, a microblogging site, has rapidly gained popularity with Canadian government agencies. The primary purpose of this research is to identify the communicative intents behind federal government agencies' use of Twitter. A random set of 2,000 tweets were collected over a one month period in 2012 and were coded using a schema derived from both relevant literature and the researchers. This paper discusses preliminary results ascertained at the halfway point (1,000 tweets). While more robust findings will be available at the end of the coding process, we have been able to ascertain a number of trends, including the prevalence of news related and internally generated content.

Keywords

Microblogging, social networks, genre analysis, e-government, information policy

1. INTRODUCTION

The Canadian government's growing use of social media is the most recent addition to a broader shift towards digital government that began in 2001 with the Government Online Initiative. More recently, in November 2011, the federal government issued important policy documents [18], publicly committing to utilize social media as a way to disseminate information and encourage online citizen engagement with government via social media [2, 6, 13].

This increased use of social media by the federal government in its interactions with Canadians is resulting in the creation and dissemination of a large amount of digital information in an online context. However, despite the socio-political implications of the government adoption of social media, there is a paucity of knowledge about the information products such use generates and their policy implications.

The purpose of this research is to examine the move towards

social media as a channel of communication between Canadian federal government agencies and the public. Specifically, this research focuses on government agencies' use of the microblogging platform Twitter to determine the different genres of communication employed. Some of the broad research questions addressed in this study are:

RQ1. What are the communicative intentions of the government as expressed through their use of Twitter?

RQ2. To what extent, if any, is Twitter being used to carry out the business of government?

RQ3. Does Twitter use comply with federal information and communication policies and guidelines?

RQ4. Is Twitter use aimed at increasing public involvement in government; does it support current conceptions of participatory democracy?

This paper reports early findings of the research, particularly emergent trends from the tweet analysis.

2. TWITTER AND GOVERNMENT

According to Kiang and Nolin it is possible to visualize the progress of social media in three temporal phases – the first two are social interaction by individuals and corporate utilization of social media – the third phase they define as “governments and governing bodies initiat[ing] a systematic presence within social media.” [11] Unlike the more flexible nature of the first two, personal and corporate use of social media, government use of social media is subject to systematic controls and norms, as well as policies that govern the interaction between government and citizens and the production and management of the resulting information.

The Canadian government made a commitment in 2008 to “build a comprehensive system to develop online collaborations and social networking projects” [14] and has subsequently pushed to make social networking services such as Twitter and Facebook a larger part of interactions with citizens [6]. On 18 November 2011, the federal government issued *Guidelines for External Use of Web 2.0*, the stated purpose of which is to “provide specific guidance to Government of Canada departments on the use of externally facing Web 2.0 tools and services” [18].

Federal government agencies have widely embraced the popular microblog Twitter. Microblogging is a short form of blogging that allows users to send and receive brief (usually under 200 characters) messages via the web or mobile devices. Twitter allows users to send messages of up to 140 characters that appear in a public (or private) timeline. Since its inception in 2006

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Twitter has evolved to include a variety of features, including the hashtag (#), retweet (RT), reply (@), modified tweet (MT). Many of these features have been user-generated, surfacing through community uptake and consensus.

Lux Wigand [15] identified four major roles Twitter plays in government: extending communication reach; updating, broadcasting and sharing information through networks; relationship building, and stakeholder collaboration. Understanding the communication intents for which Twitter is employed by federal government agencies will aid in understanding whether Twitter is merely another channel used to push information to the public or if it goes beyond communication to facilitate interaction with the public [and other stakeholders], and/or to carry out government activities.

2.1 Canadian Government Twitter Use

The Government of Canada (GOC) has been using Twitter since 2008 with the majority of agencies opening Twitter accounts in 2010/2011. Currently, the GOC has over 250 official federal government institution and agency Twitter accounts [16, 8, 21] whose accumulated followers total over 690,000 [21]. According to Zegouv.ca, a website that compiles and provides access to GOC tweets, an accumulated 450,000 tweets [21] have been posted to date. Activity on Twitter varies between agencies and departments, with tweets ranging from single digits for a few low activity agencies, to the most active agencies numbering tweets in the thousands [21]. The most followed agencies have followers in the tens of thousands, the highest with over 43,000 followers [21] and the least followed with only 20 followers [16]. The majority of agencies fall somewhere in-between with followers numbering in the thousands.



Figure 1. Screenshot of Health Canada Twitter page.

2.2 GOC Social Media Policy

The *Guidelines for External Use of Web 2.0* issued on 18 November 2011 by the GOC applies to all agencies and departments of the GOC as defined in section 2 of the *Financial Administration Act* [17]. The *Guidelines* apply to both internal GOC networks and third-party hosted sites and are intended to support and work in conjunction with GOC's Policy Framework for Information and Technology, which includes the *Policy on Management of Information Technology*, the *Policy on Information Management* and the *Communications Policy of the Government of Canada* [18].

The federal government formally issued the *Guidelines* relatively late compared to countries such as Australia (2009/2010) [4, 1], the U.S. (2009) [7] and the U.K. (2009) [20]. The *Guidelines*,

lauded for their existence and acknowledgement of the unique affordances and opportunities of social media, have also been criticized for their length, ambiguity and lack of implementation guidance [5, 12].

3. METHODS

3.1 Genre Analysis

The framework for this analysis is rhetorical genre theory, which considers the common patterns that emerge within communication mediums such as twitter, email and documents more generally, to be indicative of recurring situations and underlying communicative intents. Genres are considered to be rich carriers of context, and offer a means of studying long-standing and emerging discourse communities. Genre analysis [19] and document classification more generally [3, 9, 10] have been used to study Twitter, as a means of determining how this new communication medium is being used.

3.2 Dataset

The dataset used in this research consists of tweets collected from the Twitter accounts of 25 Canadian federal agencies using Twitter's public API feature via DiscoverText,¹ a cloud-based data gathering and text analysis tool. The data was collected over a one-month period from 14 May 2012 to 15 June 2012. The agencies were chosen to represent a diverse set of federal government functions (e.g. health, environment, finance, etc.). Along with function, agencies were selected based on criteria that examined the presence of a social media/Twitter policy, volume of Twitter activity and mandate of agency. This paper reports on the preliminary analysis of a subset of the dataset, consisting of 200 tweets randomly selected from each of 10 agencies, for a total of 2,000 tweets. Just over 50% (1,000) tweets have been coded to date, the results of which are included in this paper.

Table 1. Codebook of Tweet Genres

Code Name	Description
Conversational-Pass Along	Statement addressed to another user. Links to content external to the tweeting agency.
Conversational-Phatic	Statement addressed to another user. Contains no informational content, but is polite or conversational in nature.
Information Pushing	Contains information internal to the tweeting agency, which is not time sensitive (i.e., not news).
Information Seeking	Contains questions/requests for information addressed to users in general.
Participation Seeking	Contains requests for follower participation (e.g. for retweets).
News	Contains identifiable news content, usually related to recent events.
Pass Along	Links to shared content external to the tweeting agency, addressed to users in general.
Spam	Junk messages, unsolicited automated tweets.
Status	Answer to the question, "What are you doing now?"

¹ www.DiscoverText.com

3.3 Code Development

The framework for the genre analysis and coding was initially derived from the literature, based on a number of published studies exploring content classification of tweets [3, 9, 10, 19]. The framework was then revised based on an initial analysis of a smaller sample of 200 tweets. A number of iterations involving multiple coders was undertaken in order to achieve consistency, resulting in the codebook used in the study. A summary of the codes is presented in Table 1, multiple codes could be assigned to each tweet.

4. RESULTS

The first 1,000 tweets have been coded to date. While the coding is still in the relatively early stages, a number of trends are already evident. “Information Pushing” is the most frequent code (occurring 618 times in 1,000 tweets). This code is used to identify temporally independent, internally generated content. An example of this type of tweet is:

- From Transport Canada: Importing a #vehicle from the United States? Here's what you need to know: tc.gc.ca/0793g #roadsafety

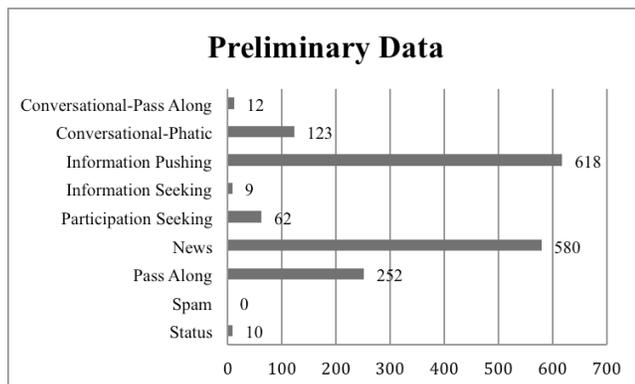


Figure 2. Frequencies of tweet genre categories (N=1000 tweets).

A tweet linking to content that is external to the agency is coded as “Pass Along.” This is the third most common code (occurring 252 times in 1,000 tweets). Some examples of “Pass Along” tweets are:

- Business value of information is discussed at #ICIC11 <http://tinyurl.com/3qn9njx>
- From Health Canada: RT @Nutrition North: For ideas on helping your child eat well at school, check out: <http://goo.gl/XdV84>

“News” tweets are also very common. The defining characteristic of tweets coded as “News” is the currency of the linked content and the corresponding tweet. One example of this type of tweet is:

- From Health Canada: @YoginiPalette HC has been advised by Pfizer Canada that the Canadian product (Min-Ovral) is not affected by the recall in the U.S.

Additionally, many codes tend to occur together. This is most often true with tweets coded as “News,” which frequently co-occur with either “Pass Along” or “Information Pushing,” depending on whether the content is user generated or passed along from an outside source. Some examples of this type of tweet are:

- From Statistics Canada: Following an increase in September, employment declined by 54,000 in October <http://bit.ly/sxebDB> (News/Information Pushing)
- From Health Canada: RT @CFIA Food: Allergy Alert (milk, peanut, nuts) - Erom Dr Hwang's Premium Soy Drink: Raphaville Int'l Ltd. <http://bit.ly/nLi6Th> (News/Pass Along).

Periodically constituents use Twitter when seeking information from a government agency. The replies to these inquiries are coded as “Conversational-Phatic.” In addition, agencies often tweet general acknowledgments to people or organizations that mention or retweet their content, another example of “Conversational-Phatic” content. One example of this types of tweet is:

- From Environment Canada: Thanks for the RTs on our last tweet! @jamiesonsaab @mmsbnl @YuriGidge @sewingonpins @MonicaDoCoutto

Finally, agencies will periodically call on their “followers” to participate in some way. The most common example of this is asking followers to retweet content, but also occurs when agencies need survey respondents or event attendees. Some examples of this type of tweet are:

- From Public Health Canada: Help us prevent #type2 diabetes. Share the Canadian#Diabetes Risk Questionnaire with your family and friends <http://bit.ly/vmqobc>
- From Statistics Canada: Sign up now to chat with Laurent Martel, Demography Expert, about population counts on Monday bit.ly/x3VPJ6

5. DISCUSSION

The discussion below focuses on the research questions motivating the study.

RQ1. What are the communicative intentions of the government as expressed through their use of Twitter?

These early results suggest that agencies’ communicative intents are closely aligned with organizational mandates for information dissemination. They focus on highlighting the work of the agency and serve as a public relations tool. The prevalence of News tweets indicates that government agencies are trying to capitalize on the temporal, ‘real-time’ quality of social media and its ability to reach out to constituents and connect them to agency (and external) resources.

RQ2. To what extent, if any, is Twitter being used to carry out the business of government?

Early analysis would indicate that this is not occurring. Even where there are examples of tweets that solicit participation for some type of activity, these are primarily used as a means to disseminate agency information, rather than to perform any of the core functions of the agency. These solicitation tweets are rare, and we have not seen evidence of other types of activities that could be considered functions of government.

RQ3. Does Twitter use comply with federal information and communication policies and guidelines?

We have not yet completed this analysis. Along with the GOC Guidelines there are a number of agency specific guidelines that we need to examine in the context of the larger policy and the

tweets examined. At a glance, there does not seem to be any conflict with established policies, as use of Twitter seems to be quite consistent and careful. However, we do expect to find examples in our data of uses of Twitter that are not covered by current policies.

RQ4. Is Twitter use aimed at increasing public involvement in government; does it support current conceptions of participatory democracy?

As noted above, there are very few examples in this dataset that solicit direct involvement from followers of GOC Twitter feeds. We see a predominance of push communication, with very little evidence of pull.

In summary, early analysis of this limited dataset reveals that while a number of the roles identified for government use of Twitter by Lux Wigand are present, including extending the communication reach of agencies, and updating, broadcasting and sharing through networks via Twitter, it is too early in the analysis to confirm or refute the other two roles: relationship building and stakeholder collaboration.

When compared to other studies of general Twitter users [3, 9, 10] our early findings revealed a much lower conversational, “daily chatter” and/or phatic level and higher news and information pushing than appears in general studies.

6. FUTURE WORK

Our analysis of this dataset is ongoing. Once we have completed the initial genre classification, we will examine the use of Twitter features, such as hashtags and retweets, compare use across agencies, and conduct a temporal analysis to determine if the patterns in genres and features change over time. Such a longitudinal analysis of agency tweets would potentially highlight changes in agencies’ skill levels and intentions in using Twitter as a communication tool.

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8. REFERENCES

- [1] Australian Public Service Commission. 2009. Protocols for Online Media Participation. <http://www.apsc.gov.au/publications-and-media/archive/circulars-archive/circular-20096>
- [2] Curry, B. 2011. Clement seeks ‘culture change’ on government transparency. *The Globe and Mail*, (Dec. 01), n.p.
- [3] Dann, S. 2010. Twitter content classification. *First Monday* 15, 12 (December 2010), n.p.
- [4] Dellow, J. and Bartlett-Bragg, A. 2010. Project 8: Online Engagement Guidelines. <http://gov2.net.au/projects/project-8/comment-page-1/index.html>
- [5] Eaves, D. 2011. *The Canadian Government’s New Web 2.0 Guidelines: the Good, the Bad & the Ugly*. Blog post. Eaves.ca. (Nov. 23). <http://eaves.ca/2011/11/23/the-canadian-government-new-web-2-0-guidelines-the-good-the-bad-the-ugly/>
- [6] El Akkad, O. 2011. Clement pushes Twitter integration in redesign of government websites. *The Globe and Mail*, (Nov. 29), n.p.
- [7] Federal CIO Council. 2009. Guidelines for Secure Use of Social Media by Federal Departments and Agencies. http://www.cio.gov/Documents/Guidelines_for_Secure_Use_Social_Media_v01-0.pdf
- [8] GOC Institutions. <https://twitter.com/goctweets/goc-institutions/members>
- [9] Honeycutt, C. & Herring, S. 2009. Beyond microblogging: Conversation and collaboration via Twitter. In *Proceedings of the 42nd Hawaii International Conference on System Sciences* (Big Island, HI). ACM, 1-10.
- [10] Java, A., Song, X., Finn, T. and Tseng, B. 2006. Why we Twitter: Understanding microblogging usage and communities. In *Proceedings of the Joint 9th WEBKDD and 1st SNA-KDD Workshop ’07* (San Jose, CA), 56-65.
- [11] Klang, M. and Nolin, J. 2011. Disciplining social media: An analysis of social media policies in 26 Swedish municipalities. *First Monday* 16, 8 (August 2011), n.p.
- [12] Kukawski, M. 2011. *Guideline for External Use of Web 2.0 in the Government of Canada*. Blog post. (Nov. 22). <http://www.mikekujawski.ca/2011/11/22/guideline-for-external-use-of-web-2-0-in-the-government-of-canada/>
- [13] Levitz, S. 2011. Social media 101: Feds roll out guidelines for Twitter, Facebook. *The Globe and Mail*. (Nov. 22), n.p.
- [14] Lux Wigand, F.D. 2010. Adoption of web 2.0 by Canadian and U.S. governments. In *Comparative E-Government*, C.G. Reddick, Ed. Integrated Series in Information Systems 25, 161-181.
- [15] Lux Wigand, F.D. 2010. Twitter takes wing in government: Diffusion, roles, and management. In *Proceeding of the 11th Annual International Conference on Digital Government Research* (Puebla, Mexico, May 17-20, 2010). ACM, 66-71.
- [16] Politwitter. 2013. Canadian government social media. List of Canadian government organizations on social media. <http://gov.politwitter.ca>
- [17] Treasury Board of Canada Secretariat, 1985. *Financial Administration Act*. <http://laws-lois.justice.gc.ca/eng/acts/F-11/>
- [18] Treasury Board of Canada Secretariat, 2011. *Guidelines for External Use of Web 2.0* (Nov. 18). <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=24835§ion=text>
- [19] Westman, S. and Freund, L. 2010. Information interaction in 140 characters or less: Genres on Twitter. In *Proceedings of Ilix* (New Brunswick, New Jersey, USA, August 18-21, 2010). ACM, 323-327.
- [20] Williams, N. 2009. Template Twitter Strategy for Government Departments. *UK Department for Business, Innovation and Skills*
- [21] Zegov. 2013. Zegov.ca. Twitter activity. <http://www.zegov.ca>