



**Geoffrey F. Bruce Fellowship
in Canadian Freshwater Policy**

Social Media as a Water Regulatory Governance Tool

An Investigation of Twitter Use by the Ontario Ministry of the Environment,
Conservation and Parks and the Ontario Environmental Commissioner's Office

*A policy brief submitted by
Madeleine Martin PhD (cand.), M.A.Sc., B.Sc.
In fulfillment of the requirements of the
Geoffrey F. Bruce Fellowship in Canadian Freshwater Policy 2018/2019*

October 1st, 2019



Introduction

If at any point in history Ontarians laboured under the assumption that they could rest easy with respect to water issues, the Walkerton water treatment scandal of the late 1990s likely challenged that belief. The scandal awakened citizens of the province to the reality that even in a country as resource-rich as Canada with a robust framework of laws and regulations addressing water quality, and an elaborate bureaucratic network and judiciary charged with upholding them, regulatory failure resulting in death and permanent disability may occur (Salvadori et al., 2009). Many environmental issues fail to garner sufficient political will because they fall into the category of what Spartz et al. (2017) term “impersonal risks”. Water issues, however, can often be dually framed as public health concerns, and thus benefit from overlapping with more self-interested motivations (Kahlor et al., 2006).

In recent years, Canadians and citizens around the globe have taken to airing their political grievances and opinions on social media platforms. Twitter in particular has become known for its ability to stoke and augment its users’ emotions in ways that have been seen to produce real-world effects; for example, economists have established a correlation between the platform’s “mood” and stock market fluctuations (Bollen, Mao, and Zeng, 2010). The platform has also made possible global societal norm conversations such as the #MeToo movement, which held high ranking perpetrators of sexual assault to account. Social media platforms are also increasingly used for condemning nefarious environmental practices in the public eye and for the regulation of those practices in the hope that this shaming brings about behavioural change (Jacquet, 2015). This use of social media platforms for “soft” environmental regulatory activity is increasingly common; however, many of the emotive qualities that are rewarded in social media communications, such as humour and outrage (Brady et al., 2017; Castells, 2015; Davis, Love, & Killen, 2018; Kaplan & Haenlein, 2011) conflict with the de-emotionalized tone typically used in government communications.

Perhaps for the reasons described above, government actors have been observed to fall behind their private sector and civil society counterparts in meaningfully harnessing social media to engage with the public and other actors (Bermonte, 2011; Waters and Williams, 2011). Given the arms-length distance of state watchdog institutions from government oversight and their check-and-balance mandates, it may be the case that these actors are better able to meaningfully engage in social media communications furthering environmental regulatory governance goals.

Focusing on the jurisdiction of Ontario, Canada, this policy brief discusses the use of Twitter by a conventional environmental regulatory government department, the Ministry of Environment, Conservation and Parks, and state environmental watchdog institution, the Environmental Commissioner of Ontario, to forward water regulatory goals.



Ontario Ministry of the Environment, Conservation and Parks, and Ontario Environmental Commissioner's Office

Because an election and change in government occurred partway through the investigation, some political context is necessary. In June 2018, the Ontario Liberals were defeated by the Ontario Progressive Conservatives led by current Premier Doug Ford. Premier Ford has made significant changes to environmental policy and regulation. Two changes are of relevance to the issues discussed in this brief:

- 1) What was known as the Ontario Ministry of Environment and Climate Change became the Ministry of Environment, Conservation and Parks immediately following the election. The name change, and accompanying shift in mandate, occurred partway through the data collection period (March 1st 2016 – April 1st, 2019).
- 2) As of March 31st, 2019, the Ford government dissolved the Ontario ECO, transferring some aspects of the office's mandate to the Office of the Auditor General (OAG) of Ontario (e.g., reporting on the operation of the *Environmental Bill of Rights*) and others to the Ministry of the Environment, Conservation and Parks (e.g., public education). The Ontario ECO account, @Ont_ECO, posted its last tweet on April 1st, 2019, indicating the account was no longer in use.

Government Social Media Use

One investigation of social media use among government actors found that senior leaders in Ontario's public service lagged behind their constituents in social media familiarity, and continued to employ methods of engagement better suited to earlier incarnations of internet media, which were more passive and unidirectional (Bermonte, 2011). In an investigation of government use of Twitter, Waters and Williams (2011) found that despite the platform's interactive capacity, government agencies mostly limited themselves to one-way communications intended to inform and educate constituents. Whereas laypersons, advocacy groups, environmental non-governmental organizations (ENGOS) and other civil society members are able to engage in relatively unencumbered social media discussions, governments face unique constraints imposed by laws, regulations, and policies concerning transparency and accountability to constituents, democratic traditions, and long-held norms dictating state communication practices. This discrepancy in ability to harness the fastest-growing and foremost communication medium places government departments at a great disadvantage compared to their nonstate peers in terms of participation in issue discussions.

Selected government departments, however, are afforded more leeway than others. In Ontario, arms-length government watchdog agencies, such as the OAG and ECO—by the very nature of their establishment—are able to take greater liberties in their communications with the public. While the MOECP must adhere to the Ontario government-wide internal social media use policy (Government of Ontario, 2019). ECO is not beholden to this external policy or any other (ECO personnel, personal communication, September 9th, 2019).



MOECP and ECO Tweets By the Numbers

As of 2019, the MOECP account had 27 599 followers, while the ECO account had 6658. The accounts' Twitter traffic (summarized below) was seen to reflect this discrepancy in followers. Over the 3-year period during which tweets from both accounts were collected, the MOECP tweeted a total of 1067 original tweets, a figure that includes quote tweets but not retweets. Of these 1067 original tweets, 12.3% reflected water or water issues. This 12.3% can be further broken down into the following subcategories: water-general (0.8%), water pollution (45.8%), water quality¹ (42%), and watershed management (10.7%).

The ECO account tweeted 624 original tweets, a number that also excludes retweets. Of these 624 original tweets, 11.9% reflected water or water issues. This 11.9% can be further broken down into the following subcategories: water pollution (63.5%), water quality (13.5%), and watershed management (23%).

On average, MOECP tweets received 16.67 likes and 12.79 retweets, while the average ECO tweet received 7.4 likes and 6.81 retweets. The MOECP account was found to be more active than the ECO account over the period of interest, tweeting at an average rate of 0.95 tweets/day, whereas the average tweet rate of the ECO account was 0.65 tweets/day.

A recent Twitter conversation² involving laypersons and civil society groups addressing Nestle Water's lawful extraction of Ontario freshwater resources offers some useful context for these figures. The conversation contained tweets netting up to 13 000 likes and 1700 retweets. Although both accounts have also engaged with the issue of water extraction to varying degrees, by comparison, the @On_environment and @Ont_ECO tweets have a much smaller viewership.

ECO and MOECP Twitter Engagement

The ECO account tweets broadly align with their watchdog mandate, in the sense that a proportion of them (approximately 13% of total tweets over a 3-year period—see Figure 2) offer a critical perspective on government environmental decisions. Taking this information at face value, one might infer that the ECO is better equipped than the MOECP to meaningfully engage in social media interactions. However, the weight of this observation may be undermined by the account's consistently poor tweet metrics.

Both the ECO and MOECP Twitter accounts demonstrated very low rates of engagement with other Twitter accounts— particularly with accounts belonging to individual citizens, as opposed to other government departments and organizations. Both accounts very rarely responded to replies to their tweets from other user accounts, and those replies most often responded directly to the accounts' own tweets (e.g., to provide additional context or information than the strict Twitter character limit permits using a "thread" of tweets).

¹ The "water pollution" category describes tweets that emphasize a water pollution source or particular water pollutant, whereas the "water quality" category describes water cleanliness more broadly.

² The conversation can be viewed here: <https://twitter.com/Nestle/status/1062643117747253249>



Responses to semi-structured interviews conducted with former ECO personnel suggested that the office felt bound to government norms and traditions, in spite of being granted a “longer leash” than more typical government departments (ECO personnel, personal communication, September 9th, 2019). Interviews conducted with former ECO employees suggest that the department erred on the side of refraining from engaging with “trolls” and conspiracy theorists, in addition to those espousing partisan opinions or spreading misinformation. The organization’s participation in social media discussions was also limited by more practical considerations. For example, interview subjects identified the ECO’s strict adherence to the 9-5 work day as another constraint that was seen to restrict government departments’ social media use (ECO personnel, personal communication, September 9th, 2019). While civil society and private sector members increasingly adopt flexible hours and impose heightened expectations regarding their employees’ availability outside of the traditional work schedule, state agencies continue to adhere to more traditional conceptualizations of working hours. Twitter moves from one hot-button issue to the next at breakneck speed; waiting 12 or 24 to respond to a complaint or participate in a discussion, agencies run the risk of losing the opportunity for meaningful engagement.

Twitter Use for Regulatory Governance Activity

Figures 1 and 2 categorize the MOECP and ECO tweets according to purpose, illustrating the relative proportion of each kind of tweet. For the purposes of this brief, we are interested only in those which served a (direct or indirect) regulatory governance purpose. Tweets from the MOECP account that fall into the category regulatory activity can be generally divided into three categories: 1) individualistic behavioural guidance or personal exhortation targeted at citizens rather than industry members or government departments (e.g., “Did you know you can help protect the Great Lakes by cleaning with phosphate-free products? A simple water and vinegar mix is an eco-friendly way to do your spring cleaning!”); 2) announcements of regulatory implementation (e.g., “Espanola Pulp and Paper Company fined \$50,000 for Environmental Protection Act (EPA) Violation #CourtBulletin”); and 3) MOECP responses to potential regulatory violations occurring in real time (e.g., “Thank you, the ministry’s Spills Action Centre was made aware of the issue and the municipality and conservation authority were notified. [response to tweet: “@ONenvironment @ChathamDailyNew Styrofoam residue reported by Chatham, ON resident in Thames River! From nearby construction site!”]).

The first category is considered a form of regulatory activity because by broadcasting in the public sphere the behavioural failings of a particular actor, the MOECP signals to other industry members that their compliance with water regulatory standards is being monitored.

In fulfillment of their watchdog mandate, ECO account tweets were seen to be openly critical of Ontario government decisions concerning the implementation of water use and water quality regulation (e.g. “Yesterday, @Ont_ECO discussed the findings of the recent report, Back to Basics, demonstrating how provincial regulations and enforcement are permitting large amounts of #pollution to flow into Ontario's #water.



<https://www.watercanada.net/regulatory-failures-permit-water-pollution-increase-economic-burden/>). This category of tweet represented direct indictment of government regulation of water quality and quantity. In several cases, ECO account tweets did include phrasing that may have been intended to provoke outrage from users (e.g., “Ontario 'chose to allow' poisoning of 2 northern First Nations, environmental watchdog says in report”, and “Over 500 trillion L/water can be used annually by industries & businesses in ON - they pay little for the privilege”). However, use this kind of phrasing did not appear to impact tweet metrics.

Neither of the accounts made direct use of emotive content to forward regulatory governance goals; the ECO account in particular was consistently phlegmatic, with none of the tweets collected during the period of interest employing humorous devices. The MOECP account did use some humour in 11% of their original tweets (though with limited success, as suggested by tweet metrics). Aside from the fraction of humorous tweets, the tone of the MOECP was measured and professional. Neither of the accounts directly employed outrage³ as a device for emphasizing their tweet message or to garner attention.

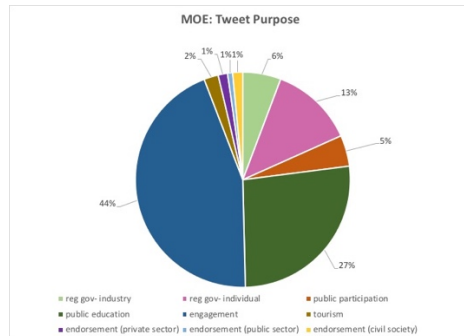


Figure 1. Breakdown of MOECP tweets according to purpose over the period of March 2016 – April 2019.

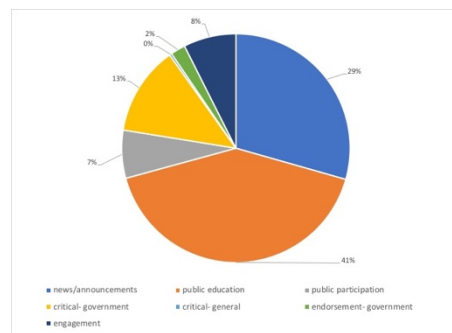


Figure 2. Breakdown of ECO tweets according to purpose over the period of March 2016 – April 2019.

³ Crockett (2017) writes about the potential for digital media to promote moral outrage by “magnifying its triggers, reducing its personal costs and amplifying its personal benefits” (p. 771). Examples of tweet characteristics indicative of outrage include “angry” emojis, use of capital letters, and use of expletives, aggression, and derogatory, threatening or strong language.



The Social Media Regulatory Governance Pyramid

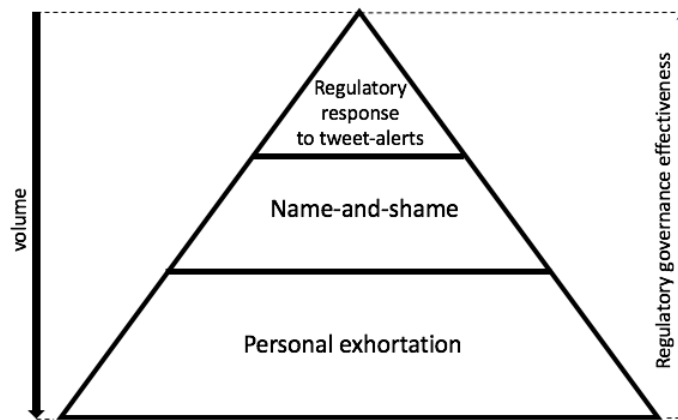


Figure 3. Social media regulatory governance pyramid.

Figure 3 illustrates the three kinds of regulatory governance activity that were observed in this investigation. The “personal exhortation” base of the pyramid (tweets coded as “reg gov-individual in Figure 1) refers to content falling into the category Foucault termed “responsibilization” (Shirky, 2011), which refers to directives aimed at changing behaviour at the individual level. This category occupies the pyramid base because it was seen to be the most common type of regulatory governance activity included in the MOECP tweets. It is also widely considered to be the least effective “soft” regulatory governance method, because individuals tend not change their behaviour unless compelled by law or facing immediate and/or significant consequences (Jacquet, 2015). The middle pyramid category, “name-and-shame”, describes tweet content that shames poor behaviour of industry members in the case of the MOECP, or the regulatory failure of government, in the case of the ECO. Jacquet argues that in the free market, name-and-shame tactics are considerably more effective at changing industry behaviour than boycotts. By broadcasting in the public sphere the behavioural shortcomings of a particular actor, the MOECP signals to other industry members that they will be held accountable. The tip of the pyramid represents what is potentially the most beneficial use of social media by the MOECP. Unlike the latter two categories, its goals are modest and typically address localized potential regulatory infractions that the MOECP may have overlooked. It does not require any modifications to the provincial government’s current social media use policy; nor does it depend on the presence of a sizable audience (as do the “personal exhortation” and “name-and-shame OR endorse” categories). This kind of Twitter regulatory governance activity acts a check-and-balance on government implementation of their own water quality standards and related regulations.



Recommendations

1. *MOECP Twitter use.* Some kinds of water regulatory failure are conspicuous, and as a result, can be easily reported by average citizens with little-to-no additional training. This review of 3 years of MOECP tweets uncovered examples of citizens tweeting at the ministry account to alert them to algal blooms in the Great Lakes, poor ecosystem health, and suspected illegal discharge to local water bodies. While this kind of approach may not work for more complex environmental issues (e.g., climate policy implementation), Twitter offers a potentially useful avenue for alerting the MOECP to local water quality issues and water regulatory failure.

It is recommended that the MOECP embrace this use of social media regulatory implementation that has emerged organically from concerned citizens. The MOECP could accomplish this by extending an official invitation to citizens encouraging them to alert the ministry to potential water regulatory issues by tweeting at the official account.

2. *AGO Twitter use.* With the ECO being absorbed by the Office of the Auditor General of Ontario, there is no longer a Twitter account serving exclusively as a government watchdog presence on the province of Ontario. The Ontario AGO Twitter account (@OntarioAuditor) appears to be substantially less active than that of the ECO; the account has only tweeted 5 times over the last six month-period. The account's tweets have not yet incorporated the office's new environmental mandate into their Twitter content. Similar to the former ECO office, the AGO is not required to adhere to provincial department social media use standards.

It is recommended that the AGO interact more directly with the MOECP Twitter account and other government accounts (e.g., by using quote tweets, rather than referring to the ministries in a less direct manner). Direct confrontation (i.e., "callout culture") tends to provoke a greater response from Twitter users. The AGO may also determine that the use of stronger language may be necessary to improve their Twitter metrics—and, by extension, their tweet audience, which will be amplified by improved metrics.



Conclusion

Twitter represents a potentially useful platform for citizen monitoring of water quality and related issues in a manner that holds the MOECP accountable in the public eye. Citizens invested in their health and communities are in a position to conduct informal monitoring of water issues, using social media a first-level alert to potential threats to water quality and ecosystem health. This use of Twitter may also potentially increase the MOECP social media traffic while enabling them to uphold longstanding norms concerning government transparency and accountability.

Not being limited by the same restrictive social media policies that impede government agencies' ability to harness social media effectively, arm's length government watchdog agencies like the now-defunct ECO and the Office of the Auditor General (which has taken over many of the duties formerly delegated to the ECO) are in a position to adopt a similar voice in their social media use that their ENGO watchdog counterparts are rewarded for using (i.e., with better tweet metrics). Considering the significantly greater social media response that ENGOs and laypersons garner when tweeting about many of the same water issues as the ECO did (e.g., Twitter criticism of Nestle's Ontario water extraction practices described on page 4), government watchdog agencies may benefit from following suit.



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