Social Media in
Wildfire Management Agency Communications

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Goal

To examine the effectiveness of social media as a communication tool for wildland fire management agencies.

Introduction

Communicating with the public and stakeholders is a key responsibility for wildfire management agencies. Agencies use several approaches in their communications including unidirectional printed material (e.g., brochures) and interactive methods (e.g., field trips with agency staff).

Increased accessibility to the *World Wide Web* and innovations in technology around the interactive web (Web2.0 technologies such as social media) are providing people with the means to interact globally in real time. In keeping with these changes, some wildfire agencies are adopting new information and communication technologies as part of their communications. Although there is considerable literature on conventional wildfire communications, we found no studies that examine the use of social media in wildfire agency communications. This study begins to address that gap by examining agencies' use of social media in communicating with the public.
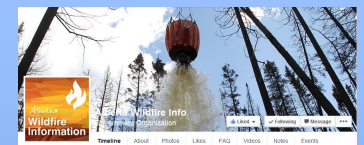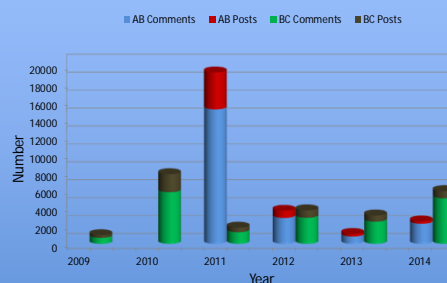
Methods

We created a social media database using Facebook™ and Twitter™ sites from Alberta and British Columbia wildfire management agencies for the years 2009 to 2014, inclusive. NVivo™ 10 software was used to import data and assist in data analysis. We will provide a descriptive analysis of use for each site and conduct a content analysis to identify key themes. We will apply Steelman and McCaffrey's (2013) framework of effective communication for natural hazards to examine the effectiveness of social media before and during wildfire events. Key attributes of the framework include interactive processes; understanding local social context; providing honest, timely, accurate and reliable information; using credible sources; and communicating before and during a wildfire.

Preliminary Findings

Agency postings provide educational information (e.g., fire prevention, FireSmart™, fire fighting); information on regulations (e.g., fire bans), fire activity (e.g., fire status, smoke reports) and operational activities (e.g., fire fighter training, equipment); and respond to enquiries posted by the public. The sites also provide a forum for the public to provide information on local conditions.

Number of Facebook postings and comments by year

- A total of 10,654 postings and 39,118 comments were posted on BC and AB Facebook pages from 2009 – 2014.

- The most activity occurred on the AB site during 2011. About 67% of the postings and 73% of the comments occurred during the week following the fires that affected Slave Lake and nearby communities.

Social media can be a valuable tool for agencies and the public during a wildfire event. In 2011, the Flat Top Complex fires in Alberta destroyed about 400 homes, several businesses, and a government centre and resulted in the evacuation of about 10,000 people for 2 weeks. On May 15, the day fire entered the Town of Slave Lake, there were 3,355 postings & comments on the AB Wildfire Management Facebook site. While the agency provided as much information as possible, many residents posted information on road closures, evacuations and progress of the fires. This "backchannel" communication provided real time, local information, serving as an information source for both residents and the agency.

Next Steps

Continue data analysis with a focus on identifying indicators for the key attributes of Steelman and McCaffrey's (2013) framework of effective communication. Communicate findings to wildfire management agencies and publish results.

Reference: Steelman, T.A. and McCaffrey, S. (2013). Best practices in risk and crisis communication: Implications for natural hazards management. *Natural Hazards 65*, 683—705. DOI:10.1007/s11069-012-0386-z.

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