SOCIAL MEDIA STRATEGY AND EFFECTIVENESS

W. Bohon¹, B. Bartel², J. Ballmann³

ABSTRACT

Social media is playing an ever-increasing role in education and information dissemination due to its broad and ubiquitous reach, low overhead costs and versatility. Science and engineering organizations that don’t have a social media presence are missing out on the opportunity to connect with the public, partner organizations, government officials, emergency responders and the media, as well as to prove the broader impacts and efficacy of their programs. Additionally, to fully capitalize on the potential and capabilities of social media, organizations must create an effective social media strategy that clearly outlines their audience, goals, messaging, content and growth objectives. It is also imperative that organizations perform a regular, rigorous evaluation of social media platform performance and that they utilize this information to improve online performance and engagement. Here, we will outline the steps needed to establish a rigorous social media presence and examine the key elements needed to compose a robust social media strategy. This approach has already been successfully used by a variety of programs and organizations to improve their online communications, increase reach and engagement with the public and partner organizations, and provide quantitative metrics about broader impacts.

¹Informal Education Specialist, Incorporated Research Institutions for Seismology (IRIS), Washington DC, 20005 (email: bohon@iris.edu)
²Outreach Specialist, UNAVCO, Boulder, CO, 80301.
³Communications Manager, Southern California Earthquake Center (SCEC), Los Angeles, CA, 90089.

Social Media Strategy and Effectiveness

W. Bohon¹, B. Bartel², J. Ballmann³

ABSTRACT

Social media is playing an ever-increasing role in education and information dissemination due to its broad and ubiquitous reach, low overhead costs and versatility. Science and engineering organizations that don’t have a social media presence are missing out on the opportunity to connect with the public, partner organizations, government officials, emergency responders and the media, as well as to prove the broader impacts and efficacy of their programs. Additionally, to fully capitalize on the potential and capabilities of social media, organizations must create an effective social media strategy that clearly outlines their audience, goals, messaging, content and growth objectives. It is also imperative that organizations perform a regular, rigorous evaluation of social media platform performance and that they utilize this information to improve online performance and engagement. Here, we will outline the steps needed to establish a rigorous social media presence and examine the key elements needed to compose a robust social media strategy. This approach has already been successfully used by a variety of programs and organizations to improve their online communications, increase reach and engagement with the public and partner organizations, and provide quantitative metrics about broader impacts.

Introduction

There are currently ~3.8 billion people in the world and 2.6 billion of these are active social media users (https://wearesocial.com/special-reports/digital-in-2017-global-overview). This potential reach makes social media a powerful tool for science engagement, communication and education and is already being utilized by the media, governments, science organizations and individual scientists. Social media channels are also effective ways to disseminate critical information before, during and after disasters; they can be used to help prepare communities before disaster strikes and to help them recover afterwards [1]. Therefore, it’s particularly important for organizations that deal with the science and effects of hazards (like earthquakes) to have an established and trusted social media presence before a damaging event occurs. However, in order to fully harness the communication potential of social media it is vital to create a social media strategy that will guide implementation efforts in order to meet social media goals.

¹Informal Education Specialist, Incorporated Research Institutions for Seismology (IRIS), Washington DC, 20005 (email: bohon@iris.edu)
²Outreach Specialist, UNAVCO, Boulder, CO, 80301.
³Communications Manager, Southern California Earthquake Center (SCEC), Los Angeles, CA, 90089.

Theoretical Framework

Social media research draws from many different fields of study, including psychology, marketing and sociology. The work of Peters et al., 2013 [2] outlines a particularly compelling framework for understanding the organic nature of social media by utilizing ideas from social learning theory [3]. In this framework, input from the social media manager “feeds” the social media organism, which consists of 4 basic factors; audience motivation (social, cultural, intellectual), content (quality, valence, volume), network structure (size, connections, distributions, segmentation) and interaction (expressing, sharing, networking). The interplay of these factors determines the social media outcomes, which are measured using metrics. The metric analysis is then used to iteratively inform social media inputs to achieve the desired objectives.

Practical Application

A theoretical understanding of the factors influencing social media outcomes is important for framing the problem, but a workable, practical approach to beginning or improving a social media program is invaluable for facilitating action. Thus, we provide a practical application guide for how to begin or improve a social media program. This guide consists of six individual components that need to be considered: objectives, audience, content, posting, engagement and evaluation.

Objective  Define the purpose for having a social media program. Determine the overarching goals and how these goals will meet larger organizational objectives. Decide how this will fit in with other education and outreach goals and objectives.

Audience  The intended audience will determine not only the content type and learning level but also the choice of social media platform, as different platforms appeal to different demographics. Consider the knowledge base of the intended audience to ensure that the appropriate level of content is created or shared. Additionally, consider any special groups that could be targeted.

Content  Content is what is disseminated via social media channels. Content can be created “from scratch” and/or current educational and research products can be modified for use on social media. Additionally, share content from other sources and partner organizations; this will help to leverage and disseminate quality information as well as build partnerships. Always be certain to vet any shared content for accuracy and appropriateness. Vary the types of media: video, pictures, links and texts.

Posting  Outline a strategy for when to post content. Certain times of day have more online traffic and thus content is more likely to be viewed. Decide how often to post; it is possible to post too much and too little. The amount of content posted will be dictated in part by the amount of content that is available, as well as the amount of amount of posting deemed ideal by metrics evaluations and surveys.

Engagement  This is the “social” part of social media. Regularly engage with your audience and
the online community. Answer questions and reply to comments on posts in a timely way and be aware that the expected response time will vary by platform. Like, share and comment on posts from other groups and organizations. Also, consider ways to build community engagement.

**Evaluation** Evaluation is a vital part of any successful social media strategy and is critical for providing a quantitative assessment of effectiveness. Many social media platforms provide free online metrics; important metrics to follow and evaluate include (but are not limited to) number of followers, growth rate, engagement, and engagement rate. It can also be helpful to evaluate follower location and demographics, post type popularity and the effectiveness of different post times. Additionally, periodic surveys of the online community can further inform social media efforts and provide feedback on specific questions and methods.

**Conclusion and Examples**

Social media has become an integral part of science communication. However, in order to be most effective, scientists and organizations interested in capitalizing on the potential reach and impact of social media should first create a social media strategy to inform their efforts. This will help clarify the process and objectives of the social media program and guide their overall social media efforts. Additionally, rigorous metrics evaluation provides quantitative data that can be used to show programmatic broader impacts as well the effectiveness of the overall social media program.

For example, the multi-organization GeoHazards Messaging Collaboratory (GMC) formed in 2016 to leverage resources and amplify geohazards messaging, including on social media. While each organization has separate social media channels and strategies, we have a joint strategy focused on social media events where we can reach a large public audience through joint messaging. These events have included a Reddit AMA (Ask Me Anything) on earthquake and tsunami hazards and multiple TweetChats on Twitter. Both channels enabled two-way interaction between the public and science communicators on issues of hazards science and preparedness. Analytics indicated 3,500 clicks on the submitted questions and answers for the AMA, with a calculated reach of 4.78 million. TweetChats for the Great ShakeOut Earthquake Drills and the Cascadia Rising exercise reached an audience of 5.2 million and 3 million, respectively.

**References**