Social Media 101

(Led by Tristan MacLean, PhD, and Farah Qaiser, MSc)

PermafrostNet
NSERC | CRSNG

Module Overview

- Key features of social media platforms
- Strategies for using social media to communicate research
- Benefits and challenges of social media

Module Summary

- There are many social media platforms to pick from, and each one has different advantages for accomplishing your science communications goals.
- Using social media as a tool to communicate research has many benefits, including increasing citation rates, engaging a broader audience, and finding new potential collaborations and opportunities.
- While social media can be a great tool, there are still some challenges and barriers to navigate, such as committing enough time to manage the accounts, breaking out of echo chambers, and "reading the room" during more sensitive times.

Social Media and Science Communication

Social media is defined as a Web 2.0 application that has user-generated content, where there are networks between user profiles. Unlike static web pages, there is an added element of interactivity. It is important to consider which platform is most suitable for your goals and objectives.

Here are some of the most popular social media channels where scientists can engage with the public. Each platform has its own features, advantages and limitations.

Facebook

- Advantage: Most used social media platform in Canada.
- Features: Posts (text, video, image), Facebook Live, Groups, and Pages.

YouTube & TikTok

- Advantage: Can be an on-camera or off-camera creator and produce dynamic, creative content that can convey concepts quickly.
- Features: Video (short-form for TikTok and long-form for YouTube) and comments.

Instagram

- Advantage: Ideal for sharing visual content. Can be effective for hosting individual scientist accounts which can make science relatable by featuring scientists in photos.
- Features: Posts (images and video with text captions), Instagram Live, Stories, and Reels.

Twitter

- Advantage: Popular platform for the English-speaking science community and journalists.
- Features: Posts (text, video, poll), Twitter Live.

LinkedIn

- Advantage: Good for professional networking and science careers.
- Features: Posts (image, video, poll, document), professional updates, portfolio, stories.

Reddit

- Advantage: A great platform for Q&As, also known as 'Ask Me Anything' (AMA), and discussions.
- Features: Posts (text, images, video) that other users reply to, up and down vote, and give awards.

A Closer Look at Twitter

Twitter is a popular choice for many individuals in the English-speaking science community. Despite its 280-character limit for text posts, users can be creative with how to use Twitter to their advantage.

Each tweet only allows 280 characters. Users have created 'threads' by connecting several tweets together.

By threading tweets together, users have gone on to create tweetorials on different topics, live tweet events, and host chats on Twitter.

There are also rotational Twitter accounts, such as @realscientists or @IAmSciComm, where different users will host for a certain time period.

Purposes and Strategies for Using Social Media

Using social media to share and communicate research can be incredibly beneficial for scientists. There are a number of different strategies scientists can use to increase reach and engagement of their research on social media.

Purposes of Social Media for Scientists:

- Sharing research on social media can increase citation rates and Altmetric scores because it increases the spread and distribution of your work.
  - Example: @oceanseaicenpi on Instagram found that their average Altmetric score was 24.3 when they shared research findings on social media compared to 2.1 when they did not.
- Opportunities for two-way engagement and reaching select audiences or niche groups.
- Making science and daily workings of scientific research more accessible, open, and relevant to the public and decision-makers.
- Communicate and collaborate with peers, scientific institutions and organizations, and the media.
- Follow and interact with other delegates at conferences and events.

Choosing your social media platform

Consider the following factors when selecting the social media platform to communicate the research.

1. The communication goals (e.g., What is the purpose? Who do you want to reach?).
2. The level of engagement and resources for engagement.
3. The topic of interest and type of information format.
4. The platform layout and design, including two-way engagement features.

Social Media Engagement and Growth

Social media changes and adapts rapidly. While it can get overwhelming with all the trends and hashtags, understanding social media analytics can help you figure out when is the best time to engage with your audience and post content.

Here are some tips on how to get started:

- Take the time to go through the social media analytics available on the platform.
- Post when your followers are most active based on social media analytics.
- Being consistent with posting is more important than inconsistent large volumes of posting.

Other Factors that Affect Social Media Strategy

- Different platforms have their own unique search engine algorithms.
- User demographic and level of openness of platform content.
- Platform layout and site design can affect user interactivity.
- Social and informational context cues, such as recommended articles, comments, and shares, can affect reach.

Other Good Rules of Thumb for Social Media

- Have a complete profile with your full name, a photo, and degrees.
- Include a short biography, such as your research field, affiliation (if allowed), pronouns (if comfortable), and clarify that your views are your own.
- Use hashtags and tag relevant people and organizational accounts to amplify your content.
- Using images, emojis, GIFs, and videos will increase engagement.
- Keep accessibility in mind—create alt captions for posts and caption your videos.
- Show your personality and that you're human so that people connect with you.
- **If you're managing an organization's social media accounts,** consider tone and following the organization's guideline, if there is one, and remain on brand.
    - Example 1: Ottawa Public Health has a humourous, empathetic, and informative tone when discussing public health issues.
    - Example 2: NSERC Permafrost has a formal tone, sharing announcements, the latest publications and event details.

Benefits and Challenges of Social Media

Social media can be a great tool to share information and mobilize people, but it has its own barriers that can impede effective communications. Rather than be discouraged by the challenges of social media, it is important to acknowledge them and figure out strategic solutions.

Benefits of Social Media

- Share your research and perspective with a broader audience.
- Attract potential collaborators.
- Stay connected with people you've worked within the past.
- Find new opportunities.
- Meet new people and network virtually.
- Learn from others and have fun.

Challenges of Social Media

- Know your comfort zone and how much you're comfortable sharing.
- Creating quality content is time-consuming.
- Navigating algorithms and echo chambers that do not receive new information.
- People only share their highlights, so it can be discouraging at times.
- Read the room—be aware of current events and trends before posting.
- Managing and countering misinformation can be difficult, and there is a chance you may also get called out. Mistakes happen.

Here are some guides from other institutions on using social media for science communication:

- Social Media Strategies for Research by Research Impact Canada
- Share and Advocate for Science by American Geophysical Union's Guide
- Social Media for Researchers by National Coordinating Centre of Public Engagement
- Handbook of Social Media for Researchers and Supervisors by Vitae Innovate, Open University
- Social Media for Research by Newcastle University
- Communicating Your Research with Social Media: A Practical Guide to Using Blogs, Podcasts, Data Visualisations and Video by Mollett et al.
- Using Twitter in university research, teaching and impact activities by Mollett, Moran, & Dunleavy (2011)
- Why is social media important to researchers by Center for Advanced Self-Powered Systems of Integrated Sensors and Technologies (ASSIST)

Additional Reading(s):

- The State of Social Media in Canada 2017 by Ryerson Social Media Lab
- The State of Social Media in Canada 2020 by Ryerson Social Media Lab
- How Are Scientists Using Social Media in the Workplace? by Collins, Shiffman, & Rock (2016)
- Using selfies to challenge public stereotypes of scientists by Jarreau et al. (2019)
- Saw It on Facebook: The Role of Social Media in Facilitating Science Issue Awareness by Mueller-Herbst et al. (2020)
- The role of Twitter in the life cycle of a scientific publication by Darling et al. (2013)
- Scientific networks on Twitter: Analyzing scientists' interactions in the climate change debate by Walter, Lörcher, & Brüggemann (2019)
- How Do Young Adults Engage With Science and Research on Social Media? Some Preliminary Findings and an Agenda for Future Research by Hargittai, Füchslin, & Schäfer (2018)
- Does Your Lab Use Social Media?: Sharing Three Years of Experience in Science Communication by Pavlov et al. (2018)
- Toxic talk: How online incivility can undermine the perceptions of media by Anderson et al. (2018)
- Social media, Science, and Attack Discourse: How Twitter Discussions of Climate Change Use Sarcasm and Incivility by Anderson & Huntington (2017)*
- The use of social media and its impact for research by Rogers (2019)
- Social media for scientists by Nature Cell Biology (2018)
- Scientists on Twitter: Preaching to the choir or singing from the rooftops? by Côté & Darling (2018)
- Social media and the 21st-century scholar: How you can harness social media to amplify your career by Chan et al. (2017)

- Science in the Social Media Age: Profiles of Science Blog Readers by Jarreau & Porter (2017)*
- How Are Scientists Using Social Media in the Workplace? by Collins, Shiffman, & Rock (2016)
- Polarized frames on "climate change" and "global warming" across countries and states: Evidence from Twitter big data by Jang & Hart (2015)*
- Network analysis reveals open forums and echo chambers in social media discussions of climate change by Hywel et al. (2015)
- Fostering public trust in science: The role of social media by Huber et al. (2019)
- Public communication of science 2.0 by Peters et al. (2014)
- Science engagement and social media by Howell & Brossard (2019)*
- Engagement present and future: Graduate student and faculty perceptions of social media and the role of the public in science engagement by Howell et al. (2019)*

* This is a paywalled article. There are ways to obtain paywalled articles, such as contacting the paper authors. Here are some other ways to obtain paywalled articles.

Content and Storyboards: Ki-Youn Kim, MSComm ◉ **Graphic Design:** Krista Leroux ◉ **Editing:** Tristan MacLean, PhD