

Social Media for Acoustics Professionals

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Introduction

Social media has begun to play a large enough role in our everyday lives that readers will probably have an opinion about its use. Although we realize that not all members of the Acoustical Society of America (ASA) use social media, we want to encourage everyone to consider its use for promoting acoustics research. The use of social media has grown in the Society since the first *Acoustics Today* article promoting its use (Farrell and Jones, 2017). Many of the benefits predicted by this first article are beginning to be realized by a small community of members, with many examples produced by the active participation of members of the Animal Bioacoustics Technical Committee. Society members use social media to promote and enhance research, teaching, and work programs in ways that are interesting, and we use examples to demonstrate some successes, with the hope of encouraging more participation.

In a world where we are constantly online, it is easy to just say “Is this worth doing? I mean, who has time for this?” However, although social media interactions may seem trivial, this engagement increases the camaraderie among researchers, especially in far-flung institutions, and increases the visibility of acoustics to the larger public. Increasingly, social media engagement provides a proxy for the interactions in scientific workplaces and conferences, providing a more continual engagement of a broader and more inclusive audience (Foell, 2021). Social media is emerging as an effective tool for promoting published content, answering acoustics questions, and conducting scientific outreach.

Acoustical Society of America Online Presence

The acoustical community has already begun to participate in social media. By far, the largest online community in acoustics is on Twitter (see twitter.com). The ASA has an active account on Twitter (@acousticsorg) with over 6,100 followers. Many of ASA's publications have Twitter

accounts. *The Journal of the Acoustical Society of America* (JASA), *The Journal of the Acoustical Society of America Express Letters* (JASA-EL), and *Proceedings on Meetings on Acoustics* (POMA) are all well followed. In addition to its Twitter presence, the ASA has a public group on Facebook, with over 2,400 members, as well as a presence on LinkedIn and YouTube.

The simplest way to begin a new Twitter community is to build on lists of users interested in acoustics. A few examples of Twitter lists include a bioacoustics list (see tinyurl.com/4uhx5486), an applied acoustics list (see tinyurl.com/mpcjt46h), a list of acousticians (see twitter.com/i/lists/199306046), and another list of people and organizations who use acoustics in their work (see twitter.com/i/lists/195934686).

Utility of Social Media

The distinct formats of each social media platform help make scientific research accessible to broad audiences following different proven communication patterns. Twitter, LinkedIn, and Facebook promote short posts that allow sharing of multimedia, such as videos, web page links, and written text. Comments on these posts then create an open conversation, allowing fellow scientists and the public to participate in the conversation.

For example, the JASA, JASA-EL, and POMA accounts of the ASA tweet links to recently published journal articles daily, introducing new work to potential readers. Author participation magnifies the impact of these posts, which can be by either retweeting the ASA tweet with their own message or beginning another a new conversation. Such promotion creates additional opportunities for authors to provide plain language descriptions of their work, overview their methodology, discuss why their research is exciting, and even offer self-critique (Holmes, 2021). Persistence and repetition also play a key role in increasing the wider visibility of publication posts. One recommendation



Figure 1. The Christmas day “hot chocolate effect” tweet from the Acoustical Society of America (ASA) that had a high amount of engagement between the public and ASA members.

is to post a link to a recent publication four times in two weeks after publication (Springer Nature, 2022). The ASA accounts practice repetition posting the same article multiple times over a few months. In the authors’ experience, each repost of an article generates a larger number of responses.

Promoting Research

Another social media initiative of the ASA promotes popular acoustics articles at relevant times throughout the year. One of the most engaging ASA social media posts from the past year was on Christmas Day 2021 when the Society posted on Twitter a link to a lay-language paper regarding the “hot chocolate effect” from the 143rd ASA meeting (see tinyurl.com/53ypbz94) (Figure 1). A few people posted questions about the acoustics described in the paper, and there was a cheerful discussion about it among ASA members.

Finding Answers

In addition to increasing the impact of acoustic publications, social media is a practical way to quickly find answers to specific acoustic questions. Many ASA members are used to searching the articles of the Society publications, but simply asking the acoustic community a question can be faster for when a web search does not turn up a quick answer.

For example, these authors discussed possibly increasing public involvement in acoustics by creating an app that measures and reports on the sound levels of public spaces. We later came across such an app, SoundPrint (see soundprint.co), discussed in ASA YouTube videos and Twitter posts. This shows both the remarkable breadth of acoustic information that exists across the ASA websites and social media accounts and the challenges of finding relevant information. The same information could have been found by asking a question that included the hashtag #acoustics and the ASA with @acousticsorg, which would have the additional effect of revitalizing a past discussion to the interest of a wider audience.

Resources for Specialized Problems

The acoustics Twitter community is active and helpful, making it a good resource for specialized problems. One author was working on an acoustic calculation in a new programming language and tweeted about having difficulty. Another member of the Society sent a script to perform the calculation, which led to the quick identification of syntax errors and a rapid completion of the project.

Similarly, many researchers already use social media to find answers to specialized questions, often visiting question-and-answer forums, such as Stack Exchange (see stackexchange.com) and Reddit (see reddit.com), linked from web searches. These solutions can be both technical and detailed and point to journal articles for complete method descriptions. Reddit already has several active acoustics forums such as r/Acoustics and r/bioacoustics, which feature numerous posts from ASA members that reference ASA publications. Stack Exchange, often more visible in web search results, has a rigorous process for creating specific forums of discussion. The bioacoustics community has recently begun to start a Stack Exchange, the first in acoustics, which will give it a distinct and

unified forum for discussion as an alternative to the existing and more general biology, physics, and signal-processing forums. These discussions have the potential to increase the efficiency of designing experiments and processing new experimental data and to enhance the utility of existing publications.

Social Media Usage and Professional Meetings

The use of well-established social media, especially Twitter, is growing in professional meetings, including those of the ASA and the meetings they cosponsor. The organization of social media content, using the same hashtag for a single meeting (#ASA182 for the June 2022 Denver meeting), combines user inputs to help prepare for the meeting, keeps track of topics across concurrent sessions, and monitors the publication of content afterward.

As an example of a premeeting posting to social media, the ASA is encouraging conference authors to make simple, short-looping video overviews (GIFs) of their presentations in the weeks prior to conferences. These GIFs are compiled much closer to the conference than traditional abstracts and allow visual display. The GIF presentation is a simple way to both pique interest of both conference attendees and a public audience. Although often posted to Twitter, the GIF also can be shared on other platforms, such as LinkedIn or Facebook.

During meetings, it is common to see posts about upcoming sessions or special events for the day. These alert attendees about sessions they may have overlooked when reviewing the program. Some attendees will “live-tweet” presentations by providing a short summary of the main points. Reading the brief tweets posted from a session you could not attend allows a person to learn about what they missed. Posts may provide information not included in a title or abstract and may cause a person to reach out to the presenter to learn more.

Finally, social media is an effective way to track the progress of research after a conference. The ASA social media accounts promote both *POMA* articles and popular versions of presentations. The *POMA* account also posts session summary articles, which provide a formatted description of the presentations in special sessions. These posts complement the spontaneity of live-tweet descriptions. Taken together, freely available social media and promoted *POMA* content provide comprehensive and

valuable descriptions of the activities of an ASA meeting. This increases their transparency to a larger audience, including members unable to attend.

Social Media Promotion of Outreach and Diversity Initiatives

Diversity initiatives and outreach between researchers and the broader public are important civic and professional responsibilities, and social media can aid their success. Social media facilitates the promotion of events, the sharing of activities, and engages outside members of the public. For example, the twitter account of @AIP_TEAMUP (Task Force to Elevate African American Representation in Undergraduate Physics & Astronomy; see aip.org/diversity-initiatives/team-up-task-force) from the American Institute of Physics has been successful in sharing webinars, employment opportunities, and the successes of African American researchers on social media because Twitter reaches out to undergraduate physics departments across the nation. Similarly, the ASA promotes the Summer Undergraduate Research or Internship Experience in Acoustics (SURIEA) program (see acousticalsociety.org/suriea) on social media for both recruiting underrepresented students and highlighting their projects. This increases the visibility of the program, promotes the success of the participants, and makes it accessible to a wider range of applicants.

For acousticians who are active in scientific outreach, it is essential to communicate on social media platforms that magnify impacts and create a historical record of events. Successful outreach demonstrations often spark interesting discussions and can inspire other researchers and laypeople to engage in hands-on learning. The ASA has an extensive list of activity plans for K-12 students (see exploresound.org). Integrating these activities into science education and sharing them on social media inspires broader interest in this age group. This use of social media avoids reinventing the wheel, facilitates sharing and building on each other's ideas, and amplifies the original lesson content all at the same time.

Conclusion

Although using social media in scientific communities is a new concept, many fields have already demonstrated its potential. The adaptation of social media by the ASA and its members already has created some clear demonstrations of the utility of social media in acoustics, but

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limited data mean these discussions rely on a personal narrative. A Society-wide demonstration of the utility of social media will require more data generated by more participation. Join up, try it out, and we can explore this new paradigm together.

Note: ASA Publications has recently formed the Engagement Advisory Board to increase the impact of social media postings. The authors of this article are members of that group. Society members interested in participating are invited to email Kat Setzer (katsetzer@acousticalsociety.org).

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