Reaching Reporters, Teachers, and Bosses: Lay Language Papers

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For over 25 years, the Acoustical Society of America (ASA) has used a Public Relations and Media outlet (see <u>www.acoustics.org</u>) to provide access to the latest acoustics research by way of lay language papers (LLPs). The LLP program emerged to provide efficient dissemination of plain-spoken information regarding the field of acoustics to the news media, science writers, and other interested parties. If you have ever presented at an ASA meeting, you may have been approached to write an LLP. But why should anyone submit an LLP? In this essay, I explain what an LLP is, discuss the benefits of writing LLPs, and provide guidance on writing LLPs so that they will be of interest to science reporters and a more lay audience in general.

What Is a Lay Language Paper?

Readers may have heard of *Astrobites* (see <u>astrobites.org</u>), which "disseminate high-quality, jargon-light educational blog posts [...] that explain findings from cutting-edge research for an audience of interested undergraduates and nonscientists." LLPs function in much the same way, but instead of focusing on published research, LLPs are approximately 500-word common speech summaries of research presented at ASA meetings. These "bite-sized" papers are meant to be digested by readers in a few minutes because they might not have the background, time, ability, or access to read entire research articles. This includes reporters, teachers, and even funding decision makers.

A distinguishing factor of LLPs is that the acousticians responsible for the research are also the ones writing the summaries, ensuring that the scientific and technical content is conveyed accurately. For promptness, submissions are only reviewed for clarity and grammar before being posted online, which means that the media has the most rapid access to newly announced and cutting-edge research presented at ASA meetings. Authors can request additional feedback from myself and the Public Relations (PR) Committee and resubmit at their own discretion.

Although every ASA meeting presenter can submit an LLP, the ASA PR Committee collaborates with the American Institute of Physics (AIP) media services to pre-identify meeting abstracts that may garner media attention and invites those authors to write LLPs. These LLPs are typically posted before the meeting and are used, along with press releases written by AIP media services, to promote the meeting. Current and past LLPs are also used to encourage engagement between meetings through social media.

Why Should I Write a Lay Language Paper?

Writing LLPs allows researchers to foster the acoustics community, reach people outside of their fields, and develop science communication skills. Just by writing LLPs, authors contribute to the translation of complex acoustics topics, making the field more approachable to a lay audience. As previously mentioned, LLPs are more likely to gain media attention than more technical material. LLPs can also help interested readers to find journal publications and learn about the ongoing work or research of LLP authors and potentially connect them to funding opportunities. Based on requests for information from the press and even social media interactions, we know that LLPs are well received by internet users and promote further conversation in and beyond the acoustics community.

Another reason to write an LLP is that it can act as a convenient digital space to host multimedia content like audio files, videos, or images that can be referenced in other published work or presentations. For example, in a 2012 article in *The Journal of the Acoustical Society of America* entitled, "The tones of the *kalimba* (African thumb piano)" (see doi.org/10.1121/1.3651090), author

David M. F. Chapman (2012) tells readers to listen to audio examples of the instrument by visiting the LLP he wrote for the 155th ASA Meeting (see <u>ow.ly/lW6V50LpVVl</u>).

How Do I Write a Lay Language Paper?

Authors do not have to be a professionally skilled science writers, but keep in mind that LLPs are not like typical research articles. Unlike research articles, LLPs should start with the most newsworthy information and end with background information. The basic structure of the paper should follow the inverted pyramid of journalism (**Figure 1**) that shows what information should be prioritized from top to bottom. Authors should start with their main takeaway message and then briefly explain how they got there; don't bury the lead because readers might never get there! Another option is to tell a good story with a beginning, middle, and end.

Start by setting up a problem that needs to be solved. Then move on to how it was solved or how solving is being attempted. Finally, end with the lessons learned or insights gained.

Whether an author takes more of an inverted pyramid or story approach, keep the language simple. Many readers will not be familiar with technical terms. LLP titles tend to be shorter and have a more casual tone such as "Saving Lives During Disasters by Using Drones" (see <u>ow.ly/UAuY50KYBwe</u>) that is based on the abstract "Bearing estimation of screams using a volumetric microphone array mounted on a UAV" (see <u>doi.org/10.1121/10.0004448</u>). Authors can avoid field specific-jargon by not overloading the paper with too many scientific concepts. This De-Jargonizer program (see <u>scienceandpublic.com</u>) can provide insights into which words occur in everyday media. For more about the ASA LLP style requirements and even more tips, visit the LLP style guide (see <u>ow.ly/rBbp50LpWgn</u>).

What Do the Experts Say?

Sometimes it is best to hear directly from acoustics science communicators. Check out what these experts have to say when it comes to acoustics lay language writing. Allison Coffin, *Acoustics Today* contributor (see <u>ow.ly/F9Bv50LpZBs</u>), ASA member, associate professor at Washington State University Vancouver, and president of the Association of Science Communicators



Figure 1. The inverted pyramid of journalism structure. The widest part at the top represents the most interesting and important information and should lead the paper while the lower sections show what information should follow in order of importance and decreasing space. Figure by Svetlana Tkachenko, CC BY-SA 4.0, via Wikimedia Commons. Modified.

(see <u>associationofsciencecommunicators.org</u>) wrote in an email:

"Writing for science reporters is different than writing for non-technical lay audiences. The reporter wants to know why the work is potentially important — why will their audience care, and why should they contact you for an interview? For reporters, best to hit the "so what" right away, and even talk about the people who could benefit from your work.

For non-technical readers who are just interested in science, they are often drawn in by a story. For example, if the research is about retrofitting a concert hall to improve the acoustics, take the reader through the experience of being in that concert hall — before, with echoes — and after, with an amazing listening experience as they enjoy their favorite music. Make it real! To me, one of the biggest benefits of writing for nontechnical audiences is that I'm reminded why I do the work. So often as scientists we get lost in the details and forget the bigger picture. I also see it was a public imperative, particularly for research funded on tax money. Finally, it's fun! I can be more creative with my wording. I sometimes wish that we could write all of our papers in a more relaxed style - still accurate, but more story."

As the AIP Press Officer and former sciencewriter for *Scilights* (see <u>aip.scitation.org/journal/sci</u>), Ashley Piccone regularly

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summarizes newly published acoustics research for a broad scientific audience (see <u>ow.ly/nZoB50LpZFn</u>). Via email, Ashley recommended that LLP authors:

"Relate the science to the everyday. Use terms and ideas that would make sense to someone you'd chat with in a bar. And I love using a good analogy to explain a complicated topic!

Focus on what makes your science important and interesting. Is it an important application? A unique technique? An unintuitive result? Emphasize it, and emphasize it early."

And if there is space at the end of an LLP draft or for something longer like an *Acoustics Today* article, Avery Thompson, another science writer for *Scilights* (see <u>ow.ly/8yLQ50LpZMr</u>), said this in an email correspondence about conclusions:

"One of my favorite things about talking with scientists is how passionate they are about their research area. Find the things that excite you the most about your work and share those with your readers. Why did you choose to study this topic in the first place? Why do you feel your research is important? What excites you about the future of your field? What do the results of your research mean for that future? The answers to these questions can provide a great concluding takeaway for readers."

I hope you now understand why the ASA maintains the LLP program and that you are encouraged, empowered, and excited to submit your own paper. If you have or will be presenting at an ASA meeting, visit <u>ow.ly/rBbp50LpWgn</u> to learn more and to submit a LLP!

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