
Reporting Tricks and Communication Tips for Scientists in Government

Thursday, January 28, 2021

Author(s)

Sarah Loftus

This summer I had the exciting opportunity to write environmental science stories for a newspaper as a AAAS Mass Media Fellow. The Mass Media Fellowship pairs early career scientists with newspapers, science magazines, radio stations, and other media organizations around the country. Trying to keep pace in a virtual newsroom taught me some reporting tricks and communication lessons that I think are also useful for scientists working in government.

Lesson 1: Understand your audience

I was placed at the Miami Herald this summer but was working remotely from another state. I've

never lived in Florida, yet I was writing for a Floridian audience. To better understand my readers' world, I listened to the local public radio station, read regional newspapers, and followed South Florida environmental organizations and government agencies on social media. When interviewing experts who lived in South Florida, I asked them how familiar most residents might be with a certain topic. I asked them questions like: Do you see this type of plant in everyday life around the city or parks? Do most people know that there's a task force for the algae bloom issues? My editor was a Florida native and also provided history and context for the environmental issues I was reporting on.

Understanding your audience means considering what your readers care about and what they already know or might want to know about a topic or issue. Consider how the scientific research you're communicating might affect their lives, indirectly or directly.

Your message will need to be tailored for your readers, whether they're policymakers or the general public. One key way to tailor your message is finding a 'hook,' as journalists call it, that will draw and keep someone's attention. For example, when I was brainstorming environmental story ideas, other reporters said that articles related to health and real estate were reliably popular. Using hooks felt like giving in at first, as if the science wasn't important enough to read about for its own sake. But eventually I saw that hooks could help present scientific information in a more relatable way.

Another important consideration is the language you use. Use analogies and make comparisons that your audience is familiar with, based on their geography or culture. Choose terminology that's not too technical for your particular audience, since plain language is the most effective way to communicate.

Lesson 2: Ask the experts

When starting each new story, I felt like I needed to complete an entire literature review before being qualified to write about a topic or issue from a scientific angle. Learning new subjects from scratch while on a deadline was daunting, though exciting.

To become more efficient at background research, I would think through what I needed to learn and write down specific questions to guide me. I eventually learned to set boundaries in my reading and lean on experts for explanations and information that wasn't readily accessible. My questions also kept me from getting too side-tracked by information that was interesting but not relevant.

I found experts through internet searches, authors and references in scientific papers, recommendations from other experts, and services like AAAS's SciLine, which connects journalists with scientists. Partway through my reporting, I would pause and consider if any perspectives or expertise were missing from the story.

It's easy to feel like an imposter when you're learning a new subject. During interviews, I had to get over my fear of 'looking dumb' when asking experts to clarify or explain something. I learned the important skill of rephrasing things in plain language back to the person I was interviewing, which helped check my understanding and make sure nothing was lost in translation.

Science journalists always do background research and find experts to interview. Scientists working in government may also need to communicate scientific concepts outside their immediate area of expertise, in which case they'll need to call on other experts for complete and accurate information.

Lesson 3: Leave out unnecessary details

A scientist I interviewed for a story about this summer's Saharan dust plume told me that scientists distinguish between dust and other particles in the air based on their shapes and sizes. She described how sea salt particles in the air on the coast are round, but dust particles come in all different shapes. I included this tidbit in the story because I thought it was an interesting fact that helped demonstrate how scientists confirm dust is in the air. Looking back, I'm not sure if that level of detail was actually interesting to most people or if it helped hold a reader's attention.

In another article, I decided to delete my description of a Congressional bill that related to the story topic of ocean fish farming. While that proposed legislation may have been interesting to government audiences, for readers of a regional newspaper it was not as relevant.

My editor would strike details too. In a story about airborne toxins from algae blooms, I had described precisely how researchers measured the particles and toxins wafting off a container of algae. I thought the experimental details were interesting and necessary for readers to understand the results, but my editor advised that it was too much. So I made it more succinct.

I heard similar stories from many of the Mass Media Fellows. Just because we thought a specific scientific detail was absolutely fascinating did not mean that our audience agreed or wanted to know it too. When deciding what information to include in any type of science communication, consider what the particular audience needs to know or would find interesting and entertaining.

Lesson 4: Write like you're talking to someone

A couple years before the Mass Media Fellowship, I wrote an article for a science news blog. My first draft contained words and phrases like "necessitate," "we must therefore," and "adequate resolution for differentiation." The editor's first round of comments included statements like: too formal; imagine using this phrase in conversation with an actual person, and I'll hope you'll realize how stiff and awkward it is; this word should never appear in a post like this. One comment in particular stuck with me while writing all my future stories: Talk like a person, meaning, write like you talk.

Those comments crushed me when I first read them, but taught an unforgettable lesson about using plain language that I'm very grateful for. Scientists are in the habit of using academic speak, which involves technical language, passive voice, and formal words. But for an audience of non-experts, writing should be in plain, conversational language.

When replacing technical language with plain language, there's a balance between describing something with complete precision and describing something in an accessible way. For example, when describing phytoplankton and microalgae, I've written that they're "like tiny aquatic plants." They're not technically plants, but a complete explanation of algae taxonomy is not necessary for most audiences.

Writers must also consider how the majority of their audience would interpret the terms they use. For example, this summer I wrote about Florida's sea turtles, which are threatened and endangered species. In the summary description of the article, the editor described the turtles as 'rare species.' I changed it because 'rare species' has its own scientific definition, and sea turtles aren't technically rare species. My editor reminded me that I was writing for nonscientists though, who probably don't read the term 'rare' as its exact ecological definition.

In other cases using precise terms does work for general audiences. In the sea turtles article, I changed an edit that referred to turtles' 'gender,' because I didn't want to use the inaccurate word 'gender' when we really meant 'sex.'

Using technical language, or jargon, sparingly is key. If you do use jargon, explain it. If you aren't sure if something is jargon, it probably is.

Lesson 5: Start with the important stuff

In several articles I wrote this summer, the editor moved quotes or sentences that described the importance or novelty of the story up to the beginning of the article, since I had buried them farther down. I learned to recognize the type of quotes and information that should be at the start of an article to grab the reader's attention.

Scientific papers tend to build evidence and leave conclusions for the end. However, writing for general audiences means conclusions and implications go up top. Readers want to know why they should care and why they should keep reading within a couple paragraphs. Journalists start with an introductory 'lede,' which includes the 'hook,' and then a high-level summary called the 'nutgraf.'

Science journalism and science policy professions both involve crafting a message for a particular audience, synthesizing information from experts, communicating in an engaging way, and describing technical concepts in plain language. Being a science journalist for the summer changed my perspective of how to communicate science to different audiences and what those audiences find interesting, which is still relevant in my role as a Science & Technology Policy Fellow.

Image: Suzy Hazelwood, Pexels

Source URL:

<https://www.aaaspolicyfellowships.org/blog/reporting-tricks-and-communication-tips-scientists-government>

List of links present in page