

Communicating with clarity

It's easy to be discouraged by the apparently grim state of science communication. Politicians and charlatans are promoting conspiracy theories about everything from COVID-19 to climate change. Scientists are ignored by friends and relatives who would rather believe the pseudoscientific claims of a huckster with a podcast. Experts who enter the political and public milieu sometimes find themselves unable to communicate clearly, creating confusion and disdain. In the midst of this angst, Alan Alda has emerged as an unassailable voice of hope and optimism, firm in the belief that better science communication is attainable and can be transformative.

After rising to prominence in the 1970s portraying Captain Benjamin "Hawkeye" Pierce in the iconic television series, *M*A*S*H*, Alda became a continuous presence in television, theater, and movies. In the latter part of his life, he has devoted himself to improving communication of all kinds, especially science communication. For 14 years, he was the host of *Scientific American Frontiers*, a television program that produced interviews with scientists that are still used in classrooms today. In 2009, he founded the Alan Alda Center for Communicating Science at Stony Brook University, which conducts workshops and programs for scientists around the world who want to be better communicators. His podcast, *Clear+Vivid with Alan Alda*, is devoted to "connecting and communicating."

I spoke with Alda recently, and when I asked him if the main problem with scientists is that they are so caught up in the details of what they do that they forget to make connections with the people they're talking to, he encouraged me to think of it more positively: "I would say the details are so exciting, that it's hard not to remember that the details are not as meaningful to the person you're talking to if that person hasn't been at your side while you've been discovering." This optimistic outlook is what has driven Alda to devote his life to the idea that all scientists can and should be better communicators, not just those who are thrust into the public eye.

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That's not to say that Alda is in denial about the challenges that surround this endeavor. "We can't do much about the politics that's hurt science," he acknowledged. "We can't do much about the whirlpool of internet communication that has not only hurt science, but every form of human intercourse....But what we can do is communicate better." Doing so will require empathy, the establishment of personal connections, and remembering that those whom scientists are seeking to communicate with don't always have the same foundational knowledge that they do.

The magic happens when scientists dispense with the "guru on the hill" routines, Alda argues. What was once a lecture can then become a dialogue. "When I did *Scientific American Frontiers*, I felt that the reason the interviews were going so well was because they weren't conventional interviews," he told me. "I didn't come in with a list of questions that I read out. I went in just wanting to understand. And if I didn't understand, I said 'I don't get what you're telling me. Tell me again. Tell me in a different way.'"

We talked a lot about the difficulty of conveying that science is a self-correcting work in progress. Alda agreed this is a critical hurdle. "[Journalists] have to get a story out and they have to make it readable," he argued. "There's a natural tendency to avoid ambiguity. Not just ambiguity, but nuance. Science has to make it clear that it's on a road to truth or it's on a road to understanding, and an express stop along the way isn't the whole thing."

I asked Alda to recount the biggest surprises he's encountered since he started this work. The first was how many scientists were eager for communications training. It took a while to get going, but "now they're knocking at our door," he marveled. Another unexpected outcome was that his work has led to better communication among scientists, not just between scientists and the public. We agreed that these things start at home: Scientists can't expect to get their message across to nonscientists if they can't get it across to each other.

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Science, 377 (6613), • DOI: 10.1126/science.ade8683

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