Advocating and Teaching Science Communication: An interview with Alan Alda



An outspoken believer in the power of "clear and vivid" science communication, AAAS member and actor Alan Alda works widely with scientists to help them better share their explorations and discoveries. Alda's passion for science was ignited while hosting Scientific American Frontiers (on PBS, 1993 to 2005), where he interviewed hundreds of scientists and became an ardent public voice for science.

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Persuaded of the need for researchers to learn how to tell their own stories—not just to scientists or science enthusiasts, but to the general public—he helped to found the Alan Alda Center for Communicating Science at Stony Brook University in 2009. The center "works to enhance understanding of science by helping train the next generation of scientists and health professionals to communicate more effectively with the public, public officials, the media and others outside their own discipline." The faculty includes journalists, science writers, broadcasters, actors and directors—including Alda himself.

Alda spoke with Margo Pierce, writing for AAAS, to explain why science literacy and clear communication are so important to him personally and to the future of scientific collaboration.

AAAS: Why do you believe public science literacy is so important?

Alan Alda, visiting professor at Stony Brook University School of Journalism: What drives us at the center is the desire to help the public understand science as part of their real lives. And to see not only the importance of the science, so that they can make decisions about it as citizens, but also to see it as the source of pleasure and wonder that it is. Science is a gorgeous thing. It's the poetry of nature. We're missing one of the great delights open to us as humans if we don't understand it better.

AAAS: What role do scientists play in making that kind of understanding and poetry possible?

Alda: What I'm trying to do is help scientists speak in their own voices so that their own human qualities get communicated along with the science. Because people, especially the general public, respond to stories about human activity more than they do statistics and data points.

Scientists possess an incredible amount of passion. I've interviewed about 700 scientists and I see passion in all of them, and that passion is attractive and it catches our attention.

It's not only the general public that scientists can communicate better with, it's also policymakers, funders, people in Congress. To a great extent, they're in the same position of needing to hear with more clarity and more vividness than they do now.

The third group [needing clear communication] is other scientists who don't happen to be in your exact field or don't have your exact training. If collaboration across disciplines is going to work, it's going to have to work in an atmosphere of clear communication.

AAAS: What suggestions do you have for scientists, especially if they're not in a university environment or don't have access to a program such as the center at Stony Brook?

Alda: It's hard to take the work that we do and turn it into a nugget of advice. Because one of the problems the [scientific] culture has had in the past ... is that it's been assumed that communication is easy. But George Bernard Shaw pointed out, 'The worst thing about communication is the illusion that it's taken place.' Communication is a very slippery fish; you think you've got it, and sometimes you don't.

It's a little bit like learning to play the piano: You can't read a book about it. Or learning to dance: You have to go through a process. Everybody can get out on the floor and shake a little bit, but to really dance, that's another story.

AAAS: The process of science is trial and error, and discovery and failure, and doing it all over again. It can seem rather messy. When someone has a lack of success or the outcome isn't what is expected, people can easily categorize "failure." How can scientists transform the "bad" or "a failure" into something positive?

Alda: The process of science really makes a wonderful story, and we respond to stories. We want to hear stories; we want to follow the progress of the hero. We want to see the hero overcome obstacles that could sink the whole thing. We want to see the hero go down blind alleys, as the hero would in the good detective story. And then finally getting somewhere, or getting somewhere where you haven't succeeded but now you know something you didn't know before. That kind of story is really the story of every experiment, or every great discovery, or every life in science.

What [this story] does is make the science more vivid. It doesn't make it less accurate. We're constantly trying to make sure everyone understands that we're only asking for clarity and vividness. The clarity doesn't mean making it oversimplified or dumbing it down. That doesn't clarify it; that actually obfuscates it ... We want the real stuff, clear and vivid, so we can follow you on your [scientific] journey. Those blind allies that scientist go down are a really important part of the story. It makes the search real for us, it makes it human. There's something very exciting about that process. Take advantage of the great resources at the Alan Alda Center for Communicating Science at.

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