

***ADAM GREENFIELD**

Welcome to The Great Communicators Podcast presented by The MIT Office of Graduate Education, a professional development podcast expressly designed to bring lessons from the field to our graduate student researchers.

My name is Adam Greenfield and if you've ever been moved by a speech or by something someone said, what did it was probably *how* the words and ideas were conveyed to you, or the performance of the communication. There may not have been dancing or music involved but still, a performance was put on.

And as we'll hear in this episode, that communication performance can include a lot of useful tools, like images or objects, or pacing. So if you're not a dancer or musician, have no fear. You're about to find out why you don't have to be and still be able to perform and communicate effectively.

Now, in your career as a scientist, you may find yourself communicating your work to a wide range of audience types and sizes. It could be one person, it could be thousands of people, it could be the head of a company, it could be an entire high school.

But what if your audience is, oh, I don't know... the former President of the United States?

ERIC LANDER

I serve as the co-chair of the President's Council of Advisors on Science and Technology for President Obama.

ADAM GREENFIELD

That's Eric Lander.

ERIC LANDER

I am the director of The Broad Institute of MIT and Harvard. I am a geneticist and a mathematician, and I love what I do.

ADAM GREENFIELD

I mean, really, though. Can you blame him? Who else can claim they once had the ear of a world leader and played a direct role in groundbreaking scientific research?

ERIC LANDER

I watched Nobel laureate physicists talk to the Dalai Lama in northern India during a science week that the Dalai Lama had organized where this Nobel laureate, Steve Chu, I, and a few others came. You could have expected that he would be trying to impress the Dalai Lama with all sorts of fancy physical things. He started by putting up a slide and says, "Your Holiness, this is a technical thing I am going to use in my discussion. This is a rubber ducky, next slide, this is two rubber duckies." The Dalai Lama is really smart. Steve Chu is really smart. But, he wanted to talk about discreteness in certain ways, and he was not above using rubber duckies to do it. It makes an impact.

ADAM GREENFIELD

This story is a great reminder that one performance piece of communication involves the use of images or objects or even audience participation. It's one thing to speak convincingly but add in visual or non-traditional methods of communicating and the odds of your audience retaining information increases.

But when you don't have those external objects or interactions, or maybe you don't feel comfortable with a little physical performance and audience engagement, another communication option is a vocal performance. Not necessarily singing, either, but more along the lines of using different inflections or pace.

Now, Eric has sat in on a few talks and conferences, both as a guest and as an audience member, and has a pretty good sense as to what sort of vocal performance can turn a forgettable vocal stream of numbers into a story as memorable as two rubber duckies and the Dalai Lama.

ERIC LANDER

When you go to a scientific meeting and you hear talk after talk, they are so often monotone. People do not modulate their voice. They do not say things that are memorable. They are afraid to do that. They think the right way to communicate is to

blandly describe the data, to go on and on about we did this, we did this, we hypothesized that, etc. If it is in a general monotone, you really lose the listener because it is really tough to follow. Stop, modulate, grab people's attention, sound different than the next person, sound passionate about things because you are trying to form a memory. There is this crazy notion in science that you hear, "The data should speak for themselves." The data are mute. They do not speak for themselves. You speak for the data. Science is a human activity. It is about one human convincing another human that we have a good explanation for the world. If you can't convince somebody, both in your writing and in your speaking, that what you found makes sense, you have lost.

ADAM GREENFIELD

I just want to pause here for a brief second because I think it's necessary to really understand what Eric is saying here.

You, the speaker, have all the data and knowledge and understanding of the subject you're speaking about. But if you can't convey its significance and why it's deserving of all this attention, it lessens not just the importance of the data but the audience's desire to care. According to Eric, a scientist's job performance involves not just data collection and interpretation but the ability to engagingly educate others.

ERIC LANDER

The job of a scientist is to communicate why something matters and what you have discovered about it. You are a teacher, you are a teacher whether you are talking to your professional colleagues. You may think those professional colleagues are all up on every detail with the literature. Trust me, they are not. You may think you have to assume everything, but no. They have really not followed all the literature. Explain it. Nobody ever minds if you slow down and make an explanation and give a solid foundation. If the train is leaving the station, let it leave slowly so that people can hop on board along the way. If the train leaves at super speed when you start a talk, people just miss the train. Also, when you are trying to explain something, have the train stop at intermediate stations, slow down so people can digest, so people can get back on.

ADAM GREENFIELD

Once again, no acting or musician skills necessary for effective communication. All you need is a way to get your communication to stand out and engage your audience. And yes, it really can be as easy as saying it's not as hard as you think.

Everything from images to vocal inflection and pacing is at your disposal, and as Eric's experiences have shown, have been proven to be effective. Your audience will definitely remember the things you talked about if how you communicated makes a mark. Doesn't have to be the performance of a lifetime but a little performance flair goes a long way in effective communication.

Thanks for listening to The Great Communicators Podcast brought to you by The MIT Office of Graduate Education. My name is Adam Greenfield, and feel free to talk amongst yourselves.

MUSIC & SOUNDS

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