

Feed Your Curiosity: Science Communication Part 1

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R Ricky Telg 00:04

This is Science by the Slice, a podcast from the University of Florida's Institute of Food and Agricultural Sciences Center for Public Issues Education. In this podcast, experts discuss the science of issues affecting our daily lives reveal the motivations behind the decisions people make, and ultimately provide insight to solutions for our lives.

P Phillip Stokes 00:36

Hello, everyone, welcome to Science by the Slice Phillip Stokes here. In this series, we're covering the topic of science communication, whether people realize it or not everyone is being communicated to about science, pretty much on a daily basis. I think the COVID-19 pandemic probably made all of us more aware of this. And while the pandemic is more of an exceptional circumstance, think about everything else you hear related to health information, the environment, sustainability, technology, and so many other topics every single day. We listen to this information, interpret it, and then we have to figure out whether we're going to do anything differently based on that information or not. And today, you'll hear from a researcher who studies this very process, how scientists communicate to the public, and how the public receives information from scientists. Today's interview was conducted by Jacqueline Aenlle, a PhD student studying Agricultural Communication at the University of Florida. You may remember Jacqueline from our series on mosquitoes, where she spoke with two researchers about mosquito borne diseases and vector biology. And in this episode, she speaks with an expert about science communication. So here's Jacqueline giving you a little more insight into the conversation.

J Jacqueline Aenlle 01:58

Hello, and welcome to Science by the Slice. My name is Jacqueline Aenlle and I'm a doctoral candidate at the University of Florida. One of the goals of Science by the Slice is to explore the science behind issues affecting our daily lives. And how we do that is with science communication. In this series, we're going to discuss science communication, how scientific information is best shared with public audiences like you

and I, and speak with some science communicators about their personal experiences and platforms. In the following episode, you will hear from Dr. Lisa Lundy, who is a professor in the Department of Agricultural Education and Communication, and studies the relationship between scientist and the audience's that are in need of the information that they have. This episode will answer questions such as What is science communication? Who is a part of it? And how can listeners distinguish between science based information and disinformation?

L Lisa Lundy 02:57

My primary area of teaching and research and extension interest is in really looking at the relationship between scientists and the audience's that find themselves in need or interests in that research or scientific discovery. I'm really interested in that how information gets from scientists to the public. And so this is really this is my wheelhouse. What we're talking about today, this is this is my life's work, I guess, if you will, is looking into that relationship.

J Jacqueline Aenlle 03:30

Well, fantastic. That means you're the perfect person to tell us a little bit more about what is science communication?

L Lisa Lundy 03:38

Yeah. So it seems like such a simple question. But there I guess there's so many different ways that you could look at science communication. But for me, I guess the most helpful definition or way of looking at science, communication is the translation of science to various audiences with various needs. So if you're a scientific expert or researcher in a particular area, you go so deep into that into that research and discovery. And being able to figure out what of that depth that well if you will of information is actually needed by a particular audience or interesting to a particular audience, and translating that to them. Sometimes that's done by scientists themselves. Sometimes that's done by communicators or public information officers for the different institutions or universities that the scientists work with, but being able to translate the pieces of that that are needed by that audience. To me, that's really the essence of science communication. I think there's a lot of education also involved in science communication, but as far as like really meeting a need at a particular time, I think that's what that's what we're really doing.

J Jacqueline Aenlle 04:53

I think you touched on this earlier, but what first got you interested in or involved in researching science communication?

L Lisa Lundy 05:01

Well, I've always been interested in journalism in the news. That's that's kind of always what I was interested in studying. And as an undergraduate student, I studied advertising I was in the School of Journalism and Mass Communication. And so as I started to finish my undergrad and think about graduate school, I was really interested in the strategies and the ways of communication that I had learned in my

undergraduate program. But I, I didn't really resonate as much or find as much interest in promoting products or brands, I think there's, there's so much that can be done there. But it just didn't personally interest me that much. And so I actually my first job out of undergrad, I started working for the College of Agricultural and Life Sciences here at the University of Florida where I am. And a lot of what I was doing was communicating about all the different departments and majors and research in the college. And so I had to learn a lot about all these different programs and be able to communicate about them. And I just found that process fascinating. I loved taking a subject that I didn't know anything about, and really trying to learn as much as I could quickly and then be able to communicate that to other people who are like me who didn't know anything about horticulture, or whatever the case may be. And so I just started to learn about this department that I'm in, and departments like it across the country and the world really, where you could really study this intersection of science and communication. And you always had to be learning about something new, which is, to me the really thing that keeps it fresh and fun.

J Jacqueline Aenlle 06:41

That's really important. Keep it fresh and fun I like. So how are effective science communication messages created?

L Lisa Lundy 06:50

I think the essence of really good effective science communication is learning to listen well. If you're communicating on behalf of a scientist, or learning about a subject that you have to communicate with, you have to really learn to listen to that scientist in or to a group of scientists and what they're telling you about their work and what it means and why it's important, and actively listening to them. The flip side, if you're trying to communicate to an audience, I think you have to learn to really listen well to that audience. And let them tell you what they care about, and what their needs are and what they're interested in. And looking for. Okay. There's actually a researcher at the University of Wisconsin Madison, Dominique Brossard, who I love, just listening to what she has to say about science communication. And I've heard her say that really effective science communication is finding a rug that we can all stand on. So maybe these people care about this, and these people care about this over here, I'm using my hands a lot, which is probably hard for the listeners, imagine me pointing to all these different areas. And is, is helping people find a rug that they can all stand on. So, you know, I think about right now, of course, everything is about COVID-19 and vaccines, and there's all these different viewpoints about vaccines. But for really, for most people, we do care about our health, and we care about protecting our families and our in the people that we love. And so that's a rug that we can get everyone to stand on. And then how can we build from that to create mutual understanding? And so, to me, that's a lot of listening is what's required for good science communication,

J Jacqueline Aenlle 08:30

And probably most communication in general, even

L Lisa Lundy 08:33

Absolutely. Absolutely.

J Jacqueline Aenlle 08:36

So looking at the state of science communication at a very broad, large overview level, what are some of the current challenges facing the science communicators and the nature of science communication in general?

L Lisa Lundy 08:49

I would say that, I would probably categorize that as in three primary areas. So I would say timeliness, trust, and technology. So if you, if you look at timeliness, when people want to know something about a particular area of science, whether it be their health, maybe an environmental issue that their community is facing, they want and need information quickly. So researching an area and learning everything you can about it and trying to translate it and come up with well crafted messages that can be very time consuming, but it's something that we have to do quickly, if we want to be able to equip people with the information they need. So I think timeliness is really important. I think trust is a huge issue right now in science communication, because people don't tend to trust a lot of what they read and see. And so there's skepticism whether whether it has to do with science that's funded by government agencies, or maybe science that comes from particular universities. There's all sorts of reasons why people may trust or not trust what they see and hear and read. But knowing that that's an issue is really important for any science communication, and thinking about how you can build trust. And then of course technology. When we think about creating messages, we're creating them for a variety of different platforms, and trying to come up with some simple messages that are versatile enough that they're going to work, whether they're on the evening news, or on Tik Tok, or in a text message or on a billboard. Those are all really different media, but we want to have messages that are versatile enough to work in all those different settings.

J Jacqueline Aenlle 10:35

Which is a huge challenge, as you just said, there's such doing platforms that call for such different just even like length of message that it has to be it has to be a challenge.

L Lisa Lundy 10:46

Yeah.

J Jacqueline Aenlle 10:47

What do you think the role is of agricultural communicators in science communication?

L Lisa Lundy 10:54

I personally don't see Agricultural Communication as distinct from science communication, I look at agricultural communications, having a very broad umbrella, and really encompassing everything from understanding about our natural resources, and how we use different resources for our health or for our communities or our homes, to protecting our natural resources, biodiversity, our food supply all of that. So

to me, I really just look at the field of science, communication, and then maybe certain contexts that are more tied to what we think of for agriculture. But I don't see them necessarily as different. I just think the goal is to help people understand what they need to understand for their lives.

J Jacqueline Aenlle 11:41

So speaking of now, these these listeners, these people that need to understand this information and put it into use in everyday life, how can listeners distinguish between science information that is science based and trustworthy and factually supported? Versus misinformation or disinformation?

L Lisa Lundy 12:00

Well, I think, you know, sometimes there's information that that gets shared or is out there. And everyone's well intentioned, it's just inaccurate information. I remember several years ago, I saw a friend of mine share something on Facebook. And, and her note and sharing it was, I don't know if this is true or not, but I saw this. And so, you know, there's just there's not a lot of inherent responsibility that people take for what they share. So sometimes people are well intentioned, or, you know, not meaning to share and accurate information, but they are. And then there's other people in organizations that sometimes are intentionally sharing information that's inaccurate, for their own purposes for various maybe financial purposes, or some some sort of gain for the person or organization. And so I think, for ourselves as citizens, we have to acknowledge that there's information out there, that's false, or that's not the complete picture. But we also want to acknowledge that there are places that we can go where we can get factual, accurate information. And so one thing I think, is to to not, if you're trying to make a decision about something or decide how you feel about a scientific topic, never take all of your information from one source. Journalists don't do that if journalists are telling a story, they have to use multiple sources. And so we as citizens want to get our information from a variety of sources. If you start seeing the same information in several credible, well researched sources, then you can start to build some trust in that piece of information, I think, looking at the source credibility, and I think looking at the motivation, you know, if it's an organization that has something to be gained, by telling you, you know, how to feel about something or what to think about something. That doesn't mean you discard it out of hand, but you want to think about what is the motivation of this person or this organization and sharing this information with me?

J Jacqueline Aenlle 14:00

All great advice. I'm going to take us back a step real quick. So we've been talking about your role in science communication, and what got you interested in science, communication research and some of the best practices and most effective practices? What are some of the cutting edge current research out there research findings out there that you find most impactful or noteworthy in regards to science communication, if you have any to share?

L Lisa Lundy 14:25

Well, I would say, one area where I've been doing a lot of reading and thinking and I'm actually pulling a book out so I can get the title correctly, is the idea of motivated reasoning or the field of motivated reasoning? So I'm showing you a book but I'll tell you the title, it's called the skeptics guide to the universe. And it's just a really interesting book about how why people think about things the way that they think

about things and so we are motivated to make decisions and to sometimes to confirm biases that we already have to make ourselves feel good about what we already think about the world. So thinking about why people think about things the way that they do and why they seek out the information that they seek out, and why they want other people to think the way that they do makes them feel good about that, that information that's something that I've been doing a lot of reading and thinking about in the last year or so. I don't know that it's necessarily new or cutting edge. But I think as we look around at how polarized things are, and how people seem to kind of separate into camps on every issue, trying to understand why that happens, I think motivated reasoning can really help us understand that.

J Jacqueline Aenlle 15:39

So we've given a little bit of advice for listeners, consumers of information, best practices, ways to kind of differentiate between sources. Now, do you have any advice for practitioners, people that want to get into science communication, or are currently communicating science, whether they know it or not? Any advice to leave them with today?

L Lisa Lundy 16:00

I would say just to remain curious and feed your curiosity with a lot of reading, I would say challenge yourself to read about scientific topics that you don't know about currently, or that you're not familiar with, or that are, you know, new to you, or even feel kind of foreign to you. The more that you can read about those things. A, you're getting a picture into how other people are already communicating about those issues. But it's a muscle that I think you can work to grow out of that, that practice of learning about a subject and then looking at how can I communicate about that to other people. So, you know, read an article in The New York Times or you know, listen to a story on NPR, and then tell them tell somebody in your life about that topic. And that's practicing science communication.

P Phillip Stokes 16:56

I want to thank Dr. Lisa Lundy for being on Science by the Slice and sharing information about the nature of science communication. I also want to thank Jacqueline Aenlle for leading this conversation. And for those of you that don't know, Jacqueline has her own podcast. It's called From Urban to Agriculture. And she's about to release her third season if she hasn't already by the time that this episode is live. So yeah, if you didn't know now, you know, check out the From Urban to Agriculture podcast wherever you listen. In episode two of this series, I talk with the Farm Babe. Her actual name is Michelle Miller, but she has built a brand around the name Farm Babe and uses her platform to share the facts on food and agriculture so you can make wiser choices. It was great learning about how she has been able to build a following and become one of the biggest voices on social media discussing food and agriculture. I think you're really going to enjoy this episode. And you just might find a lot of parallels to what you heard from Dr. Lundy. So be sure to listen to part two available now. As always, I want to thank everyone involved in Science by the Slice. Michaela Kandzer, Rachel Rabon, Valentina Castano, Sydney Honeycutt, Ricky Telg, Ashley McLeod-Morin, and Alena Poulin. I'm Phillip Stokes. Thanks for listening to Science by the Slice