

## **HOW TO TELL THE STORY OF SCIENCE (EVEN TO THOSE WHO MAY NOT WANT TO HEAR IT)**

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Seven years ago, I had a new job in a new field and was assigned a new task – to develop a research magazine. So I did. It was decent. But like most of us, decent didn't quite cut it for me – I wanted it to be awesome. I searched the internet and found a few resources – one of them was URMA. I immediately joined URMA and began lurking – and learning.

In 2017 the stars finally aligned and I was able to attend the annual conference held at Brown University. Over those few days in Providence, I found much food for thought.

One topic that emerged as a theme for the conference was the timely issue of **science denial**. It was raised by several speakers in relation to climate change, gun violence, vaccination and other topics.

Participants in a panel discussion on research communication and political activism included:

- Geoffrey Supran, joint Harvard-MIT postdoc and environmental activist
- Megan Ranney, Brown University ER physician and firearm injury prevention activist
- Timmons Roberts, Brown sociology professor

Since universities tend to want to remain politically neutral, their role in activism was questioned. Timmons Roberts responded that we have to stop being naïve. He said that science got pushed to the side for political expediency when industries began using well-funded disinformation campaigns, like the \$5 billion spent on anti-climate change by fossil fuel businesses.

Megan Ranney added that unless we are engaged in the conversation, we cede the discourse to others who are basing their views on financial interests. She suggested that science communicators create a compelling narrative for the American public.

For example, the subject of gun control creates an immediate response from people on both sides of the issue. Ranney suggested reframing the debate as a public health issue: according to the CDC, white men have had the greatest increase in death by suicide, with guns being the most common method. Ranney's approach brings a lot more people into the conversation, including those who might not have been open to discussing the topic. She advised:

- **Telling stories**
- **Depoliticizing the message**
- **Engaging (those you think of as) opponents**

Members of the panel suggested that universities and others involved in science must become advocates to mitigate anti-science messages.

- To avoid political partisanship they suggested critiquing both sides of the argument.
- To recognize individuals who are typically not on the side of science when they “do the right thing”.
- To seize the opportunity to educate ideological opponents when they appear at your institution for photo ops.

Who should do this communication? Roberts suggested that faculty should take a role in important national science issues, while making it clear that they are expressing their own opinions and not speaking for the institution. This approach allows institutional administrators to avoid conflicts with board members, trustees and industry philanthropists who may have different agendas.

Scientists must be trained to take on these important speaking and advocacy roles.

**Communicating about science to the public is as important as doing the science since it contributes to:**

- **Policy decisions**
- **Public discourse**
- **Awareness of how federal tax dollars are spent and what taxpayers have “gotten for their money”**

Supran said that institutions should take a stand on science denial and should support the efforts of faculty to reframe the narrative. Given the current state of journalism (senior journalists being replaced by inexperienced ones, less time spent researching stories while more is spent repurposing content in multiple formats) reporters are often running with stories they have been handed. We need to use this awareness to our advantage to by **reframing the narrative. Scientists need new talking points. They are not bringing politics into science; they are bringing science to bear against science denial.**

However, scientists saying “this is true” and “how can you question it since I know more than you do?” isn’t the way to convert science deniers. Not surprisingly, it only further polarizes the situation.

The facts are available for everyone – the alleged link between vaccination and autism has been disproven and that information has been widely disseminated. Yet, educated, high net worth couples are choosing not to vaccinate their children. What can be done? According to Kenneth Miller, a senior Brown University biologist and leading science advocate, “**winning people over to science isn’t a matter of facts – it’s a matter of identity**” – meaning that science needs to avoid the stereotypes generated by the media.

Miller proposed that cultural connections to science matter greatly. Movie villains tend to be Russians, Middle Easterners or corrupt scientists. However, he pointed out that the award-winning television show, *The Big Bang Theory* – set at a fictionalized Caltech – has been popular with a broad audience for years and has portrayed science in a positive light.

As editors of research magazines, we don't enjoy the audience of a network TV show – our reach is much smaller. How can we maximize our impact?

Everyone loves a good story. According to Miller, no one is better placed than us to tell human stories about inquiry and discovery that help **develop a genuine cultural identification with science**. He also remarked that the readership of university research magazines is unique – it includes the social, political and technical leaders of our society. Basically, we are writing for the thought leaders of our communities and beyond.

That's a pretty empowering realization – and one that I will keep in mind as I begin outlining the 2018 issue of *ResearCHLA*.

Kudos to Noel Rubinton and others at Brown University as well as the Board for their work in putting together this inspiring conference. Thank you!