

When Facts Fail: Communicating with Skeptics (Difficult People)

And there certainly is a lot out there to be concerned about!!



Syrian Refugees: Flight Into the Unknown

MARCH 2015

NATIONAL GEOGRAPHIC

CLIMATE CHANGE DOES NOT EXIST

EVOLUTION NEVER HAPPENED

THE MOON LANDING WAS FAKE

VACCINATIONS CAN LEAD TO AUTISM

GENETICALLY MODIFIED FOOD IS EVIL

THE WAR ON SCIENCE



A WORKER ADJUSTS A DIORAMA OF A MOON LANDING AT THE KENNEDY SPACE CENTER

Consider *National Geographic's* "The War on Science" highlighting public's concerns about the role science plays in thinking about...

- Climate Change
- Evolution
- Vaccinations
- Moon Landing
- Genetically Modified Foods, GMO's

A lot of Americans don't know a single scientist. We need to fix that

By SARA WHITLOCK / FEBRUARY 7, 2017



MIKE REDDY FOR STAT

I've recently been thinking about this: There are a lot of Americans who don't know a single scientist.

This is one of our biggest failures as a community. When we [March for Science](#) in April, we'll be fighting for our right to freely communicate with the people whose taxes fund our work and the legislators who we hope will use our work to inform policymaking. But we haven't done a good job of actually communicating with people about what we do.

And some people don't even know who scientists are? Or what a scientist does. Scientists need to communicate with people about what they do!



"Talk to me
I'm a Scientist"

But scientists often don't view things the way the public does!

Agree to disagree?

Percent of U.S. adults and AAAS scientists who say the following...

	U.S. ADULTS	SCIENTISTS
GMO foods are OK to eat.	37%	88%
Humans have evolved.	65%	98%
Require childhood vaccines.	68%	86%
Humans worsen climate change.	50%	87%
Increase fracking.	39%	31%
Drill more offshore.	52%	32%

I often find myself in the middle of these discussions

So, how do you communicate with such people on these issues?

When Facts Fail: Tips to Communicate Science with Difficult People

Let's look at some specific advice

Sometimes we talk too much!

Hi, what have you got here?

Hi! Today we're learning about the science of pigments!

Fun! So what can you tell me about pigments?

Hmm...what? Oh, yeah cool...



Well, over here we have a little chromatography experiment, where we're separating out the pigments in a plant leaf. See, actually leaves contain a lot of pigments, like chlorophyll which you might have heard of, that's what makes plants green. But there's other things called carotenoids and xanthophylls which impart a range of golden and red colors. By grinding up these leaves in alcohol, we're releasing all those pigments and separating them out based on their different chemical properties. Now you can see a green band for the chlorophyll and the additional pigments, which are also present in the leaf. In fact, that's revealed in autumn as the leaves start to die and photosynthesis stops so the chlorophyll...

Isn't that cool??

Keep it simple
Use analogies to improve understanding

**Why not ask questions to find out about them?
Find common interests**



What's their view on the topic?

Why do they have those views?

Try to understand why.



Avoid taking a strong position

I'm pro-GMO!

I'm anti-GMO!

We need basic science!

Science is corrupted by special interests!

Glyphosate is safe!

Glyphosate is a carcinogen!

Vaccines are safe; you should get them!

Vaccines are dangerous!



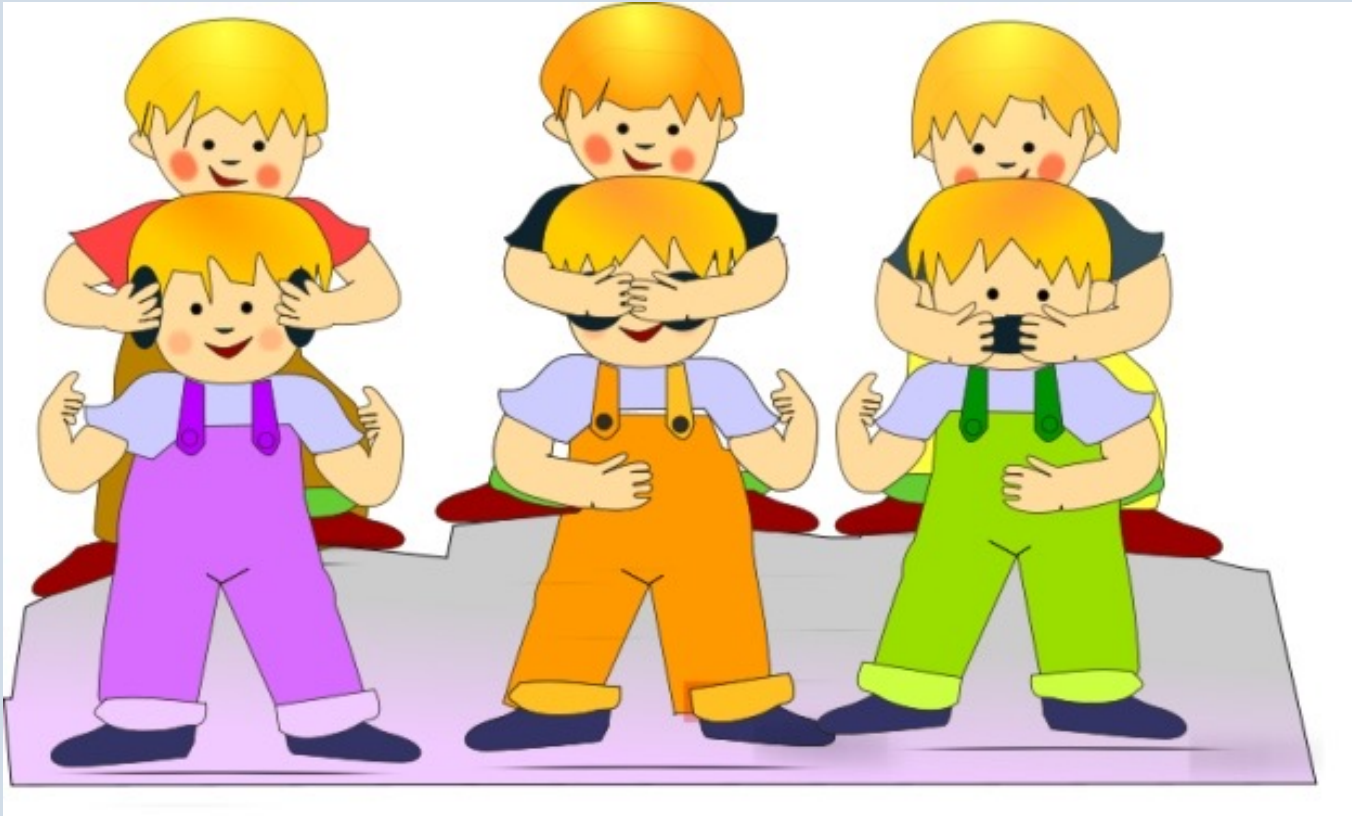
Dig in to try understanding other viewpoints

Start by touching on things they care about – while weaving in the facts



Listen to what they have to say before launching into your points

Difficult audience members can be your teacher, too



Listen to what they ask and have to say
You can learn from them too!

Everyone needs to be part of the discussion – tools like “polleverywhere” help you learn more about your audience



<https://www.polleverywhere.com/>

Provide additional resources when possible

Government data

Newspaper pieces

Documentaries

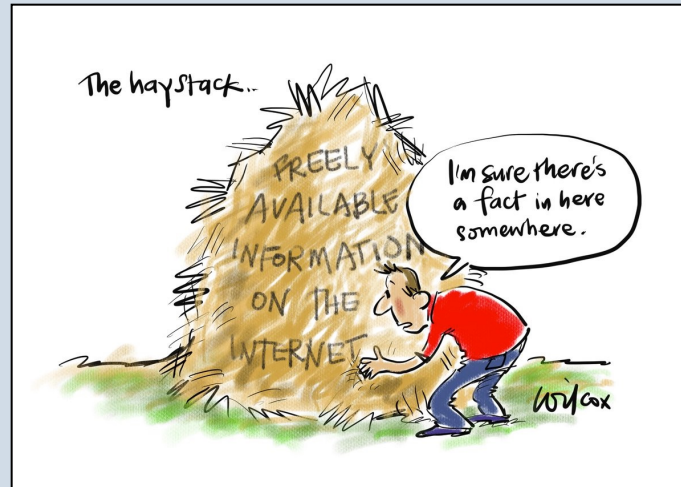
Webinars

Journal articles

Podcasts

Blogs

Websites



Make sure they are factual and balanced

Thanks



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ANR Factsheet:
https://ucanr.edu/sites/Professional_Development/files/356058.pdf