

## *Speaking of Physics: The Art of Science Communication*

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### The career messages...

- There are great jobs in education, outreach, and writing
- Specialization can be great; but diversification can be great too. We need synthesizers in this multidisciplinary world.
- You aren't the prisoner of initial steps towards a career choice
- You don't always need to know where you're going; find the warm spot

Good communication strategies are useful for talking to the public, to colleagues, to students, in talks at conferences, and in papers!



**The deficit model does not work.** Treating your audience like they simply “lack knowledge,” and you need to fill that gap, does not work. People are not empty vessels, don’t just try to dump information into their heads.

**The data don’t speak for themselves.** Don’t simply present the facts, but explain what you think your audience should make of those facts. Give them the “so what”.

**What’s your elevator speech?** Can you make a short pitch with your message, with no more than three main points? Follow the journalist model of communication: Bottom line, then key details, then some background if you have time.

**Respect your audience.** Don’t alienate them with prejudices about what they can understand, and don’t just try to “fill their empty heads with facts.” Pay attention to what they already know, and meet them there.

**Arouse, and then fulfill.** Motivate, and then educate. Give them a “need to know.” And then fulfill that need.

**Weave a story.** Don’t make the mistake of giving historical background and assuming that that makes it a “story”. Rather, find the narrative thread in your argument or idea.

**Tell us why we should care.** If talking to the public, give the bottom line first, rather than background details. If talking to a professional audience, make it clear why people should listen to what you have to say.

### **Resources:**

Don’t Be Such a Scientist, by Randy Olson

A Scientists’ Guide to Talking with the Media, Union of Concerned Scientists

Communicating Science website, [communicatingscience.aaas.org](http://communicatingscience.aaas.org)

How People Learn, Bransford and Brown