So, You want to be a Science Communicator?

Public Outreach as Part of the Scientific Enterprise

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Why should we care?

- Weakness in K-12 Science Education
- Low Public Scientific Literacy
- Politicization of Science
- Lack of Public Support
- Broad Social and Financial Implications

“We’ve arranged a global civilization in which most crucial elements profoundly depend on science and technology. We have also arranged things so that almost no one understands science and technology. This is a prescription for disaster. We might get away with it for a while, but sooner or later this combustible mixture of ignorance and power is going to blow up in our faces…”

Carl Sagan

What are the benefits?

- Increase Public Understanding of the Nature of Science and Scientists
- Advance Broad Scientific Literacy
- Support and Improve Science Education
- Create Visibility in the Community
- Secure Continuing Research Support

  (Social and Financial)

What can you do?

- Formal Education: Teacher Professional Development and Classroom Involvement
- Multimedia Approach: Print, Web, TV/Radio, Traditional Lectures/Presentations
- Museum/Science Center Partnerships

Benefits of University-Museum Partnerships:

- Established Audiences (On-site and Outreach)
- Education and Presentation Expertise
- Facilities and Equipment
- Marketing and PR

In short, YOU bring the science, THEY bring the infrastructure.

Just that simple?

Well, there are some rules of the game…

What are the Top Ten things that every Science Communicator needs to know?

(With thanks and apologies…
after J. Gregory and S. Miller, 1996)

1. Know what it's all about.

- Be conscious and respectful of the roles/nature of Research/Higher Ed vs. Formal and/or Informal education.
- Choose your communication vehicles wisely.
- What are the +/- surrounding YOUR science and the public?

2. Know what you want to accomplish.

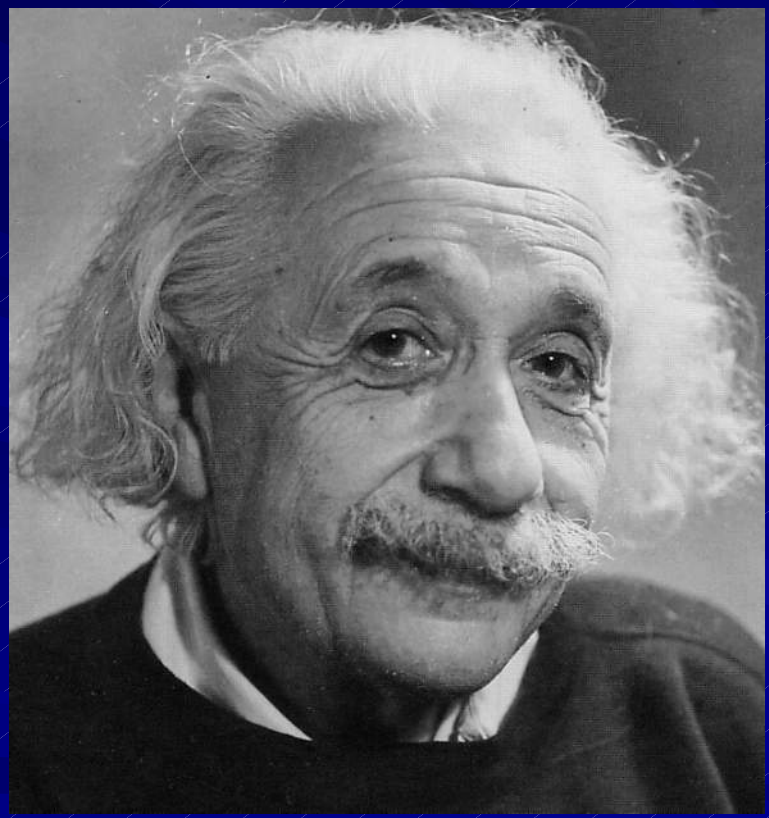
- What are you specifically hoping to achieve?
- Who is the intended audience?
- What are the “take home” messages?
- What will success look like?

3. Be accurate, but accessible

- Good Science Communicators are good “science translators”.
- Make that which seems complicated, simple.
- And yes, it’s harder than you think!

“You do not really understand something unless you can explain it to your grandmother.”

Great Communicators: Albert Einstein

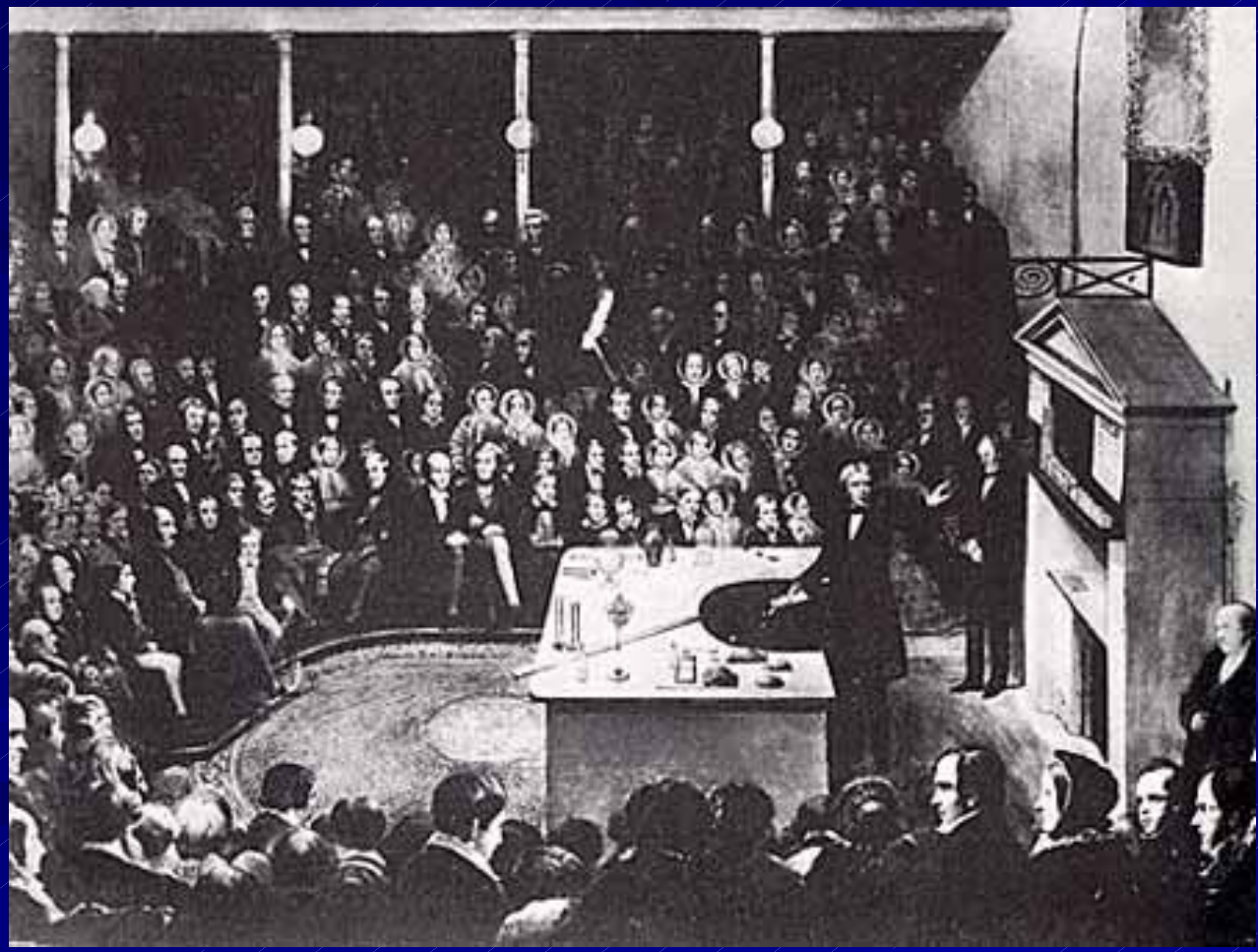


4. Be fun, exciting and engaging!

- Audiences are self-selected…they don't have to be there!
- Educational research shows that the experience matters.

"Give the audience full reason to believe that all your powers have been exerted for their pleasure and attention. Raise their interest…keep it alive as long as the subject demands it. A flame should be lighted at the commencement and kept alive with unremitting splendor to the end."

Great Communicators: Michael Faraday

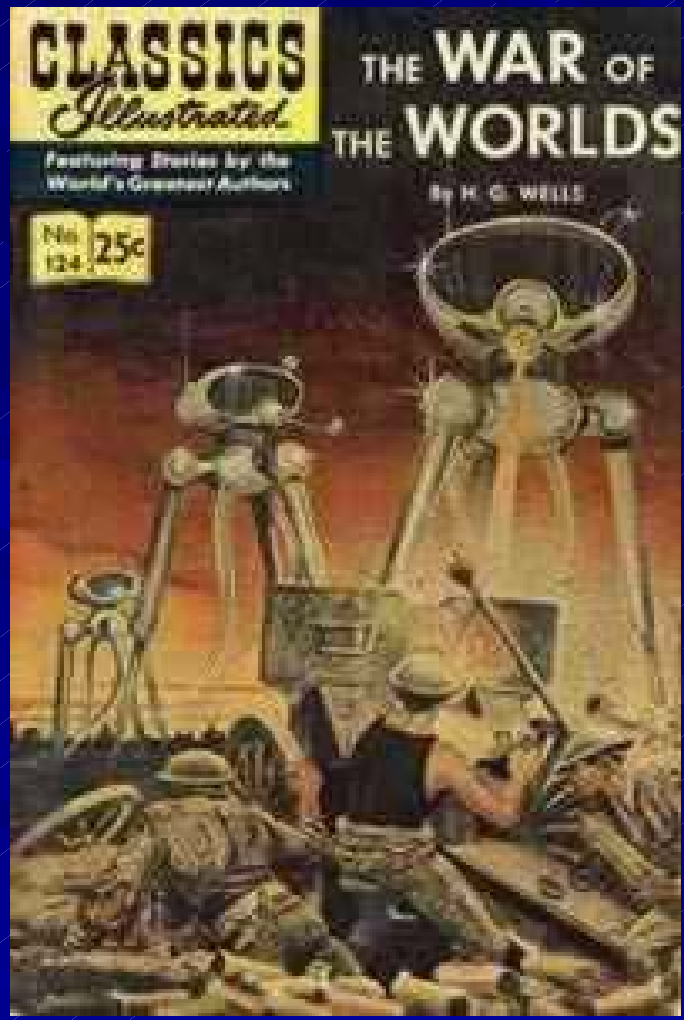


5. Respect your audience.

- The audience is not a “blank slate.” Meet them where they are.
- The audience will expect expertise and competence, not condescension.

"[The audience member] is just as intelligent as you are, but does not possess your store of knowledge. He or she is not a student preparing for an examination."

Great Communicators: H.G. Wells



6. Establish trust with the audience.

- Talk about HOW we know what we know.
- Don’t shy away from what we are less certain about—the self-correction of science is one of its key strengths.
- Explore science together with the audience as a co-learner.

7. Give ‘em more than “just the facts”.

- Listen to what people really want to know.
- Be prepared to explain some of the workings of science.
- Good science communication should be a two way street.

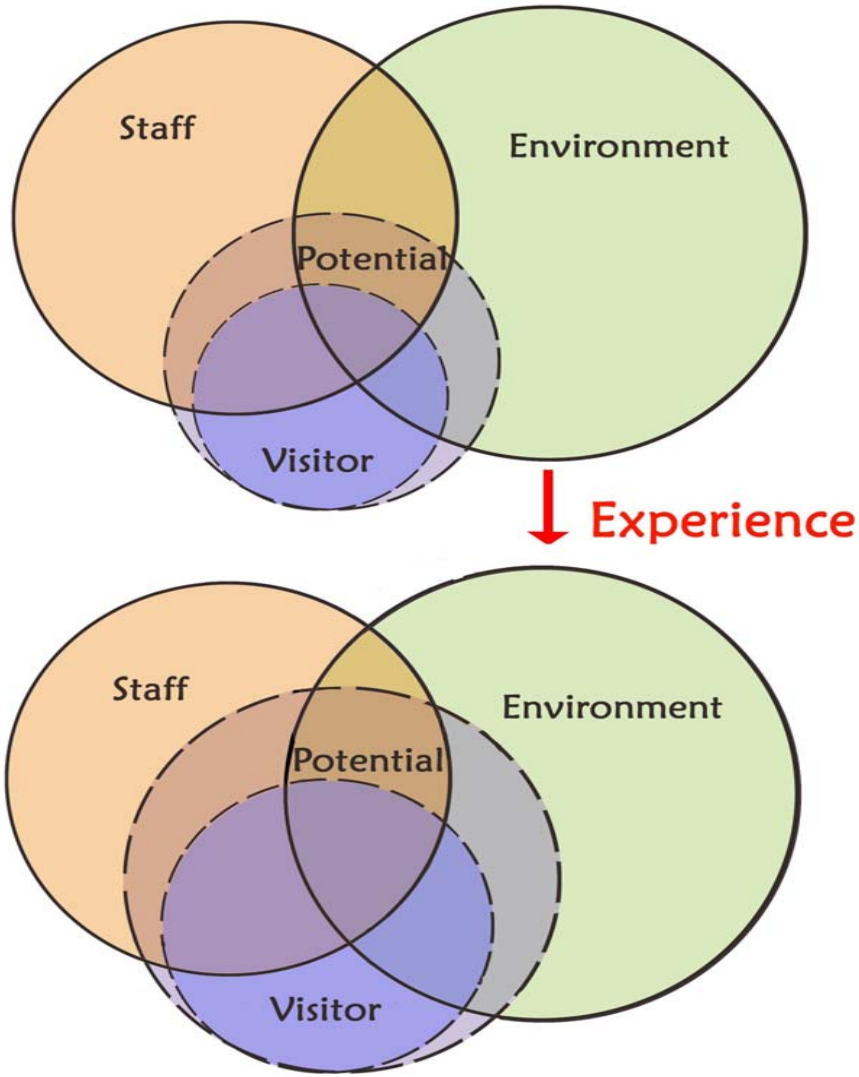
8. Acknowledge the humanity of science.

- Science isn’t perfect, and neither are scientists.
- Science can create problems or solve problems.
- Science can be used for good or evil.
- Science is perhaps the most powerful tool we have.

9. Engage the audience.

- Facilitate audience interaction and participation.
- Know when to engage, and when to hang back.
- Practice and employ the “Visitor Experience” Model.

VISITOR EXPERIENCE MODEL



10. Walk the walk and talk the talk.

- Become a student of science communication.
- Visit museums and science centers.
- Read popular science publications/web sites.
- Watch science education programming.
- Learn about the links between science and other areas of human activity.

Good Science Communication…

"A great science museum inspires a child to read a book, or take a course, to return again..most important, to learn the method of scientific thinking. They are places that provide reason for hope, places that strike the spark, awaken slumbering curiosities, and ignite the scientist that lives in all of us."

Great Communicators: Carl Sagan

And because I can’t help it…

“Nobody can flunk a museum.”

Great Communicators: Frank Oppenheimer