Science, substance and style

By Chris Tachibana

When talking science, biologist and filmmaker Randy Olson says researchers should keep the accuracy, but add a little Hollywood

Randy Olson was a tenured marine biology professor at the University of New Hampshire, when in 1994, he shut down his lab, moved to Hollywood, and became a filmmaker. His latest films, 'Sizzle: A Global Warming Comedy', and 'Flock of Dodos: The Evolution-Intelligent Design Circus', are entertaining documentaries, but their subtext is that scientists are bad communicators. In 'Flock of Dodos', the scientists seem more like doomed birds than the intelligent design supporters. So Randy Olson wrote a book, Don't Be Such a Scientist: Talking Substance in an Age of Style, to help researchers make their results sing.

- Two main errors can be made in presenting science to the public. The first is an error of accuracy…the second is an error of boredom, in which the speaker fails to make a presentation that holds anyone's interest, states Mr. Olson in the book.

The first error is deadly, of course. If you're wrong on the facts, an audience of experts will be merciless. But the second error is equally fatal. If your listeners don't get it, or don't care, they might as well have skipped your talk altogether. Worse yet, you might get a reputation for being tedious or condescending. In the biotech world, both researchers and management have room for improvement.

- The book applies to any profession that deals with a lot of information. It could easily be called 'Don't be such a lawyer' or 'Don't be such a businessperson'.

From students to CEOs, we all need to give clear and convincing explanations of our work, with enough punch to be noticed above the everyday noise of society. Randy Olson offers these guidelines to get started.

Five easy tips

In an essay for New Scientist, Randy Olson condensed the information in his book to five tips for becoming a better science communicator. The most obvious, at least to those in the biotechnology field, is 'invest in marketing'. He means not just money, but thought and time. Make a commitment to improving your communication skills, and think about the background and interest of your audience.

Facts are great, Mr. Olson says, but they are not enough. Think about how you can appeal to your audience's heart, with sincerity and possibly a little emotion, and to their gut, with humour and spontaneity.

Spontaneity might not come naturally to scientists, particularly Scandinavians. To cultivate this skill, he advises; 'take an improv class'. These are acting lessons in which you learn to perform in unrehearsed situations, and hold give-and-take conversations with a partner. This might not seem useful for the lab or the industry boardroom, but it has hidden benefits, says Randy Olson.

- One problem scientists often have is the inability to listen. They go into meetings with their facts and figures all set, but don't listen to what's being said. Improv classes teach you to listen.

The improv principle is familiar to anyone who has been in a corporate team-building exercise to encourage brainstorming and discourage negativity, like the 'yes, and…' activity in which participants create a story without using 'no' or 'but'. Still, lab geeks and managers might roll their eyes over the idea of improvisational exercises. Mr. Olson understands. To get credibility with the participants, and make sure everyone benefits, he says,

- If you run an improv workshop within a company, have an interpreter. Too often these things get run by someone with who doesn't know the language of the people in the company. I often team up with an improv instructor or storyteller, so there's someone who can speak the language of the scientists.

- We live in an age of information overload, so it's more challenging to arouse than fulfil, states biologist and filmmaker Randy Olson

Storytelling in many languages

Language is vital. Another of his tips is 'be bilingual'. When we talk to experts in our field, it's fine to give details and use specific terms. But we need to know when to ditch the jargon and describe our work in broader terms, with humor and maybe a little sex appeal.

- In Hollywood, people get excited about ideas that pull together top scientists and top filmmakers and let them 'cross-pollinate'. What ends up happening is you have one group on one side of the room and one group on the other side, and they can't talk to each other, illustrates Randy Olson.

So how do we present our work in a way that grabs the attention of someone in a completely different field, like the entertainment industry? 'Tell a good story', he says. It's easy. The basic research paper is a story in three acts: the introduction sets up the characters, the methods and results give the events, and the discussion interprets what happened. Talk about your project as a short, three-act story. Inject your personal excitement, and you'll loosen up, which also helps with spontaneity, Mr. Olson explains.

- I've seen that happen in improv and storytelling workshops. Exercises in storytelling and improv can help get you out of your shell.

The secret to a good story is the final tip, 'arouse and fulfil'. Set up your story with a little suspense or tension. Get your audience interested in what you are going to say by framing your work as a mystery, or conflict to resolve. Then meet their expectations. Show how your results answer the questions you've set up. Put time into thinking about the subjective, arousal part of your presentation, as well as the objective facts you will convey, he says. Think about how to get your audience's attention quickly and effectively.

- We live in an age of information overload, so it's more challenging to arouse than fulfil. It takes very little time to be boring - you can be boring in five seconds, but you become unboring by arousing people's interest. Fulfil that interest with a solid scientific presentation and you'll have a satisfied audience who thinks scientists are more than just a flock of dodos.

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