

Putting Yourself into Your Science

*The importance of
communication and connection*

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“Communication is not something you add on to science; it is the essence of science.”

-Alan Alda

Founding Member of the

Alan Alda Center for Communicating Science

Why communicate science?

- For the public
- For public officials and policymakers
- For students
- For other scientists
- For your own career
- For your institution
- For the good of society

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HIGGS BOSON: A Failure to Communicate

...“the nerds got it wrong by not inviting everyone to the party. The biggest discovery of the 21st century may actually widen the gap between scientists and the general public.”



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New results indicate that new particle is a Higgs boson

At the [Moriond Conference](#) today, the [ATLAS](#) and [CMS](#) collaborations at the [Large Hadron Collider](#) (LHC) presented preliminary new results that further elucidate the particle discovered last year. Having analysed two and a half times more data than was available for the discovery announcement in July, they find that the new particle is looking more and more like a [Higgs boson](#), the particle linked to the mechanism that gives mass to elementary particles. It remains an open question, however, whether this is the Higgs boson of the [Standard Model](#) of particle physics, or possibly the lightest of several bosons predicted in some theories that go beyond the Standard Model. Finding the answer to this question will take time.

Whether or not it is a Higgs boson is demonstrated by how it interacts with other particles, and its quantum properties. For example, a Higgs boson is postulated to have no spin, and in the Standard Model its parity – a measure of how its mirror image behaves – should be positive. CMS and ATLAS have

The Alda Center Method

Improvisation for
Scientists



Distilling Your Message



Distilling Your Message

Talking about science – and why it matters – in clear, vivid, conversational language that your audience understands

- 1) Know your audience
- 2) Know your goal



Engage listeners without dumbing down

- Make us care
 - What is surprising, scary, funny, exciting, difficult, mysterious ?
- Convey meaning before detail
- Clear and vivid language - avoid jargon!

Which is more vivid & memorable?

I study *Didymosphenia geminate*, an invasive riverine species that impairs the recreational and ecological values of waterways.

I study rock snot, a kind of alga that forms brown, oozing masses that look like a sewage spill. These get so big that they block rivers and kill fish.

Mmmm, yum!



Be aware of
“the curse of knowledge”

Put yourself into your science

- Personalize it
- Why do *you* care about this?
- Tell a story

The bottom line

“If you choose not to communicate what you do, you will condemn the rest of us to receive information from sources who may be ignorant or who would seek to distort or misinform for their own gain.”

- Dr. Carl Safina

Author & Marine

Co-Chair of the

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