# Pulses



#### **CAREER FOCUS**

## When Presenting, the Audience Is Always Right

Effective presentations require careful thought to put yourself in your listeners' shoes.

#### Alan Eli Willner

**N** early 30 years ago, I was giving a series of presentations at different venues about the research my group was conducting. Before each presentation, I spent a fair amount of time preparing. One of my wonderful students asked me why I was spending so much time when the material was nearly the same. I answered that since each audience is different, each presentation should be different.

As a presenter, you are telling a story and conveying a message. Typically, you have one opportunity to keep your audience engaged. If you lose their attention, they are not coming back—they are lost daydreaming about emails and lunch. To keep their attention, try to learn good techniques by emulating excellent presenters and avoiding the habits of awful ones.

Indeed, presentations are the work environment's version of classroom tests. It's your evaluation time. Since a presenter takes center stage, presenting is your prime opportunity to make a favorable impression—or fail miserably.

## Your audience

Some of the worst presentations I attend are those when the speaker assumes the audience's background is the same as their own. To avoid this, plan carefully to gauge your audience. I typically ask my host for a variety of information, such as the number of people who might attend, the audience's technical level and background, the amount of time I should speak and leave for questions, and the audience's familiarity with the specific material I might cover. Then I usually follow up with more targeted questions. For example, if the presentation is at a university, what fraction of the audience might be students versus faculty? If discussing optical communications, is the audience familiar with quadrature amplitude modulation, optical amplifiers or coherent detection?

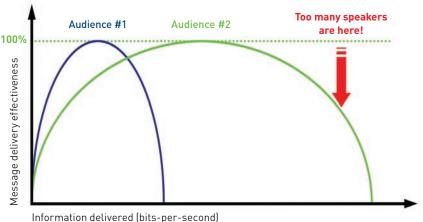
Another important consideration is the audience's motivation. If your audience is your customer, what do they want to learn in their limited available time? Different presentation venues have their own unique flavor. Consider the following broadly generalized presentation examples.

#### Technical conference

Your audience is there primarily to learn about your technical work. Be professional, well prepared, eager to share information, and respectful when answering questions. Be intellectually honest and don't seem like a salesperson trying to "pitch" your work. Moreover, it is often highly valuable to put your work in context regarding prior art, limitations, challenges, applications and potential impact.

## Technical interview

Your audience is there to decide if they want to work with you. Are



The optimum number and content of slides depend critically on the specific audience. Courtesy of A.E. Willner

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you friendly, easygoing, intelligent, open-minded, curious, respectful, flexible and helpful? Do you have the right background and skill set to be of value to the organization? How you come across is often more important than the specifics of your past research. You do not need to justify why you worked in a certain area, since people assume that your advisor gave you an overarching project. If asked about the topic you worked on, you should give an intelligent, well-thoughtout technical assessment of the field and your contribution, including the pros and cons. That is what a hiring manager wants to hear. Your demeanor in handling both the questions and the questioner will be crucial in people learning about you as a potential colleague.

### Project review

The most common presentation will be your periodic project updates. Some attendees may be very familiar with your progress, whereas others may not have any clue what you have done. Therefore, give only the most basic background to bring people up to speed on the topic and offer to provide more information after the meeting to anyone who requests it. If you ask beforehand, the meeting coordinator can advise you as to how much background to give. It is advisable to provide information that will help your supervisor and colleagues do their jobs, since projects are often interconnected and irrelevant information would simply waste people's time.

## Less is often more

The vast majority of my presentations that I have disliked can be attributed to presenting too much and for too long. The audience gets minimal information if you present either too little or too much. There is an optimal amount and technical level to present in your limited time to effectively convey your message to as much of the audience as possible. This optimal

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amount and technical level will depend on the audience.

I think that many people, myself included, struggle with trying to present too much material, thereby losing the audience and going over time. My wise Ph.D. advisor, Richard M. Osgood Jr., told me before my first interview that my 80 slides were too many and that "you are begging them not to hire you." Sure enough, I lost the audience, didn't get an offer, and the person who invited me even said to Prof. Osgood, "Boy, he presented a lot of material." Ouch.

People tend to fall in love with their slides. Don't. You must respect your audience's valuable time and limited ability to absorb ideas. Perhaps think of your slides the way Michelangelo thought of his marble. "The sculpture [i.e., presentation] is already complete within the marble block [i.e., slides] before I start. I just have to chisel away the superfluous material." By removing anything that doesn't help tell your main story, you might end up with a masterpiece.

## The Q&A session

The question-and-answer session after the formal presentation can enhance or destroy your credibility and story. On a basic level, it is crucial to respect the questioner, thank them, understand what they are really asking even if the question might seem trivial, and get to the answer succinctly.

Don't become defensive when asked a tough question. I remember David Miller of Stanford University, USA, getting an extremely tough question. He didn't know the answer, but he seemed happy with the question's insightfulness and did not act personally challenged. I instantly thought, "this person is



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indeed a scholar!" Years earlier, I had presented my research during my IBM interview. Within about two minutes, the interviewer asked a question that pointed to a critical hole in my thesis. Instead of feeling defensive, I marveled at his insight in finding something I hadn't realized, and I wanted to discuss it. You guessed it—I was offered a job with IBM.

Perhaps the hardest, yet best, practice during preparation is to anticipate the questions you might face. This enables you to prepare backup slides to help answer such questions or tailor your existing slides to pre-answer the questions during your presentation. Moreover, if you don't know the answer to a question you might be asked, a great approach is to raise what you don't know during your presentation as opposed to admitting it only after being asked. For example, say during your presentation that "this data point is much higher than expected, and we are trying to understand why." This helps enhance your credibility.

Finally, don't be embarrassed to use the three most important words: "I don't know." People can often intuit when you are not being fully honest. Simply say that you are not sure and, if you feel comfortable, provide a thoughtful possible answer.

## Some general advice

Practice with non-experts of your topic. Your audience is bright, but they typically have much less background on and lower attention spans for your material than you do. In 1994, I prepared a talk for David Packard on wavelength-multiplexed optical communications, something unfamiliar to him. I asked two non-engineers to listen to my talk, reasoning that if I could reach them, then I could reach David Packard. Moreover, I typically ask a trial audience some basic questions after the presentation. I am frequently stunned at how little was retained, and-since the customer is always right—I often adjust my approach to make the material more accessible.

Share credit. You always look bigger when you acknowledge other people's contributions. Nobody does everything themselves, and sharing credit rarely diminishes your standing.

Your presentation should contain multiple layers of material. In this way, attendees of different backgrounds and motivations can learn something at their own level.

Improving your presentation skills is a career-long pursuit with significant professional and personal benefits. You will never be perfect, but you should always keep trying. I do. **OPN** 

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