Giving a Conference Talk

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It usually takes more than three weeks to prepare a good impromptu speech. – Samuel Clemens

1   General principles

- Know your goal

  A conference talk's goal is to make the audience want to read your paper. The talk does not replace the paper.
  ### I repeat: the goal of the talk is not to "present the paper"!
  If you remember nothing else from this document, remember that point.

  Typically, you will give the gist of the idea and explain why it is interesting/important. It is common to allude to information in the paper that can't be covered adequately in the presentation. If the audience leaves saying "Cool, I need to read that," then you have succeeded.

  Note that different talks will have different goal. The goals for an interview talk, for example, are radically different.

- Know your audience.

  Your audience has a diffferent perspective on your project than you do. Think about how the ideas you are intimately familiar with need to be communicated to a broader group.

- Know your medium

  Oral communication is different from written communication. Listeners have one chance to hear your talk and can't "re-read" when they are confused. Also, whereas someone reading your paper has generally already decided that they want to (or at least need to) do so, at a conference, the audience will see 20-30 presentations in 2-3 days: many audience members are looking for an excuse to stop listening to you and read their email—don't give it to them!

  There are two well-know ways to communicate your point effectively. The first is to K.I.S.S. (keep it simple stupid). Second, repeat key insights: tell them what you're going to tell them (forecast), tell them, and tell them what you told them (summary).

- Cut material ruthlessly

  The conference talks I remember are the ones where the speaker spoke slowly and confidently and made one point well. Talks that try to make too many points are almost always forgettable (and forgotten.) A rushed talk can be good, but it won't be great.

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Most good speakers average two minutes per slide (not counting title and outline slides) and thus use about a dozen slides for a twenty minute presentation.

- Make one point (hierarchically)

Each talk should make one key point. Each "talklet" of 3-5 slides should make one key point. Each slide should make one key point. The points of the slides should drive the point of the talklet. The points of the talklet should drive the point of the talk.

This point needs to be explicitly decided. Ask yourself, "what point am I trying to make here?" If you don't have a crisp answer, chances are you don't have a crisp slide/talklet/talk.

Explicitly stating this point to the audience is fine. Rather than hope that they will figure out the point of the talk, why not say "If you remember one slide from today's talk, remember this one...." or "What I want to convince you of with this slide is that..."

- Transitions make the talk

It is not enough to make the point on each slide, you also need to carefully develop transitions that make the slides fit together into a talk.

Before you make a point, the audience needs to know the point you are about to make and appreciate why you are making it. After you make a point, the audience needs too be reminded of the point you just made and understand why it matters. Think a lot about the transitions into and out of slides, into and out of the talklet, and into and out of the talk. As you practice a talk, notice where an argument gets involved and might lose and audience and add signposts around it ("There are three reasons why X. The first reason is ... The second of the three reasons for X is ...").

The traditional advice is: "Say what you're going to say, say it, then say what you said." This advice should be applied hierarchically: the start/end of the talk should tell me the point of the talk; the start/end of the talklet should explain the point of the talklet and how the talklet relates to the main point of the talk; the start/end of the slide should explain the point of the slide and why it matters in light of the bigger point you are making in the talklet and talk.

"Now let's talk about X" is not an effective transition.

- Practice in public. Prepare.

Plan to spend a 3-4 weeks preparing for an important conference talk. It is hard distilling work down to 25 minutes. You will not get it right the first time (or the second.) A typical timeline might be:

1. T minus 3-4 weeks: Prepare draft slides. Meet several times with advisor and group to discuss slides

2. T minus 2-3 weeks: M: practice with group; Tu-Th: completely re-write talk; F: practice with group and a few external audience memebers; Sat-Sun: refine slides. (May repeat again for challenging talks; several recent talks have taken 4-6 "internal" passes to converge on the right material to present and the right approach to presenting it.)

3. T minus 1 week: M: Give talk to broader audience; Tu-Th refine; F: practice with small group

4. T minus 1 day: Practice with group the night before the talk. Practice to yourself the morning before.

Laptops and PowerPoint create the opportunity to refine the talk in flight and in the hotel room. Practice *early* and *often* so that you don't have to resort to this. A talk finished the night before the session *might* be good, but it won't be great.

Part of the social contract of being a graduate student is to go to your colleagues' practice talks and to criticize them ruthlessly. The toughest audience you face should be the internal one.

Learn from others' mistakes (and successes). Attend seminars at UT and attend conferences. Notice which talks you like and remember and figure out why. Ditto for talks that are not effective (for entertainment, try to identify which of these guidelines they violated.)

2 Public speaking tricks

There are a number of "tricks" that take very little effort on your part but that can greatly increase your effectiveness. Make them habits and you will stand out from 90% of the technical speakers in the world.

- Poise and energy.

  You get to control what everyone in the room will think for the next 30 miniutes. Relish this opportunity and control the audience.

  - Vary the volume and rhythm of your voice. If someone is lost, your voice can tell them when they should start paying attention again. (Knowing the point you are making and carefully crafting your transitions as discussed above should help you know what points need to be driven the most aggressively.)
  - *The right word may be effective, but no word was ever as effective as a rightly timed pause—* Samuel Clemens
  - Point at the screen, not at the projector. Use your arm, not a laser pointer.
  - Move your feet – deliver the talk from different positions on the stage (but don't overdo it.) (This used to be easier/more natural to do when we had overhead projectors instead of podiums with laptops; maybe buy a remote control for your laptop to return to this more dynamic mode of operation.)
  - Make eye contact with audience members in different parts of the room.

- Question answering

  - Let the questioner finish asking the question before you answer.
  - Repeat audience questions before answering them. This technique has several good effects: (1) you make sure everyone heard the question, (2) you get to rephrase the question to a crisper version, (3) you can make sure you understood the question, and (4) you get a moment to think about the question.
  - Don't read too much into a question. You likely know much more about the topic than the questioner. (I've seen several people get into trouble by assuming that the questioner was asking a much harder question than he was actually asking...)
  - Think about a question before answering it. Perhaps think through a quick outline of your answer before you start talking. It is OK to pause for 5 seconds before answering a hard question.

- If you don't know, say so. Don't bluff.
- Practice question answering. Know the likely questions ahead of time (but be prepared for odd questions, too.)
- Have backup slides for key questions
- Know when to say "Let's take this off line."

- Structure

  - Related work is generally abbreviated in a short talk. But if someone you expect to be in the audience has done related work, credit them in your talk.
  - Fonts smaller than 18 point (20pt if using an LCD projector) are "fobidden"[1].
  - Lines that take more than one line are "forbidden"
  - Debug your slides before you inflict them on an audience. Are the colors legible when projected? Is the spelling checked? Is the capitalization consistent?
  - No one ever left a talk saying, "That talk would have been great except it was too short."

- Count-down

  - Introduce yourself to the session chair at end of previous session. Stay near the front of the room so your session chair and advisor know you are there and don't panic.
  - Spend the 30 minutes before your talk in a quiet place thinking about the talk.
  - Spend the 5 minutes before your talk concentrating on how you will deliver the first two or three slides

3 Acknowlegements

This information evolved directly from a similar discussion by Mark Hill, which was based on input from Jim Larus, Dave Patterson, and Jim Goodman.

4 Disclaimer

Treat this document as a starting point for discussion. Not all of this advice is conventional wisdom.

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[1]In this document, "forbidden" means that if you find yourself tempted to violate the rule, then there is almost certainly a bigger problem. Forbid yourself from violating the rule and instead treat the temptation to violate it as a red flag that you need to think more carefully about the point you want to make and the way you want to make it.