

# Public Speaking

CSE/ISE 300 Spring 2011

Tony Scarlatos

# The importance of public speaking

- To advance their careers  
CS & IT professionals  
need to:
  - give talks at conferences
  - present ideas to potential clients, or investors
  - address colleagues in faculty meetings and research groups
  - report to managers
  - speak to the media



# Public Speaking and Publishing

- The difference between public speaking and publishing is *personal presentation*
- *The audience evaluates the speaker* and their presentation, *as well as the content* of their message
- Public speaking shares many of the same requirements as publishing: good research, organization, and execution
- But public speaking requires a direct connection to the audience in the delivery of the information



SIGGRAPH conference talk

# The foundations of public speaking

- Be prepared
  - Be confident in the information you are presenting – do diligent research and have good citations
  - Have ancillary data for Q & A
  - Rehearse to the point where you can give the talk without reading from notes or slides
- Be clear about your task
  - What do you want to achieve? What is the "take home message" for your audience?
  - Outline your talk - develop a logical flow to the presentation
  - Stay on message - avoid tangents that misdirect the audience

# The foundations of public speaking

- Anticipate the expectations of your audience
  - What is their frame of reference? How much context/ preliminary information do they really need?
  - What stereotypes are *you* up against? (*Techie, boring...*) Try to avoid confirming your audience's preconceptions
- Understand your time frame
  - Are you giving a state of the union speech, a lecture, or a talk?
  - Have you allowed sufficient time for Q & A?
- Rise to the occasion
  - Embrace the opportunity to address the audience - it is actually an honor, not a chore
  - Giving a good presentation can be exhilarating, and can lead to collaborations and funding for your ideas

# Different types of talks

- Many talks are given as the result of publication of your research work
  - Common at conferences, the talk will summarize the research work, and possibly introduce new research directions
  - The paper is published in the conference proceedings
- Late breaking news
  - These types of talks focus more on demos of new inventions or discoveries for which a body of research results does not exist yet



David Merrill of MIT demonstrates “siftables” at the TED conference

# Preparation

- Presenters should begin by asking themselves what they hope to achieve in the talk.
  - You will not be able to cover everything – so what are three (or so) key points you want to make sure are communicated to the audience?
- Presenters should also consider how much their audience is likely to know already, and what will be of interest to them.
  - How much context needs to be provided?
  - What is the problem to be solved, and will the audience care?
- The foundation of the talk is an outline that is distilled from your publication(s) or tech report(s).
  - You should never just read aloud from your paper, or paste portions of it onto your slides

# Preparation – the outline

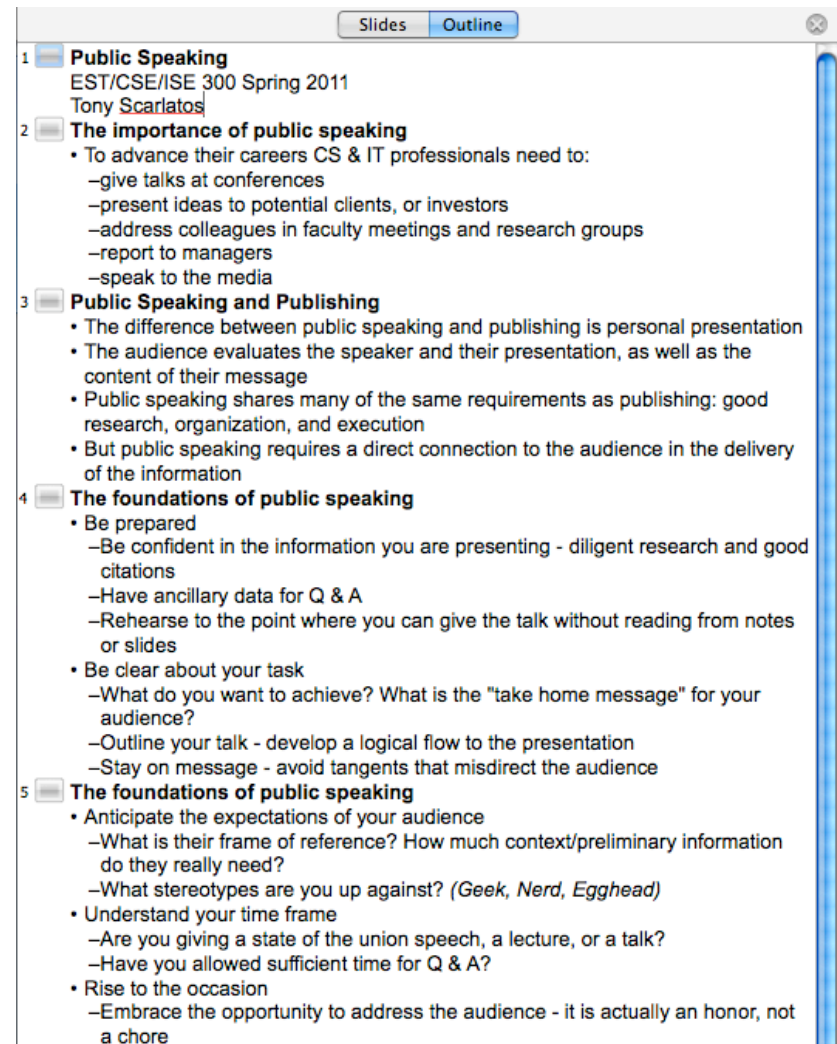
- The outline should provide a logical sequence of information that carries through from the beginning to the end.
  - State the thesis at the beginning, support it through the body of the presentation, and summarize it again at the end.
- The outline will suggest visual aids, such as photographs, illustrations, diagrams, charts, tables, or graphs that support the thesis.
  - Visual aids should never be used decoratively or arbitrarily
  - Avoid PowerPoint themes
- The outline will also help to determine the amount of time and detail that can be spent on any given topic.
  - The outline is similar to a storyboard for your talk.



# Outline examples

## Internet Primer For Geoscientists

- 0. Introduction
- I. What is the Internet?
  - a. History
    - 1. Sputnik and packet-switching
    - 2. Arpanet
    - 3. Growth
    - 4. 1980's
    - 5. The 1990's - Archie, Gopher, and \*The WEB\*
  - b. Who runs the internet and how does someone get connected?
- II. What are the components of the internet?
  - a. BBS's, Online Services, and the internet
  - b. Mail, lists, news, ftp, and "The Web".
  - c. Reliability, expectations
  - d. Security - data, information, and money.
- III. What can I do on the internet? Real-life examples
  - a. Email - collaboration and communication
  - b. Mailing lists - discuss common interests
  - c. Data - retrieve data via ftp
  - d. Software - freeware and shareware
  - e. Information - gleaned from lists, web pages, newsgroups, etc.
- IV. What about pornography? Is the internet dangerous?
  - a. The Rimm report and Time magazine
  - b. Replies to the Rimm report
  - c. My take on it
- V. Summary



The screenshot shows the 'Outline' view of a PowerPoint presentation. The title bar indicates 'Slides' and 'Outline' tabs. The content is organized into five numbered slides:

- 1 **Public Speaking**  
EST/CSE/ISE 300 Spring 2011  
Tony Scarlatos
- 2 **The importance of public speaking**
  - To advance their careers CS & IT professionals need to:
    - give talks at conferences
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    - address colleagues in faculty meetings and research groups
    - report to managers
    - speak to the media
- 3 **Public Speaking and Publishing**
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  - Anticipate the expectations of your audience
    - What is their frame of reference? How much context/preliminary information do they really need?
    - What stereotypes are you up against? (*Geek, Nerd, Egghead*)
  - Understand your time frame
    - Are you giving a state of the union speech, a lecture, or a talk?
    - Have you allowed sufficient time for Q & A?
  - Rise to the occasion
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At right, MS PowerPoint has an outline view for developing slides for your talk.

# Preparation - observation

- It is a good practice when *writing* to read a draft aloud to yourself (and to your colleagues) to see if the piece flows well. It is even more important to practice the flow of a *talk*!
- Recording a video (or at least the audio portion) of your talk is a very useful tool. Take note of:
  - How fast you are speaking. Do your words all rush together with no pauses to let important points sink in?
  - Are there long pauses where it seems you have to collect your thoughts?
  - Is your breathing erratic?
  - Do you use certain phrases over and over, such as “Um”, “y’ know”, or “like”?
  - Other distractions, like sniffing, or chuckling to yourself.
  - What is your body language like? Are you staring at your feet a lot? Slouched over? Hands fidgeting with something? Too rigid? Hands plunged deep into your pockets?

# Preparation - rehearsal

- Compare recordings after you've practiced your talk a few times and have tried to correct some mistakes. You should see improvement.
- “Practice doesn't make perfect, it only makes permanent. Only perfect practice makes for a perfect performance.”
- Go to talks on campus (the CS Department has a great Distinguished Lecture series, for example) and try to learn from the pros. Take notes.
- Rehearse your perfected talk until you can give it without reading from notes or slides. A brief outline is all you should need.

# Presentation Prep

- Don't rehearse right up to the last minute – relax!
- Get plenty of rest the night before your talk.
- Have an extra copy of the current version of your talk slides and/or demo on a flash drive.
- Consider having some hard copies of your presentation to hand out after your talk.
- Good to have with you – a container of water and a package of tissues (or handkerchief). Also business cards, and a notebook and pen.

# Presentation Prep

Show respect for your audience by being *presentable*

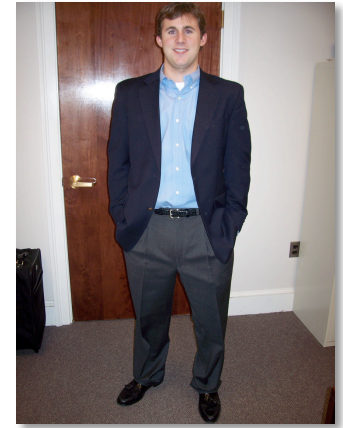
- Grooming and hygiene are important: don't look like you just rolled out of bed and rushed to the conference
- Attire need not be formal, but it should not be sloppy, and it should *never* distract from the speaker. Find out the norms for your venue and audience
- Don't be merely punctual, be early

# What to wear?



Business formal

Business casual



A safe strategy is to dress more for a job interview than for an audition for a Broadway show.

Above, dress suggestions from Boston College's Career Center.

# The Presentation

- When introducing yourself and your topic, look up and smile at your audience.
- Approach humor with caution – it must be germane to your topic. A good joke will break the ice with the audience, but one they don't get may ruin the rest of the talk.
- With good posture, begin slowly to tell your story, and gradually pick up the pace. Make use of the space you have – don't hide behind the podium. Move around a little. Try to engage your audience.
- Be sure to project your voice out into the audience and scan, occasionally making brief eye contact. Talk to your audience, not your slides.
- Be conscious of your breathing and regulate it. Pause occasionally for impact and to let ideas sink in.
- Vary your cadence for interest and effect – avoid a monotone presentation.
- Keep your hands free and use gestures to emphasize certain points, but don't flail about.

# The Presentation: Things To Avoid

- Don't articulate the negative and thereby confirm it:
  - “I know this topic isn't the most exciting...”
  - “It's been a long day so I'll get through this fast...”
  - “I know this slide is busy but...”
  - “You might have trouble understanding this...”
- Don't talk down to your audience and try to impress them with how much technical jargon you know.
- Don't go over your allotted time! End a few minutes early to take questions.
- In a Q & A session following your talk, if you don't have an answer for a question, say so, and offer to get back to the questioner, once you get their contact information. Compliment them that their question was a good one.



# Generic Conference Talk: Intro

Title/author/affiliation (1 slide)

Forecast (1 slide)

Give the gist of problem attacked and insight found  
(What is the one idea you want people to leave with?  
This is the "abstract" of an oral presentation.)

Outline (1 slide)

Give talk structure. Some speakers prefer to put this at  
the bottom of their title slide. (Audiences like  
predictability.)

# Generic Conference Talk: Body

## Motivation and Problem Statement (1-2 slides)

(Why should anyone care? Most researchers overestimate how much the audience knows about the problem they are attacking.)

## Related Work (0-1 slides)

Cover superficially or omit; refer people to your paper.

## Methods (1 slide)

Cover quickly in short talks; refer people to your paper.

## Results (4-6 slides)

Present key results and key insights. This is main body of the talk. Its internal structure varies greatly as a function of the researcher's contribution. (Do not superficially cover all results; cover key result well. Do not just present numbers; interpret them to give insights. Do not put up large tables of numbers.)

# Generic Conference Talk: Summary

Summary (1 slide)

Future Work (0-1 slides)

Optionally give problems this research opens up.

Backup Slides (0-3 slides)

Optionally have a few slides ready (not counted in your talk total) to answer expected questions.

(Likely question areas: ideas glossed over, shortcomings of methods or results, and future work.)

*From Mark D. Hill, Computer Sciences Department, University of Wisconsin-Madison*

# Summary

- Effective public speaking is necessary to advance your career, *it's not optional*
- Giving a good talk requires that your information be well researched and organized
- Public speaking is not publishing – the audience evaluates the presenter as well as the content
- Good public speakers are sensitive to their audience – they have a sense of who they are, what they know, and what they care about
- Good speakers seek to engage their audience
- Practice improves public speaking