

How To Give A Great Presentation

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April 18, 2011

What am I going to talk about?

- I have been interested in presentations since I was a graduate student!
 - I have read many books on the subject!
 - I have quizzed many great speakers!
 - I have witnessed many great talks!
 - I have witnessed many, many, ..., many bad talks!!!
- The Question:
 - What are the basic principles behind a really good presentation?
- This talk is the result...

Why should you be interested?

- Effective interpersonal communication is a key to success!!!
 - Communicating your ideas to others!!
 - Small group collaboration
 - “Distance” collaboration
 - Large group presentations
 - Funding presentations
- We don't do this well at the “Big-UC”
- The basic principles to good communication are the same everywhere

Seven Things to Remember!

- 1) Know your audience
- 2) Know your objective
- 3) Tell 'Em Three Times
- 4) 7 ± 2
- 5) Show off!
- 6) John Wooden's "Eight P's of Success"
- 7) Always Get Feedback

(1) Know Your Audience

- Who are you talking to? And where?
 - Paper Session at IEEE Visualization 2010
 - Seminar at the Center for Advanced Scientific Computing
 - Monthly research review for your Research Group
 - Undergraduate Research Conference Presentation
 - UC Davis Computer Science Department Colloquium
 - Davis Science Center Colloquium
 - Computer Science Colloquium, at Princeton
 - Pitch to an industry group who may donate you equipment
 - Your NSF/NIH/Industry Program Manager
 - Someone who may offer you a job!

(2) Know Your Objective

- My objective is to get some members of the audience to become interested in my work.
- I want the top researchers in the audience to read my paper.
- I want to present seven simple ideas to prospective teachers that will improve their teaching. I want each of them to remember one of these ideas.
- I want to get a job at your company!
- I want you to fund my project!

(3) Tell 'em Three Times

- Each talk should have three segments:
 - a) Tell 'em what you're going to tell 'em.
 - b) Tell 'em
 - c) Tell 'em what you've just told 'em

(a) Tell 'em what you're going to tell 'em.

- What was my fourth slide?
- This is the problem we've solved. This is why it is important. This is the neat part of our solution.
- "This" is what we will talk about today. We will do it "this way". When we are done, you will be able to do "this".

The Teaser



(b) Tell 'em.

- Present a systematic walkthrough of your “method” or “results”.
- Pictures are worth a thousand words – a good video is worth much more.
- Present the details according to your objective.

(c) Tell 'em what you've just told 'em.

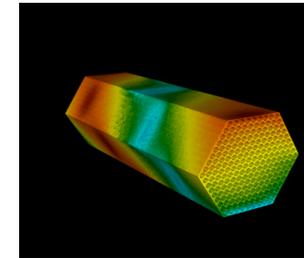
- What will be my last slide?
- Here is “what we have done”. Here is “how we did it.” Here is “what is neat about it.”
- Future work

(4) 7 ± 2

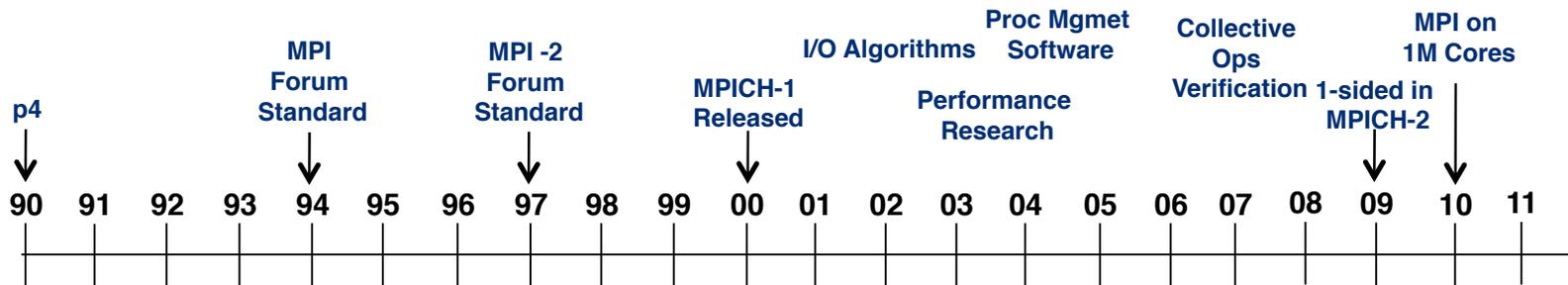
- “The magical number seven, plus or minus two: some limits on our capacity for processing information,” *Psychological Review* 63, No. 2, (1956), 81-96.
- The brain can retain seven, plus or minus two, pieces of information for 15 to 30 seconds before it must be refreshed.
- Greater than this number produces *overflow*.

Portable Programming With MPI and MPICH

- Problem
 - Before MPI, development of parallel programs was stalled; application writers could not commit to a moving target approach to programming.
- Solution
 - Computer scientists worked with parallel computer vendors and application developers and defined a standard programming interface: MPI (Message Passing Interface).
 - Argonne computer scientists developed the first complete implementation, MPICH, helping to promote adoption of the standard.
 - DOE support over the last 15 years has enabled MPICH to scale to larger and larger machines, allowing applications to scale as well.
- Impact
 - Nearly all large-scale parallel scientific applications, in all areas of computational science, are written either for MPI directly or for a library in turn implemented in MPI.
 - 14 of the 15 largest machines in the world run MPICH



MPI-3 Forum Standard
Hybrid Programming
Multithreading
Fault Tolerance
MPICH-2
MPI-IO apps
Scalable Trace Files



(5) Show Off!

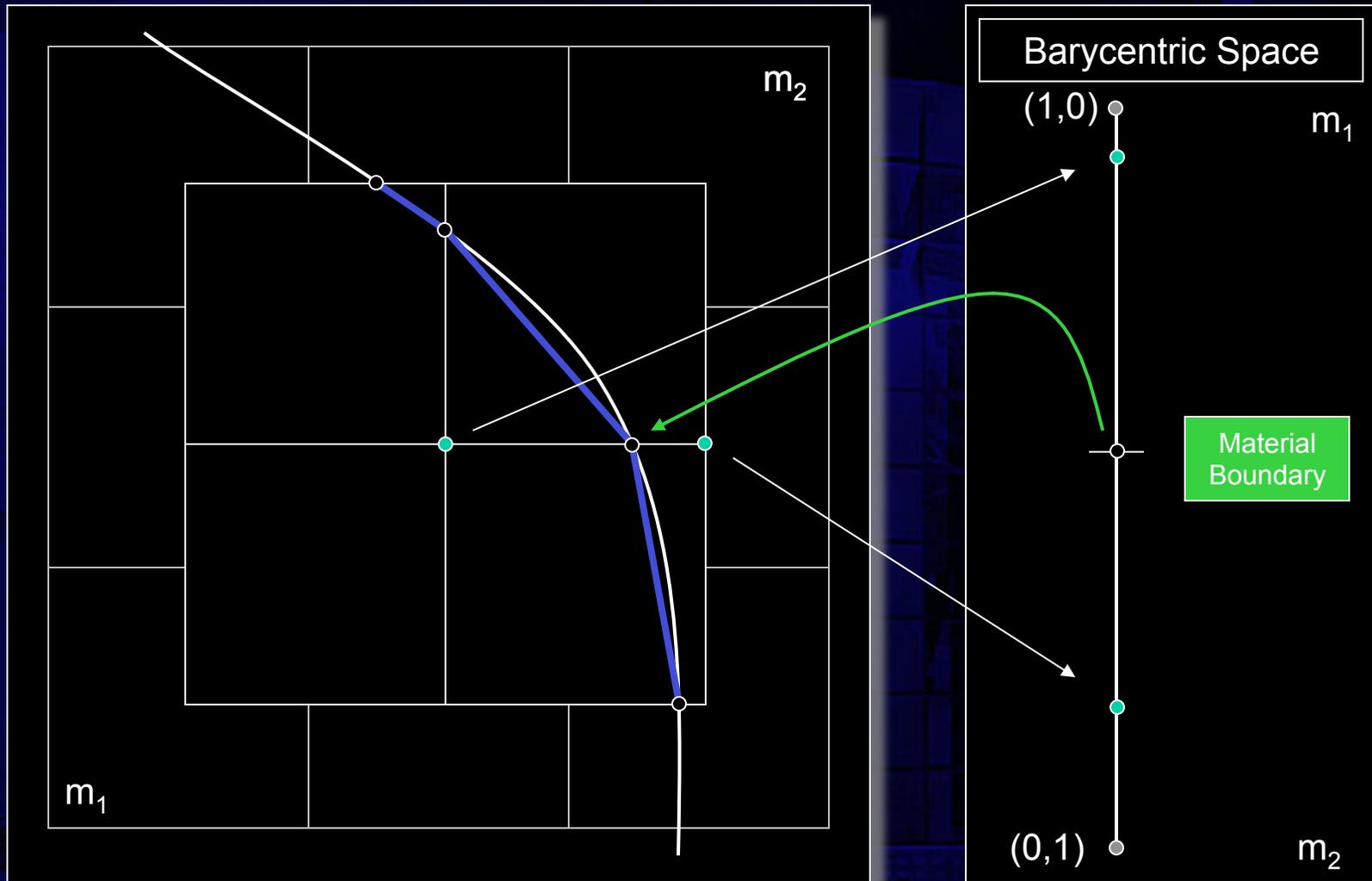
- Always, always, always, always make sure that you present your good material.
- Never, never, never, never skip over your good material.
- Great speakers always show enthusiasm for their work!
 - Great talks are “infotainment” - Bing Gordon
- Its better to be five minutes short than to be five minutes long.

Flash and Speed Kills

The best talks proceed at *a moderate pace.*

“Microsoft Flash” loses the audience.

The Two-Material Case



(6) Remember John Wooden's 8P's

- Who is John Wooden?
- John Wooden's 8P's of Success
 - Plan,
 - Prepare,
 - Practice,
 - Practice,
 - Practice,
 - Practice,
 - Practice, and
 - Practice.

(7) Get Feedback

- Have a “partner” in the audience
- Videos
- Take notes afterward
(and read them over before your next talk)

Notes

- ✓ Plan on something going wrong.
- ✓ Have a backup plan.
- ✓ Visit the podium/room where the talk will be given.
- ✓ Use the tools, test them out.
- ✓ Get to know the A/V people

How Do You Structure a Talk?

- Heilmeier's Catechism
 - What are you trying to do? Articulate the problem using absolutely no jargon!
 - How is it done today, and what are the limits of current practice?
 - What is new in our approach? Why will this be successful?
 - Who cares?
 - If you are successful what difference will it make?
 - What are the risks and payoffs?
 - How much will it cost?
 - How long will it take?
 - What are the midterm and final exams to check for success?

How Do You Structure a Talk?

- Joy's Catechism
 - What are you trying to do? Articulate the problem up front!
 - How is it done today, and what are the limits of current practice?
 - Why should you be interested?
 - What is our approach? What is different about it?
 - Summarize!
 - Take Questions

Make yourself better!

- ✓ Find yourself a mentor!
- ✓ Study great talks!
- ✓ Take every opportunity to talk about your work.
 - ✓ *i.e.*, Practice
- ✓ Master the “elevator presentation”
 - ✓ Here’s the problem!
 - ✓ Why should you be interested!
 - ✓ We have the solution, and here it is!

The Seven Things I Want You to Remember!

- Know your audience
- Know your objective
- Tell 'Em Three Times
- 7 ± 2
- Show off your best stuff! Be enthusiastic!
- Remember John Wooden
- Get Feedback

...and...

HAVE FUN AT THIS!

It is a great feeling to give a talk and know you have done your best to show the audience what you have done.

Diary of the Vis '97 Talk.

1) Presentation to be given on Friday, October 24 at 1:30PM

Audience: Every notable visualization professional in the world. Also, directors of major funding agencies, including those that fund us. Approximately 150 people. Few questions during the talk.

A/V: Requires slides or overhead transparencies

Objective: To get our paper voted as one of the top papers in the conference.

Diary of the Vis ' 97 Talk.

2) Thursday, October 16, 3:00PM

I expected my graduate students to give this talk. Because of conflicts, they could not do it. When I found this out, I immediately set up a meeting with Issac and Greg to generate slides, from our outline of the talk.

3) Thursday, 7:00-10:00 PM

Generated slides

4) Friday, all day

Initial Generation of a few slides - to establish an outline of the presentation

Diary of the Vis ' 97 Talk.

5) Saturday, all day

Generated slides through SGI Showcase.
Generated additional pictures with Greg.

6) Sunday, all day

Generated slides, photographed them (late evening).

7) Monday, morning

Took slides to Illustration Services to be developed.
Refined the talk and generated additional slides.

Diary of the Vis ' 97 Talk.

8) Monday, afternoon

Slides came back overexposed.
Shot new slides, different settings
Refined the talk, generated new slides.

9) Monday, evening

Slides came back overexposed.
Adjusted settings on film recorder with Greg.
Reshot slides for the talk
Printed backup copy of the talk on transparencies

Diary of the Vis ' 97 Talk.

10) Tuesday, morning

Take slides to be developed.
Arrange to have slides sent to Phoenix by FedEx
Generate remaining transparencies.

11) Tuesday, afternoon

Fly to Phoenix

12) Tuesday, evening

Visit the room where the talk will be given.
Stand on the stage, test the portable microphone
and the laser pointer.

Diary of the Vis ' 97 Talk.

13) Wednesday, morning

FedEx delivers slides -- overexposed.
Decide to give the talk via transparencies - my backup.

14) Wednesday, noon

Practice the talk. Too long, must shorten it.

15) Wednesday, evening

Located an SGI system and projector.
Arrange with the A/V staff to obtain an SGI for presentation.

Diary of the Vis '97 Talk.

16) Wednesday, evening (late)

Download the talk from Davis to Phoenix
Restructure the slides.
Practice the talk (2)

17) Thursday, morning

I can show many more images (and transitions) on the SGI.
Download additional images from Davis
Restructure the talk (3)

18) Thursday, evening

Practice the talk (4), practice the talk (5), practice the talk (6). Time is now about right.

Diary of the Vis ' 97 Talk.

19) Friday, morning (early)

Visit the presentation room. Stand on the stage.
Practice the talk at Breakfast (7)

20) Friday, morning

Practice the talk for timing (8) (at the pool) (10:00AM)
Practice the talk for timing (9) (at the pool) (11:00AM)

21) Friday, noon

Supervise setup of the SGI system. Test the slides on the systems. Quick run-through of the talk (10) Test the laser pointer. Eat lunch. Relax!

Diary of the Vis ' 97 Talk.

22)Friday, 1:30PM

Quick run-through of the talk (11)
Give the talk

23)Receive the congratulations for a great job!

Thank You!

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