Pointers on Presentations

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A fantastic resource.

- Read Dr. Vander Zanden's advice on giving effective research presentations:
- http://web.eecs.utk.edu/~bvz/presentation.html
BVZ's Advice.

• The Four Golden Questions of a research talk:
  – Where are we now?
  – Where are we going?
  – How did we get there?
  – What is left for the future?
BVZ's Advice.

- Average adult attention span is 20 minutes.
  - Check out what your audience is doing in 20 minutes.
  - Give them a mental break.

- If you change topics, provide a summary and a break.
BVZ's Advice.

- Introduce concrete examples before formalism
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- With software, do a demo before explaining the details.
• Dr. Vander Zanden says that "sans-serif" fonts are better than not.

• I don't agree. I'm fine with Times-Roman.

• However, some fonts really suck. Stick with the normal ones like Times-Roman, Helvetica or Arial. Don't use this font.

• And changing colors for no good reason is distracting.
BVZ's Advice.

- Limit your bullets per slide to 5 or 6.
- Make your bullets short and snappy.
  - People read all of your slides before they start to listen to you.
- Do not use complete sentences unless they are pithy.
- Do not clutter your background.
- Put a header on every slide with a title.
BVZ's Advice.

- A picture is worth 1000 words.
- Screen snapshots and code listings are useless.
- Special effects are typically distracting.
BVZ's Advice: During the Presentation

- You are your own worst critic.
- Do not read your slides.
  - Shockingly, it's harder to read your slides when your bullets are pithy.
- Bring a glass of water.
- Keep the presentation moving
  - Don't get bogged down by questions.
  - Control the talk.
- Face your audience, not the screen or your notes.
My additions to BVZ's Advice

• Allow the audience to navigate where you are.
  – Outline in the beginning
  – (with timings for long talks)
  – Tell them where you are.
  – Remember to summarize between sections.

• Know your slide style and go with it.

• Know your talking style and go with it.
  – (First few words of every slide)

• If things get too dry, give the audience a break.
My additions to BVZ's Advice

- Prepare and iterate.
  - Pictures, pictures, pictures.
  - Slides filled with text are lazy (including these)
  - Unreadable graphs and graphics are lazy.
  - What's good in a paper is often not good in the talk.

- If you can, know your venue & your equipment.
  - Neither powerpoint nor openoffice/libreoffice are really portable.
My additions to BVZ's Advice

• It's a good idea to highlight things that you care about in your graphs.
  
  – Put the same graph over multiple pages and highlight different things.
  
  – Here's an example from a talk I gave at USENIX FAST in 2013.
Performance

- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
- Performing buffer-constant on various buffer sizes
- Lots of comparisons.
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Memcpy & XOR are as you'd think.

“Anvin*2” is a technique for multiplying 128 bits by two in any Galois Field with just a few SSE3 instructions. (Linux Kernel RAID-6).

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Performance

If you're fast enough, you can see effects of saturating the L2 and L3 caches.

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Traditional techniques (Rizzo, Jerasure, Onion Networks) don't get close to cache line speeds.

(BTW, both axes are log axes)
Non-traditional techniques do better, but require amortization for $w=8$ and $w=16$. 
Our techniques perform identically to “Anvin*2” for $w = 4, 8$ and $16$.
- Cache limited.

Alternate mapping makes a significant difference.

$w=16$ and $w=32$ show some amortization effects.
My additions to BVZ's Advice

- When people ask for your slides, give them PDF and not PPT / ODP.
- Make sure that the PDF has citation information on page one.
- Go through your slides, and make sure that the PDF looks good (check your animations).
- You can give them 1000 pages – you don't care about their paper and ink costs.
- They will be lazy and will steal your slides.
- So don't let them make you look bad!
My additions to BVZ's Advice

- Go over your presentation before you give it.
  - Even if you have given it before.
  - If you are inexperienced, go over it "live".
  - If parts are really hard, then script them.

- Don't be hungover.

- Mind the onion loaf.
My Biggest Disaster – DEC SRC, 1990

The senior people present:

Kai Li
Princeton.
(my advisor)
Founder of Data Domain
(sold to EMC in 2009 for 2.1 billion)

Ed Lazowska
Washington.
Multiple advisory boards to congress & the president.

David Cheriton
Stanford.
"Professor billionaire"
580th wealthiest person in the world (Forbes)

John Guttag
MIT.

Butler Lampson
SRC.
Founder of Xerox PARC.
Turing award winner.
My Biggest Disaster – DEC SRC, 1990

The students present (that I remember):

- **Brian Bershad**
  - Professor at CMU, then back to Washington.
  - Led Google operations in Seattle, now Russia.

- **Tom Anderson**
  - Professor at Berkeley, then back to Washington.

- **Jeff Chase**
  - Professor at Duke.

- **Kathy Yellick**
  - Professor at Berkeley.

- **Mark Greenstreet**
  - Professor at UBC.
What did I do?

- I had given the talk three months before to 300 people, so I didn't even give it a browse.
- I went to Gordon Biersch the night before and had about 6 beers.
- I didn't mind the onion loaf.
- And I got to watch faculty and students alike view me with disdain and disappointment.
(Go over the hall of shame)