A Talk on Talking

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Why, What & How of talking
Why listen?

• people fear public speaking
• you *will* speak
   – class, work, thesis, job
• just a skill to learn
• success & enjoy

*Better Life!*

• why me? -- victim of dismal talks
**What: Messages** (Take away)

• Primary - Messages
  – pick *messages* the audience will receive & tell them early

• Plus
  – common mistakes – terse
  – say “you”
  – like design in SE & ...
like

• Turn left or right?

• Software (etc) design
  
  not do : compute like hell
  
  do do: produce output.
audience

• What do they know/believe
  – right level & means

• They will be mixed

• Get their interest
  – inform vs persuade --- change

“here’s this stuff”
versus
“you have a problem, I have a cure”
focus: they receive messages;
not: you perform

say “You“
messages !!!!!!!

• you *must* have messages
• audience’s destination
• Say “your takeaways are ...”
• a few [1-3], not many
  – plan supporting sub-messages
• plan *backwards* from them
  – reduces worry about “I”
  – decide what to say & when to stop

Tell them!
messages (2/3)

- “I learned”
  so what?
- “I have too little to say”
  bah, not so; if so hustle
- “I don’t have enough time”
  so change messages;
  point to other resources
elevator
- “… then I did X and then I did Y …”
  is your chronology important …
to them?
NOT a table of contents
   - “I will say first this, then that, ...
not “issues”; content
not the talk itself

remember:
NO MESSAGES --> NO TALK!!
Ensembl messages

- One of the premiere databases used by the bioinformatics community

- Answers scientists' complex questions easily, quickly, and specifically

- Demonstrates serious potential to "scale up"
BioSQL

- BioSQL basics
- Unifying schema for sequence data
- Open
  - Open Bioinformatics Foundation
    » http://open-bio.org
  - OBDA
    » http://obda.open-bio.org
- Integrated with RDMSs and languages
- Issues
How: topic tree (1/2)

• like program design

• display it any way that works

• depth depends on audience
  – don’t preach to the choir
  – connect to what they know
• **practice !!**
  - how long (1/3 milestone)

• **prune**
  - remove deadly details
    » proofs, syntax
  - keep good examples
  - remove/refine messages
talk’s order is *not* the talk’s planning order

• **Tell them** the messages early
  – not a mystery & helps panic pruning

• **decide precedence after content**
  – many paths to success
  – depth first vs breadth first
  – some order may not matter
    » set vs sequence
How: Practices

(proff read)

- timing
- tension
- tedium
- techniques

"advance organizer"

speed bump
• prune during practice
  – be aware - most go slower
  – early milestone & warning
• too much intro !!!
  – they know it & squanders time
• plan for disaster
  – “eeeek” doesn’t impress
• behind? *don’t* talk faster
  (they can’t listen faster)
• set pace for them not you
• first few minutes
  – why should they listen
  – why should they believe you
• finish
  – impress main messages
  – don’t gasp or get tossed off the stage

**teaching: more forgiving time frame**
tension

• audience: on your side
  – want you to succeed
  – look at them

• butterflies are normal
  – cheek on table & hands together

• plan, prune and practice so you can relax

• messages: about audience

• say “you”
tedium

- smile! no monotone!!!!!!!
- interact with them
  - dialectic mode is tough
- cutesy alliterations are ok
- occasional witticism is good
- a cartoon
  - relax you & lighten mood
  - relevant
- messages are the key
techniques

• speed bumps
  – provide context
  – tie together parts of topic tree
  – not just repeat
  – emphasize, expand, link
toward
messages

• don’t kill interest with
  – too much detail
  – too little detail
• write important things!
  – multi-sensory learning
• no pre-emptive apology
  – “Well, I don’t know much about this subject”
  – doesn’t work and dooms the talk
• talk tool – powerpoint
  - maybe
Overheads (1/3)

• informs them; focuses you

• *use* overhead
  – support messages
  – tell them why it’s there

• **not too busy** 5-7 “chunks”
  
  • size 24

• **transitions**
  – practice physical movement
  – know your transition blurbs
• Suppose you write quite a bit on one slide, that is, putting complete and perhaps compound sentences, perhaps even paragraphs right out there in front of the audience. If you do such a thing and keep on talking then they will have to choose when to pay attention, to you, a mere buzzing voice, or to the stimulating visual of the slide. They will choose to ignore you. So, if you write a paragraph like this one, say “read this paragraph” and be quiet until they do. Surely you get the point I was trying to make with this verbosity. 😊
overheads (2/3)

• **terse = good:**
  - phrases
  - powerful verbs
  - highlight key points

• **verbose = bad**
  - unless it is read
  - sentences & paragraphs
  - unlabelled graphs
  - tables of numbers

revise, revise!!
overheads (3/3)

• complex figures are ok
  – spend time
  – point to spots

• say, literally:
  “what you should get from this figure is ...”
3. Genomic Data Modeling

- Genomic Schema
- Fragments
- Categorical Rules
- Derived & Intermediate Data

4. Complex Query Modeling

- Similar_Join Operator
  - BLAST_Join
  - Subseq_Join

5. Biology Case Studies

- MicroArray
- Sequence Selection
- Essential Research Topic
- Biology Domain Topic
- BLAST_Join

6. The Similar_Join Operator

- Biological Knowledge Representation
- RDBMS Content-neutral Extensions
- Genomic-specific RDBMS

Bioinformatics Software Tools

- Bioinformatics Engineering
- Requirement Analysis
- Design
- Implementation

- Similarity Search Tools
- BLAST
- FASTA

Biology Domain

- Sequence Annotation
- Expression Analysis
- Gene Indexing
check

- zippers, straps, belts, stains, stripes
- bladder
- tics [ummmm, like, ok, you know]
- room: stand (re-arrange), whiteboard (marker), lights, A/V
- laser pointer (battery); do not waggle
- mike, your volume & modulation
- clock [warning: milestone]
- introducer says your talk title
- “Thanks, xxx. Hello, I’m glad to be here. ...”
think about

- battery
- lunch
- cords: have them; do not trip
- disaster
- water
- face the audience
- handout
- demo
- Q’s [tla’s] in midst
- “excellent question”
end strongly

- do not say “oh, I forgot ...”

- revisit your messages
project report

• messages
• problem
• kind of work
• evidence
• new
• Big WOW!
• But ...
messages revisited

if you:
plan backwards
audience
receives messages
with topic tree
prune & practice

→ joy for them, and you too