

Giving Good Talks

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Disclaimer

- This is *not* an example of a good talk
- For a good talk you must:
 - Spend a lot of time preparing and practicing
 - Have as few words as possible
 - Tell a clear story (not just a list of things)



General Talk Advice

- Take time to prepare a talk
- Practice!
 - 3 times? Once with live audience
 - **Goal:** know what to say next, but not “mechanical” or “scripted”
- Talks are a skill to get better at



Your talk should tell a story!

- A few simple points, not all the details
- Audience should always know what the point is, no meandering
- One story, but can have multiple chapters with transitions



Your talk is a commercial!

- Not an archival paper, don't need all the details
- Goal is to inform, give main ideas, get them to read the paper
- Audience will only remember 1-2 main points

Planning The Talk

- Motivation
- Model, Problem Statement
- Results
- Conclusion

Best way to plan: pretend you are explaining it to a friend!

Planning The Talk

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- Model, Problem Statement (simple example?)
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Planning The Talk

- **Motivation** (can be fuzzy, why it is useful)
- **Model, Problem Statement** (simple example?)
- **Results** (theorems, graphs, a few details)
- **Conclusion**

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Planning The Talk

- **Motivation** (can be fuzzy, why it is useful)
- **Model, Problem Statement** (simple example?)
- **Results** (theorems, graphs, a few details)
- **Conclusion** (short, 1-2 main conclusions)

Best way to plan: pretend you are explaining it to a friend!

Planning The Talk

Consider your audience

- Technical level
- What do you want them to remember from your talk?
- Picture a specific person in your head, make the talk for them

Planning The Talk

Not too many details!!!

Most common problem

Planning The Talk

Not too many details!!!

Most common problem

But still enough details

Planning The Talk

Don't oversell your work!

Planning The Talk

Don't oversell your work!

Don't undersell your work!!!

Making Slides

- Lots of pictures (but not animations)
- As little text as possible (can say in words)
- Not too many equations
(be prepared to spend a lot of time explaining them)
- Graphs are nice
(be prepared to spend a lot of time explaining them)
- Lots of blank space, not too dense

Stuff at the bottom may not be seen!!!!

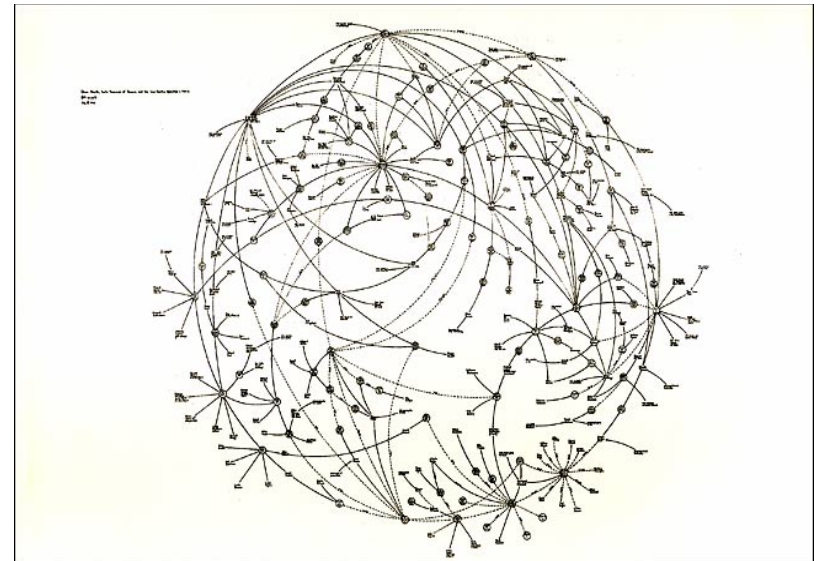
Networks in Theoretical Computer Science

- A major focus of Theoretical Computer Science is the study of networks
- Networks arise in many contexts, with many different properties
- For example, the Internet, Networks of processors, Distributed Databases, Social networks, Control-Flow Networks, Biological networks
- This is a terrible slide, there is too much text and it is impossible to read
- Bla bla bla, no one is going to read this anyway, everyone's eyes are blurry from all this text. I can keep writing more and more details, but I should really just say them out loud instead

Networks in Theoretical CS

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- Networks of processors
- Distributed Databases
- Social networks
- Control-Flow Networks
- Biological networks
-



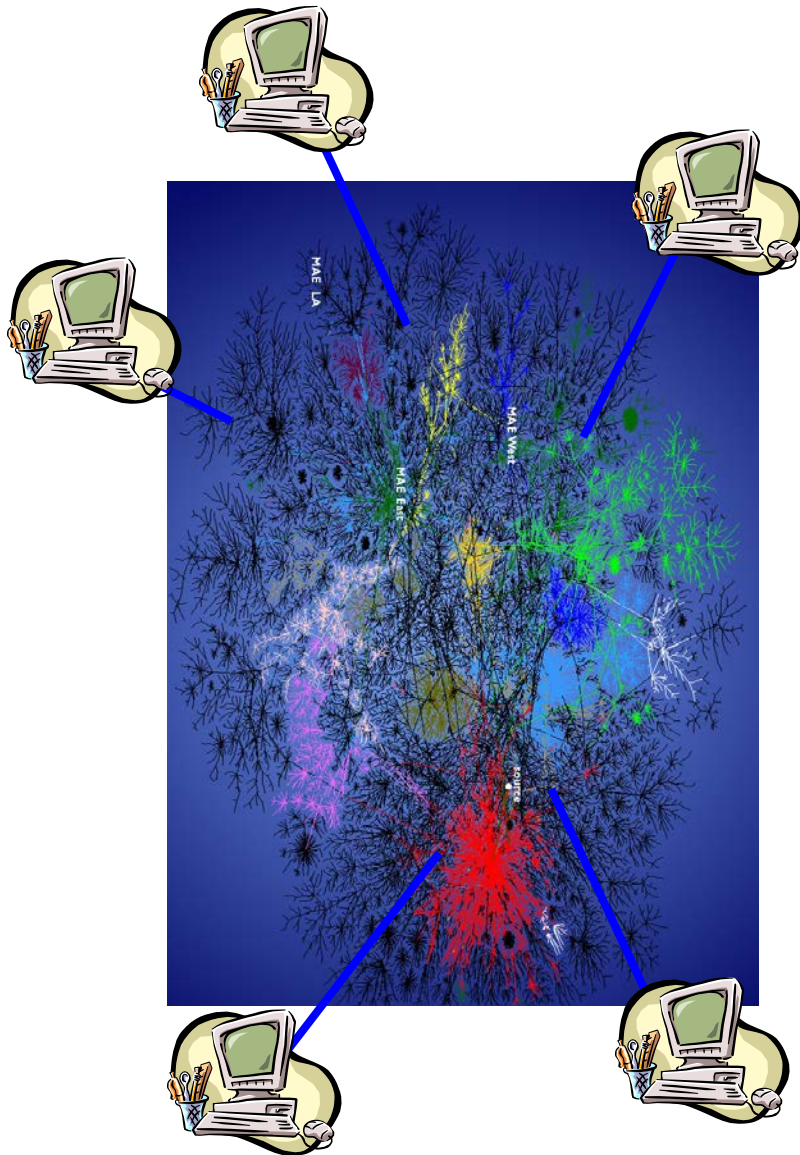
Centralized Control

A majority of network research has made the centralized control assumption:

Everything acts according to a centrally defined and specified algorithm

This assumption does not make sense in many cases.

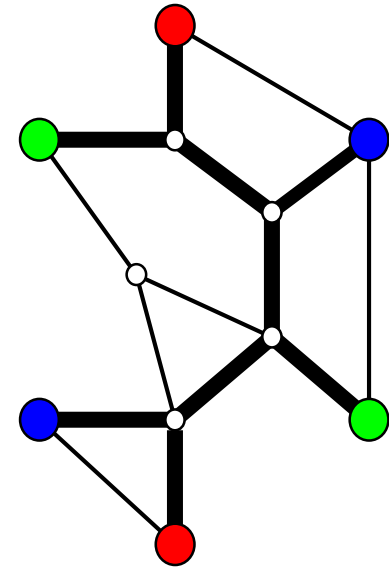
Self-Interested Agents



- Internet is not centrally controlled
 - Many other settings have self-interested agents
 - To understand these, cannot assume centralized control
-
- Algorithmic Game Theory studies such agents

Agents in Network Design

- Traditional network design problems are centrally controlled
- What if network is instead built by many self-interested agents?
- Properties of resulting network may be very different from the globally optimum one



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Making Slides

- Outline slide is usually useless for short talks
- Outline:
 - Introduction
 - Motivation
 - Problem Statement
 - Results
 - Experiments
 - Conclusion
- Better to have **clear story with transitions**



Making Slides

- 1 slide = 1-2 minutes.
 - Less = going to fast
 - More = slide has too much stuff on it
- 1 slide = 1-2 points.
- Large font
- They will forget definitions and notation, even if they were on previous slide



Making Slides

Main goal when making slides:

Inform without clutter



Making Slides

Formulas: People can't read them, get hypnotized



Making Slides

Formulas: People can't read them, get hypnotized

If must include them, explain and use labels with arrows

$$\text{cost}_i(G) = p * (\text{links bought}) + \sum \lambda_{ij}$$

price

How much i likes j



Giving The Talk

- Dress: Neatly, one level better than usual
- Bring your computer, USB stick with talk
- End the talk on time
 - When practicing, notice a few time “checkpoints”.
 - Know what to skip (what is crucial and what is extra?)



Giving The Talk

- **Memorize:**
 - First few sentences
 - Transition sentences
 - Parts where easy to get confused
- **Make eye contact with audience**
- **Slow Down!**
 - Take pauses when you speak (for emphasis)
 - Repeat important points

Giving The Talk

- *Be enthusiastic!*
 - Don't speak in monotone
 - If too quiet, get a microphone, do not be shy to ask for one!
- Don't be condescending or insulting
- For the main things you want them to remember:
 - Tell them what you are about to tell them
 - Tell them
 - Tell them what you just told them



Giving The Talk

Always come back to the Big Picture:

- Why work on this problem?
- Core differences between your problem/approach/results and others
- Main results
- Main insight or big idea (only thing the audience will remember)



Answering Questions

- Don't be angry or dismissive “That's a good question”
- Prepare as much as possible in advance
- Ask if don't understand question
- Great answer: “Don't know, but will think about it, maybe can talk after?”
- Don't bluff or try to fool them
 - Admit mistakes or important concerns
 - Say if you don't know

Answering Questions

Sometimes audience members make comments:
this means they paid attention!

Killer Questions:

“Isn’t this just a simple extension of X?”

“Hasn’t this already been done in Y?”

“I don’t think your result/model makes sense.”

Be polite!



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