

Tips to Make a Clear Research Presentation

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Logistics

- ▶ Every student writes a report of *all* the assigned papers of your topic
- ▶ Each group will create slides summarizing the papers of your stack in a comparative manner
- ▶ This Thursday, each group will present the summary slides (20-30 min each)
- ▶ Check Piazza for details

Goal of Project Presentations

To **inform** your audience and **set up topics** for them to

- ▶ discuss
- ▶ work together

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Success metric

- ▶ Efficiency: How fast can you deliver the message with listeners following you?
- ▶ Effectiveness: How well will you achieve the goal of the presentation in your mind (solicit ideas, invite collaborators, convey information, ...)?

Common Mistakes

Assume your audience knows as much as you do

- ▶ where the discussions ended up last time
- ▶ your exact problem setup
- ▶ the goal of a sub problem
- ▶ the challenges you are facing
- ▶ your terminology
- ▶ terminologies from a paper
- ▶ ...

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Present without interacting with audiences

- ▶ talk, talk, talk
- ▶ show the words and figures without interpretation
- ▶ show too many slides
- ▶ ...

Flow to Inspire Engagement

What-Why-How Flow

- ▶ Make sure the audiences know **what** you are talking about.
- ▶ Tell a logical story about the background and **why** we decide to focus on a specific problem,
- ▶ Provide the reasoning that leads to the high-level idea, and step-by-step guidance to show **how** you solve the problem

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Unfortunately, most students tend to start from **how** :(

- ▶ A cold start, many people get lost at the beginning
- ▶ Even if someone follows, he/she could not position your efforts, hence could not appreciate your work

Flow to Inspire Engagement

The What-Why-How flow should be used in

- ▶ arching the whole presentation
- ▶ also explaining specific issues

What

- ▶ Define key concepts before referring to them
- ▶ Use formulas to illustrate precisely, and use visual signs to illustrate intuitively

Why

- ▶ Motivate the problem: is the problem interesting/important/novel, ...?
- ▶ Explain why formulating the problem in this way but not other ways
- ▶ This is the most difficult part. If well motivated, explaining “How” becomes easy

How

Introduce your approach in top-down manner

- ▶ Provide the reasoning that leads to the high-level idea
- ▶ Provide step-by-step guidance to show **how** you solve the problem
- ▶ Make sure your presentation flows very well (one sign is that, smart audiences can predict what would appear)
- ▶ Define new concepts along with describing the approach

Practice, Practice, Practice!

- ▶ Rehearse your presentation with friends helps a lot
- ▶ Beginners, please write the script of every slide
- ▶ The first few times are the most difficult, but you will improve quickly if you take the first few times seriously
- ▶ Everyone could make it given enough practice!