



**POLYTECHNIQUE
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INF[67]900E Lecture 6 – Presenting



Dr. Bentley James Oakes

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Deliverables

February 15th *** TODAY ***

- One/two page critical review of a paper
- Template on Moodle
- Evaluated on being **constructive, specific, professional, structured**
 - 0 to 3 points for each category

February 22nd

- One page evaluation of another student's review
- Template on Moodle
- Evaluated out of 5 marks on having **lessons present, lessons missing, general feedback**

February 29nd

- NSERC proposal, one page text, one page references
- Must fit NSERC presentation guidelines (see Moodle)
- Evaluated on structure and clarity, through peer review

Last Lecture

1. Paper structure
2. Disseminating (partially)



This Lecture

1. Presenting
2. Disseminating your work



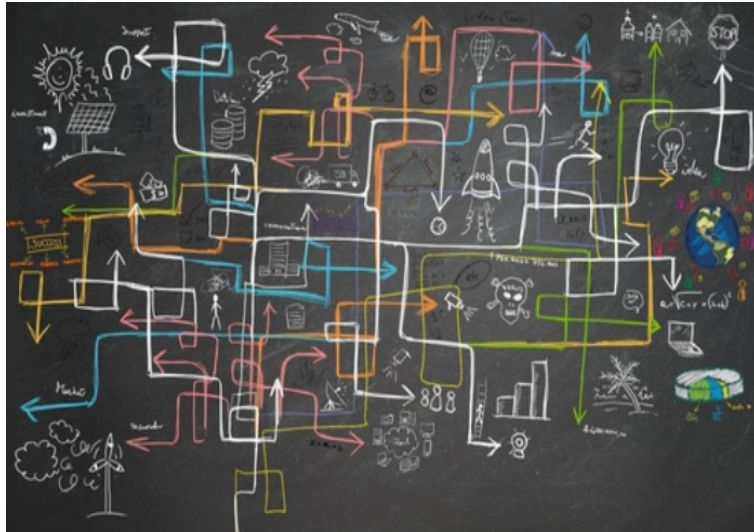
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Problem

Problem → **Approach** → **Evaluation** → **Conclusion**

Many Presentations Need Improvement



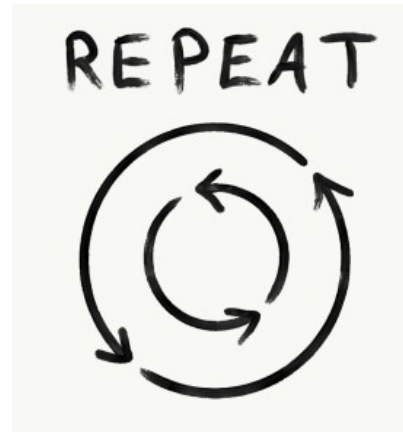
- We don't have time / energy for bad presentations!

Problem → **Approach** → **Evaluation** → **Conclusion**

Why?



- Lack of experience



- Lack of practice



- **Lack of guidance**

Problem → **Approach** → **Evaluation** → **Conclusion**



Impact



- Better presentations



- Happier audience



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Our Approach

Problem → **Approach** → Evaluation → Conclusion



Communication Course

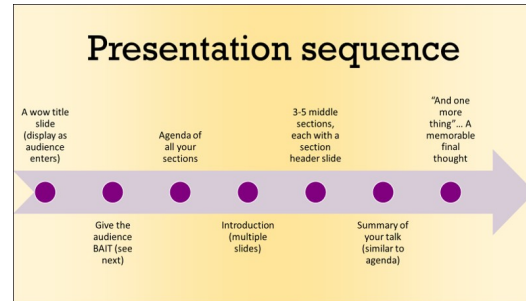
- INF6900AE - **Communication and Technical Communication** course
- Train 20 students in reading/writing/presenting
- Gave detailed advice on presenting

Goal: **Students able to deliver high-quality research presentations**

Problem → **Approach** → Evaluation → Conclusion

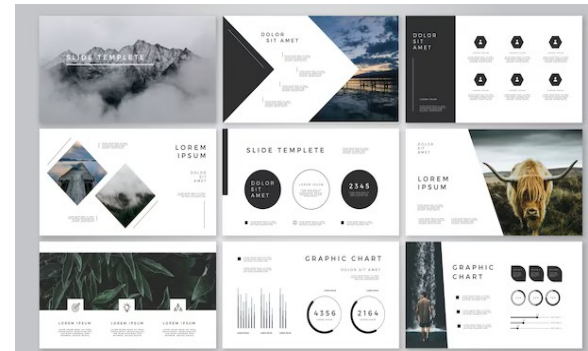


Topics Discussed



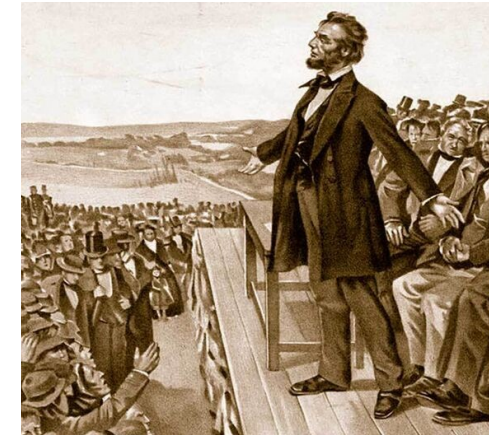
Structure

- Structure of presentation
- Narrative



Visuals

- Clear
- Colourful



Oration

- Dynamic
- Confident

Problem → **Approach** → Evaluation → Conclusion



Evaluation / Results

Problem → Approach → **Evaluation** → Conclusion

Evaluation

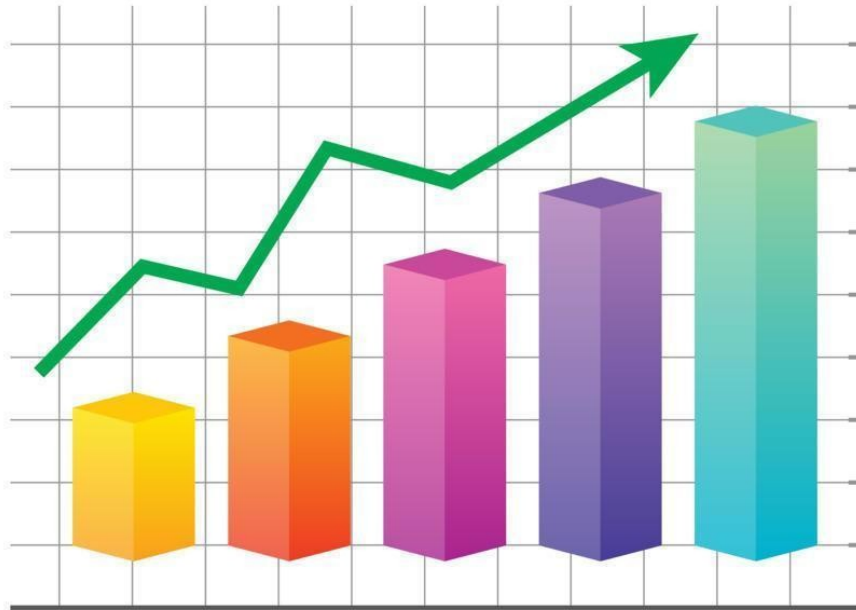
- Students gave presentations in class
- 6 minutes + 4 Q/A
- On paper they selected
- Evaluated on
 - **Visual quality**
 - **Oratory skills**
 - **Time management**
 - **Clarity in presenting/Q&A**



Problem → Approach → **Evaluation** → Conclusion



Results



Strong grades across class

Problem → Approach → **Evaluation** → Conclusion



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Discussion and Takeaways

Problem → Approach → Evaluation → **Conclusion**



Discussion

Pros

- Delivering presentation advice made students feel more confident

Cons

- Need more iteration on presentations for improvement

- Main takeaway: **Explicit guidance needed**
- Future work: Improve teaching slides

Problem → Approach → Evaluation → **Conclusion**

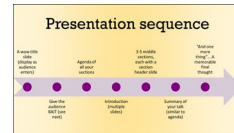


Conclusion

Teaching INF6900AE Communication class



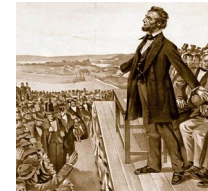
- Lack of guidance



Content



Visuals



Oration



Strong student grades

- Main takeaway: **Explicit guidance needed**

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How to Give a Killer Presentation

Lessons from TED by Chris Anderson

<https://hbr.org/2013/06/how-to-give-a-killer-presentation>

- Frame Your Story
- Plan Your Delivery
- Develop Stage Presence
- Plan the Multimedia
- Putting It Together

What It Takes to Give a Great Presentation

by Carmine Gallo

<https://hbr.org/2020/01/what-it-takes-to-give-a-great-presentation>

- Great presenters use fewer slides — and fewer words.
- Great presenters don't use bullet points.
- Great presenters enhance their vocal delivery.
- Great presenters create "wow" moments.
- Great presenters rehearse.



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Content



Presentation structure vs paper

- 1) Title
- 2) ~~Abstract~~
- 3) Introduction
- 4) ~~Background~~
- 5) Approach
- 6) Evaluation set-up / results
- 7) Discussion
- 8) ~~Related Work~~
- 9) Conclusion

**Leave out the
detail/boring parts!**



Main parts

Context/Problem

- Motivate the problem
- Interest 100% audience

Approach/Evaluation

- Report contributions
- Interest 30% audience

Takeaways

- What's main takeaway
- Interest 100% audience

Target presentation to audience

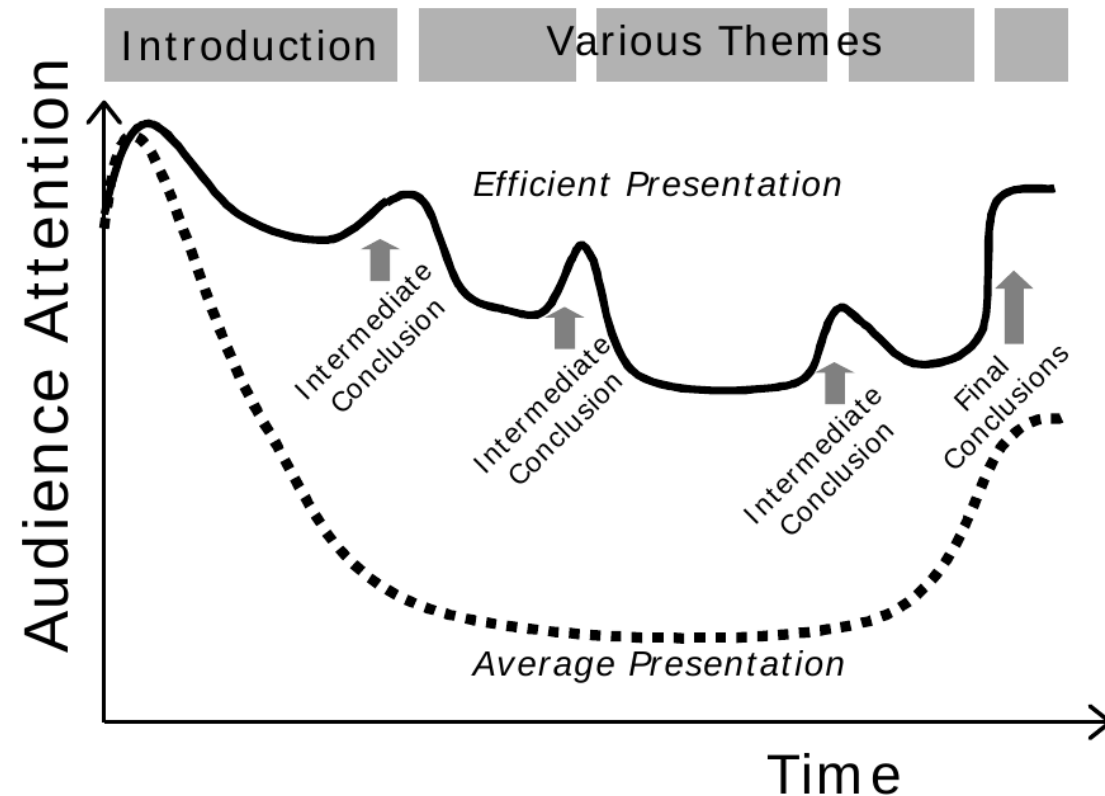
Presentation is an
advertisement/summary
for the paper

Point to the paper!
Or have backup slides

Narrative

- Humans love stories
- Have to engage audience

- Where is tension?
- Ups and downs in presentation



We wanted to solve important problem → We solved it
Problem/resolution in approach, results, takeaways

Rule of Threes

- [https://en.wikipedia.org/wiki/Rule_of_three_\(writing\)](https://en.wikipedia.org/wiki/Rule_of_three_(writing))
- Storytelling/jokes/slogans are better with *threes*
 - *Liberté, égalité, fraternité*
 - *Friends, Romans, countrymen, lend me your ears*
 - *blood, sweat and tears*
- Lesson: Use threes (sections, elements) wherever possible





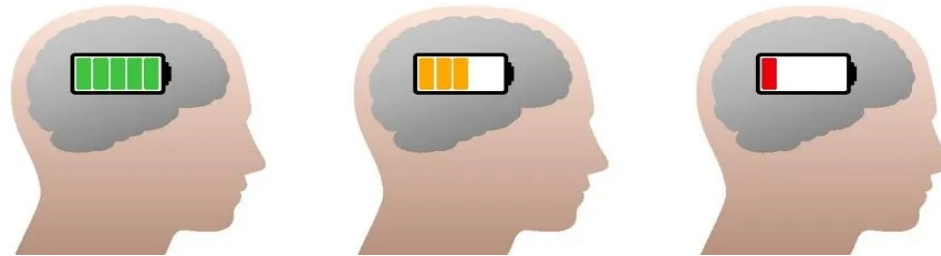
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Visuals



Cognitive complexity



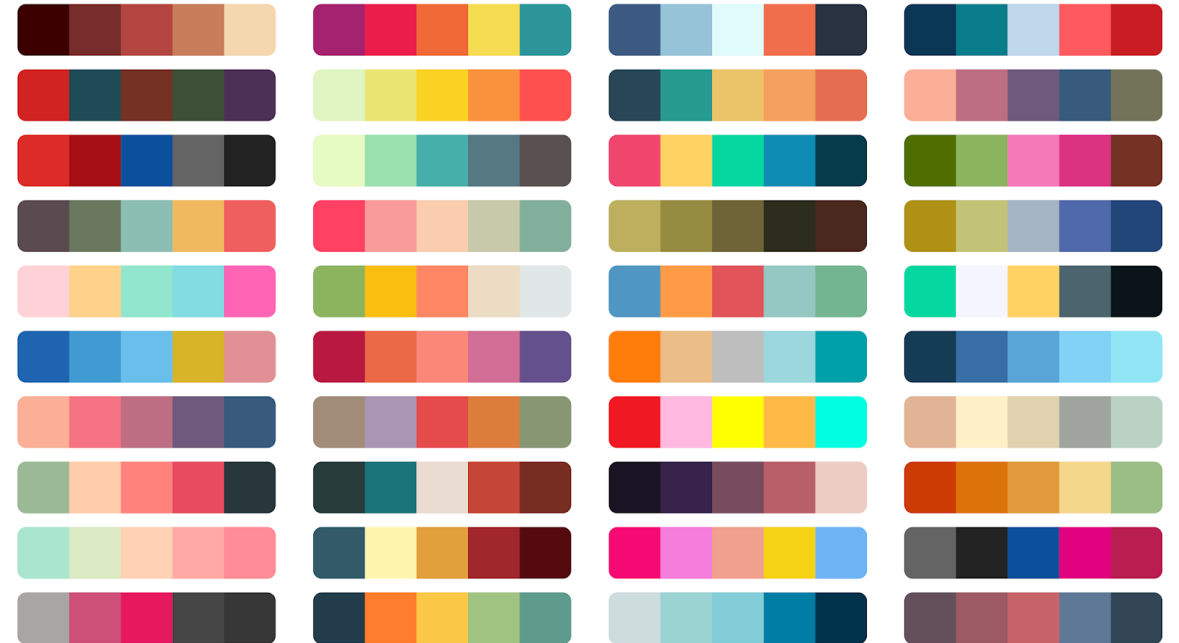
- Critical principles:
 - **Every word (written or spoken) must be processed by audience**
 - **Audience cannot listen and read at same time**
- **Audience has finite attention battery, do not waste it!**



Minimizing

- Minimal text, bullet points, remove words like 'the'
 - When speaking, construct speech around sentence

- 5-7 objects on slide
- Contrasting colours for readability
- Avoid inconsistent spacing/fonts





Images

Make sure you have the copyright to images

- Few images, simple and colourful





Zen Presentation



Zen Presentation



- Have only a few images, no text
- Audience listens to oration
- Pros:
 - Focuses attention
 - Talk doesn't exist without context
- Cons:
 - Speaker must be very good
 - Slides are useless after



Signposting

- Tell the audience where they are
- Guide them through presentation

Problem → **Approach** → Evaluation → Conclusion

- Longer talk needs more signposting



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Any Questions?



Any Questions?

- Don't do this!
- Put a summary of presentation on last slide
- Example in next slide

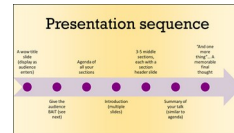


Conclusion

Teaching INF6900AE Communication class



- Lack of guidance



Content



Visuals



Oration



Strong student grades

- Main takeaway: **Explicit guidance needed**

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Orating



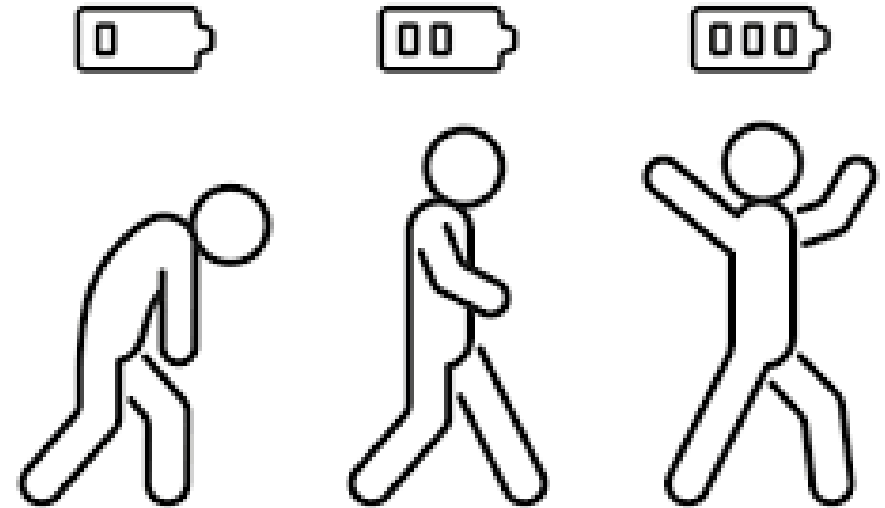
You are the expert!

- Nobody else knows your research
- You are the expert, your time to talk, everyone else must listen
 - Important principles
 - Everyone wants you to succeed
 - Fake it until you make it
 - Orating is very human activity



Keep attention!!

- Have to keep everyone's attention from moment one
- Pause before you start
- Bring **slightly higher energy** than audience
- Don't worry if people stop paying attention
 - If too noisy, ask if there's a question





Voice

- Loud and strong
- Project to the back
- (Almost) can't be too loud
- Dynamic
 - Ups and down – variety
 - Pitch (high/low)
 - Tempo (fast/slow)
 - Tone (questioning/command)
- Remove fillers (um, uh)
 - Instead, simply pause





Body



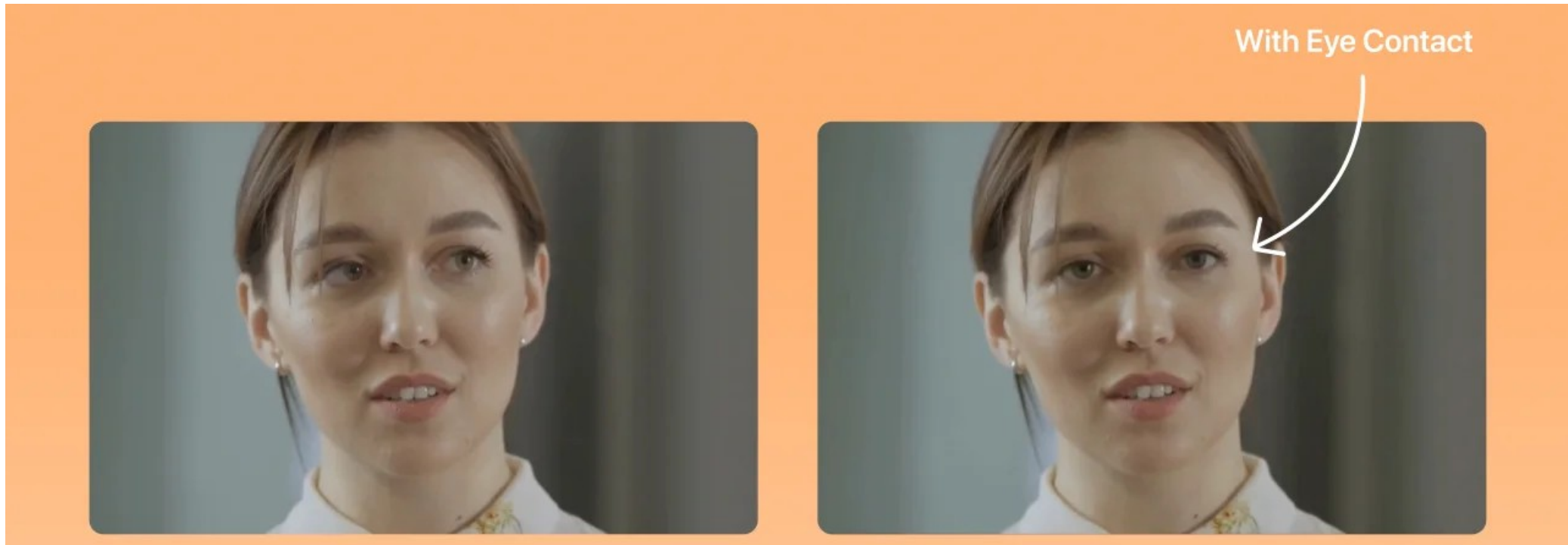
- Good posture



- Expressive hands
- Use space around body

Eye contact

- Look at those who are listening





What to wear

- “Business casual”
 - Sweaters, collared shirts
 - Nicer shoes





What to bring

- Bottle of water
 - Laser pointer
 - Pencil/pad for notes
-
- Maybe using laptop for presentation
 - Power cord, all display settings set, appropriate ports



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Examples

Three Minute Thesis

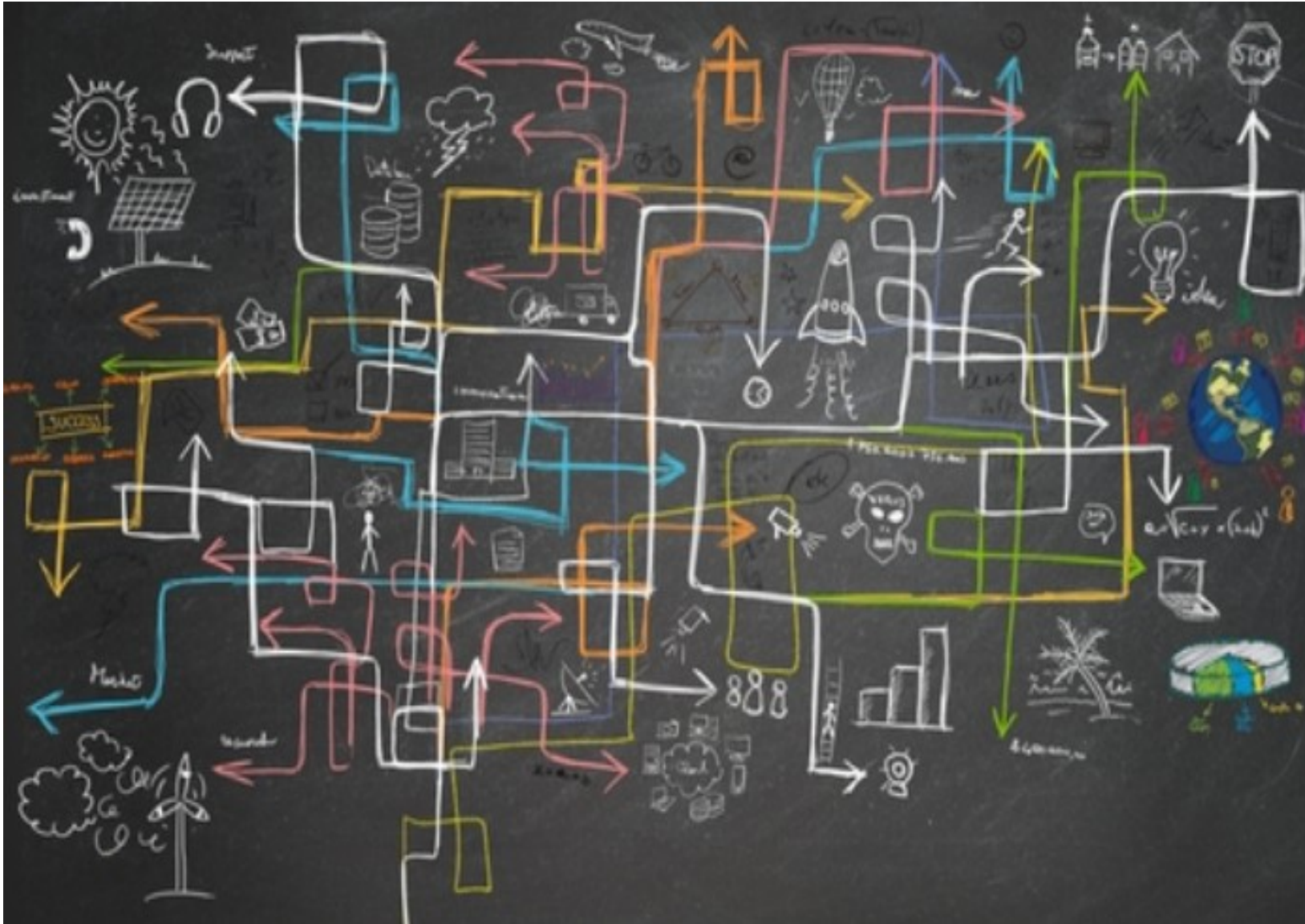
- Search Youtube for Three Minute Thesis

“participants present their scholarly and creative activity and its wider impact in 3 minutes or less.

The challenge is to present complex research in an accessible and compelling way with the assistance of only static slide.”

- Three Minute Thesis (3MT) 2011
Winner - Matthew Thompson
- <https://www.youtube.com/watch?v=pvjPzsLIyGw>

- 2014 International Trans Tasman 3
Minute Thesis Competition – Siti Aimi
Sarah Zainal Abidin
- <https://www.youtube.com/watch?v=nqchpRM77No>



Definition 15. Typed Attributed Graph

A typed attributed graph is a 7-tuple

$\langle VG, VD, EG, EN, A, EEA, (s_j, t_j)_{j \in \{G, NA, EA\}}, \tau \rangle$ where:

- VG and EG are the sets of vertices and edges for the graph;
- VD is a finite set of data vertices;
- (s_G, t_G) is a pair of functions $s_G : EG \rightarrow VG$ and $t_G : EG \rightarrow VG$ that respectively provide the source and target vertices for each edge in the graph

THANK YOU!

Topics:

- 1. Presenting
- 2. Disseminating your work



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