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INF[67]900E Lecture 6 – Presenting

Dr. Bentley Oakes

[bentleyjoakes.github.io](https://bentleyjoakes.github.io)



# Deliverables

## Sept 26<sup>th</sup> (today)

- One page summary of a paper
- Hand-in the summary and the PDF on Moodle
- Evaluated on being **clear, specific, and structured**

## Oct 3rd

- Two page critical review of a paper
- Template and excellent examples on Moodle
- Evaluated on being **constructive, specific, professional, structured**

## Oct 10th

- Evaluation of another student's review
- Performed through Moodle, few sentences per criteria above
- Evaluated on having **lessons present, lessons missing, general feedback**

# Last Lecture

1. Paper writing
2. Paper structure

# This Lecture

1. Mock Presentation
2. About Content
3. About Visuals
4. About Delivery





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Improving Presentations with Explicit Advice

Dr. Bentley Oakes

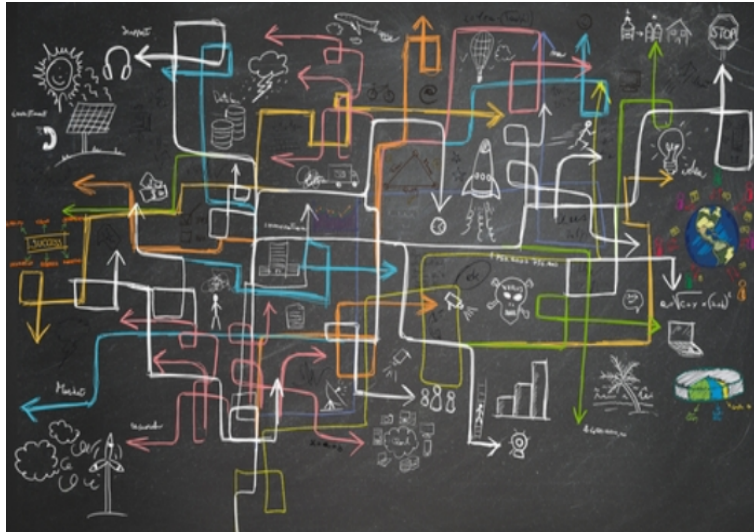
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# Problem

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



# Many Presentations Need Improvement



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

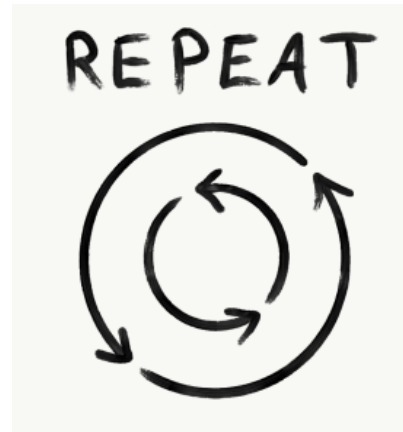
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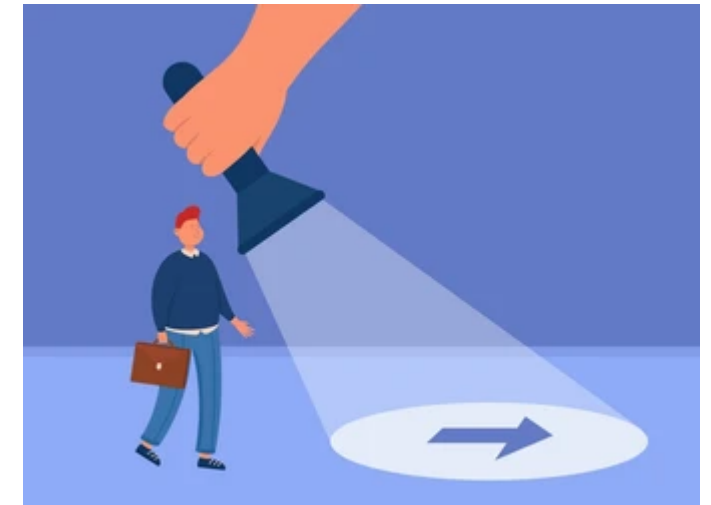
# Why?



- Lack of experience



- Lack of practice



- Lack of guidance

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

# Impact



- Better presentations



- Happier audience

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

# Our Approach

Problem → **Approach** → Evaluation → Conclusion



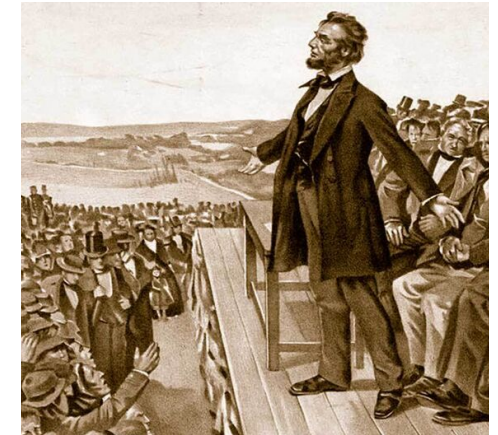
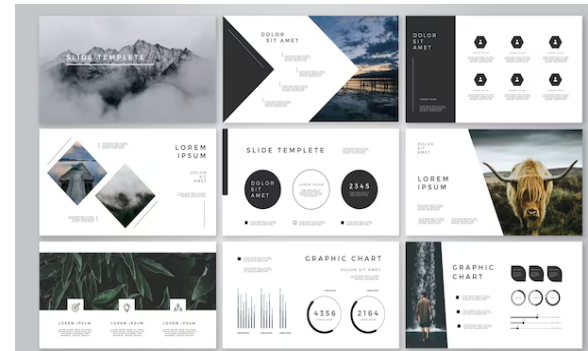
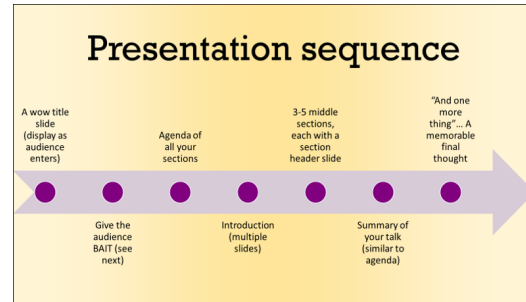
# Communication Course

- 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



# Discussion and Takeaways

Problem → Approach → Evaluation → **Conclusion**

# Discussion

## Pros

- Delivering presentation advice made students feel more confident

## Cons

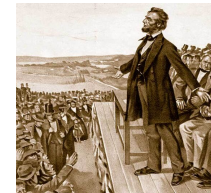
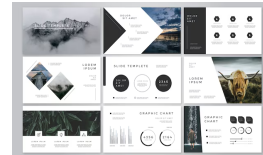
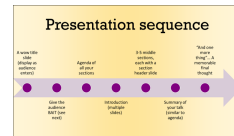
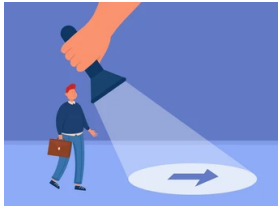
- Need more iteration on presentations for improvement

- 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**

Improving Presentations with  
Explicit Advice

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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!

Detail is for the paper,  
not the presentation!

# Main parts

## Context/Problem

- Motivate the problem
- Interest 100% audience

## Approach/Evaluation

- Report contributions
- Interest 30% audience

## Takeaways/Conclusion

- What's main takeaway
- Interest 100% audience

Target presentation to audience

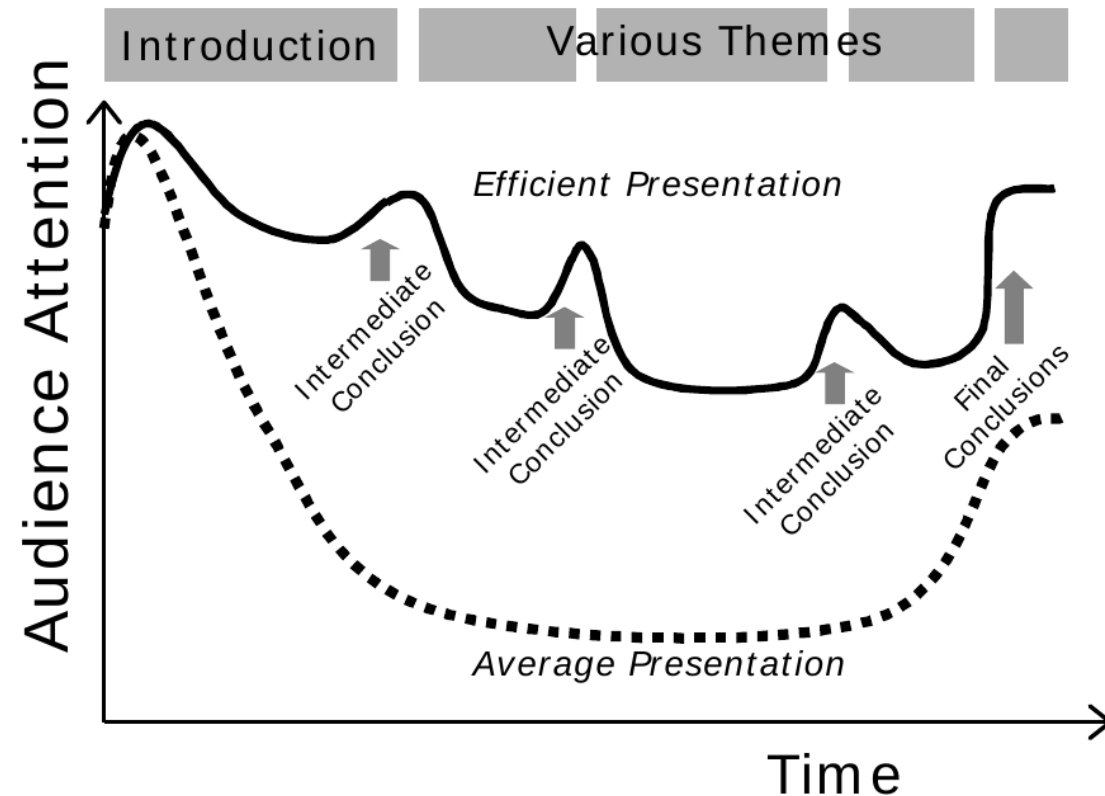
Presentation is an  
advertisement/summary  
for the paper

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







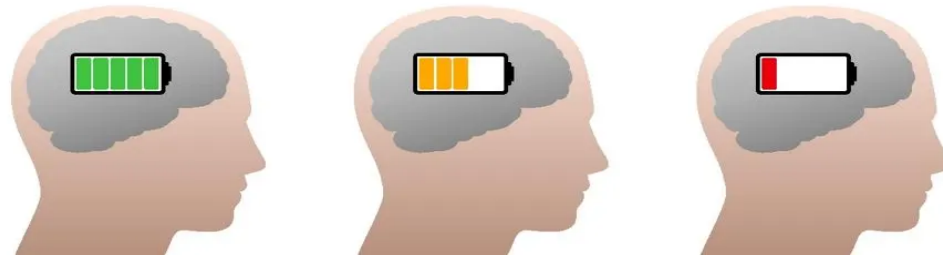
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# Visuals



# Cognitive complexity

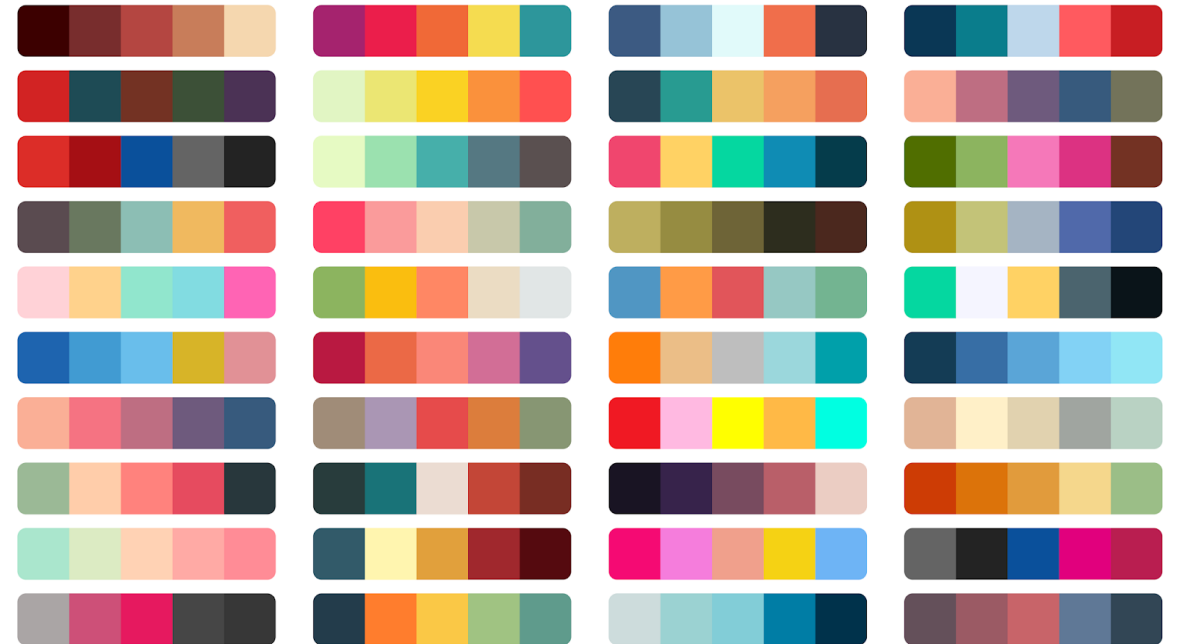


- Critical principles:
  - Every word (written or spoken) must be processed by audience
  - Audience cannot listen and read at same time
- Audience has finite attention battery, do not waste it!

# 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



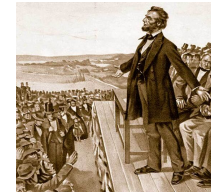
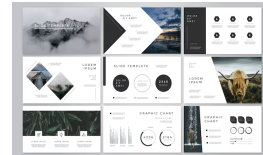
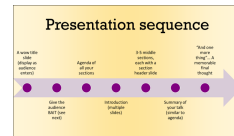
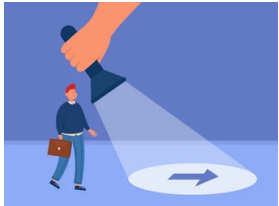
Any Questions?

# 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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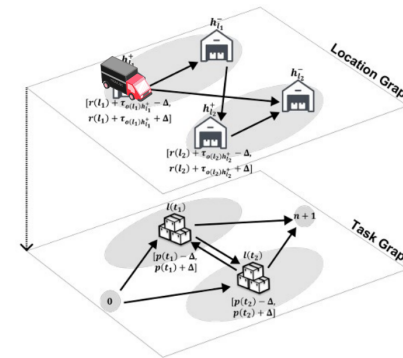
# Examples

- Four great presentation examples on Moodle, under Week 5 - Presentation

Is Polarization increasing on Social Media?



## MIP - Example



- Simplistic example: 4 hubs and 2 tasks
- MIP : Task Graph  $G = (V,A)$  Min-cost flow problem
- 3 possibilities for a truck:
  1. No automation
  2. Only one automated task
  3. Several consecutive tasks

## Conclusion

Paper Presentation: IP Core Identification in FPGA Configuration Files using Machine Learning Techniques

There is a Need for Post-Development Integrity Verification in FPGA Designs

### Main Findings

- CNNs can successfully identify know logic blocks in generated binaries with an accuracy rate of over 87.8 %, high precision and high recall

### Implications

- Enable developers to scan their designs for known malicious logic

### Future Works

- Test the approach with complex logic blocks

# Orating/Delivery

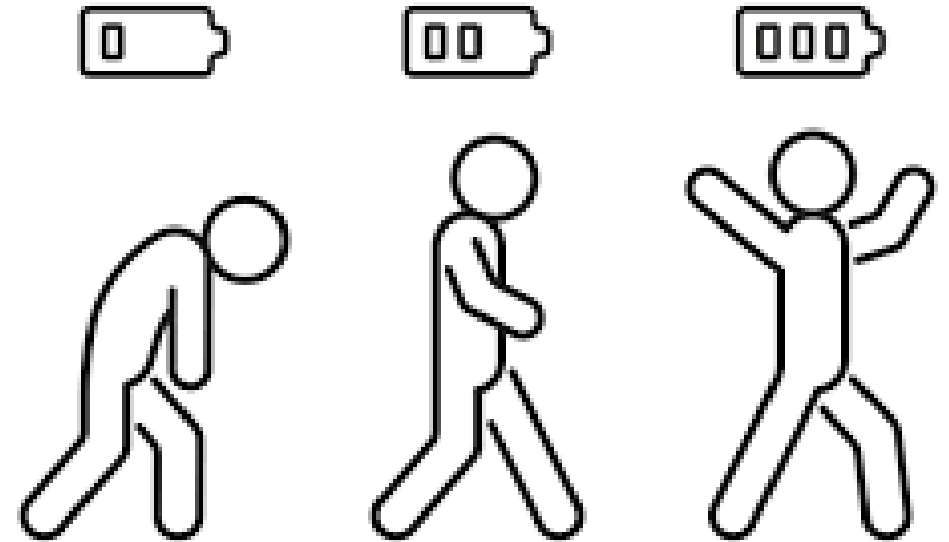
# You are the expert!

- 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 a 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
- It's better to be loud and wrong



# Voice

- Dynamic
  - Ups and down – variety
  - Pitch (high/low)
  - Tempo (fast/slow)
  - Tone (questioning/command)
- Remove fillers (um, uh)
  - Instead, simply pause



**Maria Caluianu - 2022 UCL Three Minute Thesis Winner**

<https://www.youtube.com/watch?v=DE9x4rX5qmM>

# 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>

# Body



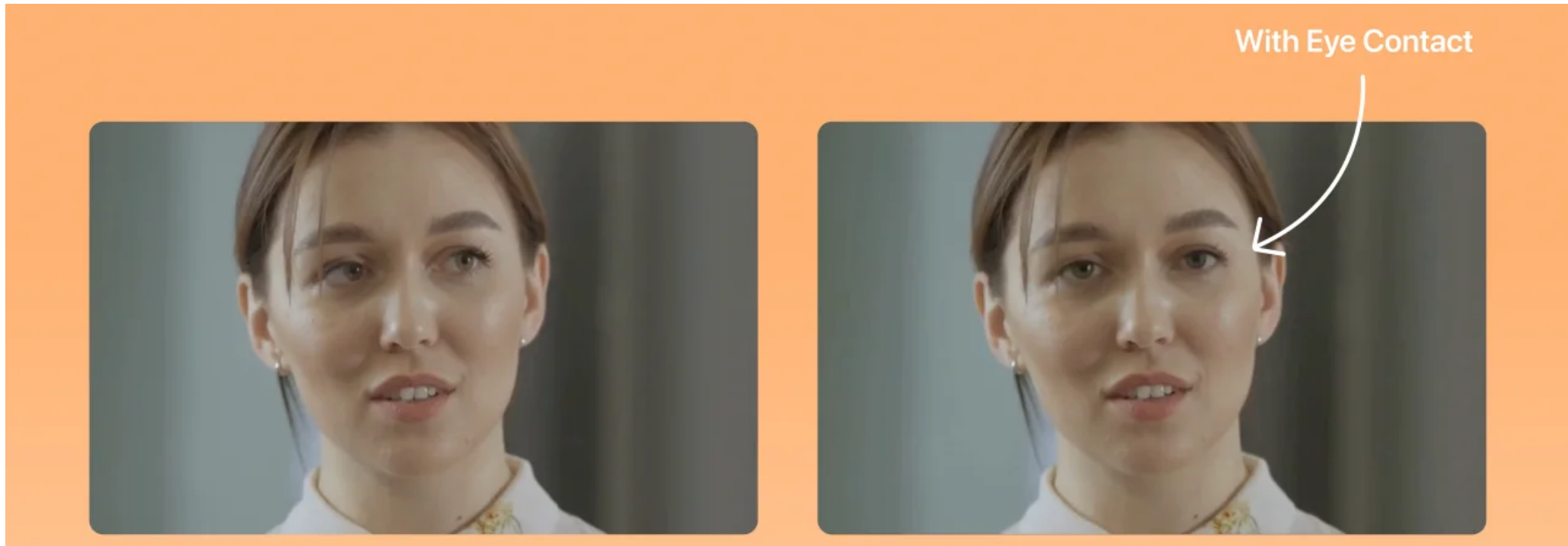
- Good posture



- 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

# Q/A

- (Usually) let chair pick questions
- Be brief with answers
- Okay to say “Future work”, “didn’t consider it, thank you”, “long version: let’s talk after, short version: blah blah”
  
- When asking questions:
  - Brief. Nothing more than two sentences
  - Only one question, unless there are no other questions
  - Questions, not comments
  - Ask questions about their approach, not in comparison to someone else’s