Giving a Presentation

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Slides originally by Wolfram Burgard
With Every Presentation ...

... you present yourself and your work
Outline

- The slides
  - Content
  - Layout
- The presentation
The Slides

- Typically **done long before** the presentation
- And long enough to **practice**
- They are used to better **convey the message**

- Their purpose is **not** to allow you to **read off what you want to say**
Many Scientific Presentations have Similar Outlines

1. Introduction and Motivation
2. State of the Art
3. Our Approach
4. Results
5. Conclusions and Future Work

- This/such a slide is contained in many presentations
- Maybe it is better to leave it out if your presentation is short.
Introduction and Motivation

Describe

- the problem
- why it is relevant
- the open question
- in which way your approach provides an answer to this question

Why should people care about your work?
State of the Art

- **Mention relevant approaches** presented in the past.
- Tell in which way the approach presented in this paper goes **beyond the previous ones**.
- The art lies in finding the right balance between achievements and limitations.
- Tell what the approaches do and what they solve (make the authors happy).
- Tell in which way your approach is better (without making the authors of previous work unhappy).
The Approach

- This part of the presentation is **not intended to demonstrate your skills**
- It is intended to **let the audience understand how your approach works**
- Provide the audience with the **technical details** and the **intuition**
- Use **graphics and/or examples** to explain technical details
Algorithms are Hard to Understand

Algorithm 1 Coverage(S)

1: C ← S // Set the current node to S
2: $P_{aux} \leftarrow C$
3: $P \leftarrow \emptyset$
4: while 1
5:    $\forall n \in P_{aux}, m \in N, \|c_n - c_m\| < M_R \cdot e_{cell}$
6:        visited(m) = 1
7:    $\forall n \in P_{aux}, m \in N, \|c_n - c_m\| < 2M_R \cdot e_{cell}$
8:        overlapped(m) = 1
9:    $N_C \leftarrow \{ n \in N \mid \|c_n - c_{C}\|_{\infty} = (2M_R + 1) \cdot e_{cell}$
10:       and overlapped(n) = 0 and g(n) < $\infty\}$
11: if $N_C \neq \emptyset$
12:    find $M \in N_C$ with minimal g
13:    if no such node $M$ exists
14:        return $P$
15:    end
16: $P_{aux} \leftarrow P_{aux}(C, M)$
17: $C \leftarrow M$ // Set the new current node
18: $P \leftarrow P \cup P_{aux}$
19: end

[Dakulovic et al., IFAC 2011]
Better ...

- Describe the idea
- Give examples to describe how it works
- Design the examples so that all (relevant) features of the algorithms can be explained
- Provide the audience with the intuition
The Results

- The results should **back up your claims**
- With them you **demonstrate** that your approach has the desired **features**.
- They should also **demonstrate** that the approach you present is **better than previous ones**.
The Conclusions and Future Work

- Again **describe the contribution** of this paper
- A good first sentence starts with “We presented a novel approach to ...”
- Tell the **key idea of the work**
- Maybe talk about limitations that might lead to future work
Seminar Talks about Other People’s Work

- You might add slides describing your opinion about the paper
- Tell what you regard as positive aspects
- Tell which potential improvements you see
- What would you have done differently?
Text

- Use sans serif fonts instead of serif fonts
- Use
  - dark text on light background (easy to read)
  - light text on dark background (not so easy to read)

  Left-aligned text is easier to read than centered text
- Avoid putting too much onto one slide (avoid clutter)
Text

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  - dark text on light background (easy to read)
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    - Left-aligned text is easier to read than centered text
- Avoid putting too much onto one slide (avoid clutter)
- Use sans serif fonts instead of serif fonts
- Use dark text on light background (easy to read)
- Light text on dark background (not so easy to read, printing uses much ink)
- Left-aligned text is easier to read than centered text
- Avoid putting too much onto one slide (avoid clutter)
Text Color

- Check readability
- Check readability
- Check readability
- Red and green are hard to distinguish for a large fraction of the population
- Check readability, maybe ask others!
Text Size

- Make sure that everyone can read the text (32Pt)
- Make sure that everyone can read the text (28Pt)
- Make sure that everyone can read the text (24Pt)
- Make sure that everyone can read the text (20Pt)
- Make sure that everyone can read the text (18 Pt)
- Make sure that everyone can read the text (16 Pt)
- Make sure that everyone can read the text (14 Pt)
- Make sure that everyone can read the text (12 Pt)

- The caption should not be smaller than the text on the slide
Abbreviations

- Abbreviations might reduce the length of your presentation but might make it harder to understand.
- They make you appear like an insider while they likely make others feel like outsiders.
- Avoid abbreviations (unless they are very, very common).
- Especially avoid uncommon abbreviations in titles.
Figures

- Prefer **vector graphics** over images
- When grabbing an image from the source paper, make sure you do this at the highest resolution
- Enlarge the picture as much as possible before grabbing it
- When you can **see the individual pixels, consider redrawing the figure**!
- To check, attach your computer to an LCD monitor and check the quality by going close to the screen.
Higher Resolution is better!
Plots

- Use colors that can easily be distinguished
- Use patterns that can easily be distinguished
- Order the legend according to the functions
- Make them high resolution
- Create your own one if needed
Negative Example Plot
Properly use Line Styles, Colors and Alignments
Animations

- Useful for **explaining content**
- Or **illustrating processes**

- And not to entertain the audience
- Avoid line after line text-animations
- Often animations are even distracting
- Avoid demonstrating that you know every feature of the presentation tool!
Spell Checking

- Your computer can do spell checking for you: Use it!
- Always set the language of the slide to the language that you are using

- Juice thee sbell chekker!

- Juice **thee sbell chekker!**
Slide Numbers

- Help orienting
- Help referencing to specific slides, particularly for posing questions

- They might indicate hidden slides
- Some run in animations, some not, depending on the type of animation

- If it helps you, use them
Slide Numbers

- In seminars held at the university, it is better to use them.

- In scientific presentations, everything not relevant to the content might be distracting.
Bullets / Numbering

Only use indentations/numbering levels with multiple bullets

Example:

1. This looks fine
   - With multiple
   - bullets

2. On every level
Bullets / Numbering

Only use indentations/numbering levels with multiple bullets

Example:

1. This is still fine with 2.
   - These levels
     - Do not
       - Look so nice

2. This is still fine with 1.
Important Aspects to Check

- Set the **language of the slides to the language of the presentation**
- **Spell check** your slides (press F7)
- **Check whether your videos run** on the computer used for the presentation
- And **when this computer is attached to the presentation Display**

- Friendly video codecs are
  - MP4 with H.264 standard settings or
  - MS RLE encoding for animations
Choose a Proper Aspect Ratio

- Nowadays data projectors have different projection formats
- Typical resolutions are 4:3, 16:9, 720p, 1080p, ...
- If you present on a TV set, the fonts can easily be too small
- Check the aspect ratio before you start preparing your presentation
- Changing it on the fly (before the talk) might lead to severe formatting problems
Your Presentation

- Plan it
- Practice it
- Time it
- Think about how to deal with interrupting questions
- Practice transitions between slides

- Keep in mind: This is your show. Optimize it!
YOUR CONFERENCE PRESENTATION

HOW YOU PLANNED IT:

INTRODUCE YOURSELF → DESCRIBE OUTLINE OF TALK

START

MOTIVATION

RESULTS

APPLAUSE

ENGAGING Q&A

METHODOLOGY AND EXPERIMENT DESIGN

CONCLUSIONS

15 MINUTES

HOW IT GOES:

PREVIOUS SPEAKER RUNS LATE AND SNIFFS INTO YOUR TIME.

TECHNICAL DIFFICULTIES CONNECTING YOUR LAPTOP.

FORGET INTRODUCING YOURSELF.

SPEND WAY TOO MUCH TIME DESCRIBING YOUR OUTLINE.

ANNOYING AUDIENCE MEMBER INTERRUPTS WITH SELF-AGGRAVATING QUESTION.

REALIZE YOU ONLY HAVE 3 MINUTES LEFT.

POWER THROUGH THE REST OF YOUR 30 SLIDES.

ANAKOWN SERVICE Q&A.
Connecting your Laptop

- Check whether your laptop works (before the talk)
- Are the colors OK?
- Are the videos visible on both screens?
- Avoid booting your computer in front of the audience
- Check the entire presentation (esp. videos and fonts when you have to give it with a computer different from yours)
The presentation mode is a great tool as it allows you to see the content of the slide, elapsed time, notes, and the next slide!
The Presentation Mode is a Great Tool

It allows you to

- put **aspects you want to convey** or an introductory sentence **into the notes of each slide**
- lets you **check** where you should be according to the **timing**
- lets you make a **proper transition** to the next slide.

Position the computer so that you can see its screen and read the notes
Laser Pointer

- Might help you to **point at content**
- or to **emphasize aspects**
- **Hold the laser pointer in both hands** if the laser point *jitters*
- Not everything needs to be pointed at
- **Do not point at the audience**
- Start and stop the laser properly
- **Familiarize yourself with the buttons**
- and the other features (timer)
Laser Pointer Gestures

- Underline
- Circle
- Point at 🌟
Speaking (1)

- **Speak up** to make sure that everyone can hear you
- If there is a **microphone, speak into** it!
- **Do not lower your voice** simply because there is a microphone
- If you can **hear your voice from the speakers**, the audience does as well
- If you cannot hear it, the audience will probably also not be able to hear it (and you)
Speaking (2)

- Avoid dialect and idioms
- Avoid quotations that are not publicly known
- Avoid repetitions (look for alternatives or synonyms if you discover it)
- Avoid hesitation vowels like “ahem”, “uh”, “well”, “yes”, “OK”, ...
Make Sure People Can See You
How to Move and Behave?

- Establish contact to the audience
- Do not solely focus the computer screen or the screen
- Do not look at the ground or into a corner
- Avoid siding (try to look at everyone)
- Do not hide yourself behind the lectern
- Do not stare at the screen
- Do not simply read off the slides
- Do not put your hands into your pockets
How to Dress?

- People are there to hear your material
- When you dress up you send the message that you care enough about the audience
- My experience is that it is better to feel overdressed rather than underdressed
- Do not wear something really wacky
- Ask your advisor!
Questions / Interruptions?

- Think positive!
- Questions are good and show that people are interested
- Try to repeat the question to make clear that you understood it properly
- If you cannot answer a question, be honest about it and do not say random words
- If answering would take too long or would go too far away from the talk, suggest to take the discussion offline
- Do not worry when someone falls asleep
Summary

- A talk is a unique opportunity to present yourself and your work
- Prepare it carefully
- Practice it extensively
- Avoid being late with your presentation
- Avoid not to be prepared
Thank you for your attention!

This slide appears in almost every talk but actually is superfluous.