

# CSCM10 Computer Science Project Research Methods

## Presentation on Project Ideas

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<http://www.cs.swan.ac.uk/~csetzer/lectures/computerScienceProjectResearchMethods/current/index.html>

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### ① Content of the Project Presentation

### ② What's the Goal of a Talk?

### ③ How to Prepare Slides

### ④ How to Structure a Talk

### ⑤ Designing a Talk

### ⑥ How to Prepare Before a Talk

### ⑦ How to Perform a Talk

## Practical Aspects

- The presentation will take place in the form of a student conference on Thursday 11 April 2019.
- The conference will be organised by Matt Roach.
- The conference will consist of plenary lectures (research talks and industrial speakers), and contributed talks (which are your presentations).
- In addition there will be coffee break and a lunch which is a great opportunity for networking.
- For your presentations you will be split up into several parallel streams.
- Each stream will be marked by at least 2 markers.
- You need to submit your presentation slides electronically via blackboard by Tuesday 9 April 2019, 11:00 am.

## Impressions from Last Year



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## Impressions from Last Year



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## Impressions from Last Year



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## Impressions from Last Year



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- You need to reference any pictures and sources of texts used.
- When using text which is identical to what is in the source, the text needs to be put in quotation marks.
- When using a picture it is good to write something like "Source of Picture: [x]", where x abbreviates your reference.
  - Just putting a reference is not enough. You need to make clear that you are taking the picture from that source.
- A good way is to put the references at the end and use in the slides abbreviations pointing to those references.
- In the presentation you don't need to spend much time on those references, just make the audience aware of its existence.
- However the references need to occur in the presentation slides.
- Please follow the guidelines given in lectures and handouts given to you on academic integrity.

## Level of Formality

- The presentation should be lively.
- For presentation purposes you can be less formal.
  - E.g. a Gantt chart would typically not be in the presentation but should be in the specification document.
  - However, if you think a Gantt chart could be presented as part of a lively presentation you can do so.
- The specification document will contain the more formal and precise details.

- Motivation of the project
- Background information about the project.
- Aims of the Project
  - What would be the ideal outcome of your project?
- Give an idea about how you plan to carry out your project.
  - What are the steps you plan to take in your project?
  - What methods and tools do you use?
  - These steps are preliminary and should be refined and elaborated in the project specification document.
- If you have already carried out some first steps in the project, it is great to demonstrate your progress, but this is not required.

## Create an Image of your Project in the Audience

- The idea is that the audience (which includes **both students and lecturers**) should get a good idea about
  - What your project is about,
  - what the outcome will be,
  - and how you are going to carry it out.
- Ideally you create an image in the heads of the audience regarding what your project is really about.

## Do you Want Approval?

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Source of Picture: [1].

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## Do you Want to Dominate your Audience?



Source of Picture: [13]

## Do you Want to Stay Safe?



Source of Picture: [15]

Hold on - This was all about ...



... Your Ego

Source of Picture: [3].

Didn't you forget something?



Source of Picture: [10]

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Your Audience!



Source of Picture: [8].

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The Goal of Talk should be ...



... to **transmit** knowledge, your message,  
... to your audience. Source of Picture: [17]. Source of Picture:  
[17]

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Source of Picture: [6]

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## Readability

- Use big font.
- Not small font.
- Use colours which **readable**.

## Colours

- Don't use too many colours (maximum 4 different combinations of colours-fonts-sizes).
- Otherwise it **looks confusing**.
- Consistent colour scheme throughout the presentation:
  - **Headlines**
  - **Emphasised words**
  - **Repetition from previous slide**
  - **Definition**

- No more than 7 lines per slides.

This slide is quite unreadable, because it is a long boring text without any structure. It is hard to read, especially if it is shown only for 50 milliseconds. Most of the audience will not even make an effort to try to read it. However one can see such kind of text often, because some presenters simply make a copy of the text of their report.

## A Picture Says more than a 1000 Words



Source of Picture: [5].

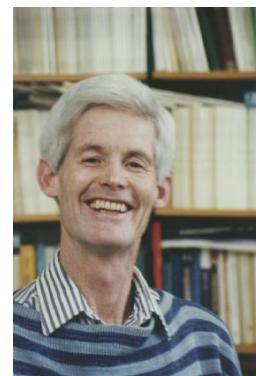
## Pictures Make Presentations More Lively

### Stephen Cook (Toronto)

Introduced 1971 the  
Complexity Classes **P** and **NP**  
Formulated the **P ≠ NP** Problem

## Stephen Cook (Toronto)

Introduced 1971 the Complexity Classes **P** and **NP**  
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Source of Picture: [16].

## Don't Overdue Effects



Having **too many effects** **doesn't** look good



Source of Pictures: [18], [4] Source of Picture: [18]



Source of Picture: [12]

## Don't Play a 5 Minute Video



Source of Picture: [14]

```
class Nat{    public NatElim el;  
    Nat(NatElim el){this.el = el;};  
    public Object elim(NatVisitor visitor){return el.ap(visitor);};  
    public static Nat Z(){return new Nat(new NatElim(){  
        public Object ap(NatVisitor visitor){return visitor.zeroCase();};});};  
    public static Nat S(final Nat n){return new Nat(new NatElim(){  
        public Object ap(NatVisitor visitor){return visitor.succCase(n);};});};  
    public String toString(){  
        return (String)elim(new NatVisitor(){  
            public Object zeroCase(){return "Z";};  
            public Object succCase(Nat n){return "S(" + n + ")";};});};  
    public Nat plus(final Nat n){  
        final Nat this1 = this;  
        return (Nat) n.elim (new NatVisitor(){  
            public Object zeroCase(){return this1;};  
            public Object succCase(Nat m){return S(plus(m));};});};};  
};}
```

... that doesn't work

... especially if you change code during the lecture

- Remind latecomers about your **name** and the **title of your talk**.
- In the Footer.

## Basic Principle

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In a talk

- you tell the audience what you're going to say,
- say it,
- then tell them, what you've said.

(Dale Carnegie, [2])

## The Gower Peninsula

- Title Slide.
- Maybe Motivation.
- Table of Contents.
- 3 - 4 Parts.
- Conclusion.

Prof. Dr. hc. mult. Anita Flowerlove



Source of Picture: [20]

## Motivation Slide



The Problem of Pollution

Source of Picture: [9].

## Overview

- ① The Beauty of the Gower.
- ② The problem of pollution.
- ③ Measurements by the government.
- ④ Our proposal.

Signpost clearly when moving to a new section.

- Last chance to sell your work!
- Remind audience of what you did.

## Top Down Approach

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- Start with your message  
In this talk I demonstrate the dangers of pollution in the Gower Peninsula, the measurements of the Government, and our solution.
- Create sections from your message:
  - ① The Beauty of the Gower.
  - ② The problem of pollution.
  - ③ Measurements by the government.
  - ④ Our proposal.

- Do the same for each section
- until you have reached individual slides.

- Don't have too many slides.
- 24 slides per minute is a film.

## The Time Issue

- Practice, practice practice
  - On your own
  - In front of a trial audience.

## The Time Issue

- Have prepared short-cuts.
- Have hidden slide, you can use if you have more time than expected.
- Finishing too early: **No message to tell.**
- Finishing too late: **bad speaker.**

- Ask questions to audience.
- Ask a question which makes them raise their hands.
- Make a joke (not a strong one).

- Prepare
  - a strong beginning,
  - and a strong ending.
- Audience will remember those two parts most!

## Trial Talks

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- Trial Talks
- Trial Talks
- Trial Talks

- Take with you
  - the first or first two sentences,
  - the last sentence.
- Write it on cardboard.
  - paper exaggerates your nervousness.
  - you can hold on to it.
- Don't take with you a script of the whole talk.

- Do exercises such as Relaxation CDs, Meditation, Yoga, Qigong, etc. for
  - dealing with nervousness,
  - getting you into a high energy state.
  - Use something which you feel comfortable with regarding your cultural background.
- Try it out beforehand!
- A healthy level of nervousness can be good!

## Dress Smartly

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- Dress a little bit better than normal.
- Don't overdress.
- Don't underdress.

- Put a clock in a good position.
- Regularly look at it.

- Talk with your hands (but not too much)
- Don't have hands in your pockets.
- Smile.
- Don't hide the screen.

## Eye Contact

- Make eye contact with all zones of the room.
- Divide room in left, middle, right, and look at each sector alternating.
- With good eye contact your audience has to listen!
- Don't look at screen but get information from
  - printout of your slides (optimal)
  - or from laptop.
- Best to place the laptop so that you can see the audience when looking at the screen.

## Speaking

- Try to speak slowly and clearly.
  - Nervousness might result in speaking faster than usual.

- Goal of a talk to pass on a message to your audience.
- Trial talks, trial talks, trial talks.
- Create lively well structured slides.
- Focus on passing on your message.
- Strong beginning, strong ending (visually and auditory).
- Good confident body posture.

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