CSCM10 Computer Science Project Research Methods
Presentation on Project Ideas

Anton Setzer

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

March 5, 2019

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

Impressions from Last Year

Impressions from Last Year

Impressions from Last Year

Impressions from Last Year

Referencing

- 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.

Content of Project Presentation

- Motivation of the project
- Background information about the project.
- Aims of the Project
  - What would be the 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.

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.

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?

Source of Picture: [1].

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]

Your Audience!

Source of Picture: [8].

The Goal of Talk should be . . .

The Goal of Talk should be . . .

Source of Picture: [17].

The Goal of Talk should be . . .

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

You have something to say !

Source of Picture: [6]

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**

Restrict Content

- No more than 7 lines per slides.

Only Write Well Structured Text

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].
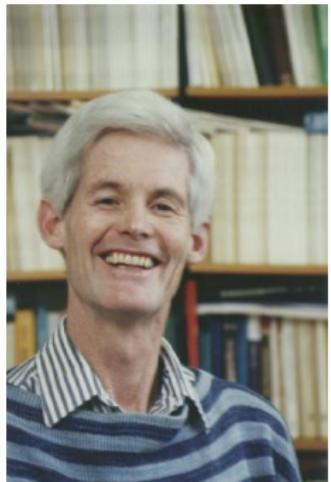
Pictures Make Presentations More Lively

Stephen Cook (Toronto)
Introduced 1971 the
Complexity Classes **P** and **NP**
Formulated the **P** $\neq$ **NP** Problem

Stephen Cook (Toronto)
Introduced 1971 the
Complexity Classes **P** and **NP**
Formulated the **P** $\neq$ **NP** Problem

Source of Picture: [16].

Spell-Check Your Talk

Source of Picture: [12]

Don't Overdue Effects

Don't Overdue Effects

Source of Picture: [18]

Don't Overdue Effects

Having
Source of Picture: [18]

Don't Overdue Effects

● ● ●

Having **too many**
Source of Picture: [18]

● ● ●

Having **too many** effects
Source of Picture: [18]

Don't Overdue Effects

● ● ●

Having **too many** **effects** **doesn't**
Source of Picture: [18]

Don't Overdue Effects

● ● ●

Having **too many** **effects** **doesn't** look good
Source of Picture: [18]

Don't Overdue Effects

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

Source of Pictures: [18], [4]

Don't Play a 5 Minute Video

Source of Picture: [14]

Don't Spend 10 min on a Software Demo

```
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));};});};

};}
```

Don't Spend 10 min on a Software Demo

```
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

Don't Spend 10 min on a Software Demo

```
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

A Little Trick

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

Basic Principle

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])

Basic Structure

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

The Gower Peninsula

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.

Section 2: The Problem of Pollution

Signpost clearly when moving to a new section.

Conclusion

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

Top Down Approach

- 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.

Tow Down Approach

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

The Time Issue

- 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**.

Interaction

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

Strong Beginning and End

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

Trial Talks

- Trial Talks
- Trial Talks
- Trial Talks

Notes

- 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.

Exercises

- 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

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

Time Keeping

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

Posture

- 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.

Conclusion

- 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.

General Sources of Text Used

- Markus Roggenbach: How to cook up a presentation [11].
- How to give a great presentation [7].
- Tips on making presentations [19].
- Dale Carnegie Quotes [2].

[1] Applause at Cern, Retrieved 1 March 2018.
Picture, `http://images.iop.org/objects/ccr/cern/52/7/25/CCmel1_07_12.jpg`.

[2] Dale Carnegie Quotes, Retrieved 2012.
`http://www.brainyquote.com/quotes/quotes/d/\dalecarneg156635.html`.

[3] Ego, Retrieved 4 March 2018.
Picture, `http://2.bp.blogspot.com/_EkCXxv6La-s/TKcVWLDwJWI/AAAAAAAAA9U/OtWUHeMD9Lw/s1600/EGO376.gif`.

[4] Exclamation mark, Retrieved 1 February 2018.
Picture, `http://static.guim.co.uk/sys-images/`
`Guardian/Pix/pictures/2009/4/29/1240996556472/`
`exclamation-001.jpg`.

[5] German high speed train catches fire, Retrieved 4 March
2019.
Picture,
`https://media.globalnews.ca/videostatic/556/247/`
`GermanyTraiNSite_848x480_1342762051615.jpg`.

[6] Giving, Retrieved 10 February 2018.
Picture, `http://michigancog.org/wp-content/uploads/`
`2012/06/giving.jpg`.

[7] How to give a great presentation, Retrieved 2005.
http://www.to-done.com/2005/07/
how-to-give-a-great-presentation/.

[8] Online teaching degrees, Retrieved 28 February 2018.
Picture,
http://american-accent-training.org/wp-content/
uploads/2012/03/Online-Teaching-Degrees1.jpg.

[9] Port talbot, Retrieved 25 February 2018.
Picture, http://upload.wikimedia.org/wikipedia/
commons/3/3e/Port_Talbot_Steelworks_-_geograph.
org.uk_-_41552.jpg.

[10] Question mark, Retrieved 5 March 2018.
Picture, http://images.wikia.com/swfanon/images/5/
53/Questionmark.GIF.

Sources of Pictures and Bibliography IV

[11] M. Roggenbach.
How to cook up a presentation, October 2008.
Presentation given for third year students at the Dept. of
Computer Science, Swansea University. Private
Communiction.

[12] Shcool missspelt, Retrieved 13 February 2018.
Picture, `http://a0.twimg.com/profile_images/`
`1545843253/shcool_misspelt.jpg`.

[13] Shocked audience, Retrieved 2 March 2018.
Picture, `http://www.badhaven.com/wp-content/`
`uploads/2012/09/shocked-audience.jpg`.

[14] Sleeping audience, Retrieved 3 March 2018.
Picture,
`http://www.johnlund.com/images/10001300049.jpg`.

Sources of Pictures and Bibliography V

[15] Speaker with hands in pockets, Retrieved 4 March 2018.
Picture, `http://i.ytimg.com/vi/1K0jYOBJFqM/0.jpg`.

[16] Steve cook, Retrieved 15 April 2018.
Picture, `https://www.student.cs.uwaterloo.ca/
~cs462/Hall/cook.jpg`.

[17] Teaching volunteer, Retrieved 25 February 2018.
Picture, `http://www.projects-abroad-groups.co.uk/
_photos/_global/photo-galleries/en-uk/thailand/
_global/large/teaching-volunteer.jpg`.

[18] Three dots, Retrieved 10 March 2018.
Picture, `http://static.thelabelfinder.com/imaging/
other/1757370/21435/three-dots.png`.

[19] Tips on making presentations, Retrieved 2019.
`http://www.kent.ac.uk/careers/presentationskills.htm`.

[20] Wormshead gower, Retrieved 10 February 2018.
Picture, `http://static.guim.co.uk/sys-images/Society/Pix/pictures/2008/05/30/gower2.jpeg`.