

Presenting your research

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Introduction

If a renowned scientist is going to inform for the first time about an important discovery, the whole audience will stay quiet, expecting the amazing news they are about to know. If a brilliant mathematician is describing using just a whiteboard how she solved a strong conjecture, nobody will care about the doodles and smudges.

However, the rest of the scientists presenting their everyday advances in a conference will have to work hard in order to attract the attention of the audience. The vast majority of scientists do have to master oral presentation skills in order to succeed while describing their work. Furthermore, the appearance of the slides is crucial in order to stand out from the other speakers of the conference. In addition, the opportunity of selling a new product can be lost or an application for a job can be fruitless due to a badly prepared presentation.

Hence, the presentation of scientific work in a conference is as important as the writing of the paper you are presenting. In this module, both the preparation of the slides and the behaviour of the presenter are addressed.

In the first part of the module, we elaborate on the presentation itself. We address the content of the slides as well as their format. In the second part, we elaborate on the attitude of the presenter. All three aspects: content, format and manner, are linchpins of the success of the presentation.

Finally, the content of this module cannot only be applied to oral presentations in scientific conferences, but also in everyday occasions.

Objectives

The goals to be achieved by studying this module are the following:

- 1.** To know which information should be selected for the slides.
- 2.** To apply some rules to prepare successful slides.
- 3.** To know some basic techniques for a successful oral presentation.

1. Information and format

In this section, we address the preparation of the set of slides that you will use while presenting your work. A set of slides being shown in a computer attached to a projector is the most used media for oral presentations (except, perhaps, for some mathematics-related presentations, in which the use of paper slides, blackboard and chalk is still common). However, most of the advice this section deals with can be also applied to the latter.

1.1. Selecting the content for the presentation

Once your paper is accepted in a conference and you are about to prepare your slides, you must get informed about the time you will have to present your work. As we will recall later, adjusting to the assigned time is crucial to success. Experts say you must prepare about one slide per each minute you have to speak.

Moreover, you must take into account the kind of people in the audience. Clearly, it is different making a presentation in front of young students from making it in front of members of funding institutions. Additionally, you have to consider the previous knowledge the audience presumably has about the topic you are going to talk.

Notwithstanding, your paper will have a great introduction and an almost exhaustive state of the art section. Your proposal will be deliciously presented: you have included some tables and figures to complement your explanations, you have illustrated your work with some examples... However, there is no room for all these elements in your presentation. Hence, a first step when preparing a presentation is to select the information that will appear in your slides.

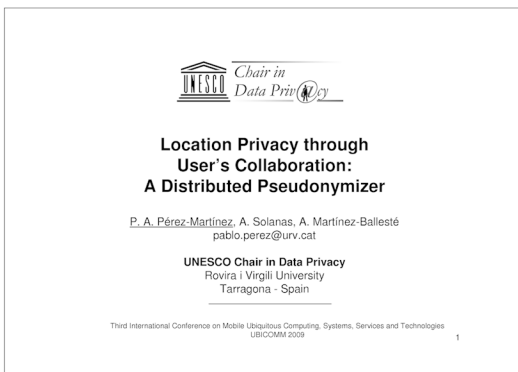
Every part of your paper has its representative in the oral presentation. In that sense, the presentation will also follow an opening-development-conclusion structure. Nevertheless, the introduction and background section may be substantially reduced: the audience will be more interested on listening to the main contribution we are going to present than on hearing you reviewing well-known material and basic concepts.

In what follows, we will concentrate on the most important parts of a presentation. We will use the example paper referenced in the module *Writing scientific papers*.

1.1.1. Title and content slides

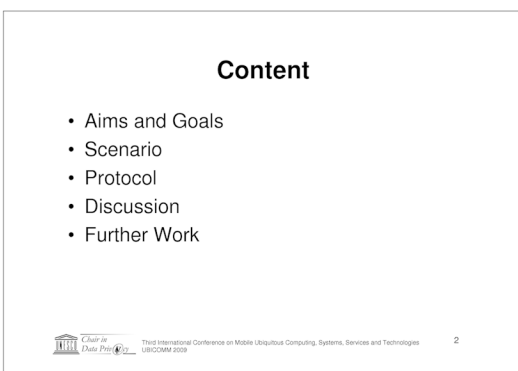
Every presentation starts with two slides: a title slide and a content slide. A title slide is shown in Figure 1. In this slide, the title of the presentation (i.e. the title of the presented paper) is naturally an essential element. This slide also includes the name of the authors (note that the name of the presenter is usually underlined). A logotype of the institution of the authors and the name of the conference are placed in the first slide and usually placed in the other slides of the presentation as well.

Figure 1. Title slide of the example presentation



The content slide (also known as structure or outline slide) must describe the sections the presentation is divided into. These sections can differ from those in the paper. To that end, we have not used the same sectioning of the paper. Figure 2 illustrates the structure of the presentation.

Figure 2. Content/outline slide of the example presentation

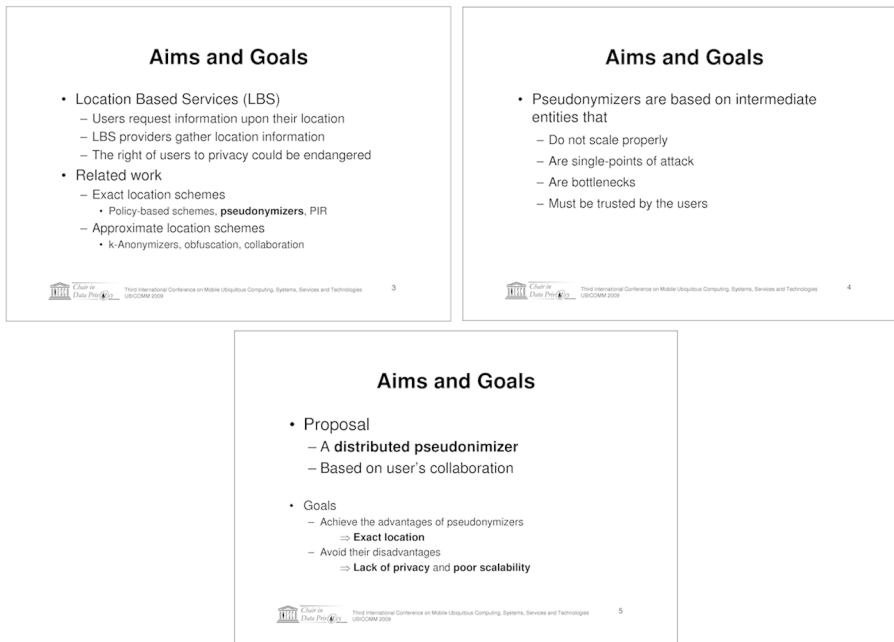


Note that, since we do not want to stress on the previous work section, we have chosen the title *Aims and goals* for the introductory slides.

1.1.2. Presenting the goals to the audience

Figure 3 shows the three slides devoted to the aims and goals of the presentation. The information presented must be succinct, but should be attention grabbing.

Figure 3. The aims and goals section of the presentation



The first slide of Figure 3 describes the essence of location-based services with regard to the privacy of their users. It also recalls the kinds of previous proposals. The presenter will just point out the names of the categories that authors have used for classifying the existing proposals. The brief description of these will be carried out orally during the presentation of the slide.

The second slide of Figure 3 uses a text extracted from the discussion section of the example paper. It describes the shortcomings of the pseudonymisers that authors have tackled in their work.

The last slide of *Aims and goals* is about the goal of the paper (i.e. presenting a distributed pseudonymiser).

1.1.3. Presenting the proposal

Selecting the appropriate information for the opening sections of the presentation is not difficult. However, many presenters overwhelm the audience with tons of slides containing all the details that attendants can easily find in the book of proceedings. In the example, presenters decided to use a slide to define the actors of the system (slide entitled *Scenario*) and several slides to describe the protocol (slides entitled *Protocol*).

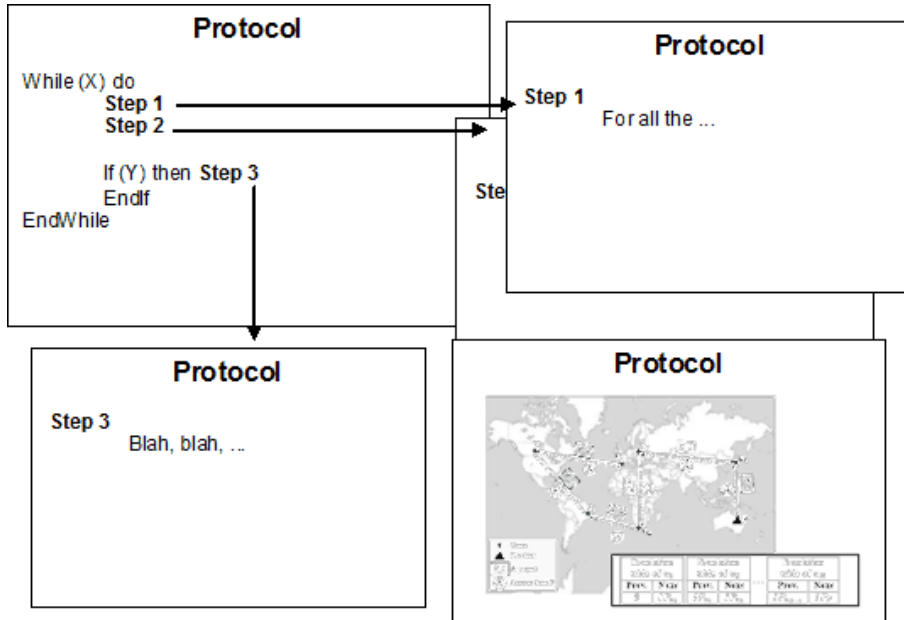
If the proposal presented is, for example, a protocol, it is a good practice to start with a summary of the protocol. Then, a slide should be used for each step, in order to further elaborate on the protocol. Figure 4 shows a scheme of a protocol being described by means of several slides. In addition, some pictures

Book of proceedings

We described the concept of book of proceedings in the *Publishing research* module.

and tables can be used to complete the description of the proposal. Figure 4 also shows an example slide with some elements that were also included in the paper.

Figure 4. Description of a protocol using several slides. An additional slide is also used, including some graphic elements already used in the paper



1.1.4. End of the presentation

The example presentation ends with the following parts:

- Two slides that summarise the Section 4 of the example paper (see Figure 5).
- A slide containing the future work described in the paper (see Figure 6).

In order to conclude the presentation it is common to use:

- A slide with some acknowledgements (to the funding institution or colleagues).
- A slide thanking the audience and inviting them to ask any questions.

Both slides are depicted in Figure 7.

Figure 5. Discussion section of the example presentation

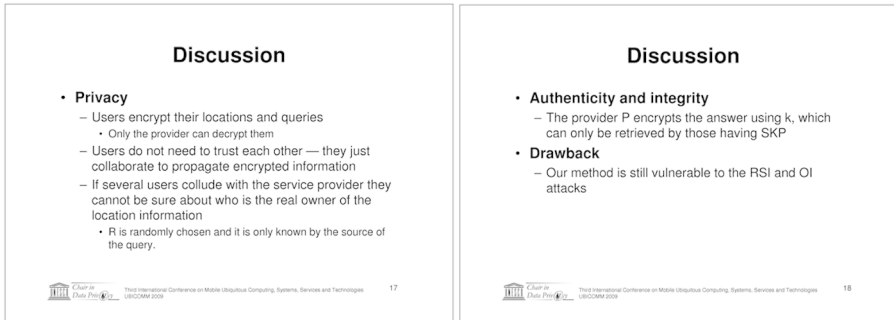


Figure 6. Further work slide

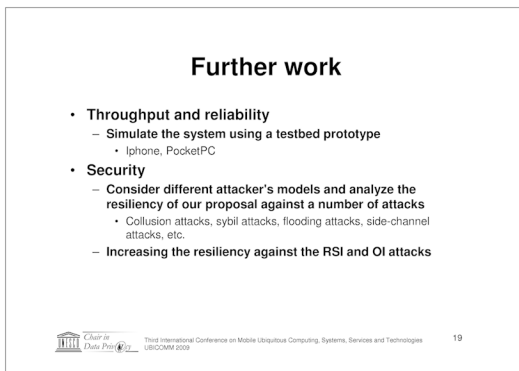
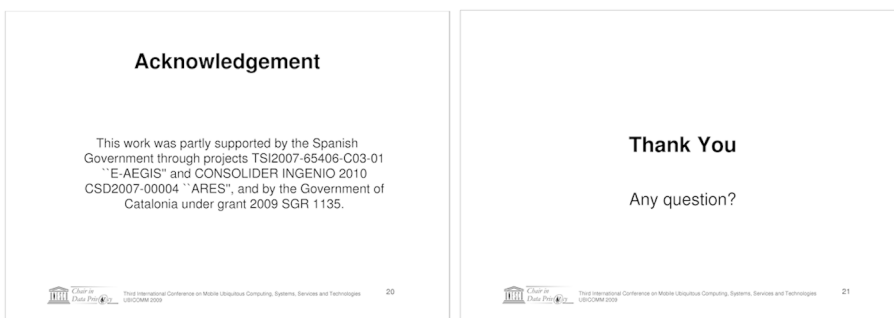


Figure 7. Acknowledgements and final slide



1.2. Applying the appropriate format

Once the content of the presentation has been addressed, we must point out some hints on improving the format of the presentation. Note that the example shown already follows some of these rules.

For a moment, think about how many mediocre or horrible presentations have you witnessed. The format of the presentation is the other half that is essential to succeed in presenting not just research, but also a product, a report etc.

1.2.1. Text

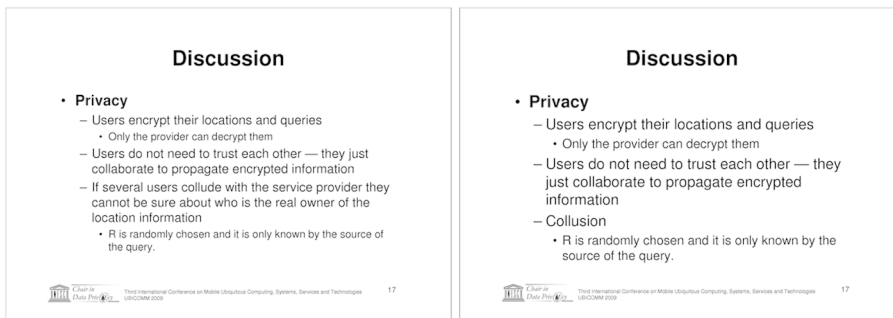
The next rules are related to the text in the slides:

- Each slide must have a title, except those containing large elements (e.g. tables or figures). This title allows the audience to follow the scheme presented in the 2nd slide.
- It is usual that the footer of the slide contains the name of the conference/event of the presentation.
- The slide cannot be overcrowded.
- There should not be more than 10 text lines in a slide. In order to follow this advice, Figure 8 shows an improved version of the slide shown in Figure 5.
- The smallest text in the slide should be legible by the entire audience (this is especially important in big conference rooms).

The 7/7 rule

Some experts say that a slide should not contain more than 7 lines of text with 7 or fewer words per line.

Figure 8. Reducing the text of the slide on the left, since it is a bit overcrowded



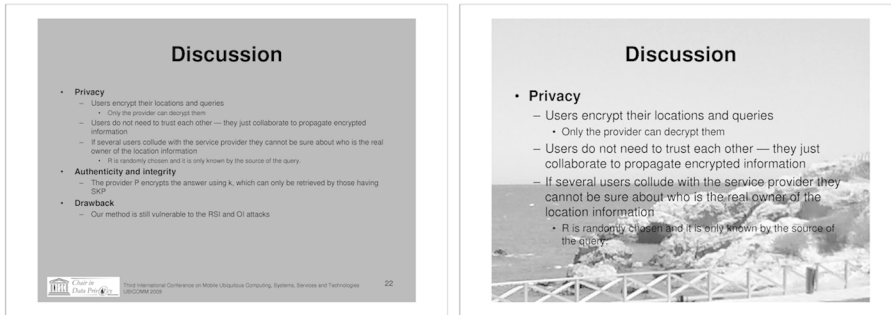
1.2.2. Colours

Paper slides are usually printed in black-and-white. Although some slides allow printing in colour, the background is always transparent (i.e. white while projected). With current computerised slide systems, one has a variety of colours and styles to choose from when selecting the background/foreground appearance. However, the following three rules must be followed so as not to fail in the presentation:

- Use contrasted colours between foreground and background: a dark background should have a light text; a light background should have a dark foreground colour.
- Do not use pure colours for the background: blue, magenta, red etc. are far from relaxing colours.
- Do not use background images unless they are just covering the space between textboxes and margins.

To illustrate these rules, two examples are shown in Figure 9.

Figure 9. Two versions of the same slide having some format errors



1.2.3. Style

Finally, we present some rules related to the style of the text:

- There is no room for spelling errors or typos. A presentation with these errors makes the audience believe we have not prepared the presentation and, presumably, we do not give importance neither to the presentation nor to the audience.
- If you can say something using half of the words, the best option is to rewrite the text in order to achieve brevity. Brief texts are simpler to read and to understand by the audience.
- Use figures just when they are really needed. Overcrowding the slides with lots of useless images really distracts the audience.
- If you are using animations, limit their use just for transitions and to make elements or parts of the text appear. In that sense, making a text appear word by word makes it difficult to read.
- Do not use sound unless necessary.

The typewriter effect

Although there is an amazing collection of sounds and effects in some presentation software, do not use them throughout the presentation. Imagine a presentation where the text appears letter by letter along a typewriter sound...

2. Successful oral presentations

In this final section, we elaborate on the attitude of the presenter. The presentation can be prepared by someone else mastering the art of designing a good presentation (in some companies or institutions there are specialised departments that are in charge of all imagery items, including presentations).

Just a few people have natural qualities to narrate solidly and to convincingly address the audience:

- They look organised and experts.
- They seem passionate but natural.
- They attract the attention of the entire audience and understand their feedback.

Following the advice included in the next sections and, specially, rehearsing as much as you can, lead any average presenter to success.

2.1. Preparing the presentation

In this section, we address the aspects that must be taken into account when you have ended with preparing your slides and you are ready to prepare the oral speech. We point out some hints on additional material you can use during your presentation. Moreover, we give some advice to take into account when rehearsing.

2.1.1. Additional material

There is much technology and apparatus that can be used during a presentation. We are not only limited to the slides. In the next lines, some other elements that can be used in a presentation are described:

- **Multimedia presenter.** It is a wireless device attached to a computer that allows remotely moving through the presentation. In that sense, the speaker can stand besides the projection screen and go to the next slide without having to reach the computer keyboard. They are also equipped with a laser pointer, which is useful in some cases.
- **Blackboards, whiteboards and electronic boards.** They are classic companions of oral presentations, especially in mathematics related disciplines. The latter allow the use of a computer from a projection screen. These elements are often used to abandon the discourse line of the presentation so as to work on a specific point. Using for instance a white-

Conference book of proceedings

Note that in general, the attendants to a conference are provided with a book of proceedings. These contain the papers being presented in the conference.

board to elaborate on an example or development gives the audience the impression you really master the topic of your presentation.

- **Videos.** A good complement for a presentation is a video. Besides being displayed using a VCR or DVD player, video clips can be inserted in the slides. They can be used to show the functioning of a prototype, to illustrate a process etc. However, the art of editing a video is out of the scope of this module.
- **Handouts.** A good practice is to provide the audience with printed material (e.g. product sheets or the whole paper). Give the handout of the slides after the presentation: otherwise the audience can be more interested in reading the slides rather than listening to the presenter.

2.1.2. Rehearsing the oral presentation

When preparing the presentation, the following aspects must be taken into account. An essential aspect is that you conscientiously prepare the first slides. Usually, during the first minute you are addressing the audience you may be nervous. So, prepare the very beginning of the presentation in order to conceal possible stress and tension.

Additionally, experts say that novice presenters should record their rehearsals in order to review and improve their attitude. You can of course ask other people to attend your rehearsals and consider their comments.

During the rehearsal you have to pay attention to the following aspects:

- **Do not spend all the time just reading the text of the slides.** This is very important so as not to turn off the audience. If you are showing a list of elements (for instance, the CPU speeds of a list of mobile devices) do not read them all: just point out the most important ones instead.
- **Speak dynamically:** do not use the same intonation during your speech. Modulate it depending on what you are saying. Moreover, you will have to adapt the speed of your talk upon the feedback you receive from the audience: if you see they are getting bored, changing intonation or speed may attract their attention. Furthermore, you may ask some open questions to involve the audience in your presentation.
- **Be careful with fillers.** They denote that the presenter is anxious or worried. In that sense, avoid "er...", "uh..." etc. Of course, these fillers can be used to repair your speech ("they have a one megahertz –uh... I mean gigahertz CPU").

- **Look at the audience**, do not stand fixed next to the screen and move naturally through the stage.
- **Involve the audience**. Some expert presenters are capable of involving audience (for instance, pointing someone in the audience while talking about an example: "imagine this madam has been using her mobile device..."). The association of ideas and the use of some jokes to attract the attention are also useful to involve the audience.

2.2. The moment has arrived

The day for the presentation has come. You have rehearsed your speech and you have added some examples and jokes to wake up the audience. However, you have to pay attention to the following, if you want to maximise the success of your presentation:

- Arrive at the place where you have to make the presentation as soon as possible. If you are late and there is some problem, your stress due to the presentation will be substantially increased.
- If possible (for instance if you are the first to present), walk along the stage and be sure that the position of the elements (computer, blackboard etc.) is adequate for your needs.
- Before you start your presentation, make sure you look prepared. Then, take a deep breath and make a brief pause.
- When answering the questions of the attendants, be calmed. Before answering, make sure you have understood the question and quickly make a plan of what you are going to answer. You are the author of the paper and, hence, you should know the answer. Even if the answer is "Well, we've considered it for the future work".

Finally, you must be prepared for any disaster. The most common ones are the computers hanging or rebooting: in these cases you should have a B plan (for instance, speaking without the slides, since rebooting the computer can take some valuable time). Furthermore, the schedule can become tight because of previous presenters having consumed a part of your time (you should summarise some of your explanations).

Summary

This module has addressed the preparation of a presentation of a paper. In the first part, we have elaborated on the content of the slides. It is essential that the presentation stresses the proposal rather than the previous work or the introduction. We have also seen that some variations on the structure of the paper and on the content can be useful in order to highlight the main points of the paper. Finally, the content of some essential slides (e.g. title and content slides) has been discussed.

Furthermore, this first part has addressed the format of the slides. We have given some hints on improving the style: using contrasted but relaxed colours, not overcrowding the slides with text and elements etc.

In the second part, the steps to improve oral presentations have been pointed out. Essentially, the goal is to look organised and expert. We also have to grab the attention of the audience and, thus, some techniques such as dynamically changing the intonation can be used. We have concluded that the main secret is to rehearse as much as possible.

Finally the module has ended with some advice on how to behave on the day of the presentation.

Activities

1. Prepare a set of slides explaining a well-known fairy tale.
2. Look for a short scientific paper and make a scheme of the presentation. Moreover, design the introduction and ending slides.
3. Make an entire presentation on your bachelor thesis or project. Its structure must be similar to the one of a scientific paper presentation.
4. Use an online video service to take a look at speeches by renowned politicians, a conference by Steve Jobs or by Richard Stallman. Try to summarise their style using a comparison table.

Glossary

content slide Usually the 2nd slide of the presentation summarising its structure.

footer Bottom part of the slide, usually reserved for the name of the conference/event, the index of the slide and other information.

header Top part of the slide, usually reserved for the title of the slide.

multimedia presenter Wireless device connected to the computer that allows going through the presentation without needing to reach for the keyboard.

projector A device that projects the image on a screen. Currently, projectors are used attached to a computer.

slide A set of information including text and graphic elements that are used as basic material for an oral presentation.

Bibliography

Koegel, T. J. (2007). *The Exceptional Presenter*. Greenleaf Book Group Press.

Kushner, M.; Yeung, R. (2006). *Public Speaking and Presentations for Dummies*. John Wiley and Sons.

