# Примјена рачунара у биологији



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### Презентације

### Проценти

- □ Слушаоци запамте
  - 20% од оног што чују
  - 30% од оног што виде/прочитају
  - 50% од оног што чују и виде
  - 70% од оног што изговоре и напишу
  - 90% од оног што ураде
- □ Што се тиче информација које се презентују током (једног часа) предавања, студенти запамте
  - 70% садржаја изложеног у првих 10 минута
  - о 20% садржаја изложениог у последњих 10 минута
- □ Да ли постоје технике које могу помоћи у повећању количине информација које слушаоци памте, или бар омогучити да се слушаоци боље фокусирају на важне аспекте презентације и њих боље запамте?

### Типови презентација

Презентације се обично користе за једну од следећих сврха:

CBpxa: Information delivery, Information gathering, Instruction, or Persuasion

In addition, we can classify presentations along the following 'scales<sup>1</sup>:

Medium: Verbal, Verbal with Visual Aids, or Written

Presence: In person — Transmitted — Recorded

Interaction: Monolog — Dialogue

Time: Short — Long

Audience: Small — Large

Setting: Informal — Formal

Preparation: Ad hoc — Scripted

### Structure of presentation

- Introduction
  - motivation, contextualisation, overview
- Main body
  - → main findings, elaboration
- Conclusion
  - comment on importance of findings, future work, summary

### Preparing presentations

- Determination of the objectives of the presentation
- Analysis of the audience
- Planning
- Organisation of the material for effective results
- Preparation of visual aids / handouts
- Delivery practice

### Visual aids: Purpose

- Give structure to a presentation
- Provide a point of reference for the speaker and the audience
- Help an audience to remember
- Focus the attention of both audience and speaker
- Reinforce what is said

### Visual aids: Types

- Prepared in advance, immutable at time of presentation
  - Video
  - Slide projector
- Created or reproduced during presentation, mutable at time of presentation
  - Flip chart
  - Chalk/White board
- Dual use
  - Overhead projector (OHP)
  - LCD projector (beamer) plus PC
  - Interactive white board plus PC

- Decide on a structure / theme for your slide in advance, then stick to it
- Consider the following questions:
  - Does the audience know me (and my affiliation)?
  - How important is it that the audience remembers the title of my presentation?
  - How many navigational hints are required?
  - How many graphics do I need to include? Can they be placed consistently?

The answers to these questions influence who you should structure your slides

### Slide style





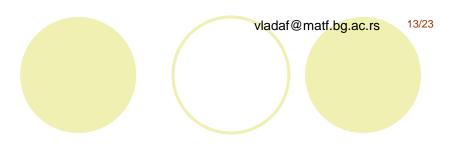
- Which style is "good" for slides?
  - Otitle?
  - Otext?
  - ○font size, type?
  - ocolor?
  - Ographics and animations?
  - Obackground?

### Slides: Textual content (1)

- Keep it simple
- A typical slide should contain 20 to 40 words, maximum 80
- Do not try to fill all the space
- Prefer enumerated or itemised lists over plain text
- Use at most two levels of 'subitemizing'
- Keep the number of items in a list low
- Highlight important things

### Slides: Textual content (2)

- Use short sentences
- Prefer phrases over complete sentences
- Break lines where there is a logical pause
- Do not hyphenate words
- Punctuate consistently
  - No punctuation after phrases
  - Complete punctuation in and after complete sentences
- Avoid decreasing font size to make more text fit on a slide



- Aim for your text to be legible even under difficult conditions
- Use as few fonts as possible
- Use a sans-serif font unless you use a high-resolution LCD projector
- Use monospaced and script fonts only for specific purposes
- Avoid italics to express emphasis, use colour instead

### Slides: Color associations

Red Danger, aggression, passion, stimulating

Purple Royalty, religion, calming

Green Soothing, trustworthiness, nature

Blue Restful, peaceful, relaxing

Yellow Well-being

Brown Nature, practicality, boring, close minded

#### Decide

- what you want to highlight,
   e.g. keywords, main results, examples, current focus
- which colour you want to use for each of these categories

Then apply this colour scheme consistently

### Slides: Graphics and animations

- Graphics often convey concepts or ideas more effectively than text
- Use graphics as often as possible
- Graphics should only contain as much detail as necessary
- Graphics always require explanation
- Use animations to explain the dynamics of systems, algorithms, . . .
- Do not use animations to simply attract attention
- Do not use distracting special effects like fancy slide transitions

### Gesture and body languages: Stance

- Be aware where you stand (centre stage vs side stage)
- Do not obscure the screen
- Stand tall, keep your head up most of the time
- Move from stillness to stillness, walk slowly

### Gesture and body languages: Hands

- Use hand gestures to emphasise points
- Use open palm gestures, full arm gestures
- Avoid aggressive gestures
- Avoid hands in pockets, hands behind your back, hands clasped in front of your body

## Gesture and body languages: Eye contact

- Maintain eye contact
  - lighthouse beam
  - treat everyone equal
  - do not look out of the window or on your watch
  - do not focus too long on a single individual
- Keep an eye on the audience's body language
  - does a point need further clarification?
  - can you proceed more quickly than anticipated?

### Gesture and body languages: Voice

- Be aware of the acoustics of the room
- Speak clearly (do not shout or whisper)
- Pause shortly at key points (adds emphasis)
- Emphasise the right words, control your breathing
- Facial gestures and tone of voice should match your message
- Do not rush, or talk deliberately slowly, but vary speed
- Do not talk to the screen
- Do not turn your back to the audience and talk at the same time
- Do not read from a script (cue cards are ok)

### Seven principles of public speaking

(Isa N. Engleberg: The Principles of Public Presentation. Harper Collins, New York, 1994)

Purpose: Why are you speaking?
What do you want audience members to know, think, believe, or do as a result of your presentation?

People: Who is your audience?

How do the characteristics, skills, opinions, and behaviours of your audience affect your purpose?

Place: How can you plan and adapt to the logistics of this place? How can you use visual aids to help you achieve your purpose?

### Seven principles of public speaking

(Isa N. Engleberg: The Principles of Public Presentation. Harper Collins, New York, 1994)

Preparation: Where and how can you find good ideas and information for your speech?

How much and what kind of supporting materials do you need?

Planning: Is there a natural order to the ideas and information you will use?

What are the most effective ways to organise your speech in order to adapt it to the purpose, people, place, etc.?

### Seven principles of public speaking

(Isa N. Engleberg: The Principles of Public Presentation. Harper Collins, New York, 1994)

Personality: How do you become associated with your message

in a positive way?

What can you do to demonstrate your competence,

charisma, and character to the audience?

Performance: What form of delivery is best suited to the purpose of

your speech?

What delivery techniques will make your presentation

more effective?

How should you practice?

### Acknowlegments

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