#### TRƯỜNG ĐẠI HỌC BÁCH KHOA HÀ NỘI HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

### **Visual Aids for Presentation**

**Technical Writing and Presentation** 

**SOICT - 2020** 

### **Contents**

- Aims of visual aids
- Types of visual aids
- Tips for designing slides with visual aids
- Tips for using visual aids

# Why use visual aids in presentations?

### PEOPLE REMEMBER

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 70% of what they see & hear

## Why use visual aids in presentations?

- Makes presentation more interesting and lively
- Helps audience understand the presentation
- Helps speaker present information more systematically
- Reinforce and add impact to information

## Why use visual aids in presentations?

- Illustrate a relationship between ideas
- Show information patterns or pictures
- Present figures, graphs or charts
- Summarize key points
- Help audience follow passages or quotations

## Choice of visual aids depends on

- The resources at your disposal
- Cost
- Time available for preparation
- Size of group
- Your own and preferences of others
- The learning environment

## Types of visual aids used in Presentation

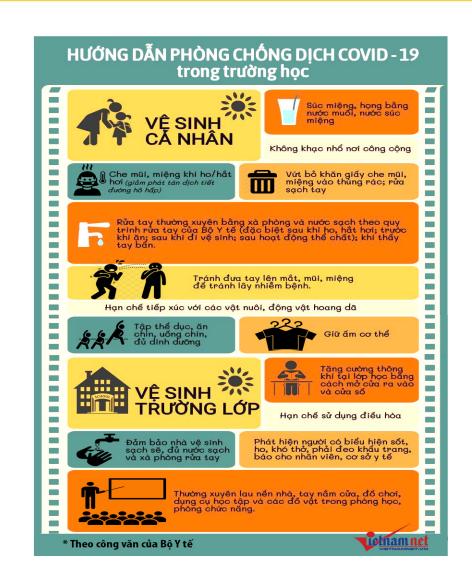
- Handouts
- Posters
- White/black boards
- Video clip
- PowerPoint Slides
- Flipcharts
- Transparencies

### **Handouts**

- Why use handouts?
  - Audience can concentrate better (instead of writing)
  - Provide more detailed information
  - Summarizing or including the main points of a presentation (take away message)
  - Useful if your presentation is highly technical or complex
- When to provide handouts?
  - Before or after presentation?
- What to include in your handout?
  - Expand on bullet points and graphics to allow a more complete explanation. Just don't go overboard
  - May include related information that further supports or explains what is in your presentation

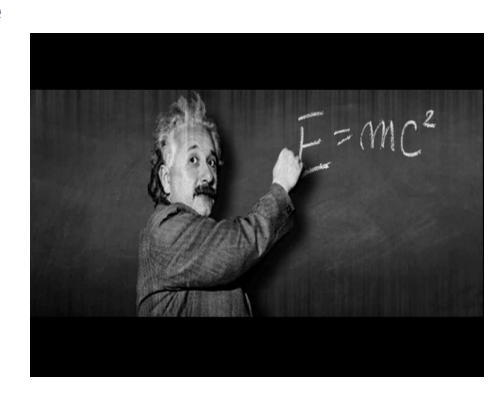
### **Posters**

- Used at the precise moment to illustrate point
- Visible throughout presentation
- Consider how it should be displayed
- May need a pointer



## White/black boards

- Flexible and interactive
- Suits small group
- Writing clearly can be slow
- Back to the audience
- Can't store information
- Can scratch & squeal
- Need chalk & duster
- Easy to use & wipe



### White/black boards

- Clean the board well before starting and check the condition of marker
- Write large letters
- Stand to side as write
- Don't face the board while talking to audience
- Divide the board into column and legibly
- Keep contents which you may want to refer to again

## Video clip

- Can show clips of specific examples discussed
- Add another dimension to presentation
- Possible technical problem

### **PowerPoint Slides**

- Can look very professional
- Very good for building up slides, diagrams
- Introduce text a line at a time (wipe, dissolve)
- Easy to update old presentations
- Can use same slide many times
- Colour and multimedia

### **PowerPoint Slides**

- Suits groups of various sizes
- Hard to keep audience attentive
- Technical problems
- Lighting issues
- Check the computer system/equipment before loading
- Familiarize with the operation of the slides
- Transfer presentation to hard disk
- Be familiar with the operation of slide show
- Rehearse presentation
- Keep a printed copy of slides in case of computer malfunction

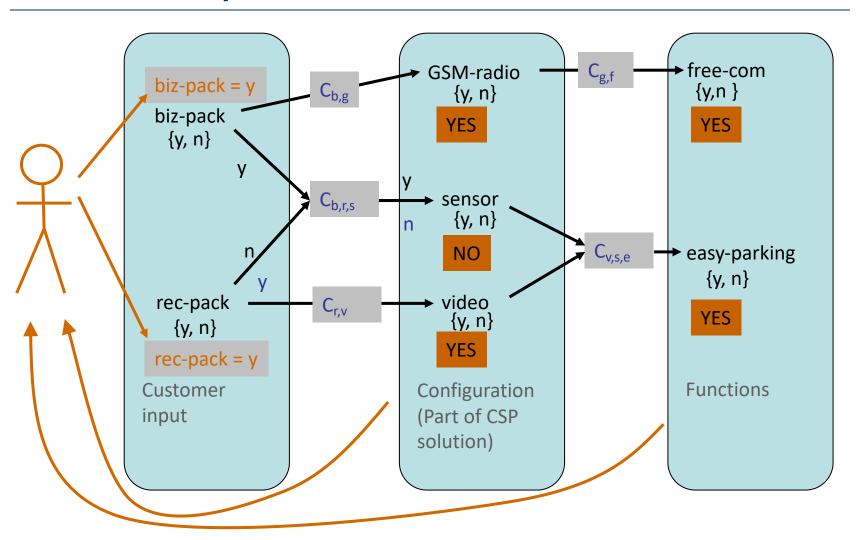
## One idea per slide

- What idea does this illustrate?
- Does it support my key message?
- Avoid using too much text

## **Diagrams**

- Colour can be very useful for diagrams
- Use several diagrams for complex models
- Relevant parts only
- Build up diagrams
- Hi-light and masking
- Simple schematics tend to be most effective

# **Example: Diagram of User input and solution in a car parking recommender system**



## **Tables**

- Usually have too much information
- Too many numbers
- Graph or a pictorial representation
- Equations don't include unless you intend to explain them
- Inferential statistics don't include unless directly relevant to your message

### **Example in a Recommender System: Explaining solutions (1)**

 The typical approach used to answer a why-question is to compare the presented case with the customer requirements and to highlight which constraints are fulfilled and which are not (McSherry 2003b)

### Example:

| id | price | mpix | Opt-zoom | LCD-size | movies | sound | waterproof |
|----|-------|------|----------|----------|--------|-------|------------|
| p1 | 148   | 8.0  | 4x       | 2.5      | no     | no    | yes        |
| p2 | 182   | 8.0  | 5x       | 2.7      | yes    | yes   | no         |
| рЗ | 189   | 8.0  | 10x      | 2.5      | yes    | yes   | no         |
| p4 | 196   | 10.0 | 12x      | 2.7      | yes    | no    | yes        |
| p5 | 151   | 7.1  | 3x       | 3.0      | yes    | yes   | no         |
| р6 | 199   | 9.0  | 3x       | 3.0      | yes    | yes   | no         |
| р7 | 259   | 10.0 | 3x       | 3.0      | yes    | yes   | no         |
| p8 | 278   | 9.1  | 10x      | 3.0      | yes    | yes   | yes        |

### **Explaining solutions (2)**

If a customer is interested in digital cameras with a price less than 150, then p1 is recommended.

| id | price | mpix | Opt-zoom | LCD-size | movies | sound | waterproof |
|----|-------|------|----------|----------|--------|-------|------------|
| p1 | 148   | 8.0  | 4x       | 2.5      | no     | no    | yes        |
| p2 | 1     | 8.0  | 5x       | 2.7      | yes    | yes   | no         |
| рЗ | Why?  | 8.0  | 10x      | 2.5      | yes    | yes   | no         |
| p4 | 196   | 10.0 | 12x      | 2.7      | yes    | no    | yes        |
| p5 | 151   | 7.1  | 3x       | 3.0      | yes    | yes   | no         |
| p6 | 199   | 9.0  | 3x       | 3.0      | yes    | yes   | no         |
| p7 | 259   | 10.0 | 3x       | 3.0      | yes    | yes   | no         |
| p8 | 278   | 9.1  | 10x      | 3.0      | yes    | yes   | yes        |

### **Explaining solutions (3)**

- The weights of the attributes can be incorporated into the answers
- If the customer requires a price less than 160 and LCD size of more than 2.4 inches, where LCD size is weighted much more than price, then p5 is recommended

| id | price | mpix | Opt-zoom | LCD-size | movies | sound | waterproof |
|----|-------|------|----------|----------|--------|-------|------------|
| p1 | 148   | 8.0  | 4x       | 2.5      | no     | no    | yes        |
| p2 | 182   | 8.0  | 5x       | 2.7      | yes    | yes   | no         |
| рЗ | 189   | 8.0  | 10x      | 2.5      | yes    | yes   | no         |
| p4 | 196   | 10.0 | 12x      | 2.7      | yes    | no    | yes        |
| р5 | 151   | 7.1  | 3x       | 3.0      | yes    | yes   | no         |
| рб | 199   | 9.0  | 3x       | 3.0      | yes    | yes   | no         |
| р7 |       |      | Why?     | yes      | yes    | no    |            |
| p8 | 278   | 9.1  | 10x      | 3.0      | yes    | yes   | yes        |

### **Explaining solutions (4)**

- The requirements of a customer might be too specific
- Why-explanations provide information about the violated constraints
- For example, if the customer requires a price less than 150 and a movie function, then no product fulfills these requirements.

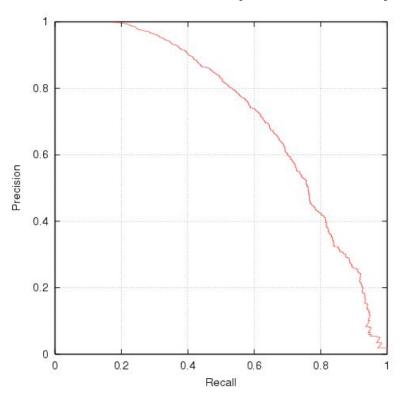
| id | price | mpix | Opt-zoom | LCD-size | movies | sound | waterproof |              |
|----|-------|------|----------|----------|--------|-------|------------|--------------|
| р1 | 148   | 8.0  | 4x       | 2.5      | no     | no    | yes        |              |
| p2 | 182   | 8.0  | 5x       | 2.7      | yes    | yes   | no         |              |
| р3 | 189   | 8.0  | 10x      | 2.5      | yes    | yes   | no         | Most similar |
| p4 | 196   | 10.0 | 12x      | 2.7      | yes    | no    | yes        | products     |
| р5 | 151   | 7.1  | 3x       | 3.0      | yes    | yes   | no         |              |
| p6 | 199   | 9.0  | 3x       | 3.0      | yes    | yes   | no         |              |
| р7 | 259   | 10.0 | 3x       | 3.0      | yes    | yes   | no         |              |
| p8 | 278   | 9.1  | 10x      | 3.0      | yes    | yes   | yes        |              |

## **Graphs**

- Title, axis marks, legend, labels
- Pie charts not unless data sum to 100%
- Three dimensional charts
- Good contrast
- Colour (5 max)
- Lines 4 times thicker than for printed work
- Error bars
- Simple schematic

### **Example: Chart with Precision and Recall**

 E.g. typically when a recommender system is tuned to increase precision, recall decreases as a result (or vice versa)



## Tips for designing visual aids

### COLOUR

- clear & appropriate
- one color for main idea, two complementary color for sub points.
- avoid red-green and pastels

LAYOUT and SPACE

# Tips for designing visual aids

STYLE - Select one style and use consistently

Text STYLE AND SIZE - Choose carefully

## Tips for designing visual aids

 AVOID GIMMICKS - Computer graphics (background, patterns, clip art etc.) should be used to enhance presentation.

PROOFREAD

PLAN AHEAD

## Tips for using visual aids

INTEGRATE visual aids

REHEARSE with your visual aids

Maintain EYE CONTACT

DO NOT READ from your visual aid

STOP SPEAKING while audience read

## Tips for using visual aids

- DO NOT PASS OUT items while presenting
- REVEAL AIDS only when NEEDED
- USE THEM, don't just display them!
- CHECK ROOM & EQUIPMENT in advance
- CHECK visual is VISIBLE to audience