

CPE/CSC 484: User-Centered Design and Development

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Logistics

- ❖ **Senate appearance by the instructor**
 - ❖ during the first half of the lab period
- ❖ **Assignments**
 - ❖ A3 - Storyboards deadline Thu, May 3
- ❖ **Term Project**
 - ❖ mid-quarter project displays Thu, May 3
 - ❖ allocation of display stations
 - ❖ external visitors anticipated
 - ❖ don't reveal confidential information
 - ❖ e.g. names of collaboration partners

Chapter 13

An evaluation framework



Motivation

- since it can be difficult to put together a customized evaluation plan for each project, it is often useful to follow a template or framework
- evaluation paradigms have been identified over time as practical combinations of methods

Objectives

- Explain key evaluation concepts & terms.
- Describe the evaluation paradigms & techniques used in interaction design.
- Discuss the conceptual, practical and ethical issues that must be considered when planning evaluations.
- Introduce the DECIDE framework.

The aims are:

- Introduce and explain the DECIDE framework.
- Discuss the conceptual, practical, and ethical issues involved in evaluation.

DECIDE: a framework to guide evaluation

- Determine the *goals*.
- Explore the *questions*.
- Choose the evaluation *methods*.
- Identify the *practical issues*.
- Decide how to deal with the *ethical issues*.
- Evaluate, analyze, interpret and present the *data*.

Determine the goals

- What are the high-level goals of the evaluation?
- Who wants it and why?
- The goals influence the methods used for the study.
- Goals vary and could be to:
 - identify the best metaphor for the design
 - check that user requirements are met
 - check for consistency
 - investigate how technology affects working practices
 - improve the usability of an existing product

Explore the questions

- Questions help to guide the evaluation.
- The goal of finding out why some customers prefer to purchase paper airline tickets rather than e-tickets can be broken down into sub-questions:
 - What are customers' attitudes to e-tickets?
 - Are they concerned about security?
 - Is the interface for obtaining them poor?
- What questions might you ask about the design of a cell phone?

Choose the evaluation approach & methods

- The evaluation method influences how data is collected, analyzed and presented.
- E.g. field studies typically:
 - Involve observation and interviews.
 - Involve users in natural settings.
 - Do not involve controlled tests.
 - Produce qualitative data.

Identify practical issues

For example, how to:

- Select users
- Find evaluators
- Select equipment
- Stay on budget
- Stay on schedule

Decide about ethical issues

- Develop an informed consent form
- Participants have a right to:
 - Know the goals of the study;
 - Know what will happen to the findings;
 - Privacy of personal information;
 - Leave when they wish;
 - Be treated politely.

Evaluate, interpret & present data

- Methods used influence how data is evaluated, interpreted and presented.
- The following need to be considered:
 - Reliability: can the study be replicated?
 - Validity: is it measuring what you expected?
 - Biases: is the process creating biases?
 - Scope: can the findings be generalized?
 - Ecological validity: is the environment influencing the findings? i.e. Hawthorn effect.

Key points

- Many issues to consider before conducting an evaluation study.
- These include: goals of the study; involvement or not of users; the methods to use; practical & ethical issues; how data will be collected, analyzed & presented.
- The DECIDE framework provides a useful checklist for planning an evaluation study.

Activity: DECIDE Framework

- apply the DECIDE framework to your project in this class

A project for you ...

- Find an evaluation study from the list of URLs on this site or one of your own choice.
- Use the DECIDE framework to analyze it.
- Describe the aspects of DECIDE that are explicitly addressed in the report and which are not.
- On a scale of 1-5, where 1 = poor and 5 = excellent, how would you rate this study?