Chapter 13
An evaluation 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.
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?