

Lecture 6

Evaluation, Physical Design and Standards

Heuristic evaluation
Nielsen's heuristics
Physical design (continued)
Interface design standards

Heim, Chapters 5.4-5.6



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Evaluation

MAXIM

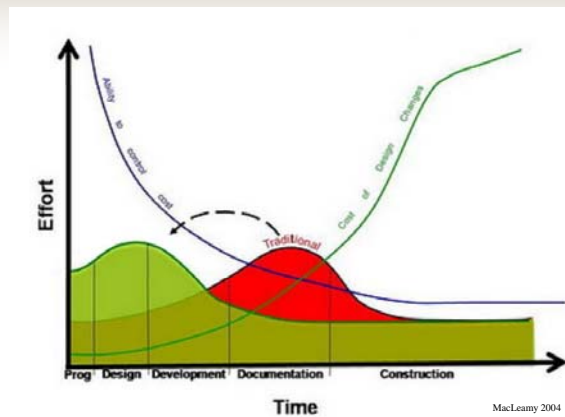
Begin evaluations early in the design process.

- Evaluation is an integral part of the development process and can take the form of an informal walkthrough or a more structured heuristic evaluation.
- Formal usability testing can begin once a prototype has been developed.
- Discuss some of the benefits of starting the evaluation process early in the design phase

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1-2

MacLeamy curve

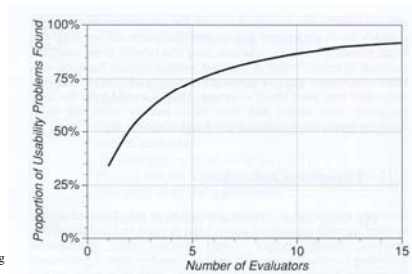


MacLeamy 2004

1-3

Evaluation – Heuristic Evaluation

- Heuristic evaluations are performed by usability experts using a predetermined set of criteria designed to measure the usability of a proposed design.
- The evaluator follows a scenario through the design and tests each step against the heuristic criteria.
- The evaluator makes recommendations to the design team either through a written document or during a team meeting.



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1-4

Evaluation – Nielsen's Heuristics

- In collaboration with Rolf Molich, Jakob Nielsen developed a set of 10 heuristics for interface design.
- The revised set based on an analysis of 249 usability problems.
http://www.useit.com/papers/heuristic/heuristic_list.html

Nielsen's 10 Usability Heuristics

- *Visibility of system status*
- *Match between system and the realworld*
- *User control and freedom*
- *Consistency and standards*
- *Error prevention*
- *Recognition rather than recall*
- *Flexibility and efficiency of use*
- *Aesthetic and minimalist design*
- *Help users recognize, diagnose, and recover from errors*
- *Help and documentation*

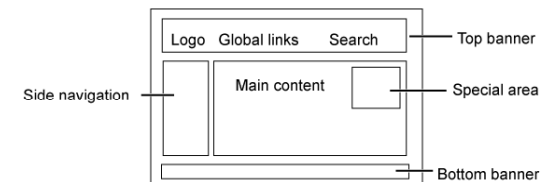
Physical Design Cont. - Wireframes

- Wireframes define:
 - Basic page layout
 - Screen components
- Wireframes are developed from flowcharts and paper prototypes
- They are basically more evolved paper prototypes that include detailed information about the interface elements

Physical Design Cont. - Wireframes

MAXIM

Wireframes help to create template layouts that can be used to impose a consistent structure throughout the interface



Physical Design Cont. – Wireframes

- Web Formats
 - Web sites from different domains use layouts particular to that domain

MAXIM

Use page layouts that are common to the domain

MAXIM

Use flexible design for Web pages

Evaluation – Functional Prototypes

- Functional prototypes are interactive prototypes that represent various degrees of functionality
 - They can either be horizontal or vertical
- Can also be simulated – Wizard of Oz
- Functioning prototypes can be created using RAD environments, such as:
 - Microsoft
 - Visual Studio
 - Adobe
 - Flash
 - Dreamweaver
 - Director

Interface Design Standards

- These tools promote standards-based designs that have a consistent look and feel
 - Graphical libraries
 - User interface toolkits
 - Visual interface builders
 - Web development tools

Mac OS X

- Working in a standardized environment increases efficiency and promotes learning (Cooper & Reimann, 2003)

Interface Design Standards

- Shneiderman and Plaisant (2005, 185) identified the following benefits from the use of high-level software tools
- User Interface Independence
 - They separate interface design from internals.
 - They enable multiple user interface strategies.
 - They enable multiple-platform support.
 - They establish the role of the user interface architect.
 - They enforce standards.
- Methodology and Notation
 - They facilitate the development of design procedures.
 - They help in finding ways to talk about design.
 - They create project management.

Interface Design Standards

- **Rapid Prototyping**
 - They make it possible to try out ideas very early.
 - They make it possible to test, revise, test, revise,
 - They engage end users—managers and customers.
- **Software Support**
 - They increase productivity.
 - They offer constraint and consistency checks.
 - They facilitate team approaches.
 - They ease maintenance.