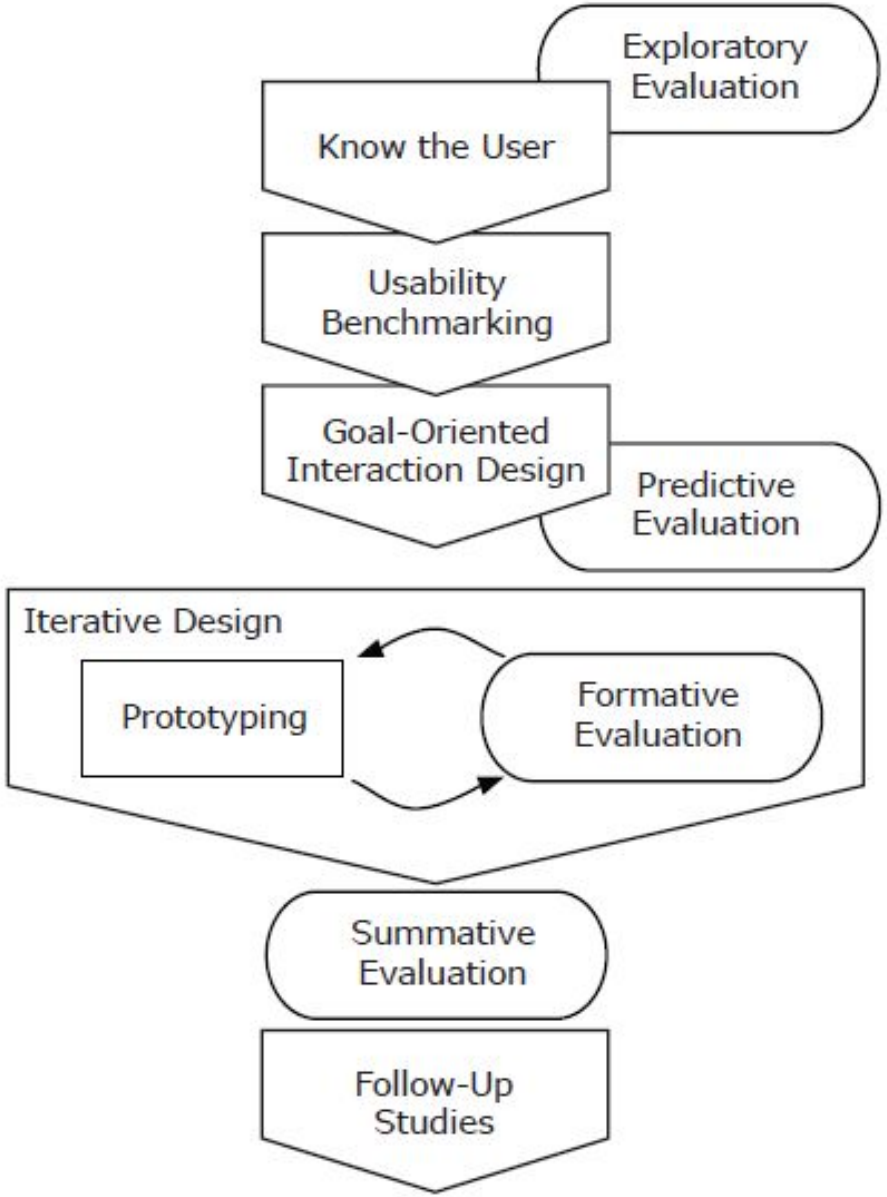
Kelas IMK Minggu 8

Anny Yuniarti

Review: The Usability Engineering Lifecycle



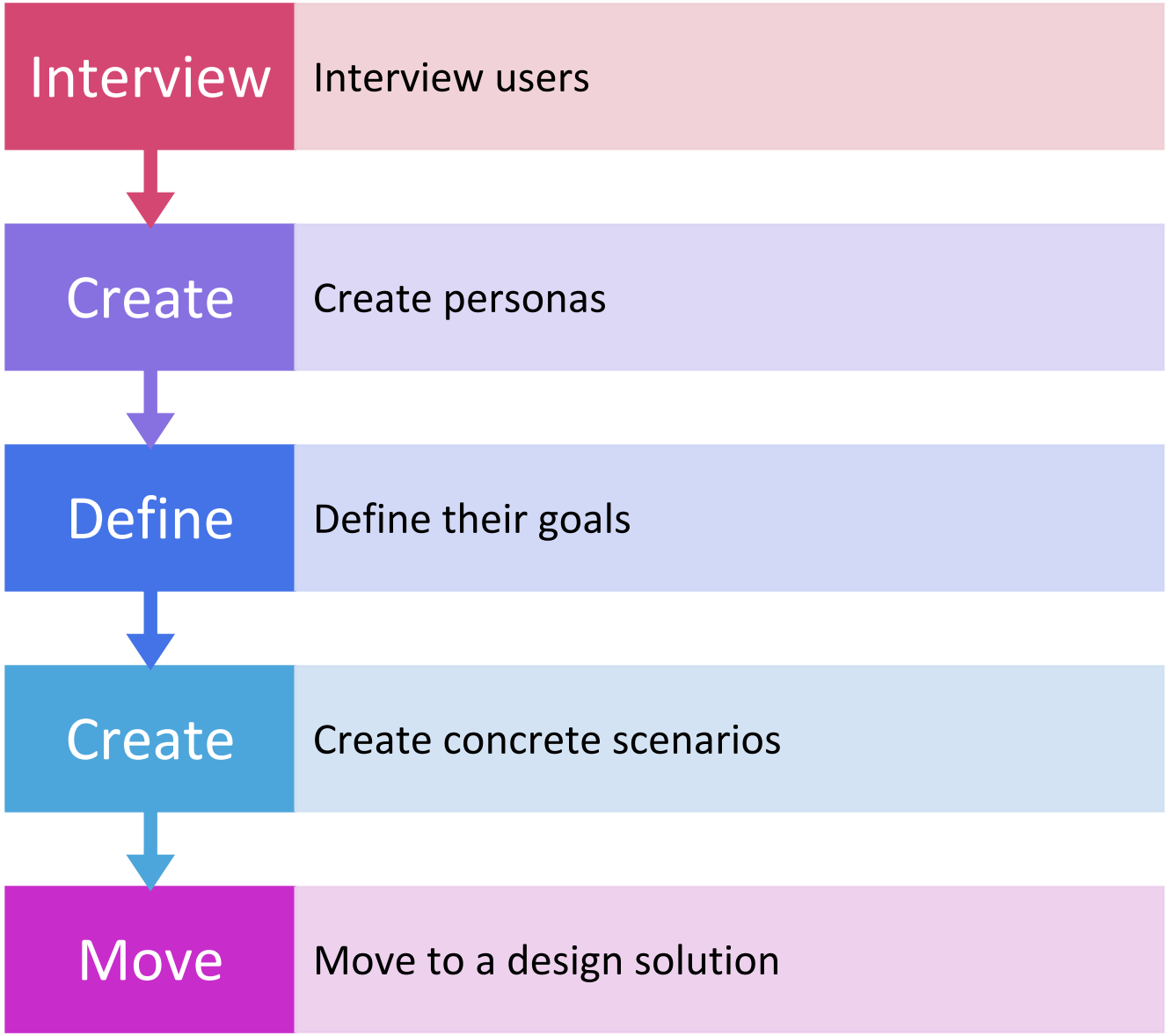
Review: Usability Benchmarking

how usable is the competition?

how much better should your interface be?

what is your likely return on investment?

Review: The Interaction Design Process



Moving to a Design Solution

- Parallel Design
  - If time and resources allow, explore design alternatives.
  - Have several design teams work independently, then compare draft designs

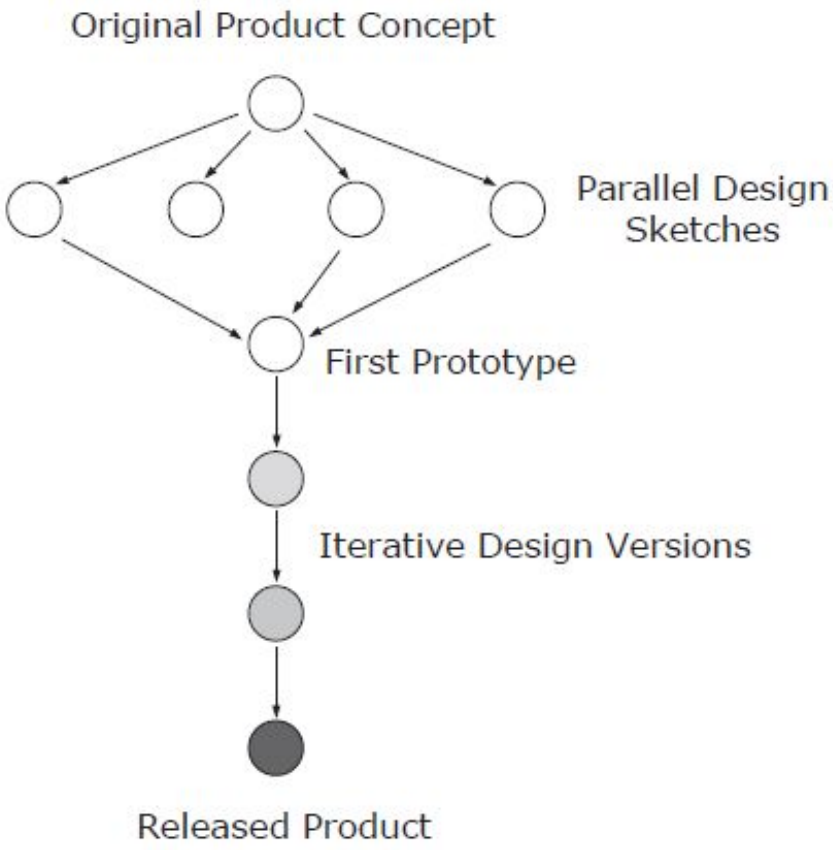


Figure 6.9: The relationship between parallel and iterative design. The first prototype is based on ideas from parallel design sketches. From Figure 8 of [Nielsen, 1993b].

Moving to a Design Solution

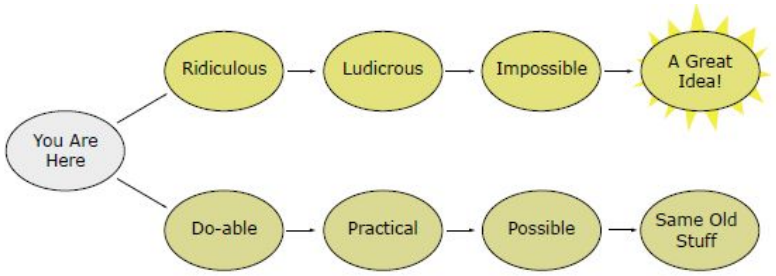


Figure 6.10: Lateral Thinking. Build on the crazy to generate new ideas [from Edward de Bono]

- Brainstorm
  - Meet away from usual workplace (different building, hut in the mountains).
  - Brainstorm with mixed team (engineers, graphic designer, writer, marketing types, usability specialist, one or two representative users).
  - Use plenty of paper. Cover the walls with it!
  - Draw. Scribble. Use lots of coloured pens.
  - Be stupid.
  - Go crazy, build on the insane, think laterally.
  - Three rules during brainstorming:
    - No one is allowed to criticise another's ideas.
    - Programmers must not say it can't be implemented.
    - Graphic designers must not laugh at programmers' drawings.
  - Only after brainstorming, organise ideas and consider their practicality and viability

Exercise

- Lakukan **usability benchmarking** pada aplikasi tim Anda dengan menjawab pertanyaan berikut:
  - how usable is the competition?
    - Analyse competing products or interfaces
  - how much better should your interface be?
    - Set Usability Targets
  - what is your likely return on investment?
    - Use assumptions

Exercise

- Continue with your team work on the application
  - Do you have primary and secondary personas?
  - Do you need separate interfaces?
  - Define goals and scenarios for each persona!
  - Design the interface of your app!
    - In your report, mention which approach you took to design the interface, i.e parallel design, brainstorming, etc.
    - Also, did you took surveys on users? What conventions you followed, what design pattern you used?

Prototyping

Prototyping

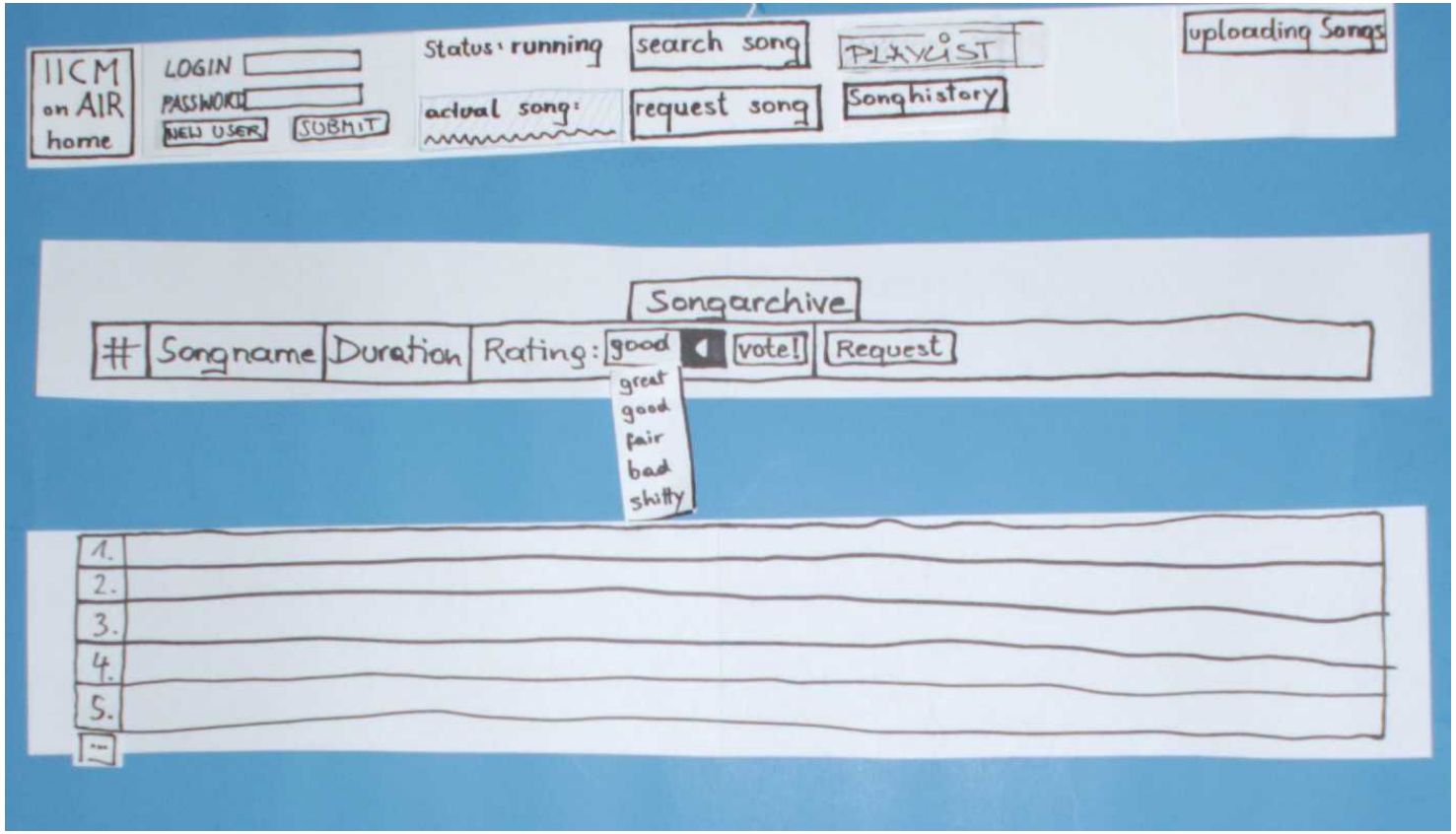
- Perform usability evaluation and obtain feedback as **early** as possible in the design cycle by building and evaluating prototypes.
- Finally, throw prototypes away and implement final design.

Types of Prototype

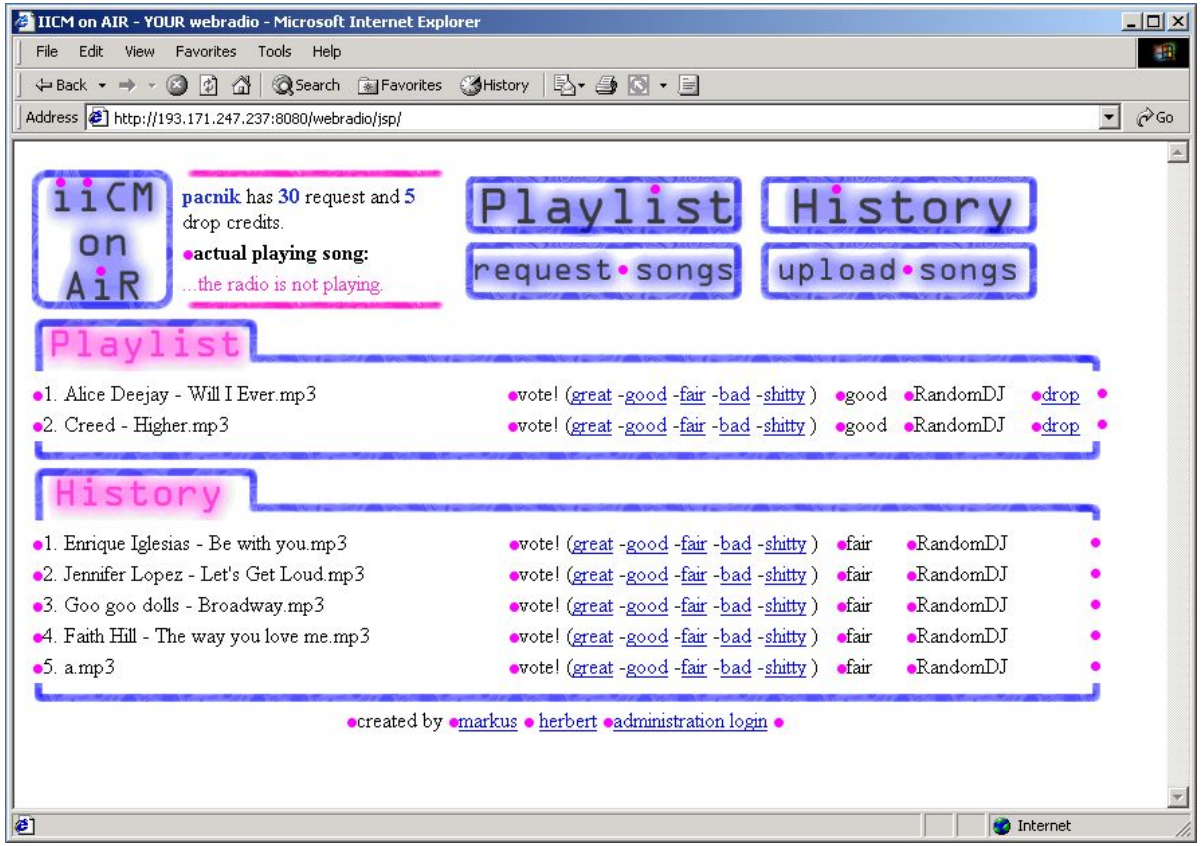
- **Verbal Prototypes**: textual description of choices and results.
- **Paper Prototypes**:
  - Low-Fidelity: hand-drawn sketches.
  - High-Fidelity: more elaborate printouts.
- **Interactive Sketches**: interactive composition of hand-drawn sketches.
- **Working Prototypes**: interactive, skeleton implementation.

Low-Fidelity Paper Prototypes

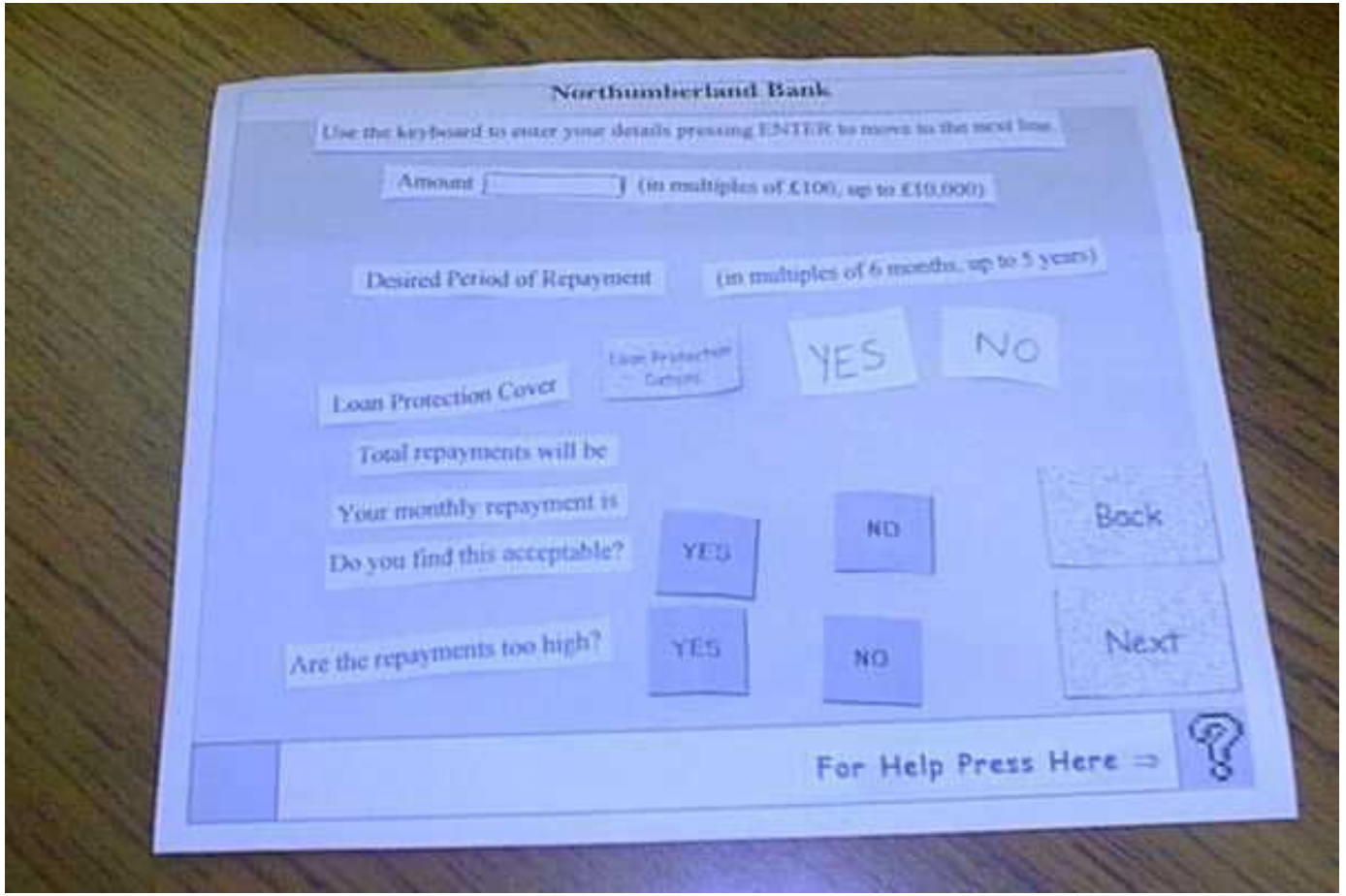
Low-Fidelity Paper Prototypes



Working prototype

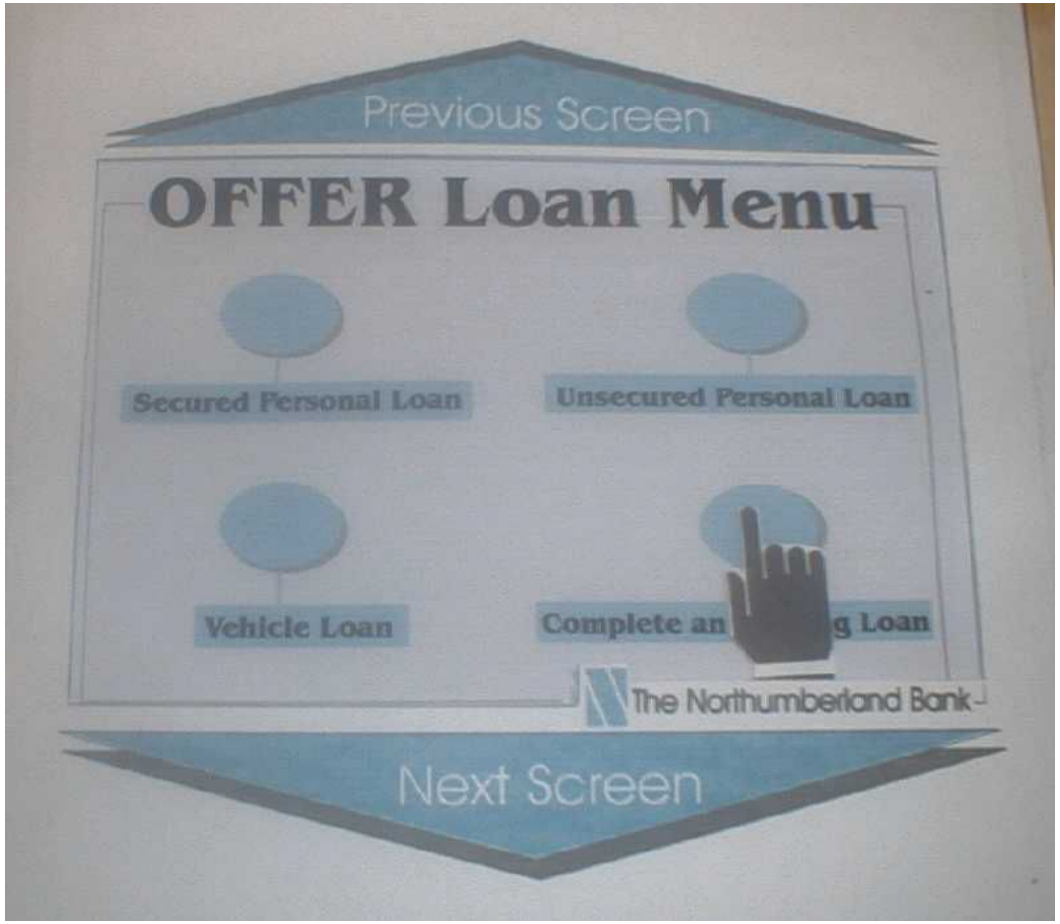


Paper Prototype of Customer Information Terminal



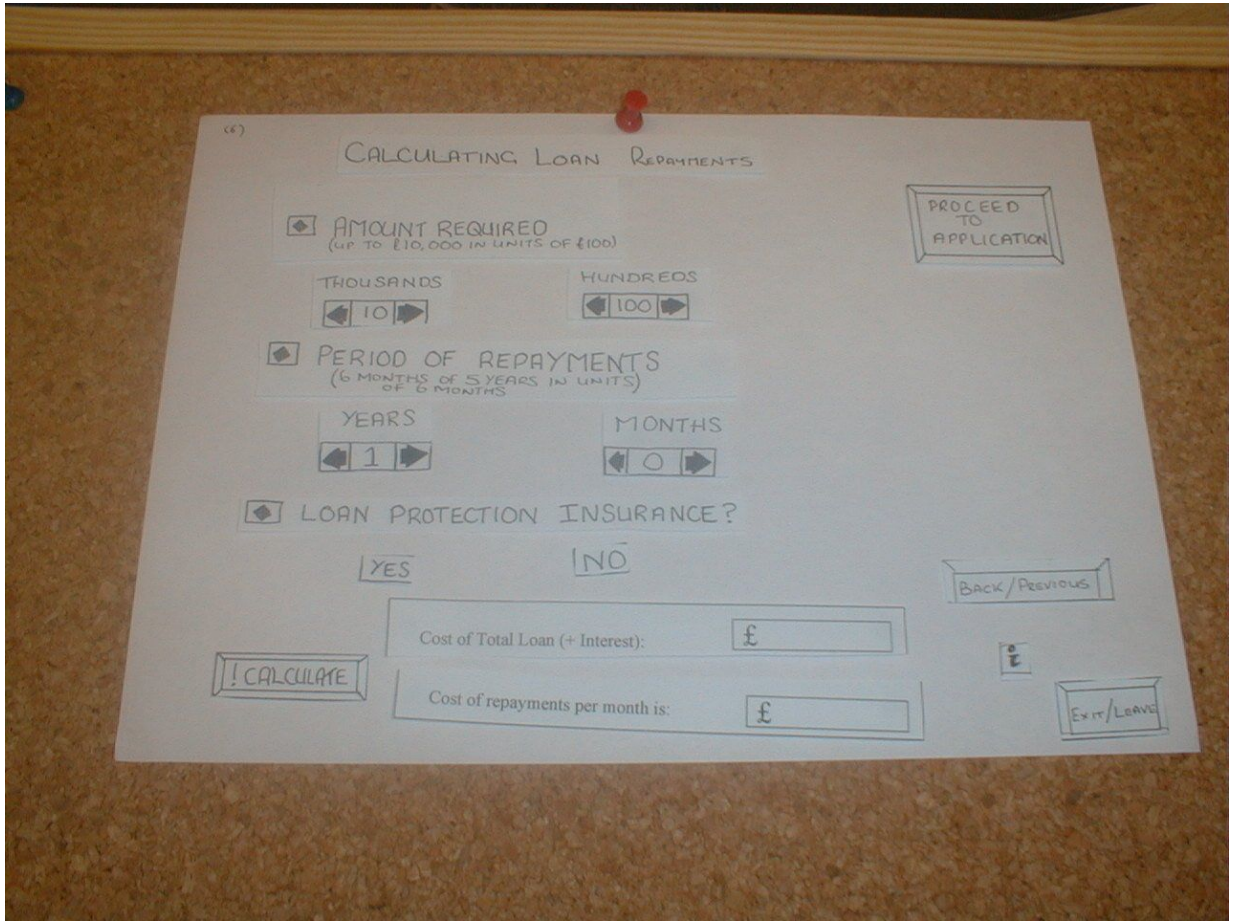
Paper prototype 1 for a customer information terminal

Paper Prototype of Customer Information Terminal



Paper prototype 2 for a customer information terminal.

Paper Prototype of Customer Information Terminal



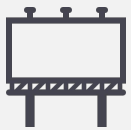
Paper prototype 3 for a customer information terminal.

High-Fidelity Paper Prototypes

Elaborate screen designs created with drawing editors such as Adobe Illustrator or Corel Draw.

Printed out in colour.

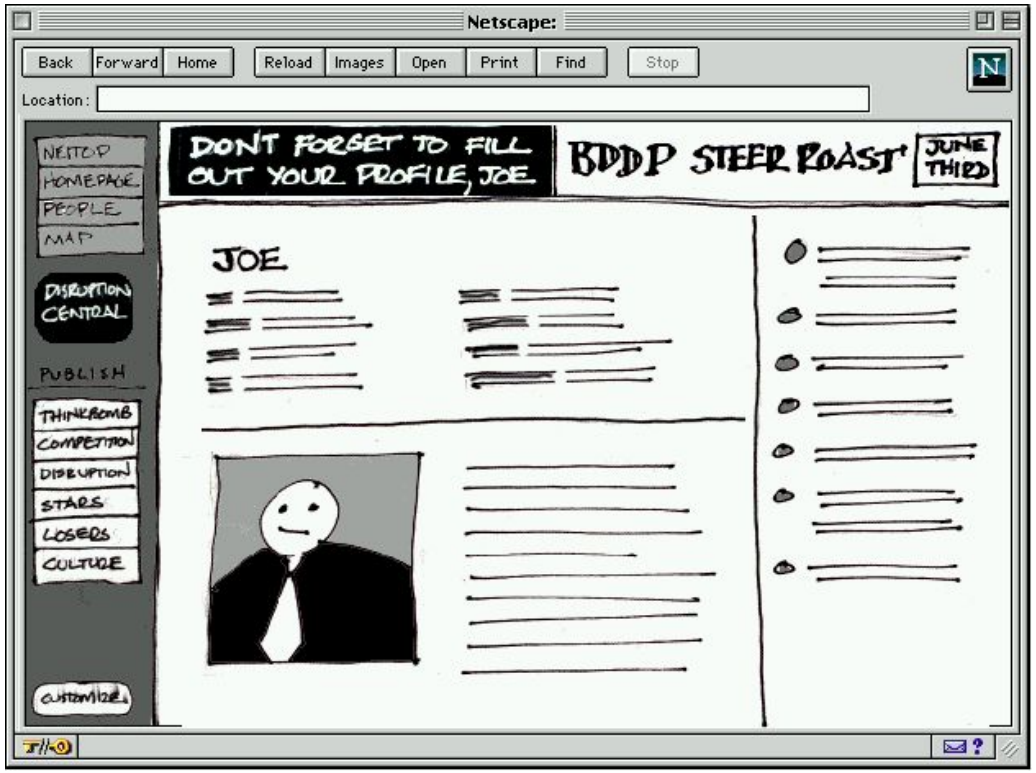
They often look too much like a finished design, and not enough like a prototype.



Users tend to comment on the choice of fonts and colours, rather than the flow through the application.

Interactive Sketches

- Scan in hand-drawn interface sketches.
- Assemble interactive prototype with clickable elements (say with Macromedia Director).
- Retains throwaway, casual look to encourage criticism and discussion



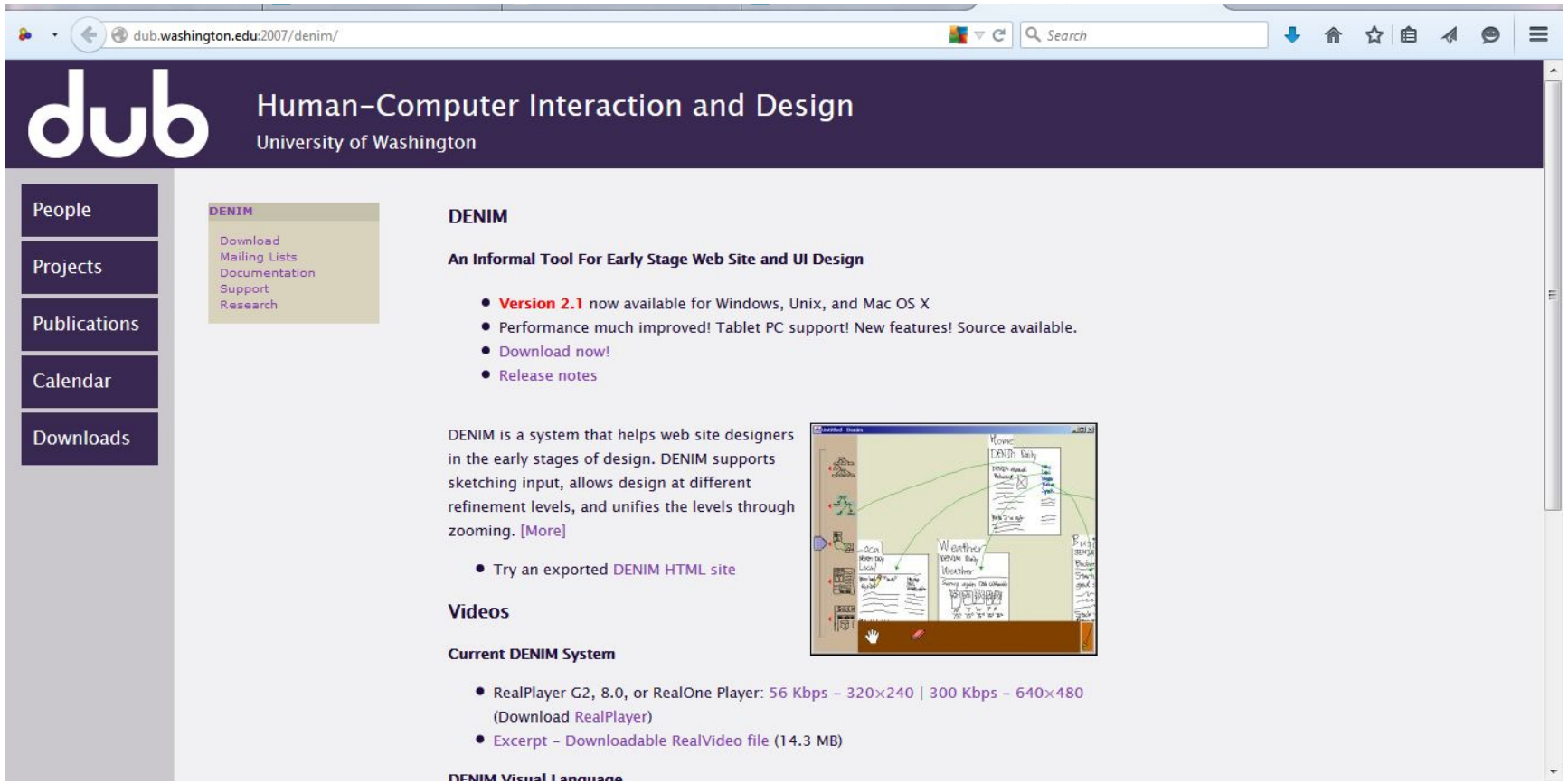
An interactive sketch made in Shockwave. Screen designs sketches are scanned and assembled into an interactive prototype with Macromedia Director.

Working Prototypes

Prototyping Tools

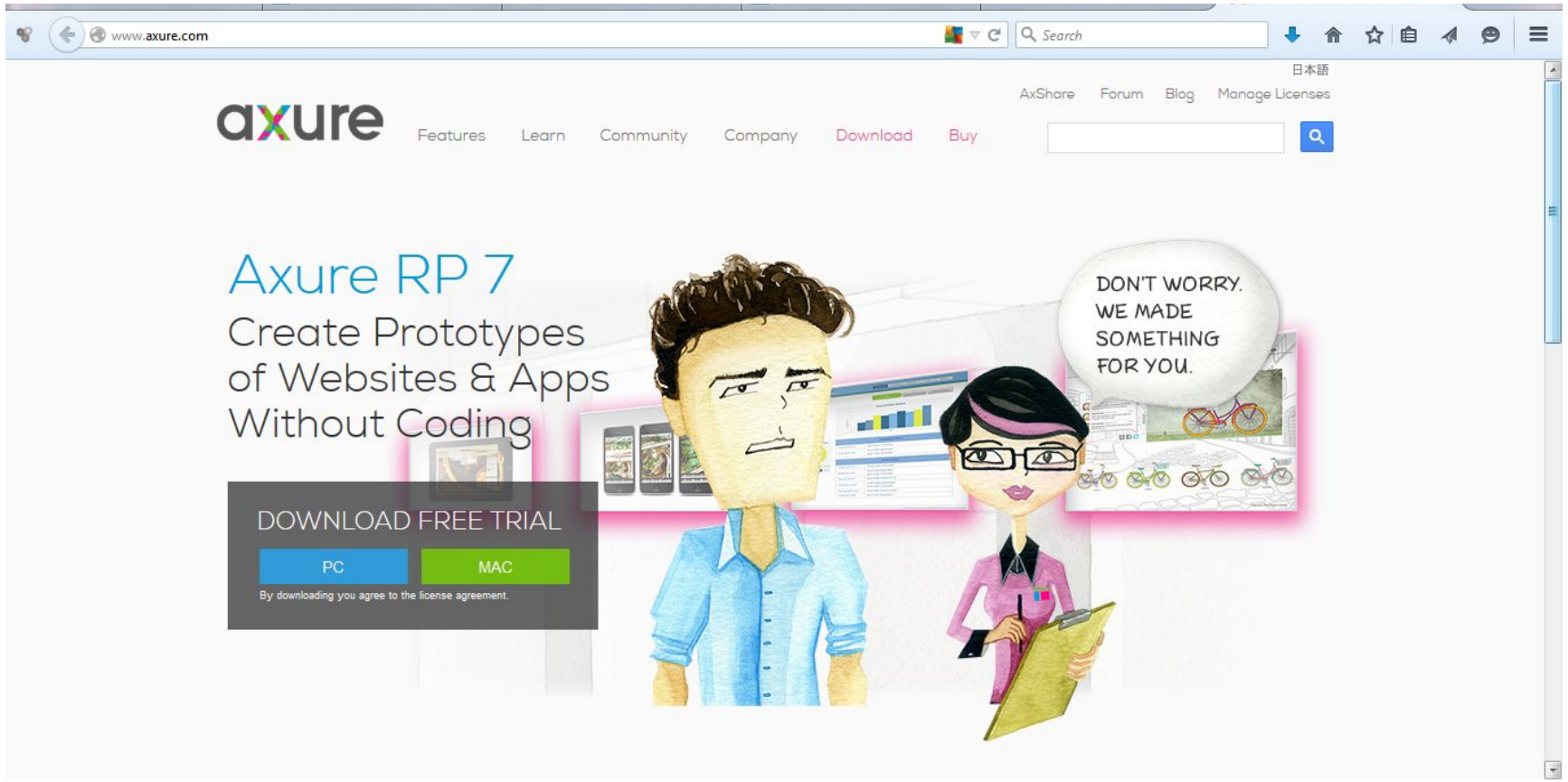
- DENIM
- Axure
- Balsamiq Mockups
- Microsoft Expression
- HotGloo

Prototyping Tools



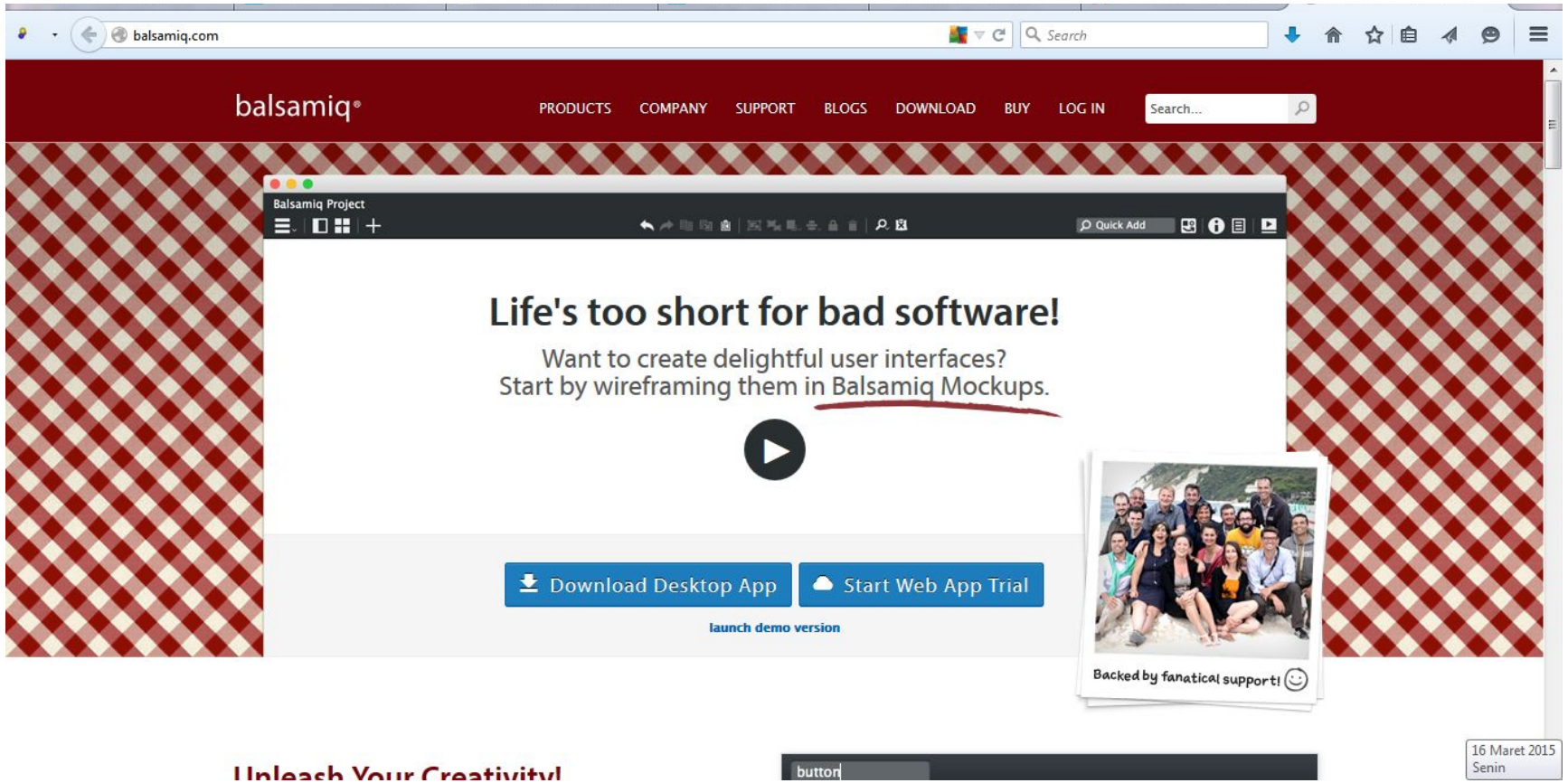
http://dub.washington.edu:2007/denim/

Prototyping Tools



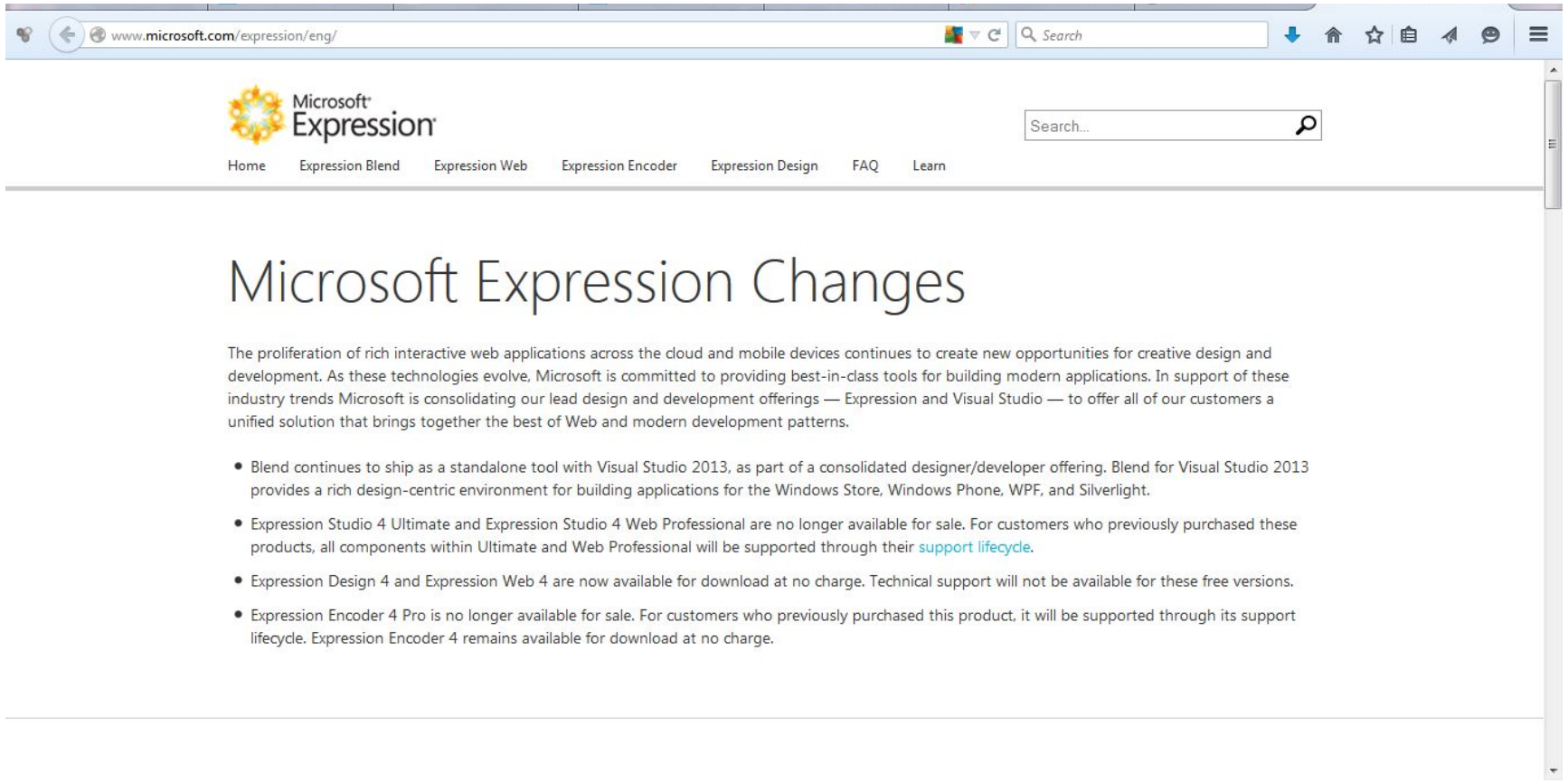
http://www.axure.com/

Prototyping Tools



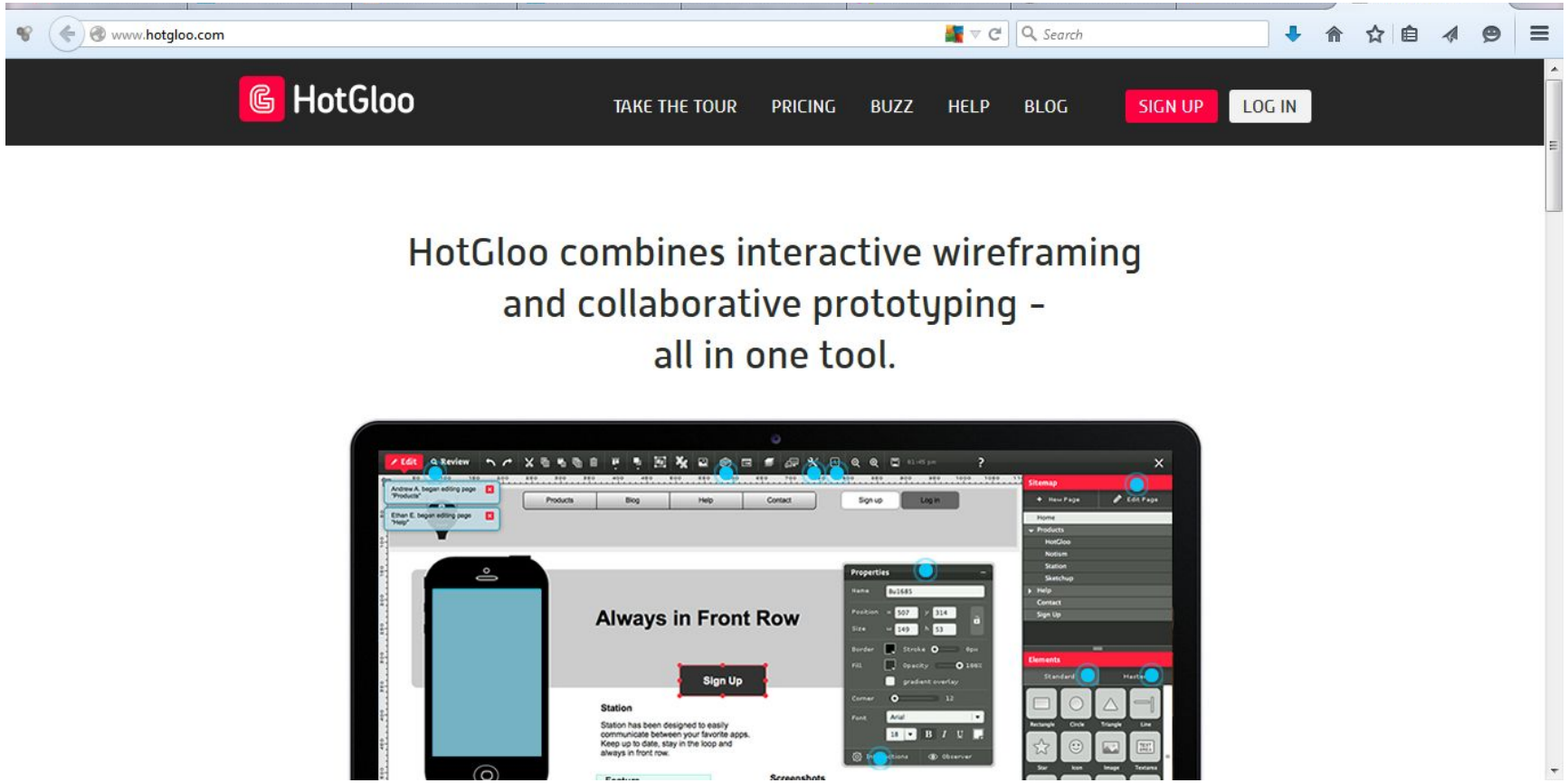
http://balsamiq.com/

Prototyping Tools



http://www.microsoft.com/expression/eng/

Prototyping Tools

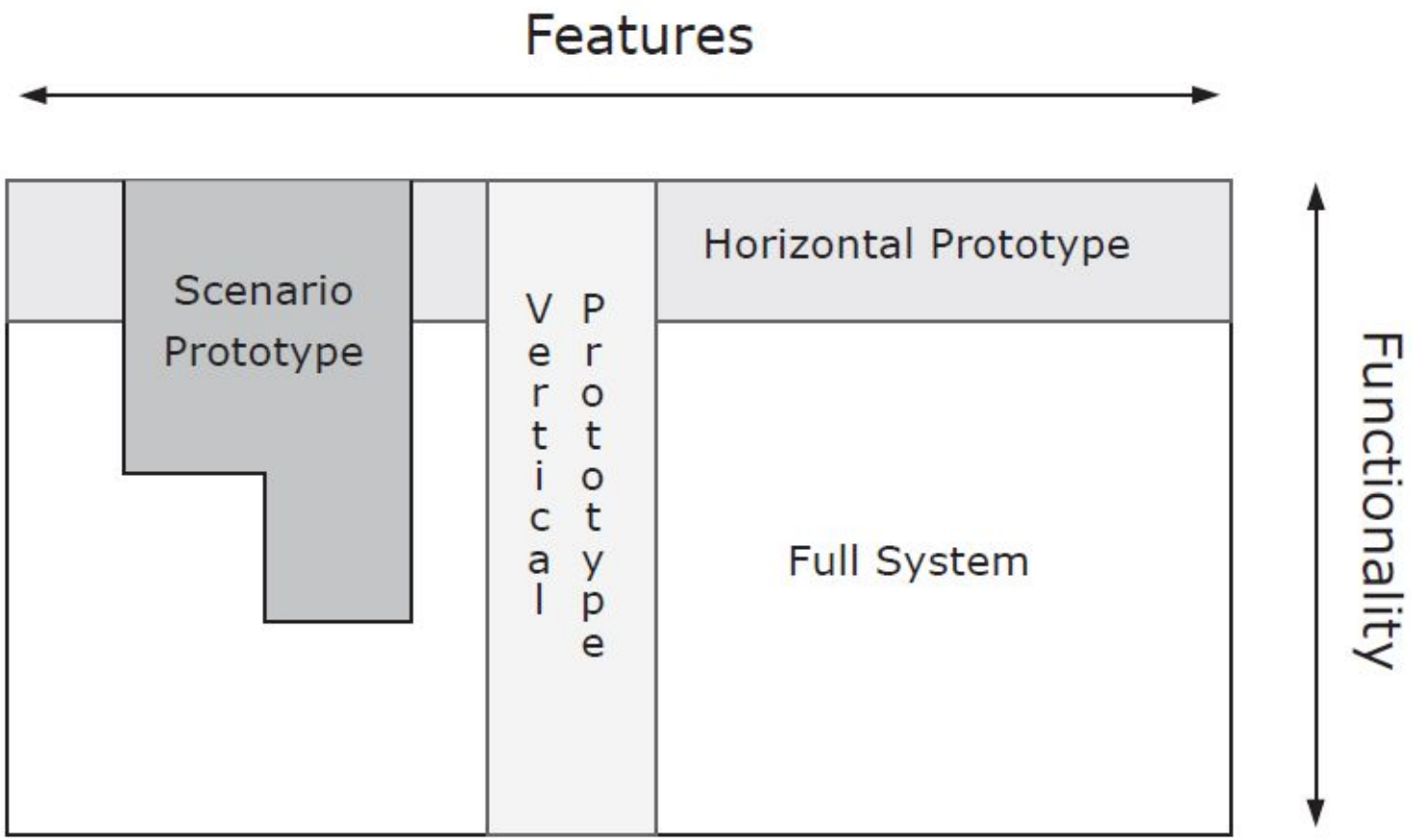


http://www.hotgloo.com/

Dimensions of Working Prototypes

- Working prototypes cut down on either the number of features, or the depth of functionality of features:
  - Vertical Prototype: in-depth functionality for a few selected features.
  - Horizontal Prototype: full interface features, but no underlying functionality.
  - Scenario Prototype: only features and functionality along the specific scenarios or paths through the interface which are to be evaluated.

Dimensions of Working Prototypes

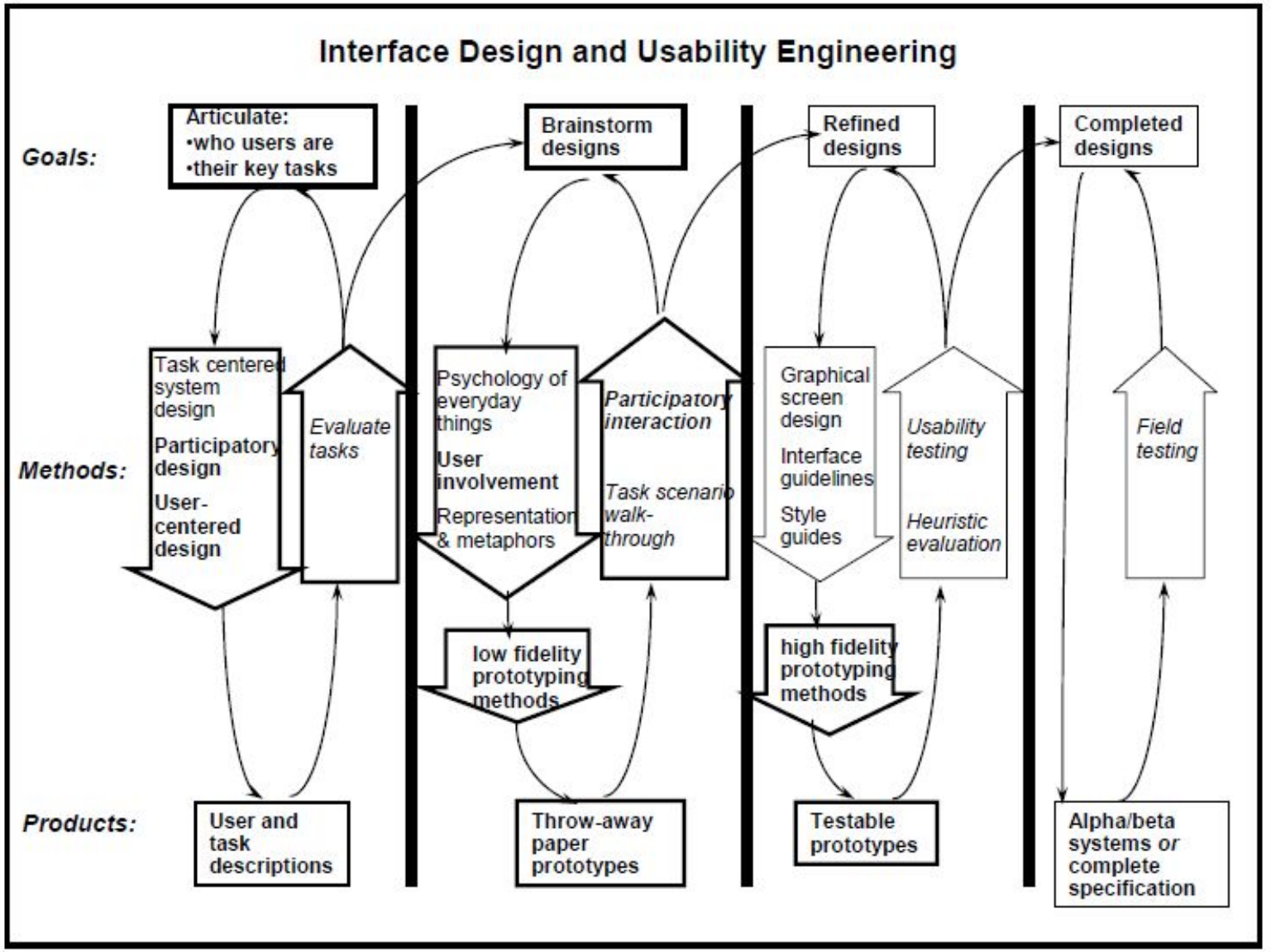


Implementation

- Implement final design.
- Competitive analysis of software components:
  - Use existing interface framework as far as possible (Motif, MS-Windows, Java Swing) – saves a lot of work.
  - Use existing components and applications rather than re-inventing the wheel.

Exercise

- Build an interactive working prototype of your app
  - Choose one prototyping tool to develop the prototype
  - Choose whether it is a vertical, horizontal, or scenario prototype


Interface Design and Usability Engineering
Goals:
Articulate:
•who users are
•their key tasks
Brainstorm designs
Refined designs
Completed designs
Methods:
Task centered system design
Participatory design
User-centered design
Evaluate tasks
Psychology of everyday things
User involvement
Representation & metaphors
Participatory interaction
Task scenario walk-through
Graphical screen design
Interface guidelines
Style guides
Usability testing
Heuristic evaluation
Field testing
low fidelity prototyping methods
high fidelity prototyping methods
Products:
User and task descriptions
Throw-away paper prototypes
Testable prototypes
Alpha/beta systems or complete specification