How can the system (or information) best support the users and their tasks?

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Bridging The Gap

Personas
User feedback
Interview notes
Flow charts
Stakeholder goals
Scenarios
Survey results
Requirements
Usage statistics
Problem reports
Use cases

... “and then the magic happens” ...
The Old Way

Decisions about the user interface occurred separate from usability testing. The usability test often identified major problems too late to fix them.
Designing for Usability

The Old Way is replaced by ....

Diagram:
- Planning
- Requirements
- Detailed Design
- Development
- Validation
- Roll-out

User Interface

Usability Testing

Does it work for you?
The New Way

UCD activities, including prototyping and evaluation, occur iteratively throughout the lifecycle. The final usability test is for verification.

User-Centered Design Activities

Does it STILL work for you?
Usability Through User-Centered Design

Figure out what the real needs are
- Define the business need or problem and establish goals
- Gather information on the end users, tasks, and environment

Design a solution to meet the needs
(and make sure it works)
- Iterate design through collaboration with end users and stakeholders
- Test design early and often to make sure that needs have been met

Design is an essential step
What is Design?

- Creating the best form to fit the context
  - Able to heat water for at least 4 people
  - Must not let the water cool too fast
  - Easy to hold and pour without spilling
  - Easy to fill with water
  - Easy to pick up when hot
  - Not too hard to clean
  - Made of inexpensive material
  - Material must withstand boiling water

- Balance/tradeoffs to optimize the solution

- A mixture of art and science

Prepared by L. Battle 10.28.2003
The Design Process

• A series of progressive transformations and refinements
Visioning

- “Blue sky” brainstorming sessions
- Fast, informal generation of ideas
- Creatively identify and solve problems
- Build a shared understanding of what is possible and desirable
Structuring and Organizing

What are we trying to build?
How should it be organized?
What are its main sections?
What will people do in each area?
Structuring and Organizing

Abstract prototype

Usability Through User-Centered Design

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Structuring and Organizing

- Task Information
- User Action
- System Action
- Unresolved Questions or Issues
Representing and Refining

Which things should be near each other because they go together?

Is this the right style of interaction?

Does this layout support the flow of the task?
Representing and Refining

About Your Condition

List all of the illnesses, injuries or conditions:
1. 
2. 
3. 
4. 
5. 

When was the first time that this bothered you?

Month [ ] Day [ ] Year [ ]

Have you gone to a doctor, hospital or clinic?

Yes [ ] No [ ]

Have you had medical tests?

Yes [ ] No [ ]

Do you take medicine?

Yes [ ] No [ ]

[ Prior Page ] [ Continue ]
Representing and Refining

Paper prototype

Usability Through User-Centered Design
What message do we want to convey through the visual appearance?

What do we want to emphasize?

How can the overall experience be enhanced?
Detailing and Polishing

PRIDE

Visual Design & Interaction Refinements

Usability Through User-Centered Design
Detailing and Polishing

Visual Design
What it Takes

• Starting with a deep understanding of the users, tasks, and goals
• Small, multidisciplinary design team
• Comfort with ambiguity
• Time for iteration
• Access to users for iterative testing
• Management willingness to make design a conscious step, not an accidental one