Human-Computer Interaction

Overview

What is HCI?
“A discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of the major phenomena surrounding them.”

Why Usability?
- Gain Competitive Advantage
- Reduce Development Costs
- Reduce Maintenance Costs
- Reduce Support Costs
- Increase Productivity
## HCI Goals

<table>
<thead>
<tr>
<th>Goal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>protection of humans; data from unintentional or malicious harm</td>
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<tr>
<td>Utility</td>
<td>service or functionality provided for human use</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>ability of a person to achieve a desired goal by using the system</td>
</tr>
<tr>
<td>Efficiency</td>
<td>how quickly a person can accomplish a goal by using the system</td>
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<tr>
<td>Usability</td>
<td>ease of use and ease of learning</td>
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<tr>
<td>Appeal</td>
<td>measure of how well a person likes the system</td>
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</tbody>
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## Safety?

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## Safe? Effective? Efficient?
Development Stages

- Design
- Prototyping
- Evaluation

Design Phase

- Define site goals
- Determine site's organization & presentation
- Identify site content
- Organize content
- Create navigation systems
- Decide “look & feel”

Prototype Phase

- Detailed or rough (high or low-fidelity)
- Can take broad/shallow, or narrow/deep approach

Wireframe Prototype

High-Fidelity Prototype

http://www.pbs.org/remotecontrol/bestpractices/bemoreprototype/
Evaluation Phase

- Can use a “click-thru” to examine content, navigation, and page flow
- Try to employ typical users for testing