Making Your Product Better 101
So... What makes a good product?

In a word: Usability

A usable product ...
- Is effective and efficient
- Makes life easier
- Has a perception of satisfaction
  - Satisfaction = Desirability = People buying the product

Users expect the product to be usable!
How do I know my product is “usable”?

Usability testing, of course!

Usability testing ...
- Observes users interacting with the product
- Measures the user’s experience, not the product’s performance
- Tests the *product*, not the *user*
- Obtains feedback to improve current and future products
How To Conduct Usability Testing

Say you’re testing a proposed change to the Trailhead class registration system.

1. Choose a defined user subgroup (3-5 users)
   - Freshmen who have never used Trailhead
   - Upperclassmen (who could be confused)
2. Give users a concrete task
   - Register for a class
3. Tell users to think out loud
   - Even their “unimportant” thoughts are valuable
     - “Where did that button go?”
4. Make changes and test again
How many users?

Figure 1.2 This curve shows why you only need to test with five users.
Another Method: Expert Review*

- An expert has, well, more expertise
  - Uses “rules of thumb” to find common problems
  - Can offer suggestions for improvement
- May be able to see potential problems that slip through other testing

*Also called heuristic evaluation
Things Experts Look For

- Displayed product status
  - Battery bar on cell phone
- Standardized, consistent conventions
  - Pressing enter does the same thing everywhere
- Ability to undo/cancel
  - Wait... I meant to... Uh oh...
- Protect user from himself
Things Experts Look For

- Ease *and* sophistication
  - Button *or* Right-Click *or* Keyboard shortcut to copy
- Minimalist design
- Clear, recoverable errors
County government importing check data from banks

Business Analyst reviewed my solution, found problems

- Functionality: Given wrong file type it broke and didn't explain why
- Accessibility: If one check out of the thousands was wrong it would fail all the checks
- Consistency: Used different terminology than rest of application
Usability Testing vs. Expert Review

- Users are better at finding end-user problems
- Users give actual reactions; experts give good predictions
- Experts find most severe errors
  - But also lots of the minor problems
- Experts can identify improvements

- In practice, the methods don’t overlap much

*Bottom Line: Do both.*
<table>
<thead>
<tr>
<th>Techniques used by usability professionals</th>
<th>Usage 2007</th>
<th>Usage 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal usability testing</td>
<td>77%</td>
<td>68%</td>
</tr>
<tr>
<td>Heuristic/expert review</td>
<td>77%</td>
<td>74%</td>
</tr>
<tr>
<td>User research, such as interviews and surveys</td>
<td>74%</td>
<td>75%</td>
</tr>
<tr>
<td>Interface/interaction design</td>
<td>73%</td>
<td>70%</td>
</tr>
<tr>
<td>Creating prototypes (wireframes or low-fidelity)</td>
<td>73%</td>
<td>69%</td>
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<tr>
<td>Personas and user profiles</td>
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<td>61%</td>
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<tr>
<td>Requirements gathering</td>
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<tr>
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<td>Task analysis</td>
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<tr>
<td>Usability testing (in a lab)</td>
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<tr>
<td>Usability testing (remote, moderated)</td>
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<tr>
<td>Usability testing (remote, unmoderated)</td>
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</tr>
</tbody>
</table>

Data from the Usability Professionals’ Association 2009 Salary Survey, which includes questions on “Techniques” and compares the results from the 2007 survey with the results from the 2009 survey.