Persuasive Technology Beyond User Needs

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Image credit: Justin Mifsud
http://usabilitygeek.com/the-difference-between-usability-and-user-experience/
Argue over Toothpaste?
My roommate’s solution!
So many ways to change a behavior!

Image credit: Computer Man
http://comterman.tistory.com/207
Outline

1. What are Persuasive Technologies?
2. Why do they matter to the academic library website?
3. How to implement them to enhance the website?
4. Next steps
5. Q&A
Persuasive Technologies

Any interactive systems designed to change people’s attitudes or behaviors

Process for website improvement

- Usability testing
  - Survey
  - Focus group

  Students’ needs and wants

  Improvement
Students’ needs & wants

Research

Assignments

Spaces

RESOURCES

SERVICES

From IUPUI usability survey and Google Analytics
How students perceive?

<table>
<thead>
<tr>
<th>Perception</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible</td>
<td>100</td>
</tr>
<tr>
<td>Useful</td>
<td>84</td>
</tr>
<tr>
<td>Easy to use</td>
<td>60</td>
</tr>
<tr>
<td>Consistent</td>
<td>57</td>
</tr>
<tr>
<td>Organized</td>
<td>56</td>
</tr>
<tr>
<td>Relevant</td>
<td>56</td>
</tr>
<tr>
<td>Usable</td>
<td>50</td>
</tr>
<tr>
<td>Understandable</td>
<td>44</td>
</tr>
<tr>
<td>Fast</td>
<td>43</td>
</tr>
<tr>
<td>Straight-forward</td>
<td>35</td>
</tr>
<tr>
<td>Connected</td>
<td>34</td>
</tr>
<tr>
<td>Efficient</td>
<td>30</td>
</tr>
<tr>
<td>Confusing</td>
<td>30</td>
</tr>
<tr>
<td>Unappealing</td>
<td>25</td>
</tr>
<tr>
<td>Satisfying</td>
<td>24</td>
</tr>
<tr>
<td>Time-consuming</td>
<td>21</td>
</tr>
<tr>
<td>Friendly</td>
<td>18</td>
</tr>
<tr>
<td>Out-dated</td>
<td>16</td>
</tr>
<tr>
<td>Difficult to use</td>
<td>16</td>
</tr>
<tr>
<td>Too technical</td>
<td>15</td>
</tr>
<tr>
<td>Frustrating</td>
<td>14</td>
</tr>
<tr>
<td>Overwhelming</td>
<td>13</td>
</tr>
<tr>
<td>Appealing</td>
<td>13</td>
</tr>
<tr>
<td>Slow</td>
<td>13</td>
</tr>
<tr>
<td>Fun</td>
<td>10</td>
</tr>
<tr>
<td>Inconsistent</td>
<td>10</td>
</tr>
<tr>
<td>Unfriendly</td>
<td>9</td>
</tr>
<tr>
<td>Disconnected</td>
<td>7</td>
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<tr>
<td>Cutting-edge</td>
<td>4</td>
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<tr>
<td>Inaccessible</td>
<td>4</td>
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<tr>
<td>Irrelevant</td>
<td>4</td>
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<tr>
<td>Useless</td>
<td>4</td>
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<tr>
<td>Incomprehensible</td>
<td>2</td>
</tr>
<tr>
<td>Unusable</td>
<td>2</td>
</tr>
</tbody>
</table>

From IUPUI usability survey and Google Analytics
Google-Like

YES

Functions?
- Simple interface
- Auto-complete

OR

Find an answer right away?
- Wikipedia

Wait a Minute!!!
PhotoMath = Future of the Website?

Image credit: Phandroid
http://phandroid.com/2014/10/21/photomath-scans-math-problems-and-solves-them-android/
# Search vs. Research

<table>
<thead>
<tr>
<th>Search</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>To <strong>FIND</strong> a subject</td>
<td>To <strong>STUDY</strong> a subject</td>
</tr>
<tr>
<td>- Question is simple</td>
<td>- Question is complicated</td>
</tr>
<tr>
<td>- Quick</td>
<td>- Takes time</td>
</tr>
<tr>
<td>- One try may work</td>
<td>- Several tries are involved</td>
</tr>
<tr>
<td>- Types of information sources may not matter</td>
<td>- Types of information sources may matter</td>
</tr>
<tr>
<td>- Enough may be enough</td>
<td>- Enough may not be enough</td>
</tr>
<tr>
<td>- No further knowledge creation</td>
<td>- New knowledge as a result</td>
</tr>
</tbody>
</table>

Ex: Find Monterey’s weather on Oct. 29

Ex: Study Monterey’s last 10 years of weather info to figure out certain trends
Still important to know needs & wants

Usability testing
Survey
Focus group

Students needs and wants

Improvement

What students have to learn…
Any interactive systems designed to change people’s attitudes or behaviors

Library website as a tool

Library website designed to change students’ attitudes or behaviors for research
What we want to change?

**Attitude**
- Research takes time
- The first try may not be enough
- Feeling overwhelmed is normal

**Behavior**
- Try many different resources
- Go beyond Google for academic research (or assignments)
Motivation, Ability and Trigger

Core motivators

From IUPUI usability survey and Google Analytics
Ability - Simplicity factors

Easier to do

Training

Google-like interface
Accessibility
Usability
Library Instructions
Subject Guides

Triggers

Facilitator • High motivation • Low ability

Spark • High ability • Low motivation

Signal • High ability • High motivation

Facilitator

**PROCESSES**

Start

Know enacted law or established regulation in which I am interested

  Refer to “How to search on Congress.gov” on Page 2

- Regulation => [http://www.regulations.gov](http://www.regulations.gov)
  Refer to “How to search on Regulations.gov” on Page 3

- Journals or other reference materials => Course Guide
  - Academic Search Premier (EBSCO)
  - Web of Science
  - ProQuest Newsstand
  Refer to “Search Tips on the article databases” on Page 4

**Data**
The reference materials you found may contain relevant data for the section C-3.
Other sources to be considered:
- U.S. Census Bureau (Topic – Health)
- Center for Disease Control and Prevention

If you need specific data sets, please contact me at yooylee@iupui.edu. Please keep in mind that I need at least a week to answer your request.

From IUPUI SHRS W362 class [http://iupui.campusguides.com/shrs-w362](http://iupui.campusguides.com/shrs-w362)
Facilitator with cognitive process
Next steps

Implementation → Test
Q&A
Thank You

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