Module 4: Prototyping and Design Heuristics

Linda A Cyr
Srikant M Datar
Play Pump
The Play Pump

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Question to Test or Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novelty of spinning the wheel won’t wear off for kids</td>
<td>Will kids use this after a few weeks?</td>
</tr>
<tr>
<td>Improvement over the hand pump</td>
<td>Can others in the community (e.g. older women) who need to get water use this device?</td>
</tr>
<tr>
<td>Water won’t run out</td>
<td>Is there enough ground water? Will the tank hold pumped water effectively?</td>
</tr>
<tr>
<td>Ad scheme will work in all location contexts; people will pay for ad space</td>
<td>Is there a shortage of ad space? Is there a demand for ad space?</td>
</tr>
<tr>
<td>Government will pay for public health ads</td>
<td>Will governments pay market rate? If there is no demand from other advertisers, will they have reason to pay?</td>
</tr>
<tr>
<td>Self-maintaining; Users can successfully contact maintenance team</td>
<td>What is the lifecycle of this equipment?</td>
</tr>
</tbody>
</table>
Design Heuristics
“Good design, when it’s done well, becomes invisible. It’s only when it’s done poorly that we notice it.”
Concept | Design Heuristic

- A heuristic is a “rule of thumb.”

- Design heuristics are “rules of thumb” that will help you keep the end users’ experience top of mind while you design.

- Design heuristics are applicable to product, service, experience, and business model design.
Heuristics | Rule of Thumb

When Stroke Strikes, Act F.A.S.T.

FACE
Smile.
Does one side of the face droop?

ARMS
Raise both arms.
Does one arm drift downward?

SPEECH
Repeat a sentence.
Are they able to speak clearly? Can they repeat the sentence?

TIME
Time is critical.
Call 911. Get to the hospital immediately. Brain cells are dying. Every Minute Counts!
Design Heuristics | 5 Common Types

- Anticipate Needs
- Constraints
- Match Mental Models
- Minimize Perceived Complexity
- Feedback
Design Heuristic | Anticipate Needs

Anticipate different use scenarios.

Source: LUMA Institute, 2014
Design Heuristics | Constraints

Design will fail if it does not account for environmental constraints
Design Heuristics | Constraints

Accounts for user and environmental constraints in terms of:

- Intake process
- Design of the prosthetic
- Organizational design
Leverage users’ understanding of the world.

Do not force users to adapt to a system that works in an “unnatural” way.

If you do, there must be a good reason that offers improvement in usability.

Source: LUMA Institute, 2014
Design Heuristic | Minimize Perceived Complexity

Is it clear what the most pertinent information is?
Design Heuristic | Minimize Perceived Complexity
Design Heuristic | Minimize Perceived Complexity

Is it self-evident?
To what extent must the user rely on instruction to “figure it out?”
Design Heuristic | Feedback

Does the user have a sense of where they are in the process?
Are selected items highlighted or differentiated clearly from unselected items?

Does a user know that she has performed an action successfully?

Yes, she activated the tool.

Source: LUMA Institute, 2014
<table>
<thead>
<tr>
<th>Concept</th>
<th>Design Heuristics</th>
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<tbody>
<tr>
<td>Anticipate Needs</td>
<td>Don’t rely on users’ memory. Provide the right tools and right information at just the right time.</td>
</tr>
<tr>
<td>Constraints</td>
<td>Account for user &amp; environmental constraints. Choose visual, verbal, auditory and material components that account for constraints in context of use or user ability.</td>
</tr>
</tbody>
</table>
| Match Mental Models | Leverage users’ understanding of the world, rather than forcing them to adapt or conform to a system that works in an “unnatural” way.  
If you break rules or bypass conventions, the experience and outcome must make sense and offer a measurable improvement in usability. |
| Minimize Perceived Complexity | Apply design practices such as progressive disclosure, and information hierarchy and avoid haphazard layouts.  
Your products and services should be self-evident. Don’t rely on instruction nor burden the user to “figure it out.” |
| Feedback    | Give feedback about actions and status. Let users know what effect their actions have on the system. If the task or result isn’t instant, give users a sense of where they are (or the system is) in a process and some idea how long it might take to complete. |

Source: LUMA Institute, 2014
Asst14 – Message Map and Pitch for Apply the Concept

1. Review HHNmag piece paying particular attention to elements of a value proposition

2. Watch Carmine Gallo video:
   – Message Map: How to Pitch Anything in 15 Seconds

3. Submit to Canvas and Bring to Class:
   a) Narrative script for 30-second pitch for your “Apply the Concept”, and
   b) A corresponding Message map using the Powerpoint template found in Canvas

http://www.hhnmag.com/articles/6641-the-five-key-elements-to-a-hospitals-value-proposition
https://www.youtube.com/watch?v=phyU2BThK4Q