2. PROJECT RESEARCH & PROBLEM/OPPORTUNITY IDENTIFICATION

MIS3506 * Lavin * Spring 2023
Designing the UX

Level 1
- Conceptual model and system image
  - Affordance
  - Discoverable
  - Feedback
  - Mapping
  - Signifier
  - Constraints
  - Convention

Level 2
- Level 1
- Level 2
- Level 3

Level 3
- Blame: The wrong thing, learned helplessness, oneself
  - Slips and mistakes

Evaluating Usability

Level 1
- Knowledge in the head vs. in the world
  - Gulf of execution and evaluation
  - Conflict among the designer's and user's conceptual and system image

Level 2
- Level 1
- Level 2
- Level 3

Level 3
- Processing: Reflective – thinking, Behavioral – actions, Visceral – 'lizard brain'
THE WORLD ACCORDING TO NORMAN

Discoverability  Affordance  Signifiers  Mapping

Feedback  Conceptual model  System image
Project research requires several key steps – sometimes you have a lot of information – sometimes not much at all!

For example…
What is a product? What is a project?

**Definition of Product**

noun

1. an article or substance that is manufactured or refined for sale.
   "food products"

2. a thing or person that is the result of an action or process.
   "his daughter, the product of his first marriage"

**Synonyms**: result, consequence, outcome, effect, upshot, fruit, byproduct, spin-off, legacy, issue

"her fear was a product of her emotional insecurity"
PROBLEM
An issue that is preventing the achievement of goals and objectives.

OPPORTUNITY
Initiatives that will assist in reaching goals and objectives if implemented appropriately.
DESIGN PROCESS:
IS IT A PROBLEM?
IS IT AN OPPORTUNITY?
PROBLEM/OPPORTUNITY IDENTIFICATION: EMPATHY

- Ask the following questions to understand the problem or opportunity:
  - **Who** are our intended users?
  - **What** do they want? Do they need?
  - **Why** do they want?
  - **Where** can they get the information?
  - **How** do they want to work?
  - **When** do they want it?
Answering those questions enables us to:

- Understand the problem/opportunity
- Understand the user better
- Enable productivity
- Provide a pleasurable experience
## Analyzing Problems and Opportunities

A problem or opportunity statement is a concise description of user issues or unmet needs that need to be addressed.

### Business Opportunity Statement

<table>
<thead>
<tr>
<th>We will improve the experience of</th>
<th>What problem needs solving or improvements?</th>
</tr>
</thead>
<tbody>
<tr>
<td>for</td>
<td>Which person is most effected by this?</td>
</tr>
<tr>
<td>The user struggles today because</td>
<td>What are some of the pain points?</td>
</tr>
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<td>Solving this will be good for our business because</td>
<td>What is motivating the company to solve this problem?</td>
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**Business Opportunity Statement**

<table>
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<tr>
<th>We will improve the experience of</th>
<th>Getting the right income tax forms from the Federal Government.</th>
</tr>
</thead>
<tbody>
<tr>
<td>for</td>
<td>Non tax savvy individuals looking to file their personal tax returns.</td>
</tr>
<tr>
<td>The user struggles today because</td>
<td>Finding the right form requires you to understand tax-code terminology and form numbers. Getting simple to understand answers to simply stated questions is near impossible.</td>
</tr>
<tr>
<td>Solving this will be good for our business because</td>
<td>Our department’s mandate is to make it as easy as possible for people to correctly file their taxes. The easier answers are to find, the fewer people need to call our call center, meaning lower wait times. People accurately filing their taxes means lower auditing costs for the government.</td>
</tr>
</tbody>
</table>

In Class Exercise

Create a Business Opportunity Statement

**Brainstorm**
- Choose a problem or opportunity that you can identify that could make Temple University better.

**Analyze**
- Use the steps in the BOS to outline how you would address this problem or opportunity.

**Present**
- We’ll discuss together as a group.

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Project Research

How do we learn about problems/opportunities?
▷ Leadership
▷ Social Media
▷ Customer Service
▷ Market Research
▷ ...What else?

Listen/Look for statements like...
▷ I can't complete...
▷ This is so easy!
▷ This product sucks!
▷ Where can I find?
▷ How do I?
▷ ...What else?
Project Research

How can we perform this research?
▷ Interviews
▷ Usability Studies
▷ Internet Research
▷ Data Analysis
▷ ...What else?

What tools can we use?
▷ Google Analytics
▷ Websites
▷ User Stories
▷ Interviews
▷ ...What else?
Project Research – Gathering Requirements
Intended Users – “People”

Why is it important to learn about the people involved? What can be learned from these groups?

- Leadership
- Customers
- Competition
Intended Users – “People”
How do we obtain knowledge about the people involved?

- Interviews
- Observations
- Secondary Research
- LinkedIn, Social Media Channels

How do you develop a persona for your users?
Developing a Persona:

Why?
What should be included?
Comfort with technology?
PERSONAS

- Use what you know, clearly define – prioritize features
- Provides focus for the prototype
  - Novice v Expert users, just in case users, product streamline
  - Assumption personas – data you have, assumptions about your base
    - Validate later, through usability testing
- Describe actual users and behaviors, task oriented
- Personable & Believable
- Design Implications
- Goals – Speed & Efficiency? Visibility? Needs and Desires?
Empathize with Users

Source: https://www.interaction-design.org/literature/article/stage-1-in-the-design-thinking-process-empathise-with-your-users
Processes

How do we learn about processes?

▷ Primary Research
▷ Secondary Research
▷ Observation
▷ Interviews

Do I need to keep all this research in my head?
Processes
How do we gather information about data?

▷ Go to the site or app – what is being collected
▷ Sign up for the mailing list – what information is generated
▷ Think of the processes – what data might be needed to complete them
Compiling the details...

- Make a list of critical findings
- Persona map
- Data requirements documented in an ERD structure
- Visuals
- Collaboration tools

No one wants to read a long report!
Project Research

Gathering Requirements and getting the big picture is critical to understanding your goals!
IN-CLASS ACTIVITY

Researching your project
Breakout – In Class Activity

Pick a Company

Be able to answer the following questions:

▷ Provide basic company information
▷ What is the goal of your company?
▷ Who is the target market/user?
▷ Why is this company attractive?
▷ Who are your main competitors?
▷ What goals should users accomplish?
▷ Why would users pick your company?
▷ What would a persona of your typical user look like?

▷ Prepare a 3 minute – 3 slide presentation of your findings