Learning on the Seam

The intersection between Learning Science and User Centered Design
A little bit about me and my current challenges
Measuring, Defining and Improving Productivity: The Design Productivity Blueprint
Expectations

Our learners are CONSUMERS

We have to understand that they base their expectations of us on their interactions with the rest of the world.

Bad design is more expensive than good design

Aesthetics is just one component
Responsiveness has evolved from a nice-to-have to an expectation to a necessity. Responsiveness ranks higher than knowledge and negotiation skills.

Understanding Consumer Expectations

- 75% of customers expect companies to use new technologies to create better experiences.
- 74% of customers expect companies to use existing technologies in new ways to create better experiences.

76% of consumers expect companies to understand their needs and expectations.

Make it personalized & relevant—or I’m out.
Impersonal and irrelevant experiences frustrate today’s connected consumers. With personalization comes relevancy, which is really what everyone wants in order to cut through the noise in today’s digital age.
Memory

If you don’t remember something....you haven’t learned it

It's harder to forget something than to remember it....
Humans don’t have to be told to learn something. We learn every moment of every day. But some of that info just...floats
Memory
Super Fragile
Super Malleable
Makes us who we are

Check yourself:

WHERE & WHEN were you when you first saw news footage of the FIRST plane hitting the FIRST tower on 9/11?
Andragogy

Transformational Learning
Experiential Learning
Behaviorism
Self Directed Learning
Constructivism
Social Learning Theory

Action Learning
Cognitivism
Transactional Learning
Project Based Learning
Knowles (1984), *The Adult Learner: A Neglected Species*

1. Need to know **why learning something is important** before they learn it.

2. Have a **concept of self** and do not like others imposing their wills on them.

3. Have a wealth of knowledge and experience and want that **knowledge to be recognized**.

4. Open up to learning when they think that the learning will **help them with real problems**.

5. Want to know how the learning will help them **immediately**.

6. Learn in response to **internal** (versus external) **motivations**.
Good Design Check Yourself!

Do you know how to sexually harass someone?
(Jk-kind)
Instructional Design

Don’t go chasing waterfalls....

Relies on SMEs to decide what the students want and need, but they only reach 30% of what students really need to know (Lando, 1984)

SMEs want to teach the way they were taught

SMEs have the rich experience that students need, if we let them share it!
User Centered Design

*Inherently AGILE*

- Users are involved in the design process from the very beginning.
- Importance of requirement clarification.
- Introducing user feedback loop in the product life cycle.
- Iterative design process.

From Adobe XD Ideas
Who are our learners?

Why is this important to them?

What’s their motivation?

Clark Andrews

**Motivations**
- Fear
- Power
- Social

**Goals**
- To cut down on unhealthy eating and drinking habits
- To measure multiple aspects of life more scientifically
- To set goals and see and make positive impacts on his life.

**Frustrations**
- Unfamiliar with wearable technology
- Saturated tracking market
- Manual tracking is too time consuming

**Bio**
Clark is a systems software developer, a “data junkie” and for the past couple years, has been very interested in tracking aspects of his health and performance. Clark wants to track his mood, happiness, sleep quality and how his eating and exercise habits affects his well-being. Although he only drinks occasionally with friends on the weekend, he would like to cut down on alcohol intake.

**Personality**
- Introvert
- Analytical
- Loyal
- Passive

**Preferred Channels**
- Social Media
- Mobile
- Email
- Traditional Ads

**Brands**
- Nike
- Crunch
When do we get them involved?

Help with real world problems immediately
UCD Activity

Traditional Learning Objective

Understand how the User’s Manual is organized

Check Yourself!

What would you design?
UCD Activity

Traditional Learning Objective
Understand how the User’s Manual is organized

Learner Centered Activity
What kinds of things do you use the User’s Manual for?
<table>
<thead>
<tr>
<th>Traditional Learning Objective</th>
<th>Operationalized Learning Objective</th>
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</thead>
<tbody>
<tr>
<td>Understand how the User’s Manual is organized</td>
<td>Understand how the User’s Manual is organized so that I can answer customer’s questions quickly and knowledgably</td>
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What assumptions can we make?

Concept of Self and Recognizing Prior Learning
UCD Activity

What does it mean if a majority of your students get the same question wrong during assessment?
UCD Activity

What does it mean if a majority of your students get the same question wrong during assessment?

Question is wrong
Content insufficient
It is irrelevant
UCD Activity

What does it mean if a majority of your students get the same question wrong during assessment?

What does it mean if a majority of students get the same question right during an assessment?

Question is wrong
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How often do we get them involved?

Every step of the way! Quality is perceptual, a feeling more than a checklist.
UCD Activity

What if I presented a new ontology for numbers to you?
Then asked you to write out 5389?
UCD Activity

But what if...instead, I showed you this?

We don’t know every trick.
GREAT User Centered Design Activities

- Mad libs
- Wizard of Oz
- 5 Second Test
- AB Testing
- Out of the Box
- Think Aloud
- Observation
- Focus Groups
- Interviews
88% of online shoppers say they wouldn’t return to a website after having a bad user experience.
Sometimes it's not scope creep, it's "Requirements Evolution"