

Week 1

Friday, 4 August 2017
8:28 am

Reference book for this unit:
The UX Book, Harton and Pyla

Why is HCI hard?

- Need to understand the domain: the user's context and what the user knows/experiences
- Creating specifications is hard
- Software changes frequently to fit changing purpose
- Legal IP issues

Some terminology:

Learnability	How easy is it to learn basic tasks on first using the system?
Efficiency	After learning, how quickly can users perform tasks?
Memorability	After a period of not using the system, how easily can they reestablish proficiency?
Errors	How many errors do users make? How severe? How easily can they recover?
Satisfaction	How pleasant is it to use?

Useful = usability + utility

Utility	Does it have the features you need?
Usability	How easy/pleasant is it to use these features?

User experience

- User satisfaction
- Emotional response (visceral)
- Fun, hedonic, exciting
- Artistic appearance
- Surprising, boring
- Gestalt: whole, more than the sum of its parts

Think aloud

- A protocol to study people using a system
- Define a task (for the user to do)
- Often recorded to video to play back

Concept maps

- Link concepts (nodes) with prepositions (edges)
 - Concepts are short phrases, never paragraphs
- Good to formalize understanding, concepts and their relationships
- Form a hierarchy
 - **Most general thing at the top**
 - More detail as you go further down
- Similar things should be grouped near each other

Week 2 Homework

Sunday, 6 August 2017
3:56 pm

What is affordance?

- The discoverability of all the possible actions one can do with an object
- The relationship between person and object -- not a property of the object
- When a control behaves as its appearance suggests

3 types of affordance

1. False
 - There exists an affordance, but no function to it. E.g. a button that does not do anything
2. Hidden
 - There exists hidden functions
3. Perceptible
 - Where a person can act on an affordance to interact with an object
 - This is what designers strive for

Norman defined affordance as

- The design aspect of an object which suggest how it should be used
- Visual cues to its function and use
 - Though the function may not exist
- Relationship between person and object
- May be influenced by an individuals experiences (knowledge and cultures)

Gibson defined affordance as

- **Possibility of action** (in relation to capabilities of an actor)
 - A adult can afford to climb through a window, but a small child cannot afford to climb through the window
- Independent of the individuals ability to perceive this possibility
- Does not depend on an individual's culture, knowledge or experiences
- Existence of affordance is binary (it exists or it does not)

Visceral	Intense emotion, not by reasoning
Hedonic	Pleasant feelings
Gestalt	The sum of the parts being greater than the whole

Week 2

Friday, 4 August 2017
10:53 am

Assignment 1:

Design an interface to allow users to

- Determine how physically active they have been in the last week
 - Steps
 - Distance
 - Heart rate
 - Sleep?
- Determine if they have met recommended levels

Goal	Something a person (undefined person, to represent a population) wants to do
Concrete task	Something you can ask a person to do

What can we determine or measure physical activity?

- Step count
 - Accuracy, hand movement
 - Running and walking
- Diet tracking
 - Manual input, forgetfulness
 - List of foods, may not account for all
 - Estimation problems
- Heart rate
 - Variations of heart rate
 - Blood pressure
 - The beep test
 - Lung capacity
- Distance tracking
 - Speed tracking to account for sitting in cars and public transport
- Sleep tracking as a general measure of health (not physical activity)
 - Affects food craving