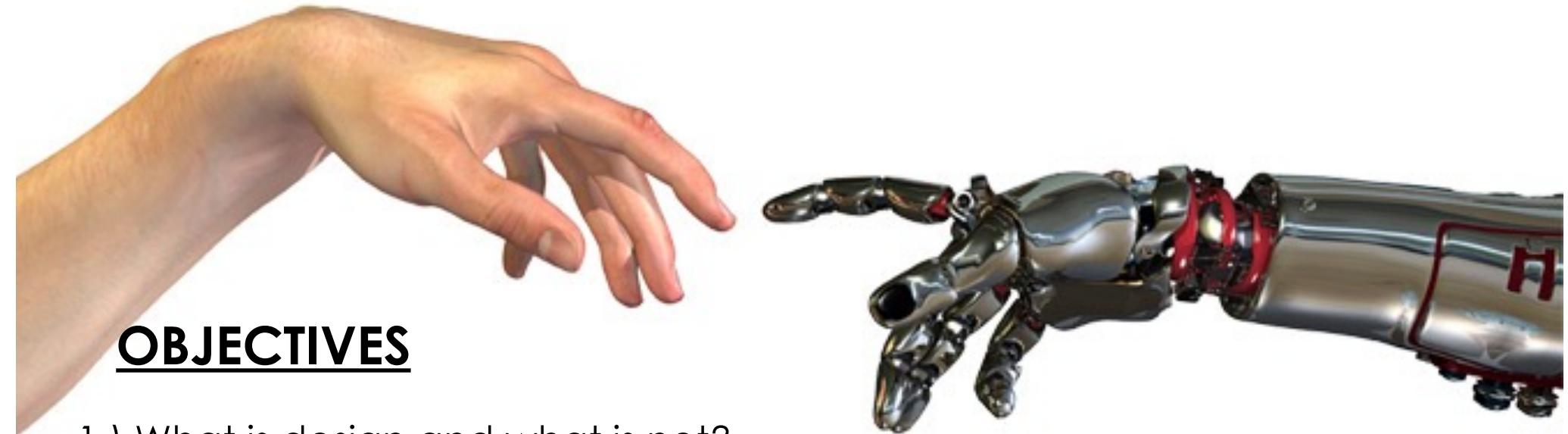


Human-Computer Interaction

Defining the HCI Framework for User Experience



OBJECTIVES

- 1.) What is design and what is not?
- 2.) Is there a Theoretical Framework for User Experience (?), why I'm glad you asked ;-)!
3.) Why we can't design the experience (?) and what we can do instead!



Let's Discuss User Experience/HCI Design Thinking ...

HCI grew from - “*psychologists interested in computer technology and computer scientists interested in user interfaces and user behavior*” (Kaptelinin & Nardi, 2012),

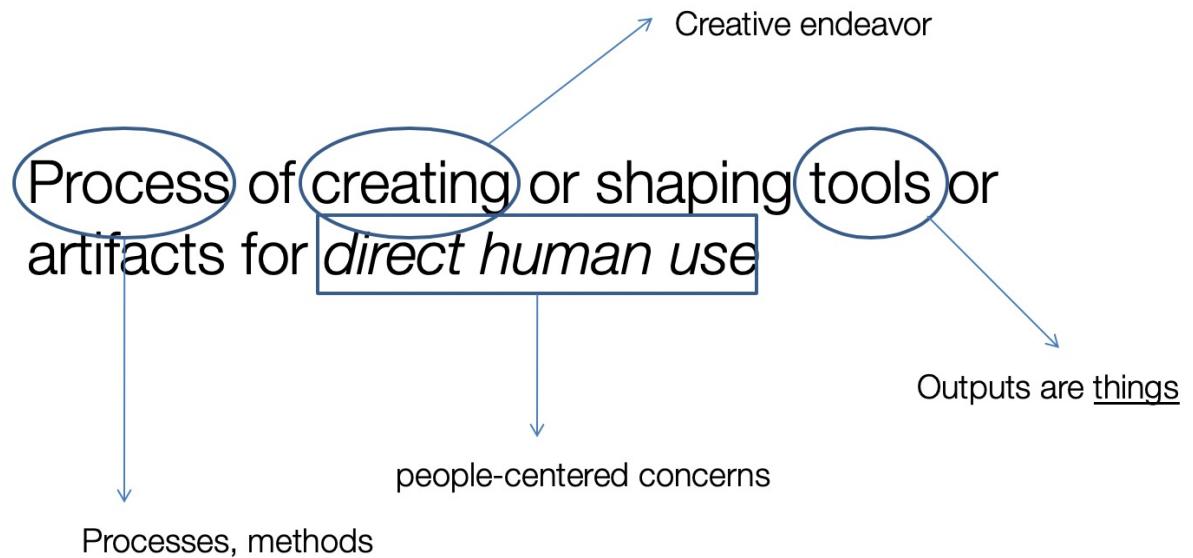


User Experience Honeycomb

<http://semanticstudios.com/>

What is Design?

(A refresher for some,
and new for others)



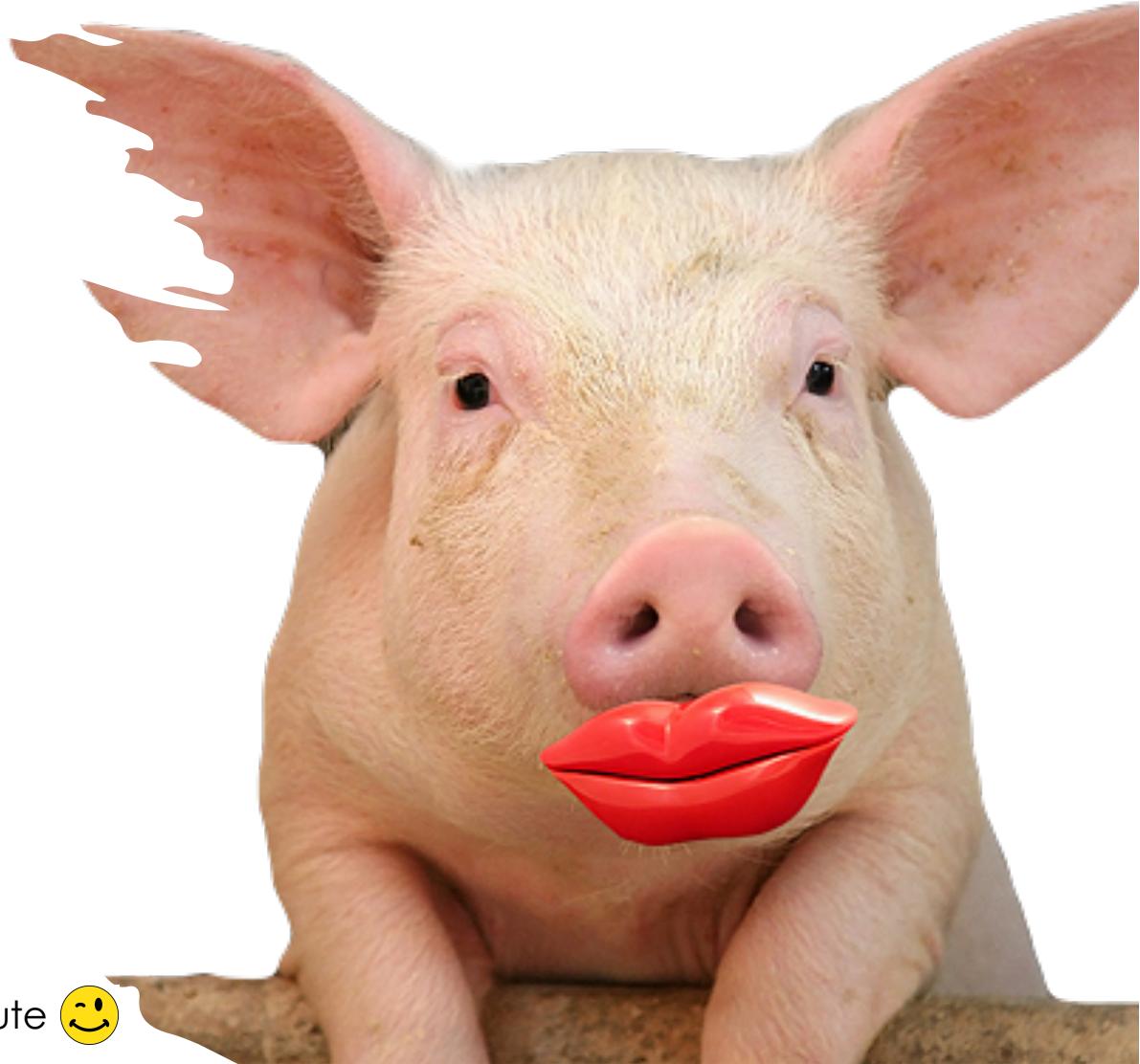
Design is Not Just “Lipstick on a Pig”

Not just changing how things look

Or making things pretty

Or designing graphics

Though he's pretty cute 😊





HUH?



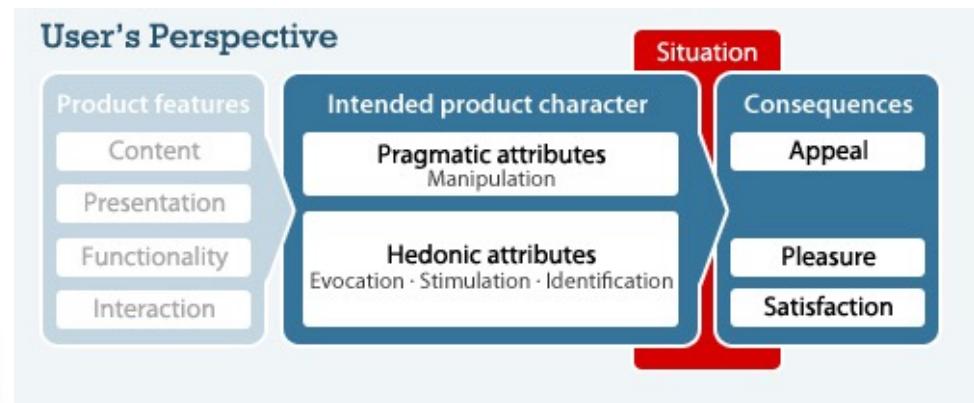
User Experience
Cannot Be
Designed!

Theoretical Framework for HCI *manipulation, identification, stimulation and evocation*

Defining user experience using a research-based model (remember HCI is research based 😊) ...

Hassenzahl's (2010) Model of the user experience

1. **Pragmatic:** how simple, practical, and obvious it is for the user to achieve their goals
2. **Hedonic:** how evocative and stimulating the interaction is to users



How users perceive a product, such as whether a smartwatch is seen as sleek or chunky, and their emotional reaction to it, such as whether people have a positive experience when using it. (Hornbæk and Hertzum, 2017)

Hassenzahl's Model

- Manipulation
 - Hassenzahl explains the hedonic and pragmatic qualities with a hammer metaphor.
 - The pragmatic qualities are the function and a way for us to use that function.
 - However, hammers can also have hedonic qualities; e.g., if it is used to communicate professionalism or to elicit memories.



(Image: [Velo Steve](#))

Hassenzahl's Model

- *Identification*
 - Although manipulation is important, a product can have other functions as well.
 - Many of the items connected to you right now (say oh Twitter, SnapChat, Instagram) could probably be used to get an idea of who you are and what you care about.
 - The secondary function of an object is to communicate your identity to others. Therefore, to fulfill this function, objects need to enable users to **express themselves**.

Express Yourself through Facebook reactions



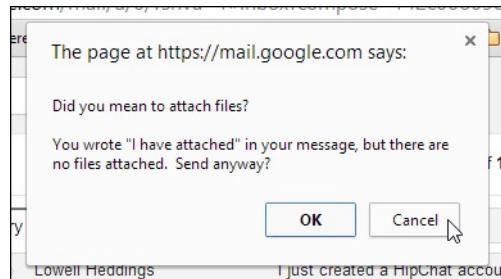
#APPTUSE



Hassenzahl's Model

- *Stimulation*

- Pareto Principle and fighting for inclusion. Traditional usability says features should fight to be included.
- This is necessarily not the case with UX, because rarely used functions can fill a hedonic function called stimulation.
- Rarely used functions can **stimulate the user and satisfy** the human urge for personal development and more skills.



Pareto Principle

- 80% of work productivity comes from 20% of the time you put in
- 80% of errors are caused by 20% of code
- 80% of revenue comes from 20% of customers
- 80% of sales come from 20% of sales staff
- 80% of attention is spent on 20% of the web page



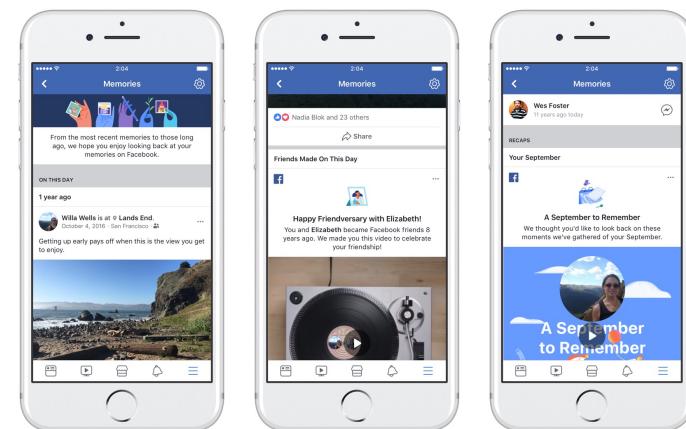
Hassenzahl's Model

Evocation

- Recalling the past through memory.
- In design, we can certainly give a website a vintage look and feel to remind us of our childhood, high school or the '60s... or the '30s. But even websites with a modern and minimalist design can have evocative attributes.
 - Ex. Facebook provides you with a huge number of pictures from the past, some of which are highly evocative.



Souvenirs tend to have weak manipulative qualities, but they can be evocative when they elicit memories. (Image: [meddygarnet](#))



SO, YOU MIGHT BE ASKING, NOW, WHY CAN'T UX BE DESIGNED?

Because UX depends not only on the product itself, but on the user and the situation in which they use the product.

You cannot design the situation

You cannot design the user

We aren't wizards 😞



Can't design the user

- Users are different w/different expectations.



Can't design the situation

- Design depends on the context in which the product is used.
- It can determine why a product is used and can shape a user's expectations.





Are roller coasters fun, thrilling and exciting or just breathtakingly scary? It's up to you!

(Image: [foilman](#))

We can design for user experience and rely on HCI fundamentals to do so!

What we can do ...

User Experience is the sum of certain factors, such as fun, emotion, usability, motivation, co-experience, user involvement and user engagement.

In practice...

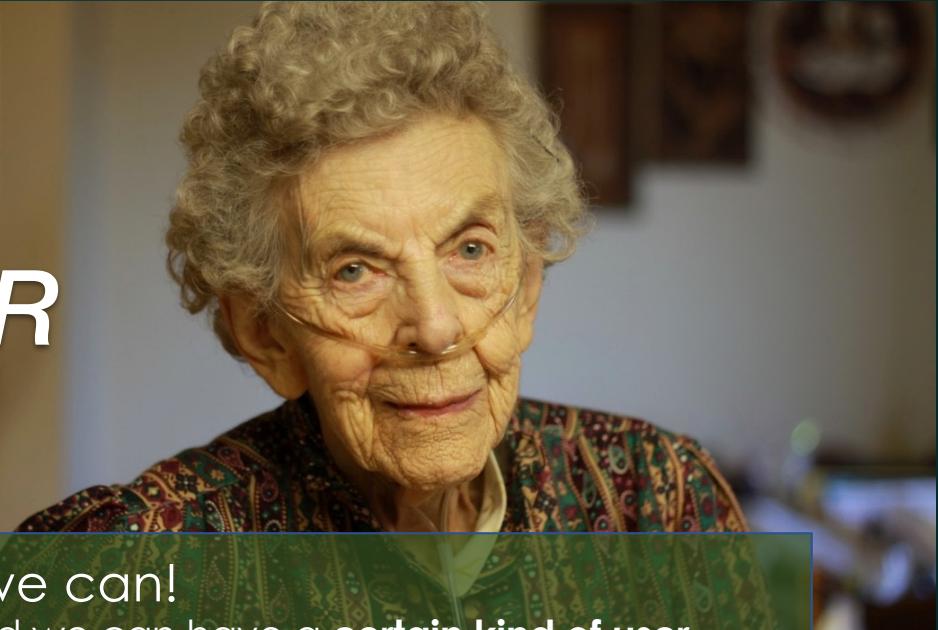
Who knows more about the healthcare needs of the elderly?

Remember:

- You cannot design the situation
- You cannot design the user
- We can shape neither our users' expectations nor the situation in which they use what we have designed.



OR



But we can!

Design the product or service, and we can have a certain kind of user experience in mind when we design it. And we can measure that experience in systematic manner to make it better one.

A photograph of a man with a mustache and a cap, sitting on a silver motorcycle. He is looking down at a map spread out on the seat of the motorcycle. The background shows a field of tall grass under a cloudy sky.

What people say and
what people do
aren't necessarily ***the***
same thing.

And this is why we rely
on HCl methods!

What someone
says they think,
feel, and do...

Discovered through
interviews, focus groups,
surveys, etc.

What someone
actually does...

Discovered through
observation and immersion in
real life contexts

What someone
really thinks and
feels...

Discovered through
meaningful human
connections, conversation,
and immersion

HCI Techniques

Quantitative/Subjective &
Qualitative/Objective (meaning we
observe our user)

- Used to identify and measure patterns in thinking and behavior among users. **More rigorous measurements.**

- **EXAMPLES**

- Data Mining
- Machine Learning/Affective Computing Practices to Classify Emotions
- Use of Natural Language Processing to gather mood (e.g., depressed)

UX relies on these **QUALITATIVE** techniques predominately and some Qualitative

- Used to gather deeper information on individual's thinking, feeling and motivations. Less rigorous, and quicker methods (because time is money in industry).

- **EXAMPLES**

- Interviews
- Surveys
- Focus Groups
- Usability Testing