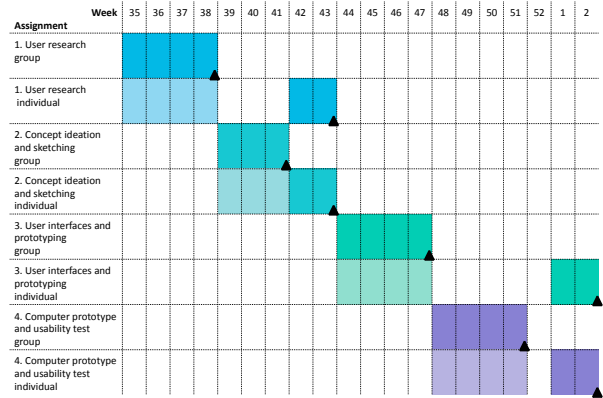


Interaction Design and User Experience

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3

What is Interaction Design?

- <https://youtu.be/5fpgkknHC2c>



5

Interaction design refers to the shaping of interactive products and services with a specific focus on their use. – Löwgren (2008)
the practice of designing interactive digital products, environments, systems, and services. – Löwgren (2008)



4

Coined by Bill Moggridge and Bill Verplank in the late 80'ies

- A creative and imaginative design discipline working with software, designing behaviours, animations, sounds, and shapes.
- Like industrial design the new design discipline would focus on qualitative values.
- Starts with the needs and desires of people who would use a product or service, and aim towards designs that would give aesthetic pleasure, lasting satisfaction and enjoyment.



6

Interaction Design

- refers to the shaping of interactive products and services with a specific focus on their use. – Löwgren (2008)
- is the practice of designing interactive digital products, environments, systems, and services. – Cooper, Reimann & Cronin (2007)
- is the shaping of conditions for the interaction and experiences people have with interactive artifacts, as well as the shaping of conditions for the interaction and experiences between people by means of interactive artifacts. – Arvola (2010).



Five Dimensions of Interaction Design

(Crampton Smith in Moggridge, 2007, Silver, 2007)

- Words
- Visual representations
- Physical objects or space
- Time
- Behaviour

Löwgren's take on what's special about IxD

- The things you make are interactive.
- Design interventions are often systemic.
- This has methodological consequences.

Löwgren's take on What is Not Special about IxD

- Human-centered approach
 - Most, if not all, UX methods are applicable in most, if not all, design disciplines.

Designing in a Digital Material

(Bratteteig, 2010)

- Levels of abstractions
- Representations
- Computational processes

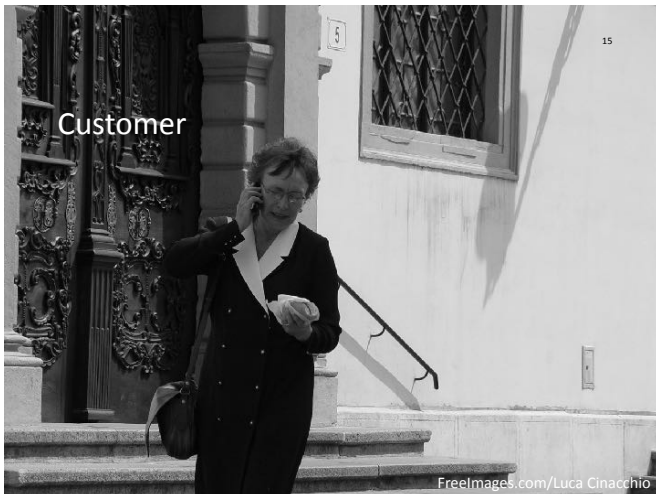
Five Major Characteristics of Design

(Löwgren, 2008)

- Design involves changing situations by shaping and deploying artifacts
- Design is about exploring possible futures
- Design entails framing the “problem” in parallel with creating possible “solutions”
- Design involves thinking through sketching and other tangible representations
- Design addresses instrumental, technical, aesthetical and ethical aspects throughout

What is UX Design?

- <https://youtu.be/Ovj4hFxo7c>



Experience (Merriam-Webster, n.d.)

- | | |
|--|---|
| <p>1. a : direct observation of or participation in events as a basis of knowledge</p> <p>b : the fact or state of having been affected by or gained knowledge through direct observation or participation</p> | <p>2. a : practical knowledge, skill, or practice derived from direct observation of or participation in events or in a particular activity</p> <p>b : the length of such participation <has 10 years' experience in the job></p> |
|--|---|

Experience (Merriam-Webster, n.d.)

3. **a** : the conscious events that make up an individual life
b : the events that make up the conscious past of a community or nation or humankind generally
4. : something personally encountered,
- undergone, or lived through
5. : the act or process of directly perceiving events or reality

Interactive System (ISO 9241-210:2010)

- Combination of hardware, software and/or services that receives input from, and communicates output to, users
- This includes, where appropriate, packaging, branding, user documentation, on-line help, support and training.

User interface (ISO 9241-110:2006)

- All components of an interactive system (software or hardware) that provide information and controls for the user to accomplish specific tasks with the interactive system

User Experience (ISO 9241-210:2010)

- Person's perceptions and responses resulting from the use and/or anticipated use of a product, system or service

Prototype (ISO 9241-210:2010)

- Representation of all or part of an interactive system, that, although limited in some way, can be used for analysis, design and evaluation

Usability (ISO 9241-11: 1998)

- Extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

Usability (ISO 9241-11: 1998)

- **Effectiveness:** Accuracy and completeness with which users achieve specified goals.
- **Efficiency:** Resources expended in relation to the accuracy and completeness with which users achieve goals.
- **Satisfaction:** Freedom from discomfort, and positive attitudes towards the use of the product.

Usability (ISO 9241-11: 1998)

- **Context of Use:** Users, tasks, equipment (hardware, software and materials), and the physical and social environments in which a product is used.
- **Goal:** Intended outcome.
- **Task:** Activities required to achieve a goal.
- **Product:** Part of the equipment (hardware, software and materials) for which usability is to be specified or evaluated.

UX vs. Usability

User Experience	<i>Before use</i>	<i>During use</i>	<i>After use</i>
Usability		<i>During use</i>	

Human-Computer Interaction (ACM)

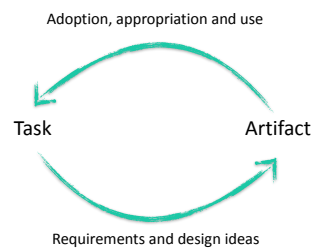
- A discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them.



By Bill Verplank.

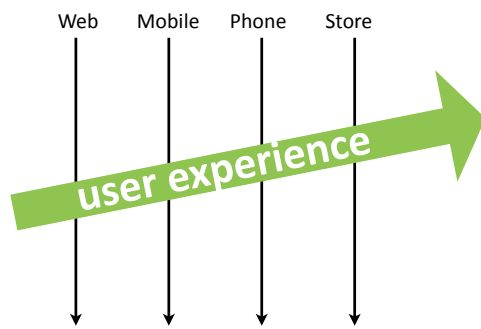
The Task-Artifact Cycle

(Carroll & Rosson, 1992)



UX is cross-channel

31



In summary

32

- IxD is the shaping of conditions for interaction
- UX is about how people think, do and feel in relation to products and services
- It spans channels and time
- It can be understood in many different ways
- Doing Interaction and UX Design is a structured process that involves understanding users throughout the product lifecycle

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