User Experience and Interaction Experience Design

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User experience

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Why do people use technology and applications?

- Followers of others – "everybody else has it"
- Needs – rational or emotional
- Social pressure
- Networking
- Entertainment, fun
- Satisfaction, good user experience

Evaluation of User Experience

Use Experience

- "[…] a momentary, primarily evaluative **feeling** (good-bad) while interacting with a product or service."

User Experience

- "Good UX is the consequence of fulfilling the human needs […] through interacting with the product or service […]."

User Experience

- User experience is a consequence of a
  - **user's internal state** (predispositions, expectations, needs, motivation, mood, etc.)
  - the characteristics of the **designed system** (e.g. complexity, purpose, usability, functionality, etc.)
  - and the **context** (or the environment) within which the interaction occurs (e.g. organizational/social setting, meaningfulness of the activity, voluntariness of use, etc.) (Hassenzahl, 2006)

User Experience

- <u>ISO 9241-210</u> defines user experience as "a person's perceptions and responses that result from the use or anticipated use of a product, system or service"
  - how does the product or service make me feel?
- According to the ISO definition user experience includes all the users' emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviors and accomplishments that occur before, during and after use.
- ISO also list three factors that influence user experience:
  - system,
  - user and
  - the context of use.

# Understanding user feelings and experience
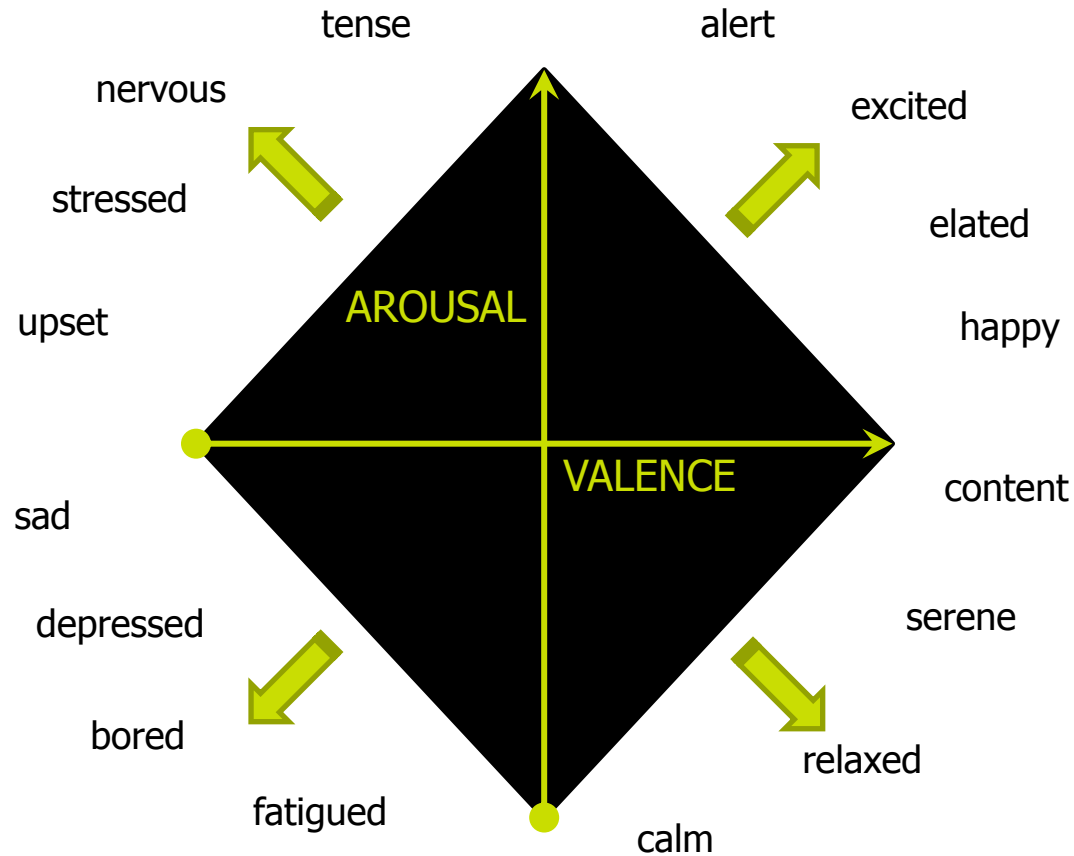
Usability

- International Standards Organization ISO 9241 definition:
- "Usability is the effectiveness, efficiency, and satisfaction with which users can achieve tasks in a particular environment of a product. High usability means a system is easy to learn and remember; efficient, visually pleasing and fun to use; and quick to recover from errors. "

UX and Usability

Product
- Presentation
  - Layout, colors
- Interaction
  - Gestures, menus, buttons
- Functions
  - Search, communications
- Content
  - Videos, text

UX

Usability
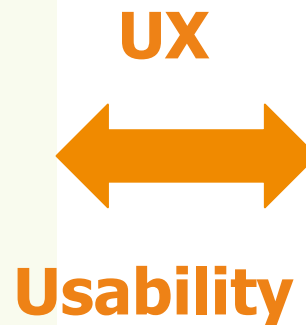
User needs
- competency
- security
- self-esteem
- autonomy
- relatedness
- popularity-influence
- stimulation

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User experience design

- How?
- Many think of good design as a result of *genius inspiration*.
- In reality, good design is hard work.
- Most designers get their ideas based on experience, research and inspiration from existing products.
- Many say that the best way to get good ideas is to get *many* ideas; some of them are bound to be good!

The process of IxD

Establishing requirements

Designing alternatives

Prototyping

Evaluating
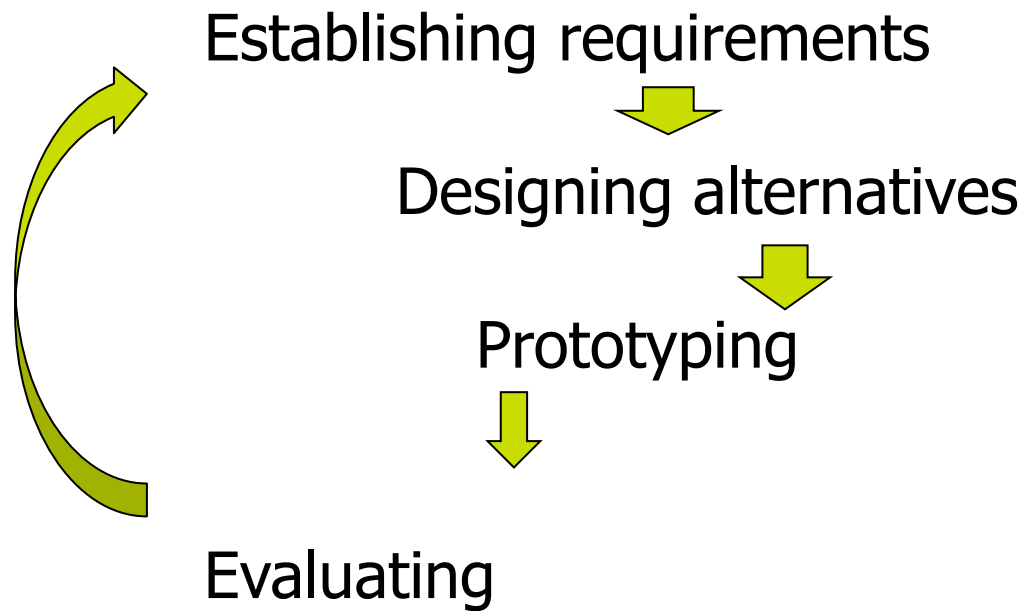
User centered process

- IxD (interaction design) promotes a user-oriented process, where *early focus on users and tasks* is crucial.
- It is an iterative process, where the main idea is to follow the cycle, but you are free to move back and forth between activities when needed.
- Includes measuring the quality of work empirically as part of the process to know how we are doing.
- Possible to integrate with other iterative development processes, such as the agile methods (scrum).

Establishing requirements

- Who are your users?
- And what do they want from the product?
  - do they know what they want?
- We figure this out through *collecting and analyzing data* about them.
- *Demographics* (age, gender, nationality, …)
- *Psychographics* (attitudes, motivation, interests)
- *Technological information* (experience, available technologies, …)

Personas

- A persona is a made-up "typical" or potential user.
- It is a good exercise in being concrete about who your users are.
- Imagining an actual person to design for can spark creativity in a way that a list of user characteristics cannot.
- You can also find real case personas!

Persona description

- Overview: character, background, work and family
- A day in the life
- work activities: job description and frequently performed tasks
- Household and leisure activities
- Goals, fears and aspirations
- Computer skills, knowledge and abilities
- Market size and influence (how important tthis persona is for the product?)
- Demographic attributes: socioeconomic group
- Technology attributes (use of other devices)
- Communicating: email, phone, social media
- Cultural specific aspects
- Quotes: examples of what this persona says

Ways to collect information about users

- Interviews
- Focus groups
- Questionnaires
- Observation: laboratory, field observations
- Studying existing documentation
- Researching existing products

Scenarios

- A scenario is a narrative (story) about how a user interacts with some product or in some situation.
- Try to get inside the mind of your personas as they use your fantastic product!
- Scenarios, like personas, stimulate the imagination and are easy to understand, making them good starting points for discussion both with other designers, users and stakeholders.

Designing alternatives

- How do we generate alternatives?
- Being brilliant
- Studying the work of others
- Discussing with others, including people from other fields
- How do we choose which alternative(s) to move forward with?
- Let users and stakeholders give their opinion
- Use some measure of quality (for instance usability)

Prototyping

- *Low-fidelity prototypes*: Prototypes which do not look very much like the final product (storyboarding, sketches, index cards and so on).
- These are cheap and quick, but do not give a complete understanding of the product.
- *High-fidelity prototypes*: Similar to final product.
- These are often expensive and time-consuming to make.

Evaluating

- In this activity we try to measure the usability and acceptability of the product, based on the established requirements.
- Anything can be evaluated, from single screens to the total aesthetics of the product.
- Evaluation usually happens either in a lab or in a setting similar to where the product will be used.