



Human Computer Interaction

Chapter 1: Introduction to HCI Part 3

Prof. Dr. Björn Eskofier
Machine Learning and Data Analytics (MaD) Lab
Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)
Summer Term 2025



- 01 Subjects and Themes
- 02 Conferences and Student Ideation
Camps
- 03 Motivating Human Computer Interaction
- 04 Why is usability relevant?
- 05 User Experience








Machine Learning and Data Analytics Lab (MaD) in Erlangen



Why is usability relevant?



Improving usability can

-  Increase productivity of users
-  Reduce costs (support, efficiency)
-  Increase sales/revenue (web shop)
-  Enhance customer loyalty
-  Win new customers

Many case studies that show the benefit of usability , E.g. <https://www.userfocus.co.uk/casestudy/>

Usability is often considered as sign of quality



Issues that relate to advances in technology

- Becomes harder to discriminate by technology
- Massive availability of bandwidth, storage, and processing
- New input/output technologies (e.g., biometric, 3D-displays, eye-tracking)
- Towards information appliances

New understanding of computing

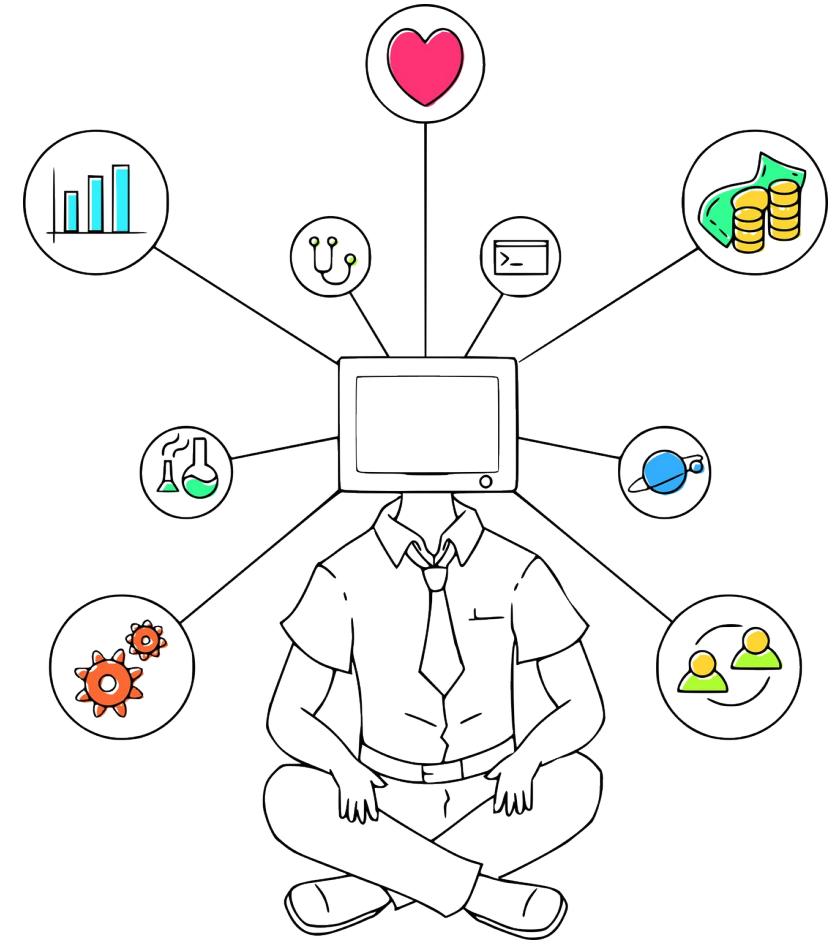
- Willingness for training decreases (great demand for an obvious way to use a device – RTFM?)
- New qualities besides efficiency become relevant, e.g., pleasure and fun

The old question:

What can computers do?

The new question:

What can humans do with computers?



[4] B. Shneiderman. Leonardo's Laptop: Human Needs and the New Computing Technologies. <https://mitpress.mit.edu/books/leonardos-laptop>



01 Software Developers

People who design and implement software systems

02 Interaction Designers

People involved in the design of all the interactive aspects of a product

03 Usability Engineers

People who focus on evaluating products, using usability principles

04 Web Designers

People who develop and create the visual design of websites (layout)

05 Information Architects

People who come up with ideas of how to plan and structure interactive products

06 User Experience Design

People who do all the above (but who also carry out field studies)



User Experience



You cannot **NOT** create a User Experience

“A person’s perceptions and responses that result from the use or anticipated use of product, system or service”

ISO 9241-210:2008. *Ergonomics of human system interaction – Part 210: Human-centered design for the interactive systems*

