729A99
Usability testing

Today: Course overview & introduction

Eva L. Ragnemalm
Emma Mainza Chilufya

LINKÖPINGS UNIVERSITET

The course in summary

- Study usability metrics, testing, data collection, analysis
- Discuss topics to deepen understanding
- Perform a usability study on an interactive system
- Present your results orally and in writing

Usability

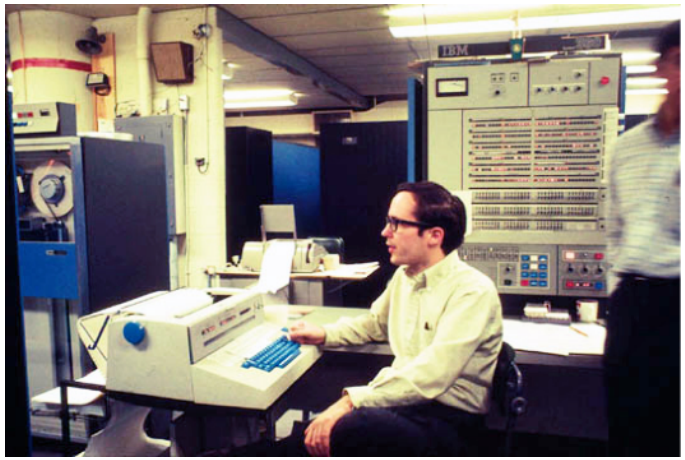
- Origin in Ergonomics and Human Factors

- Complex tools required skilled users - but as complex tools become more and more common, the requirement on the user had to be reduced.

1950-1980

1956 Linköping (SARA, Datasaab)

1969 U of Michigan, IBM360



1970 anonymous computer at call center

1988
IBM PC

Usability 1970-1990

- When computers invaded the workplace the focus was on office usages:
- According to ISO9241 (1998), ”Ergonomic requirements for office work with visual display terminals”, USABILITY is:

  The 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.

1990-now

- Computers invade our homes
  - games - don't have tasks
  - social media - don't have tasks
  - what is an efficient game?
  - what is usability w respect to new input and output devices?

Usability beyond ISO9241

- User experience
- Utility
- Game immersion
- Learnability
- Game engagement
- Inclusiveness
- Enjoyment
- Player exeperience
- …

Tools for measuring/evaluating usability

- Research on tools (often questionnaires) lagging behind
- Old ones developed for the more restricted definition
- Lately more tools for games, educational etc have been developed.

Course goals

• Acquire advanced theoretical and practical knowledge of usability testing: choosing metrics, planning, executing, analysing and reporting.

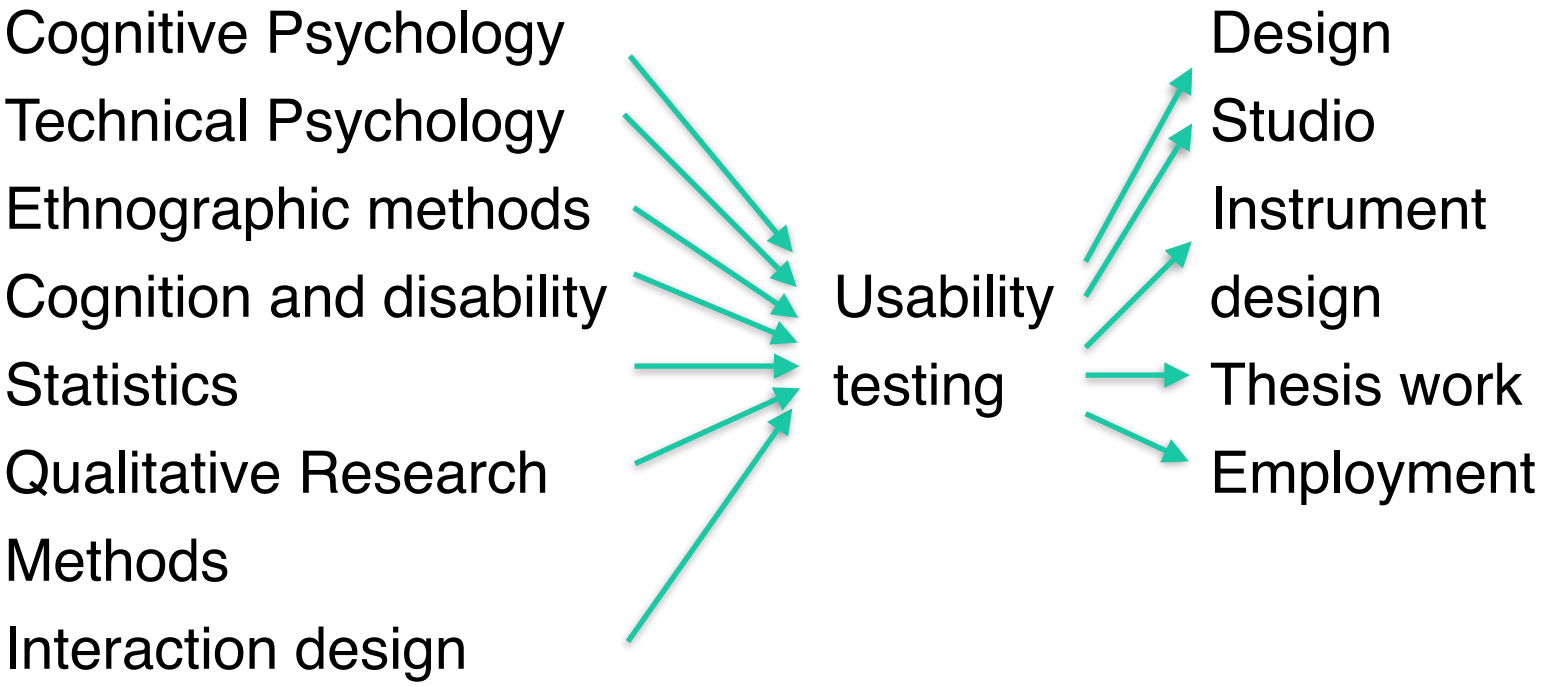
After the course the student should be able to:

• discuss usability testing as a method and how different measures can and should be used in different contexts.

• perform usability tests with relevant measurements.

• present and evaluate results from usability tests so they can be used for improvements.

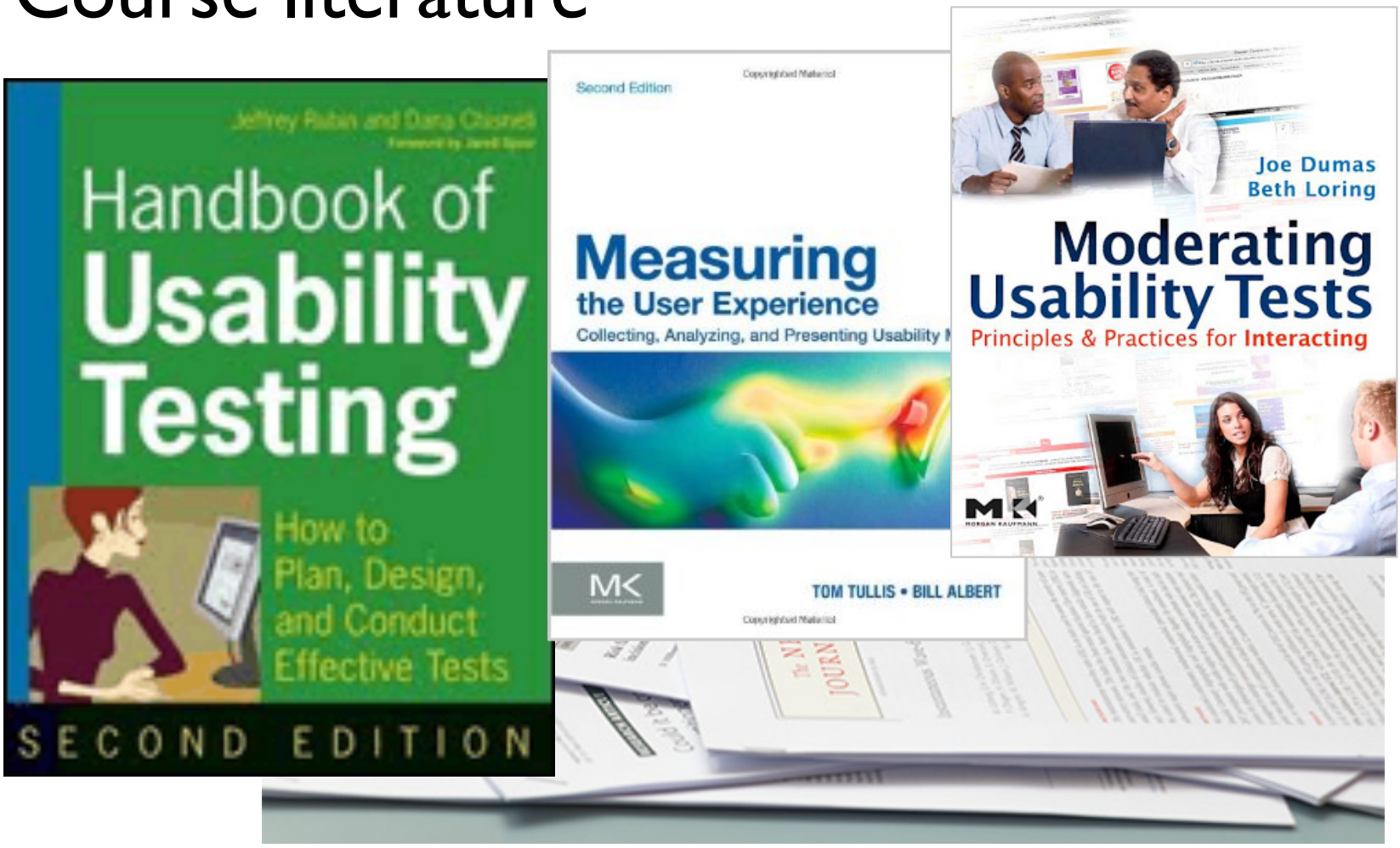
Connection to other courses



Course content

- Theory: Literature to read and digest
  - supported by seminars (mandatory)
  - NO lectures
- Practice: Usability test project
  - plan, execute, present
  - individual work
  - supported by the literature and seminars
- Course home page: www.ida.liu.se/~729A99

Course literature



Preparation for seminars

- Pure literature seminar:
  - read the assigned literature and write:
    - 2-3 questions you would like to discuss.
    - how you are going to apply the ideas/ conclusions to your project (about 200 words).
  - bring a printout of this to the seminar.
- Project seminar:
  - perform the assigned task, bring the result, including reflections on the task.
- (one seminar combined: do both!)

Usability test procedure

- Plan your test (submit testplan)
- Perform pilot test (revise plan)
- Perform your test
- Analyse your results
- Present your test and results orally (final session)
- Write a report of your test and results.

Schedule

- on TimeEdit
- w 3-12, one seminar every (almost) monday afternoon
  - except: w10: no seminar 7/3.
  - w12 (21/3) 13-17
- seminar content see course home page
- Deadline test report: 22rd of march 18:00

Course grade (G/VG)

- Requirements for pass (G):
  - Active participation in seminars (mandatory)
  - Proof of preparations for seminars (printout*, performed tasks)
  - Usability test performed according to instructions.
  - Usability test presented orally and written report.
  - Observation of peer with feedback provided.
- Requirements for pass with distinction (VG):
  - same as for pass, and a well written report.

Requirements to pass project:

- Choice of system, evaluation goals and user group approved by course leader.
  - NB; choose something you have access to!
- Methods, measurements, data collection
  - carefully chosen and motivated
  - must involve a technical tool other than voice recording (Distance: no other tool required)
  - must include both qualitative and quantitative measurements.
- Present test plan at seminar

Requirements to pass project, cont'd:

- Perform 2 pilot tests
- Observe and give feedback on 2 pilot tests
  - Groups of 3: each performs 2 pilot tests, the others are subject and observer, observe and give feedback. Rotate roles.
  - Give feedback to each other and collect feedback to report at seminar (generalize enough not to be embarrassing but give enough detail to be instructive).
- Use at least 10 subjects (not cog. sci.) in your test.

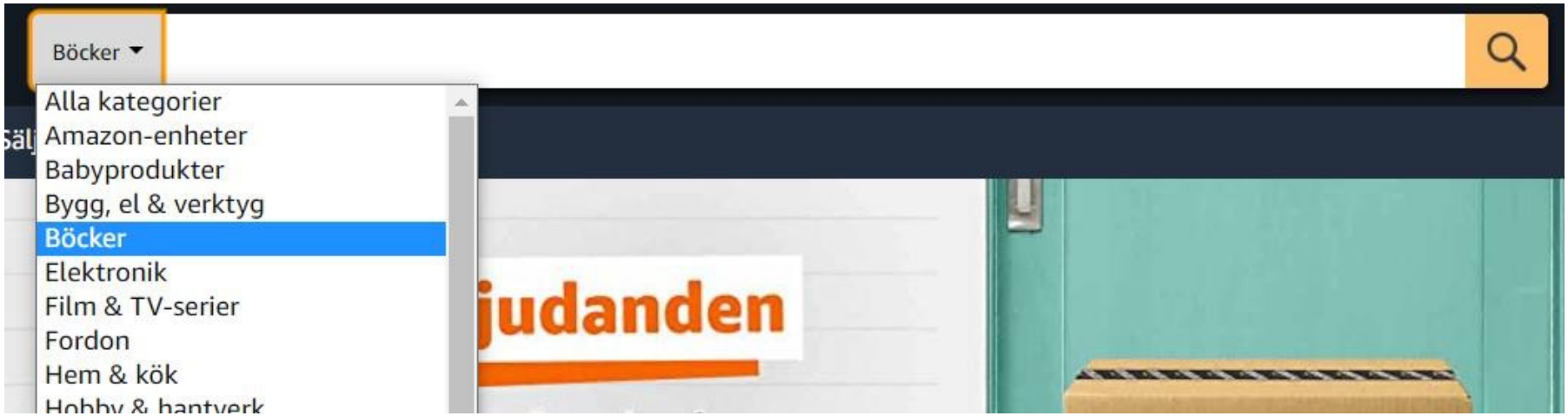
Last year's evaluation

- Literature is to much and some is repetitive.
  - removed some papers, reading only most important parts of some.
  - summary turned into ”application”
- Distance setting not too bad otherwise.
  - Discussions not as good as in person.

Usability testing project - samples

- Sample of previous projects
  - Usability (user experience) of a website for reading
  - Usability of Cosmic - medical documentation
  - Usability of an app for dressing tips

Amazon



- Usability, efficiency
- Can you find the product? Obstacles? Information (return policy etc)

Trust in a decision support system

- Trust (usability is part of trust)

SMHI climate-change game

- One version in MineCraft, one online
- Learning, usability and player experience

SVT text-tv - multi platform system

- Mobile and desktop: User experience, efficiency

Questions?

www.liu.se

LINKÖPINGS UNIVERSITET