Human Computer Interaction

Evaluation in HCI

Anna Xambó

Department of Music, NTNU

25 October 2018

Learning Outcomes

— Understand the trends in the approach to evaluation in the CHI conference / HCI discipline.
— Establish connections between quantitative, qualitative and mixed research methods from HCI applied to interactive music systems.
— Conceptualize an approach to evaluation of a self-built musical instrument.
— Discover the research methods and evaluation elements in a successful CHI paper submission.

Preparation: Reading

— Send a summary (1 page max.) of the following article:
  • From Mice to Men - 24 years of Evaluation in CHI [1]
    `http://barkhu.us/barkhuus-altchi2007.pdf`

  The summary should include: the main topic of the paper, the
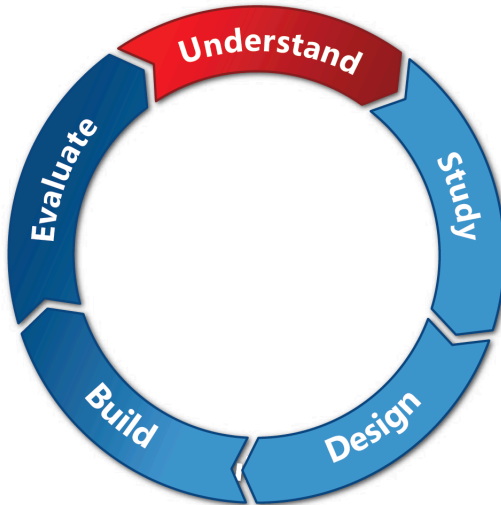 approach used, the main findings, and the main contributions.

Class Structure

— 10.15-10.30 Group discussion about the prep. reading.
— 10:30-10:45 Presentation/lecture.
— 10.45-11.05 Group discussion about own research questions.
— 11.10-11.40 Team group discussion: research methods of the selected CHI best paper.
— 11.40-12.00 Closing: what makes a good CHI paper?

Group discussion: "From Mice to Men - 24 years of Evaluation in CHI"

— Any surprises?
— Any limitations?
— Is the title accurate?

Is it familiar...?

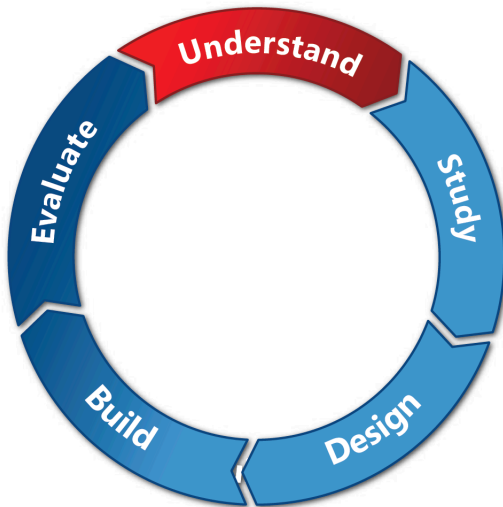**The research and design cycle**

Figure: Extended user-centred, five-stage design/research model [2]

Presentation/lecture: Design and evaluation of interactive tabletops for music performance

A case study of an approach to quantitative, qualitative and mixed research methods from HCI applied to interactive music systems:

— Tabletop Tangible Interfaces for Music Performance: Design and Evaluation [3]

Group discussion: What is your research question?

Potential ways of evaluating the music hacks considering quantitative, qualitative, and mixed research methods...

— What are the challenges?
— What are the limitations of each approach?
— What would be a research questions that fits the three groups?
— Who would be your users?

Team group discussion: What are the research methods?

Selection of the same paper than day 1 (or another if you prefer) from the CHI 2018 Best Papers
(`https://chi2018.acm.org/attending/best-of-chi/`) and discussion about...

— whether and how the research methods used fit the trends explained in the prep. reading.

— why (or why not) it is a successful evaluation.

Closing: What makes a good CHI paper?

The teams summarize to the group their group discussion about the suitability of the research methods used and what makes a good CHI paper.

What makes a good CHI paper?: Mindmap

Human-Computer Interaction Day 2 - Group Assignment (post-class)

— Send a summary (1 page max.) of the research methods used in the selected article discussed in group during class on Tuesday 23 October 2018, from the CHI 2018 Best Papers (https://chi2018.acm.org/attending/best-of-chi/) after the class on Thursay 25 October 2018 and before Friday 26 October 2018 9:00.
You should explain the research methods used:
  • are they quantitative, qualitative, or mixed methods?
  • How are they related with the research question?
  • What are the limitations of this approach?
  • How do the authors address the limitations?
  • What other research methods could have been used instead and why?

Resources

— The content of this class can be found on Canvas here:
`https://uio.instructure.com/courses/11472/pages/`
`human-computer-interaction-1b`
— The slides of this class can be found on GitHub here:
`https://github.com/axambo/hci-lecture-slides/tree/`
`master/slides/d2/`

References

[1] Louise Barkhuus and Jennifer A Rode. "From Mice to Men – 24 Years of Evaluation in CHI". In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 2007, pp. 1–16.

[2] Richard Harper et al. *Being Human: Human-Computer Interaction in the Year 2020*. Microsoft Research Ltd, 2008.

[3] Anna Xambó. "Tabletop Tangible Interfaces for Music Performance: Design and Evaluation". PhD thesis. The Open University, 2015.