Human-Computer Interaction

PhD Qualifying Examination Reading List, Spring 2016

“Human-Computer Interaction (HCI) is 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.”

— 1992, SIGCHI Curriculum Development Group

The HCI PhD Qualifying Examination seeks to test the following:

1. Knowledge of the breadth of research topics in HCI (e.g., accessibility, information visualization, computer-mediated communication),
2. Ability to established principles in HCI (e.g., embodied interaction, Fitts’ Law) into new research (e.g., studying phenomena around computer use) and practical problems (e.g., designing a user interface),
3. Differentiate and select
4. Proficiency in research design and data analysis for human-centered computing.

Students interested in taking the HCI Qualifying Examination are strongly advised to take CS-570, Introduction to Human-Computer Interaction and CS/Psych-770, Human-Computer Introduction or equivalent courses at another institution. The majority of the reading list below is made up of the readings from these classes. The list below is for Fall 2016 and is subject to change for future Qualifying Examinations. The readings are categorized by topic and sorted by publication year. The readings can be accessed only from the campus network or using the university VPN system.

Reading List

HCI Principles & Fundamentals


1 Version 1 of this list was published for Fall 2011. Version 2 is edited for Spring 2016. V2 additions are marked with a star (★).


**Study Design & Data Analysis**


**Usability Evaluation Methods**


**Studying Users**


Modeling Users


Interaction Design


Prototyping