CS 5724: Models an Theories of Human-Computer Interaction

Instructor: Steve Harrison

Textbook: Sharp, H., Rogers, Y., Preece, J. (2015). I*nteraction Design: Beyond Human-Computer Interaction*. John WIley, 800 pages. ISBN 1119020751

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COURSE DESCRIPTION
This course examines the intellectual landscape of human-computer interaction, focussing on the analytic. Even though the course is framed by a focus on the analysis of people interacting with computers, the various approaches come from a more general look at design. Therefore, this course serves as one of the two core classes for the Human-Centered Design Program in the Interdisciplinary Graduate Education Program ("IGEP"). We welcome all graduate students interested in HCD.

We organize that landscape around three paradigms: classical human-factors, classical cognitivism/information processing based and a phenomenologically-situated paradigm (aka "the Third Paradigm"). Each of these paradigms represents a world-view and encompasses a set of practices and expectations for the value and contribution of research. Each contributes to research and can inform design, but in different ways. Human-Factors focuses on optimizing man-machine fit. Classical Cognitivism/Information Processing emphasizes (ideally predictive) models and theories and the relationship between what is in the computer and in the human mind. The third paradigm, with its base in Phenomenology, is less reified, but no less real. It focuses on the experiential quality of interaction, primarily the situated nature of meaning and meaning creation. All three have their own forms of knowledge creation and criteria for what constitutes knowledge. Identifying these approaches as paradigms allows us to value work more clearly.

One challenge in interdisciplinary research (and HCI is, at base, interdisciplinary) is to be able to publish in different communities: the sorts of values and norms in the learning sciences are quite different from those in human-computer interaction. Getting some handle on how to intellectually re-frame work will be extremely useful in an interdisciplinary PhD.