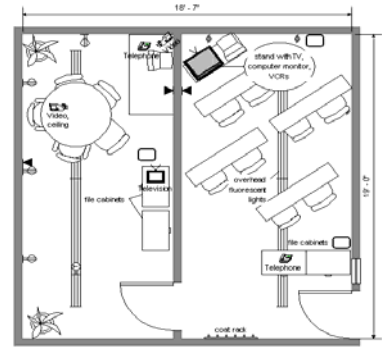


Teaching Human-Computer Interaction Software Design Using Participatory Methods

NSF CCLI Award # 9981088



Introduction

Human-Computer Interaction (HCI) stresses the importance of good interfaces and the relationship of good interface design to effective interaction with computers. **Design is a creative activity of making artifacts that are usable for a specific purpose.** To be “usable” means the designer must take into account “who” is using the system, what they are using it for, and how does it fit within their overall activities.

This project is developing an approach to teaching HCI using **Participatory Design** techniques. These techniques require the software designer and the user to interact during the software design process. Early in the process, the designers use **ethnographic techniques** to gather detailed data about the user and the tasks they perform. From the data, designers create models, develop interpretations, and recognize design implications. Later in the process, users and designers interact through prototypes, which allow users to participate in the process and refine the products. It is only from this data intensive approach that designers can get a picture of how users think about the task they do and create software that fits their needs and is easy for them to understand.

While there are HCI degree-granting programs and large companies that have design teams it is still currently the computer science programmer doing both design and development. So it is important that we educate computer science students in the techniques of software design that embrace the human activity as an integral component of the analysis, design, and evaluation.

Components of Project

- Course materials for students studying principles in HCI to perform an ethnographic design study using observation, interviews, and videotape analysis.
- Laboratory setting to support course activities.
- Enlist students in introductory courses as “users”, emulating the approach taken in psychology courses where students in beginning psychology courses are offered extra credit for their involvement in upper level courses that teach experimental methods.

Contact Information for principal Investigators

Jerry B. Weinberg, Ph.D., Project Director
Southern Illinois University at Edwardsville
jweinbe@siue.edu

Mary L. Stephen, Ph.D.
St. Louis University
Stephen@slu.edu

Products Available in Summer 2002

- CD: Teaching Human-Computer Interaction Using Contextual Design
- Video: Card Sorting and Paper Prototyping for Interface Design
- Course website with lecture slides, examples, and exercises
- www.cs.siue.edu/hci