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Room 333, Library, C.W. Post

Lecture:  
Friday 9:30-2:30 pm on 1/21, 1/28, 2/11, 2/18, 3/4, 3/11  
Humanities Hall Room 226

Office Hour: Wednesday 10-11, or before or after class or by appointment

Course URL: blackboard.liu.edu

Course Description (Bulletin Description)  
The course provides an overview of foundations, interaction design and evaluation techniques in HCI, a discipline concerned with understanding user needs, designing and evaluating an interactive system from a user-centered perspective. It covers the psychological and social aspects of users, the impact of user characteristics on design decisions, the user requirements, design approaches, usability evaluation methods, interface paradigms and architectures for user interface implementation. Focusing on library systems and services as examples for evaluation, students acquire practical skills in collecting patron/user needs, prototype design, and evaluating website/system. The course project will expose students to key skills (including usability testing, persona design, card sorting, heuristic evaluation, cognitive walkthrough, and more) necessary to understand and work in the exciting field of HCI.

Palmer Student Learning Objectives (SLO) met by the course:  
1B. analyze and apply legal, social, economic, technological, and global policies and trends affecting libraries and information organizations and the profession;  
2D. evaluate information systems and technologies based on functionality, usability, cost, and quality;  
3C. integrate technology, including emerging technologies, into operational services, as well as instruction and outreach programs.

Course Objectives  
- To understand the underlying scientific theories of Human-Computer Interaction.  
- To understand the human characteristics of computing and design principles in HCI.  
- To apply basic HCI design principles to improve a website or an interactive system.  
- To conduct a user needs analysis.  
- To conduct a usability evaluation with various methods and techniques, including persona design, card sorting, think-aloud, usability testing, heuristic evaluation and cognitive walkthrough.

Course Outline

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Persona Design Project: site choice  
Interaction Design Social Computing Storyboard Project: user needs analysis  
Evaluation without Users Cognitive Walkthrough Heuristic Evaluation  
Evaluation with Users Usability Testing Project: Inspection Report  
Case Studies Future of HCI Project Presentation  
Assignment 2 Project: Presentation Project: Final Report

Textbook

Note: There is also an excellent website associated with the text (www.id-book.com). Become familiar with this site and use it along with the textbook.

Additional readings will be posted in Blackboard.

Course Requirements and Course Grade

In-class exercise (20%)
There are several in-class exercises. They will be given for you to work on by yourself or in your group during the class. The student is expected to finish and turn them in during the class.

Usability Testing project (40%)
Each student will work on a usability project. At the end of the course, each student will submit a report, and present the project to the class. The presentation and final report counts 15% and 25% of your final grade respectively. The project provides hands-on engagement with the topics of interaction design. It is practitioner-oriented. You will conduct a user needs analysis, and usability evaluation for a client.

Assignment 1: Reflection of Bad HCI Design (15%)
Choose 3 examples of bad HCI design from your workplace or daily life. Attach pictures of the design. Explain why they are bad in terms of HCI design principles.

Assignment 2: DECIDE analysis (15%)
Choose a 4-8 page paper of an empirical study from ACM digital library (e.g. annual SIGCHI conference proceedings and Journal of TOCHI: Transactions on Computer Human-Interaction). Use DECIDE framework to answer the following questions:
- What are the goals & focus of the study?
- What evaluation methods were used?
- What data were collected and how they were analyzed?
- What practical and ethical issues have been considered?
- What is the strength, weakness of the study?

Participation (10%)
It is important to read the materials before coming to the class. While in class, active participation is required. Your participation will be evaluated by your attendance and active class discussion.

State Education Department Requirement: 150 Hours
- Lecture Time 30 hours
- Required Readings 60 hours
- Group project 30 hours
- Assignments 30 hours
Policy

- Assignments and the final report are due at the beginning of class on the due day.
- Any paper that is late will be penalized one grade e.g an “A” will become a “B+”. Exceptions will be granted only in cases of emergency.
- Students who must miss class for personal observance are advised to speak with their professors ahead of time to work out a suitable way to fulfill academic requirements.