

Instructor Kate Sellen

Office: Room 8171, Bahen Centre

Voice: 647-448-4902

Email: kate.sellen@utoronto.ca

Instructor of Record Prof Mark Chignell

Office: Room 8171, Bahen Centre

Voice: 416-978-8951

Email: chignell@mie.utoronto.ca

<http://www.imedia.mie.utoronto.ca>

Office hours: By appointment

Course Website:

TECH FOR KNOWLEDGE MEDIA : Fall-2010-KMD2002H-F-LEC0101

https://portal.utoronto.ca/webapps/blackboard/execute/courseMain?course_id= 560379_1

Please check this site regularly for information. All instructional materials will be posted on the Blackboard site which will generally be used for course management. Please make sure that you register on the site and provide your email address as soon as possible.

Pre-requisite Some design experience or content management experience is ideal. Students should be comfortable in using the Web and have an active email account. This course is designed for any KMD, FIS, MIE student or other master's student interested in design of technologies and services for communication, collaboration, and information access. You need not know a programming language, but must be prepared to formulate a design problem, analyse requirements, develop a prototype, and evaluate the design as embodied in the prototype.

Time/Place Class meets on Wednesdays, from 1 to 4pm in Room 7231 , Bahen Centre for Information Technology, 40 St. George St. The first class will be on Wednesday September 15, 2007.

Rationale "Knowledge media are documents, artifacts, technologies, and systems intended to enhance human creativity, learning, and knowledge building" (Ron Baecker). Our goal in this course is to gain experience in different approaches and tools for designing knowledge media. The focus will be on learning different techniques and tools for requirements analysis, prototyping, and evaluation. The course will cover understanding the context in which knowledge media is introduced, understanding the team, group or work setting for designing collaborative knowledge media. We will also explore different techniques for understanding and designing for the individual who uses or engages with knowledge media. Techniques and tools will be drawn from a range of design perspectives including traditional user centered design, participatory design, engineering, and industrial design. The appropriateness of each technique and tool for different design problems and settings will be discussed. We will also explore the development of new techniques and tools for new design challenges. The course will be a combination of hands on use of techniques and tools as well as case studies in communication, collaboration, and information access. We will make site visits to labs that specialize in particularly challenging knowledge media design problems such as the design of assistive technologies and design and evaluation in medical settings.

Course Objectives The objective of this course is to learn tools and techniques from different design approaches to design, prototype and evaluate knowledge media applications. At the end of the course, students should be able to:

- Understand different approaches to knowledge media design,
- Be familiar with a range of tools and techniques for different design challenges,
- Carry out requirements analysis choosing appropriate tools and techniques,
- Identify design concepts,
- Implement design concepts using a range of prototype techniques,
- Understand and carry out evaluations of design prototypes using different techniques,
- Be able to create and justify a design process plan based on theoretical and practical arguments

Organization: Class sessions will include seminars, lectures, intra-class activities, and guest lecturers.

Readings: There is no formal textbook for this course. Instead, there will be electronically submitted readings. Where readings are assigned for a class please devote time to reading and synthesizing the materials prior to the class.

Announcements: Students are responsible for all announcements made in class, whether or not they are present when the announcements are made, and for all messages distributed on the Blackboard site.

Late submissions: Deadlines are your responsibility. Late submissions are allowed only for unforeseen emergencies. Permission must be received prior to the submission date.

Academic honesty: Academic dishonesty will not be tolerated. Please read the Code of Behaviour on Academic matters (<http://www.campuslife.utoronto.ca/policies/academiccode.html>).

Lecture Schedule

Day	Lecture	Discussion
1. September 15	Introduction	Course objectives, assignments, the design process, ethics
2. September 22	Iterative Design	What is the role of UCD, participatory design, other techniques?
3. September 29	Requirements	Understanding the context of use
4. October 6	Requirements	Understanding the user
5. October 13	Design Synthesis	Moving from understanding to design concepts
6. October 20	Aging (BA 5256)	Tailoring requirements, design, and evaluations for an ageing population
7. October 27	Prototyping	Traditional, participatory and other prototyping techniques
8. November 3	Evaluating Design	In the lab
9. November 10	Evaluating Design	In context
10. November 17	TBD	(led by Prof Mark Chignel)
11. November 24	Assistive Technologies	Exploring techniques for specific design challenges
12. December 1	Medical Technologies	Exploring techniques for specific design challenges
13. December 8	Project Presentations	Based on your project

Grading

The grading for this course will be based on five deliverables/items.

1. Design Research Proposal 25% (due September 29)
2. Design Research Presentation 25% (due December 8 – must sign up for slot)
3. Design Research Report 25% (December 1st)
4. Presentation of a Tool/Technique - 25% (individual – sign up – last class for this is December 1st)

1. Design Research Proposal

Each person will carry out a project for this class. Initially, everyone will work in a single person team. Each student will hand in a separate design research project proposal. The topic of the project is “Design for Collaboration and/or Communication and/or information access”. The proposal should describe the design research problem, context/domain, the characteristics of the design research team (small company, not for profit, government, academic researchers, etc.), the imagined timeline and budget. The proposal should be no more than 500 words.

After the project proposal has been turned in, individuals may choose to merge in to two person teams (but no more than two people per team) with the permission of the instructor.

2. and 3. Design Research Presentation and Report

The individuals or two-person teams will then identify the tools and techniques for researching a chosen design problem, create a design research plan, and then justify that plan in terms of appropriateness for a particular context, user/user group, timeframe, and budget. Teams must choose a technique/tool for each of the three main parts of the design process from understanding the context of the design problem, design concept generation, to evaluation.

The work carried out in the project will then be described in a presentation at a special session to be held on December 8. The written report will describe the material presented, and will also include an appendix containing supporting materials that will help the instructor to evaluate the work that was carried out and to examine the claims made in the presentation in more depth, e.g. references for the tool/technique, references for case studies using the tool/technique. The report should also contain a discussion of the technique/tool in terms of theoretical design perspective, level of user involvement, role of the designer/facilitator, other closely related techniques, and a justification for choosing a particular tool/technique.

Teams (individuals) are responsible for their own work. However, teams will be permitted to trade skills with each other (e.g., programming or graphic design). The required format for the presentation and the final report will be described in separate documents. If teams choose to they can create a prototype. The prototype can be in any form that is sufficient to convey the intent of your design, and with which that design can be evaluated. Examples of prototypes might include a Flash programme, a visual basic programme, a paper and pencil mockup, a DENIM prototype, and a video or audio interaction.

4. Presentation of a Tool/Technique

The individual presentation should showcase a tool/technique not included in the main readings for the course. The tool/technique should be appropriate for any point in the design process. The presentation should be designed to demonstrate the technique/tool where possible and stimulate a discussion of the technique/tool in terms of theoretical design perspective, level of user involvement, role of the designer/facilitator, other closely related techniques, and the kind of situation in which the particular tool/technique could be applied.

Kate Sellen

Last Revised September 10, 2010