Introduction to Inclusive Design: Syllabus

Course Objectives:
General Objective: To provide an introduction to the inclusive design of information and communication technologies and practices and equip students with the necessary theoretical and technical background to engage in well informed, in-depth critical analysis of inclusive design of information systems and services and to apply rudimentary inclusive design methods.

Specific learning objectives include:
To give students a broad understanding of the evolving theoretical foundations of inclusive design.
To introduce students to the context and motivational tensions affecting the inclusive design of ICT, including social, institutional, economic and cultural tensions.
To involve students in the reflective examination of personal and public conceptions of the user, developer, designer and the origins of these conceptions.
To introduce students to the methods employed in inclusive design of information systems, including the design of software architectures, information management systems and user interaction and experience.
To familiarize students with design principles associated with inclusive design and how these have been reflected in standards, specifications, guidelines and regulations.
To engage students in an analysis of institutional and societal responses to inclusive design.
To provide students with a survey of the current state of the art of inclusive design of information systems and practices including researchers, current controversies, unanswered questions and major challenges.

Course Description:
The course will provide an introduction and critical analysis of the inclusive design of information and communication technologies and practices. Inclusive design (ID) enables, invites and supports the participation of individuals and groups representing the full range of human diversity with respect to ability, culture, language, gender, age and other forms of human difference. Inclusively designed systems and practices can be optimized to meet the individual needs of each user. The theoretical background, underpinning social and economic motivations, design methods employed, controversies, as well as the major challenges will be addressed. Students will engage in analysis of relevant research and the current state of the field, combined with more experiential problem solving and the application of ID theory and methods introduced during the course. The course will equip students to engage in well informed, in-depth critical analysis of ID of information systems and services and to apply rudimentary ID methods.

Information Resources
Sakai
An online learning management system, Sakai, will be used to share material for the course. Students are expected to log into Sakai to check for course material and Announcements on a weekly basis (and/or configure their accounts such that they can be
informed via email). Students will assist in creating an annotated list of informative links. Personas and guidelines created by students (assignment 1 and 3 below) will be posted on the course site and shared with the entire class.

**Required Readings**
While there is no textbook for the class there are required readings as preparation for each weekly session. Most readings will be available on the Web and links will be provided on the Sakai course site. Given the rapid changes in the field, readings may also be relevant current blogs or Wiki postings.

**Assignments and Assessment**
Assignment 1: (10%)
Research and develop a Persona that does not fit the conception of a typical user. Provide a sufficiently detailed and functionally complete description of this Persona so that the Persona can guide a user experience design team. These Personas are to be shared with the class on the Sakai site.

Assignment 2: (20%)
Select a cultural artifact (e.g., painting, movie, song, exhibit, etc.) that you find compelling. Attempt to translate or convey the information and experience for an alternative sensory modality. Describe the choices you made regarding the perspectives to translate and the priorities you gave to certain types of information or experience.

Assignment 3: (20%)
Draft guidelines for making an on-line collaborative design meeting, involving the use of a white board, voice and text chat, videoconferencing and application sharing, accessible to participants with disabilities. Provide references to standards, specifications and guidelines you incorporated in your guidelines. Describe a scenario that would be an exemplar of a meeting that adhered to your guidelines. These guidelines are to be shared with the class on the Sakai site.

Assignment 4: (15%)
Create an inventory of all computer and Web applications you have used in the past year. List the number of times an upgrade was issued for the application. Specify whether the application applied open standards, public APIs or open interoperability protocols.

Final Assignment: (35%)
Select an institution or organization in your community. List the information and communication transactions, technologies and services that should be made accessible. Create a high-level inclusive design plan for the organization. Include an analysis of the risks, costs and benefits. Prepare a business case for implementing the ID suitable for presentation to the executives of the institution or organization.

**Tentative Course Schedule**

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
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| k | Overview and Theory of Inclusive Design | http://www.tiresias.org/guidelines/inclusive.htm  
http://trace.wisc.edu/tech-overview/ |
|---|---|---|
Julio Abascal, Colette Nicolle: Moving towards inclusive design guidelines for socially and ethically aware HCI. Interacting with Computers 17(5): 484-505 (2005) |
| 3 | Web accessibility and media accessibility | http://www.w3.org/WAI/  
| 5 | Review of research: access to culture and digital collections (including online and digital library, archive, museum and gallery systems) | http://ncam.wgbh.org/publications/adm/  
http://culturall.atrc.utoronto.ca/  
http://www.ryerson.ca/clt/ |
| 6 | The role of interoperability, open access and open source | http://www.linuxfoundation.org/en/Accessibility  
http://fluidproject.org |
| 7 | Standards, laws, policies and specifications | http://www.un.org/disabilities/  
http://teitac.org/  
http://www.govtech.com/gt/articles/102729 |
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<td><strong>9</strong></td>
<td><strong>The business perspective on inclusion</strong></td>
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<td><strong>10</strong></td>
<td><strong>Personal optimization</strong></td>
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|   | [http://www.imsglobal.org/accessibility/index.html](http://www.imsglobal.org/accessibility/index.html)  
| **11** | **Assistive technology (in ATRC workshop)** |
|   | Technical glossary at: [http://atrc.utoronto.ca](http://atrc.utoronto.ca)  
| **12** | **IT architectures for inclusion** |
[http://wiki.fluidproject.org/display/fluid/An+Overview+of+DHTML+Accessibility](http://wiki.fluidproject.org/display/fluid/An+Overview+of+DHTML+Accessibility) |
| **13** | **Current and future challenges, unanswered questions** |