Sp19 - UNDERSTANDING & SERVING USERS (27434)

Information systems exist to serve human needs but how do we know what people want? How can we ensure that the information products or services we deliver to people fulfill their expectations or assist their work? How can we anticipate human responses to information problems and situations? In what ways are people alike and different and how do we change with experience?  To really deliver on the promise of information, we must be able to shape solutions that matter for real people, so this course is a deep dive into the psychology and behaviors of people when they use information.

The course will provide you with a strong theoretical understanding of the drivers, limits and variations of human responses to design and explore methods that will guide our decisions as we create and evaluate solutions for real contexts. We will explore both the commonalities and differences between people, consider how learning and skill development occurs, what culture can tell us about users, why new technologies are accepted or resisted, all the while considering how knowledge of this kind can be leveraged to help us design and implement more humanely useful information systems.

The goal is for you to have a deeper and applicable sense of user-centeredness as a core value of the information field rather than an advertising attribute or brand claim. You will apply the material we cover to real-world observations of information designs and learn to frame the interactions in ways that can support practical improvements and trade-offs. You will also have the chance to tailor your final deliverable to a problem or topic that is meaningful to you in more than just this course. It is my intent that you leave the course with a new, richer, understanding of how our information world is being shaped and how you can ensure the human experience of this world is improved.

**What will I learn?**

Main skills and attitudes to be developed:

* Origins and meaning of user-centered design thinking
* Critical understanding of core human attributes in information processing
* Contextual awareness of organizational and cultural shapers of use
* Awareness of typical approaches to studying and reporting user experience

**Learning Outcomes**

1. Ability to articulate and justify user-centered design of information systems
2. Ability to observe and identify design problems and justify recommended improvements
3. Knowledge of the basic skills and methods applied by user-experience professionals
4. Understanding the role and literature of user-centeredness in contemporary information experiences

This is a readings and discussion graduate seminar. Active involvement in classes is essential to learning. The deliverables for the course require you to observe and apply the materials to real world situations.

There are no prerequisites, students from all backgrounds are welcome. You do not need coding or design skills, statistical knowledge or experience in IT to learn in this course. You don’t need to be committed to specific career path to benefit from a deeper understanding of people who use information products and services, all iSchool graduates will find ways of making this material relevant to their professional careers.

**How to succeed**: Read, discuss, keep an open mind and explore the concepts in ways that make personal sense for you. Understanding users requires you to challenge your own beliefs about what is good design or an appropriate solution for others. You will learn that humans are both alike and unalike on many important dimensions and that the science of human experience offers rich insights into how we can create the information infrastructure of our world. Find a topic that is meaningful to you for your final paper and relate your readings and understandings appropriately.

**Required Materials**

            The readings are linked from the Files menu where they are grouped by week. You can read in advance but the idea is to read after the class (e.g., Week 1's readings are *after* the first class, in anticipation of Week 2; the readings under Week 2 then are read *after* the second class meeting in preparation for material to be covered in Week 3).  Each week there will be group discussion then a lecture. There will usually be regular open time to explore issues that emerge or to handle questions about the assignments.

**Classroom expectations**

Students are expected to attend and come prepared to participate in all class meetings.

**Assignments**

There are two deliverables for this course, a series of design critiques based on your critical observation of information designs in the world, and an original research paper dealing with any topic related to our understanding of information users.

* **Design Diary**(Identify and document design problems and justify recommended improvements)

50% of grade – create an observational diary of user interactions with any information environment (computer, person, facility) where the interactive experience is challenged by poor or uninformed design choices. These interactions can be personally experienced or observed in others. Each entry should cover the context of occurrence, the nature of the problem from the user’s perspective, an analytical/theoretical framing of the experience, and a clear recommendation for re-design that would improve the experience. Cite appropriate literature for each entry. The diary can be a mix of text, figures, photos, or any medium that conveys your point and is shareable with me. The complete diary should consist of 10 distinct entries.  This deliverable gives you room to explore user concerns in whatever form makes most sense for you.

2.    **Research paper**(Understanding role and literature of user-centeredness experiences)

50% of grade.  Compose and present to the class a term paper (5000 words approx.) on a topic of your choosing that deals with our understanding of humans and the design of more humanly acceptable and usable information systems. You have broad remit here to cover material that is meaningful to you and your programs of study. The paper should demonstrate a critical and referenced treatment of your topic. It must be original, individual work and produced in a form that is presentable both in class as a talk (see schedule) but also as a written document for final submission.

A note on group projects: There are none. Your deliverables are your individual work, and you are graded accordingly

**Course Outline**

Note, the readings provided are *foundational*but *not sufficient*for delivering on your research paper. They represent a minimal reading load for the material covered in the classes but you should be prepared to seek out further readings based on your own interests and needs. There are several books among the readings, and while I direct you to specific chapters, you can take it as given that reading the whole book is worthwhile.

It is the nature of this type of graduate course that we pursue ideas as the emerge in the course discussions**.**Consequently, further readings or adjustments to the schedule may occur as we progress. I will always make this clear in class and via regular communication but it is your responsibility to note these changes and adjust as needed.  I have intentionally left one class in the schedule open toward the end of the semester. This is often useful if the readings and discussions take us deeper into topics that we wish to explore or if concerns about the looming deliverables necessitate specific treatment of issues. We will collectively determine the best use of this meeting nearer the time.

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| **Week** | **Date** | **Class Topic** | **Readings**(see Files for linked copies) |
| **1** | **1/22** | **Intro and class overview** | Vicente, K (2004) *The Human Factor*, chapter 2Kujala, S. (2003) User involvement: a review of the benefits/challengesHarrison, S. et al (2007) The three paradigms of HCI.  |
| **2** | **1/29** | **The nature of design****History and emergence of user-centered design** | Cross, N (2011) Design Ability Iavari and Iavari (2006) Varieties of user-centerednessRitter et al (2014)  User-centered design, a brief history.Vardouli, T. (2016) User design: constructions of the user |
| **3** | **2/5** | **Human information processing 1**(the cognitive architecture) | Jeff Johnson: *Designing with the Mind in Mind*: chapters 1-5 |
| **4** | **2/12** | **Human information processing 2**(controlled & automatic processing) | Jeff Johnson: *Designing with the Mind in Mind*: chapters 6-10 |
| **5** | **2/19** | **Human Information processing 3**(individual differences) | Jeff Johnson: *Designing with the Mind in Mind:*chapters 11-14 |
| **6** | **2/26** | **Socio-technical models of use**  | Baxter and Sommerville (2011) Socio Technical Systems Lai (2017) Literature review of technology adoption models   |
| **7** | **3/5** | **Cultural dynamics**(how the world of users varies) | Hofstede, G. (2011) Dimensionalizing CulturesVenaik and Brewer (2016) National Culture Dimensions: the perpetuation of cultural ignorance  |
| **8** | **3/12** |   **User eXperience: Usability, Hedonics, and Acceptance**   | Alexandre et al (2018) Acceptance and Acceptability CriteriaBevan et al (2015) What have we learned about usability since 1998?Girardi and Chiagouris (2018) The digital marketplaceHassenzahl and Tractinsky (2006) |
|  | **3/19** | **SPRING BREAK** | SPRING BREAK |
| **9** | **3/26** | **Basic methods 1 – Usability inspections** | Mahatody et al (2010) State of the Art on Cognitive Walkthrough |
| **10** | **4/2** | **Basic methods 2 - SUS, TAM and surveys**  | Sauro and Lewis (2016) Standardized Usability Questionnaires, Chapter 8 of *Quantifying the User Experience*(eCopy also available via UT libraries)Lewis, J. (2018) The System Usability Scale: Past, Present And Future |
| **11** | **4/9** | **Basic methods 3 – Observation and Interviewing**  | Nessler D. (2017) [How to nail user interviews (Links to an external site.)Links to an external site.](https://uxdesign.cc/how-to-nail-a-user-interviews-in-a-ux-hcd-or-design-thinking-process-full-guide-17d4eeee8dc3)Ross,J (2018) [The role of observation in user research (Links to an external site.)Links to an external site.](https://www.uxmatters.com/mt/archives/2018/09/the-role-of-observation-in-user-research.php).  |
| **12** | **4/16** | **Basic analysis of user data for UX**(statistical reasoning about users)  | Suaro J. and Lewis (2016), A Crash Course in Statistics |
| **13** | **4/23** | **Buffer zone**(allowing for refresh & exploration) | As needed – reflection, revisiting and redressing |
| 1**4** | **4/30** | **Class presentations** | Students will present their research paper for Q&A |
| **15** | **5/7** | **Class presentations** | Students will present their research paper for Q&A |

**Classroom Policies**

Your success in this class is important to me. We all learn differently and I want this to be an environment for all. If there are aspects of this course that prevent you from learning or exclude you, please let me know. Together we’ll develop strategies to meet both your needs and the requirements of the course. I also encourage you to reach out to the student resources available through UT. Many are listed below – never hesitate to ask if you have concerns – your time here matters.

**Grading Policies**

While following the standard grade structure for graduate work at UT and as outlined in the MSIS Handbook for iSchool students, I do not grade on a curve. All submitted work is read and assigned a grade by me. Clearly, with research papers and design diaries, final grades have a certain subjective quality. I will discuss this as we proceed through the semester as it is my aim to free you to think deeply and do your best work,  not worry about points.

For each assignment I look for clarity, evidence of background reading and analysis, and originality. Grades of A reflect excellence, B+ is above satisfactory, B is work that I expect from any graduate student at a minimum, while B- represents work that gives me concern as to the student’s viability in our program.  While equal weighting is given to the two major assignments in the course, borderline grades are determined up or down based on class participation and the general engagement of the student in the course over the semester.

**Late work**

As both major deliverables are due at the end of the semester, there is no late work. You can of course be early!