INF 382C: Understanding and Serving Users (Fall 2023)

**Instructor**: Andrew Dillon

**Where and when**: UTA 1.208, every Wednesday, 3pm-6pm, in person class only.

**Overview**

Information systems are everywhere, in the form of products, tools, services and environments we experience, Ideally these are designed and 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 or tasks? How can we anticipate human responses to information problems and situations? In what ways are people alike or different and how do people 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  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  an appreciation of some of the core methods employed in user-centered design to  guide 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  and applied  to help us design and implement more humanely appropriate 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 that you experience routinely,  and  in so doing, learn to frame these interactions in ways that can support practical improvements and trade-offs in the design. 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. The course complements many other classes at the iSchool - you can expect some overlaps and some reinforcement of other material with a view to giving you a strong foundation for your studies and career as information professionals.

**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 methods for studying and reporting user experience

**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 critical 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 students, no matter their area of professional  interest,  will find ways of making this material relevant to their careers.

**How to succeed in this course**

Read, discuss, read again, 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 a better information infrastructure for our world. It is vital that you engage fully with the material from the start of the semester, you cannot make up lost time or effort by trying to rush through this type of material at the end of the semester. Choose a topic that is meaningful to you for your final paper, focus on it deeply,  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 likely be group discussion or exercise then a lecture. There will usually be regular open time to explore issues that emerge or to handle questions about the assignments.  I will almost certainly add further readings or modify content as the course proceeds depending on emerging issues.



Though not a required reading, the course material is covered extensively in my book [Understanding Users: Designing Experience through Layers of Meaning Links to an external site.](https://www.routledge.com/Understanding-Users-Designing-Experience-through-Layers-of-Meaning/Dillon/p/book/9780367459253)  You might find this a useful supplement to the lectures and discussions.

**Classroom expectations**

Students are expected to attend and come prepared to participate in all class meetings.**Simply reading the material and producing the deliverables will *not* lead to sufficient learning -- you must engage with the class fully.**

**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 5 distinct entries.  This deliverable gives you room to explore user concerns in whatever form makes most sense for you.

**Research paper**(on any topic addressing  the role and literature of user-experiences)

50% of grade.  Compose and present to the class a term paper (3000-5000 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.

BOTH deliverables are due by Friday DEC 1st  at NOON. This is the Friday *after* the last class meeting.  You may, and are definitely encouraged to, submit earlier. I do not accept late work since you have all semester to meet the deadline.   I will give you an opportunity during the semester to submit one or two design diary entries or paper ideas  for feedback in case you have concerns about deliverables that are not addressed otherwise. This is optional, not required but it is advisable to take advantage of this opportunity and to discuss ideas and design diary entries regularly with the course TA.  If you have questions, you may always contact me for advice or suggestions. We will allow time weekly in class to discuss design diaries or term paper ideas.

**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 intentionally leave time 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** |
| **1** | **8/23** | **Intro and class overview** | Vicente, K (2004) *The Human Factor*, chapter 2Harrison, S. et al (2007) The three paradigms of HCI.Ackerman, R, (2023) Design Thinking- Where did it go wrong? |
| **2** | **8/30** | **History of user-centered design** |  Frascara and Noel (2009) What’s missing in design educationRitter et al (2014)  User-centered design, a brief history.Vardouli, T. (2016) User design: constructions of the userIavari and Iavari (2006) Varieties of user-centeredness |
| **3** | **9/6** |  **Design: science or art?** |  Cross, N (2011) Design Ability Bayazit N. (2004) Investigating DesignBryan Lawson (2005) *How Designers Think,*chapters 1-3  |
| **4** | **9/13** | **Human information processing 1**Cognitive Architecture | Guastello, S. (2023) Psychophics, Cognition, and Psychomotor Skills chapters from *Human Factors Engineering and Ergonomics*Andrade and May (2003) Cognitive Psychology –(links to full text, concentrate on chapters on Sensation, Perception and Memory, others will be referenced in passing) |
| **5** | **9/20** |  **Human Information processing 2**Learning, skills, and performance | Jeff Johnson: *Designing with the Mind in Mind:*chapters 6-10 (Links to an external site.) (We will cover the full book over several sessions) |
| **6** | **9/27** |  **Human information processing 3**Individual differences | Jeff Johnson: *Designing with the Mind in Mind:*chapters 11-14 (Links to an external site.)Turner and Turner (2010) Is stereotyping inevitable when designing with personas |
| 7 | **10/4** |  **Socio-technical models of use**Users in organizational contexts | Baxter and Sommerville (2011) Socio Technical SystemsLai (2017) Literature review of technology adoption modelsGirardi and Chiagouris (2018) The digital marketplace |
| 8 | **10/11** | **Cultural dynamics**How the world of users varies |  Hofstede, G. (2011) Dimensionalizing CulturesVenaik and Brewer (2016) National Culture Dimensions: the perpetuation of cultural ignorance?MacVaugh and Schiavone (2010) Limites to the diffusion of innovation  |
| 9 | **10/18** |   **Evaluating UX:****Usability**   | Bevan et al (2015) What have we learned about usability since 1998?Hassenzahl and Tractinsky (2006)Lewis, J. (2018) Is the report of the death of the  construct of usability an exaggeration? |
| **10** | **10/25** | **Evaluating UX:****Acceptance** | Alexandre et al (2018) Acceptance and Acceptability CriteriaVenkatesh et al (2013) A unified theory of acceptance and use |
| 11 | **11/01** | **Inspection and survey methods** |  Mahatody et al (2010) State of the Art on Cognitive WalkthroughSauro 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 |
| **12** | **11/08** |  **Interviewing, observing, summarizing****Course Q&A**  | Beyer, H. and Holtzblatt, K (1997) The Four Principles of Contextual EnquiryNessler D. (2017) How to nail user interviews (Links to an external site.)Ross,J (2018) The role of observation in user research (Links to an external site.). Suaro J. and Lewis (2016), A Crash Course in StatisticsGeneral revision/wash up on outstanding issues from class, bringing it all together. |
| **13** | **11/15** |  P**resentations** | Group 1 students will present their research paper for Q&A |
| **14** | **11/22** | **Thanksgiving Week** | **No class meeting** |
| **15** | **11/29** | **Presentations** | Group 2 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 on the course Canvas site – never hesitate to ask if you have concerns – your time here matters.

The university is committed to creating an accessible and inclusive learning environment consistent with university policy and federal and state law. Please let me know if you experience any barriers to learning so I can work with you to ensure you have equal opportunity to participate fully in this course. If you are a student with a disability, or think you may have a disability, and need accommodations please contact Disability & Access (D&A). Please refer to the D&A website for more information: <http://diversity.utexas.edu/disability/>. If you are already registered with D&A, please deliver your Accommodation Letter to me as early as possible in the semester so we can discuss your approved accommodations and needs in this course.

**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, or earlier, you have freedom to submit on your schedule so manage your time well. Consequently, there is no such late work, the final deadline (Friday, Dec 1st, Noon) represents the last time I will accept work from this semester's course.