

INF 385T User Behavior and Search Experience

Unique course number: 28430

University of Texas at Austin School of Information Spring 2021

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This is a synchronous online course.

Thursdays 12-3 pm via Zoom

Office Hours: Thursdays 3-4 pm

COURSE OVERVIEW

The purpose of this course is to provide theoretical and practical foundations for information professionals who wish to design and evaluate search systems and services, taking user-centered approaches. This course explores search user interfaces, search behavior, search interaction, search user experience, and measures and methods for evaluating search systems. Students will have opportunities to discuss information-seeking behavior in contexts such as academic settings, professional work settings, everyday life, health contexts, and digital learning environments. Students will learn about the nature of interaction with information in a variety of application areas, including search engines, domain-specific information retrieval systems, digital libraries, collaborative search, and social search.

LEARNING OBJECTIVES

Upon completion of this course, students will be able to:

1. Understand the fundamental concepts and major models in the field of interactive information retrieval, information seeking behavior, and human information interaction.
2. Analyze the behavior and experience of information users in order to provide effective information systems and services.
3. Gain knowledge in user experience with various search interfaces.
4. Gain skills in designing experimental studies to evaluate information retrieval systems.
5. Have an ability to apply appropriate criteria and measures for information retrieval evaluation.
6. Incorporate strong user-centered perspectives into the design and development of search systems and services.

COURSE MATERIALS

The readings are available on the Canvas site (see: Files – Course Readings). There is no textbook for this course.

EXPECTATIONS

- 1) **Course Readings:** Read the course readings critically in advance of the class session. The readings are available on the Canvas site.
- 2) **Before-Class Questions “What I want to know”:** Post one question to this Google Document [Insert URL here]. Do not post questions that are answered in the readings. Post questions that are unanswered or unsolved based on your comprehension of the readings. I will pick 3-4 “best questions” each week and discuss selected questions during class. To be selected as best questions, your question(s) must be posted 24 hours in advance of the class time. However, feel free to post your questions after Friday, or even after the class. Begin your post with your full name and the date of your submission.
- 3) **After-Class Reflections “What I learned this week”:** Once the class is over each week, go back to the

same Google Document and write up your reflections about the lectures, readings, and discussions. Or, review questions raised by other students to see whether you can now answer any of those questions. Don't forget to include your name and the date at the beginning of your post.

- 4) **Canvas:** Check out the Canvas site on a regular basis. Course readings, lecture notes, assignment instructions and grading rubrics, assignment examples, grading feedback, and other course-related resources will be communicated via the Canvas site.

COURSE REQUIREMENTS AND EVALUATION

In-Class and Online Participation: 10%

Before-Class Questions and After-Class Reflection: 10%

Assignment 1: SERP (Search Engine Results Page) Analysis and Critique Assignment: 20%

Assignment 2: Diary of Information Behavior: 20%

Term Project: Search System Evaluation Research Proposal

Part 1: Title and Abstract

Part 2: Project Research Design: 10%

Part 3: Pilot Study and Proposal: 30%

- I use a 100-point scale to grade papers. To be fair to students who have worked hard to meet the deadline, points will be deducted for late submissions (2 points per day, including weekends).
- In terms of turning in assignments late, exceptions may be made in some exceptional circumstances, but you must contact me in advance. Assignments will be accepted late without a penalty only with prior consent of the instructor and in situations where there is a legitimate reason.
- Assignment guidelines and rubrics for each assignment will be available on Canvas – Assignments.
- All assignments should be handed in using Canvas.
- Every paper should include the course number, a **unique title**, the submission date, your name, and your email address at the top of the first page (no cover page).
- All citations should use APA (American Psychological Association) style. For more information on APA style, please see the Purdue University OWL guide: <https://owl.english.purdue.edu/owl/resource/560/01/>
- Although I will try my best to answer your questions about assignments promptly, please give me 48 hours to reply to your email. If you do not hear from me within 48 hours, resend your email for my attention. Include "385T" in the subject line to get my attention quickly.

POINTS AND LETTER GRADE

95-100 = A 90-94.9 = A-

88-89.9 = B+ 85-87.9 = B 80-84.9 = B-

78-79.9 = C+ 75-77.9 = C 70-74.9 = C-

SCHEDULE OF CLASSES AND READINGS

UNIT 1: FOUNDATIONS

Week 1: Introduction to information behavior and search experience; core concepts

Week 2: Information seeking behavior; Search behavior; Browsing

- Fidel, R. (2012). *Human information interaction: An ecological approach to information behavior*. Cambridge, MA: The MIT Press. Chapter 2: What is human information interaction? pp. 17-43.

- White, R. W. (2016). *Interactions with search systems*. New York: Cambridge University Press. Chapter 4 Models and frameworks for information seeking (pp. 97-138).

Week 3: Search user interface design

- Hearst, M. A. (2009). *Search user interfaces*. New York: Cambridge University Press. <http://www.searchuserinterfaces.com/>. Chapter 5 Presentation of search results
- Wilson, M. L. (2012). *Search user interface design*. Morgan & Claypool Publishers. Chapter 4 Modern search user interfaces and Chapter 5 Experimental search user interfaces (pp. 29-91).

Week 4: Exploratory search; Visualization of search results

- Marchionini, G. (2006). Exploratory search: From finding to understanding. *Communications of the ACM*, 49(4), 41-46.
- Hearst, M. A. (2009). *Search User Interfaces*. New York: Cambridge University Press. <http://www.searchuserinterfaces.com/>. Chapter 8 Integrating navigation with search and Chapter 10 Information visualization for search interfaces

Week 5: Relevance; Usefulness; Credibility assessment

- Saracevic, T. (2016). Relevance: In search of a theoretical foundation. In D. H. Sonnenwald (Ed.), *Theory development in the information sciences* (141-163). Austin, TX: The University of Texas Press.
- Hilligoss, B. & Rieh, S. Y. (2008). Developing a unifying framework of credibility assessment: Construct, heuristics, and interaction in context. *Information Processing and Management*, 44, 1467-1484.

UNIT 2: APPROACHES AND METHODS

Week 6: Approaches to investigating information interaction, behavior, and experience

- White, R. W. (2016). *Interactions with search systems*. New York: Cambridge University Press. Chapter 10 Evaluation measures and Chapter 11 Evaluation methods.
- Fidel, R. (2012). *Human information interaction: An ecological approach to information behavior*. Cambridge, MA: The MIT Press. Chapter 13: Enhancing the impact of research in human information interaction.

Week 7: Information retrieval evaluation measures and methods; Experimental design

- Kelly, D. (2009). Methods for evaluating interactive information retrieval systems with users. *Foundations and Trends in Information Retrieval*, 3(1), Chapter 9 Data collection techniques and Chapter 10 Measures (pp. 84-125).
- O'Brien, H. L. & Toms, E. G. (2010). The development and evaluation of a survey to measure user engagement. *Journal of the American Society for Information Science and Technology*, 61(1), 50-69.

Week 8: How to collect and analyze the data for user research; Log analysis

- Wildemuth, B. M., & Freund, L. (2009). Search tasks and their role in studies of search behaviors. In *Third Annual Workshop on Human Computer Interaction and Information Retrieval*, Washington DC.
- Kelly, D. (2009). Methods for evaluating interactive information retrieval systems with users. *Foundations and Trends in Information Retrieval*, 3(1), Chapter 6 Experimental design, Chapter 7 Sampling and Chapter 8 Documents, topics, and tasks (pp. 44-83).

- White, R. W. (2016). *Interactions with search systems*. New York: Cambridge University Press. Chapter 12 Data, tools, and privacy

UNIT 3: USER BEHAVIOR AND SEARCH EXPERIENCE IN CONTEXT

Week 9: Information behavior and experience of knowledge workers; Task-based information retrieval

- Borgman, C. (2007). *Scholarship in the digital age: Information, infrastructure and the Internet*. Cambridge, MA: The MIT Press. Chapter 8: Disciplines, documents, and data (pp. 179-226).
- Freund, L. (2015). Contextualizing the information seeking behavior of software engineers. *Journal of the Association for Information Science and Technology*, 66(8), 1594-1605.

Week 10: Everyday life information seeking; Information sharing

- Savolainen, R. (2008). *Everyday information practices: A social phenomenological perspective*. Lanham, MD: The Scarecrow Press. Chapter 3: Conceptualizing every day information practices and (pp. 37-75) Chapter 7: Practices of information sharing (183-199).
- Chatman, E. (1996): The impoverished life-world of outsiders. *Journal of the American Society for Information Science and Technology* 47 (3).193–206.

Week 11: Collaborative information seeking; Social search

- Hertzum, M. & Reddy, M. (2015). Procedures and collaborative information seeking: A study of emergency departments. In P. Hansen, C. Shah, & C.-P. Klas (Eds.), *Collaborative information seeking: Best practices, new domains, new thoughts*. CSCW series. Springer: Berlin, Germany.
- Shah, C. (2017). *Social information seeking: Leveraging the wisdom of the crowd*. Springer: Cham, Switzerland. Chapter 4 Online Question-Answering (Q&A) (pp. 45-74) and Chapter 5 Social search (pp. 75-90).

Week 12: Youth information seeking

- Meyers, E. M., Fisher, K. E., & Marcous, E. L. (2009). Making sense of information world: The everyday life information behavior of preteens. *Library Quarterly*. 79(3), 301-341.
- Forte, A. (2015). The new information literate: Open collaboration and information production in schools. *International Journal of Computer-Supported Collaborative Learning*. 10, 35–51

Week 13: Search as learning

- Rieh, S. Y., Collins-Thompson, K., Hansen, P., & Lee, H-J (2016). Toward searching as a learning process: A review of current perspectives and future directions. *Journal of Information Science*, 42(1), 19-24.
- Collins-Thompson, K., Rieh, S. Y., Haynes, C. C., Syed, R. (2016). Assessing learning outcomes in web searching: A comparison of tasks and query strategies. *Proceedings of the ACM SIGIR Conference on Human Information Interaction and Retrieval (CHIIR '16)*, 163-172.

Week 14: Search, inquiry, and creativity

- Thudt, A., Hinrichs, U., & Carpendale, S. (2015). A modular approach to promote creativity and inspiration in search. *Proceedings of Creativity and Cognition'15*. 245-254.
- Shneiderman, B. (2000). Creating creativity: User interfaces for supporting innovation. *ACM Transactions on Computer-Human Interaction*. 7 (1), 114-138.

- Kerne, A., Koh, E., Smith, S. M. et al. (2007). Promoting emergence in information discovery by representing collections with composition. *Proceedings of Creativity and Cognition'07*. 117-126.

Week 15: Wrap-up; Discussion of term project

LAND ACKNOWLEDGEMENT

We would like to acknowledge that we are meeting on the Indigenous lands of Turtle Island, the ancestral name for what now is called North America. Moreover, we would like to acknowledge the Alabama-Coushatta, Caddo, Carrizo/Comecrudo, Coahuiltecan, Comanche, Kickapoo, Lipan Apache, Ysleta Del Sur Pueblo and Tonkawa, and all the American Indian and Indigenous Peoples and communities who have been or have become a part of these lands and territories in Texas.

COURSE POLICIES

1. Email is the most reliable communication method with the instructor. Please include "INF 388L" or "Capstone Project" in a subject line. Do not use the messaging feature in Canvas because it is often getting lost. Although I will try my best to answer your questions promptly, please give me 48 hours to reply to your email. If you do not hear from me within 48 hours, please resend your email for my attention.
2. Zoom Classroom Etiquette: Plan to have your video and microphone turned on during the class. If you do not have appropriate technology/device to participate in class, let me know ASAP.
3. Class recordings are reserved only for students in this class for educational purposes and are protected under FERPA. The recordings should not be shared outside the class in any form. Violation of this restriction by a student could lead to Student Misconduct proceedings.

COVID-19 SPECIAL NOTES

Your safety, physical and mental health, and wellbeing is more important than anything going on in class and in your field site. My office hours are not limited to discussing your capstone project. Please feel free to email me or stop by Zoom office hours if you need to talk with me about any concerns or issues.

BCAL is now BCCAL to answer your questions about COVID-19: safety.utexas.edu/bccal

To make it as easy as possible for faculty, staff, students and visitors to get support for their COVID-19 questions and concerns, the Behavior Concerns Advice Line (BCAL) is now the Behavior Concerns and COVID-19 Advice Line (BCCAL). In addition to the established 24/7 support for behavior concerns, BCCAL will help students, faculty and staff with the following areas related to COVID-19, in both English and Spanish, Monday - Friday 8 a.m. to 6 p.m.:

- Protect Texas Together app malfunctions and questions
- Reporting positive COVID-19 tests
- International travel
- Assistance with self-isolation and self-quarantine
- Contact tracing
- Financial support
- Professor notifications for student class absences
- Student, faculty, staff, and visitor COVID-19 concerns

Trained staff help callers explore available options and provide guidance and resource referrals to address behavior concerns and answer COVID-19 questions. Call 512-232-5050 or share your concerns 24/7 using either the [behavior concerns](#) or [COVID-19 questions online form](#).

UNIVERSITY POLICY ON TITLE IX

Beginning January 1, 2020, Texas [Senate Bill 212](#) requires all employees of Texas universities, including faculty, report any information to the [Title IX Office](#) regarding sexual harassment, sexual assault, dating violence and stalking that is disclosed to them. Texas law requires that all employees who witness or receive any information of this type (including, but not limited to, writing assignments, class discussions, or one-on-one conversations) must be reported. If you would like to speak with someone who can provide support or remedies without making an official report to the university, please email advocate@austin.utexas.edu. For more information about reporting options and resources, visit <http://www.titleix.utexas.edu/>, contact the Title IX Office via email at titleix@austin.utexas.edu, or call 512-471-0419.

COURSE REQUIREMENTS, ASSIGNMENTS AND TERM PROJECT

Participation (10%)

This is a graduate course and requires active participation throughout. I will not take attendance each week, but I will be aware of and take note of absences and late arrivals. When you must be absent, please let me know via email or in-person. My expectations for class participation and grading criteria are as follows:

Outstanding Contributor (95-99): This student consistently asks questions in class and volunteers answers that contribute to the learning of the class by suggesting thoughtful ideas or encouraging more students to participate in discussions. Posts questions before class and writes reflections after class almost every week. Attends every class session and always arrives to class on time.

Good Contributor (90-94): This student often volunteers answers to questions and asks questions that are appropriate and helpful to class. Posts questions before class and writes reflections after class frequently. Absent from 1-2 class sessions and always arrives to class on time.

Adequate Contributor (85-89): This student infrequently volunteers answers to questions or asks questions, but his or her contributions are relevant. Posts questions before class and writes reflections after class once in a while. Absent from 3 class sessions. Arrives to class late occasionally.

Non-Participant (80-84): This student rarely participates in class. Rarely posts questions before class or writes reflections after class. Absent from 4 class sessions. Arrives to class late consistently.

Online Discussions (10%)

Before-Class Questions “What I want to know”: Post one question to this Google Document [Insert URL here]. Do not post questions that are answered in the readings. Post questions that are unanswered or unsolved based on your comprehension of the readings. I will pick 3-4 “best questions” each week and discuss selected questions during class. To be selected as best questions, your question(s) must be posted 24 hours in advance of the class time. However, feel free to post your questions after Friday, or even after the class. Begin your post with your full name and the date of your submission.

After-Class Reflections “What I learned this week”: Once the class is over each week, go back to the same Google Document and write up your reflections about the lectures, readings, and discussions. Or,

review questions raised by other students to see whether you can now answer any of those questions. Don't forget to include your name and the date at the beginning of your post.

Assignment 1: SERP Analysis and Critique (20%)

The purpose of this assignment is to enable you to develop insights into search interface design challenges, focusing on the presentation of a SERP (search engine results page). Even though the assignment title specifies "search engine," you may indeed choose any search system that has unique ways of presenting search results. I'd encourage you to look at a number of examples before you select a system. I want you to choose an exemplary SERP that serves as the critical juncture that allows users to understand content, customize parameters, choose next steps, or admit they need help.

Imagine a situation in which you are a search expert and you are invited to contribute an article to a professional magazine. You will be expected to write a compelling, creative, interesting, persuasive, and thoughtful piece. Presentation of your analysis and critique would also matter in this scenario. Include your photo along with a short biography at the end of your paper.

Your paper should include the following elements.

- How users would typically interact with the search system
- Anatomy of the SERP
- Table of surrogates
- Analysis of your own search experience
- Recommendation of the system for a particular user group

The outline of your paper will be roughly as follows:

- Introduce the search system. Be explicit about your IR interaction context – specify in what context(s) you would use this search system. Include the purpose, scope, and any other unique search features.
- Present the anatomy of the SERP. Anatomy helps you dissect the whole (page) to study its parts (elements). Include a screen shot and identify every element presented in the SERP. You can identify each element in terms of name, attribute, function, and value of service. An example can be found in Morville & Callender's book, "Search Patterns," Figure 2-9 (page 32). However, I would like you to do much more than their Figure 2-9 does.
- Make a table displaying the kinds of surrogates used in the SERP, and how each surrogate helps you make a sense of information objects stored in the system.
- Report the results of your search experience, considering how you would use the system. As an expert, you should come up with a range of typical search tasks people might try using the system, and analyze your own search experience. How easy is it for you to understand the search results? How useful is a particular feature in the system? Did you have any experience of feeling lost?
- In your conclusion, discuss what kinds of design decisions – good or bad – have led you to have a positive or negative search experience. Highlight one best and one worst design decisions, and how such decisions would influence targeted searchers' search experiences.

This assignment should be completed in about five pages (single-spaced). The page limit is NOT strict (no penalty if your paper goes beyond 5 pages).

Grading Rubric

- Selection of a SERP that has sufficient search features and surrogates (10 points)
 - o Selects a system in which searching is a major activity
- Nature of search contexts and situations of the system (10 points)
 - o Describes typical contexts in which users use the system
- Thoroughness of SERP anatomy (10 points)
 - o Identifies various elements and features exhaustively
- Identification of value and relationship of elements in a SERP (10 points)
 - o Provides the value or function of each element
 - o Provides good descriptions of each element
- Understanding of the concept of surrogates (10 points)
 - o Be able to distinguish surrogates from features
- Identification of value of surrogates (10 points)
 - o There is evidence that the student thought through how each surrogate helps users make a sense of information objects stored in the system.
- Insightful discussion of search experience (10 points)
 - o Discussion of the student's search experience is insightful and thoughtful
- Design principles (10 points)
 - o Relate design principles to search contexts
- Quality of writing (10 points)
 - o Well-written
 - o A strong, confident, and authoritative voice
- Quality of presentation (10 points)
 - o Well-organized
 - o Effective figures and tables

Assignment 2: Diary of Information Behavior (20%)

This exercise requires that you report on your own information-seeking and use activities. It gives you an opportunity to observe your own behavior, putting you in the role of both a study subject (as an information seeker) and a researcher. Specifically, this assignment involves the following steps:

1. Begin this assignment thinking about the information activities you engage in during a typical day. Select an activity you would like to analyze and report on. Regarding that activity, identify the system, technology, and services that are involved.
2. Once you narrow down a focus for your study of user behavior, you'll need to develop a method and a diary form for keeping track of your actions regarding the system/technology/services. This method should enable you to record multiple "episodes" of information activity.
3. Observe your own information behavior for a continuous 10-hour period and record the behavior SYSTEMATICALLY using the diary form you have developed. You will need to observe your behavior manually. DO NOT use online tracking tools or apps that are designed to record your online activities.
4. DO NOT record purely internal events, such as your thoughts, feelings, or dreams. Rather, you will need to track your INTERACTION WITH INFORMATION. This information could come from a particular system/technology/service, or it could occur across multiple venues.
5. Once you have completed your self-observation, select one of the models and theories, including the ones covered in readings and lectures, in order to analyze your information behavior. You can select your theory from the "Theories of Information Behavior" book (I have a hard copy in my office). Feel free to look for a theory or model outside these two resources.

6. Discuss the results of your analysis, focusing on the following aspects: How did a particular model/theory affect your interpretation of your information behavior? How useful is the model and theory for explaining your behavior? Your discussion also should demonstrate that you have understood the concepts of information behavior, information needs, information seeking, information use, and information evaluation that you have learned in class so far.

The outline of your paper will be roughly as follows:

- Introduction
- Data collection methods
- Data analysis
- Theory you applied to interpret findings
- Findings
- Conclusion

This assignment should be completed in about five pages (single-spaced). The page limit is NOT strict (no penalty if your paper goes beyond 5 pages).

Grading Rubric:

- Scope of information behavior (10 points)
 - o Scope of information behavior is articulated
- Appropriateness of information-related activities (10 points)
 - o Selects activities in which single or multiple systems/technologies/services are utilized
- Method of data collection (10 points)
 - o There is evidence that the student designed the data collection method carefully
- Creativity of data collection (10 points)
 - o Demonstrates creative, novel, and interesting ideas to track information behavior
- Techniques of data collection (10 points)
 - o Data collection has been done systematically
- Analysis of data (10 points)
 - o Reports the findings based on analysis rather than simply describing what happened chronologically
- Applying pertinent model/theory to interpret the data (10 points)
 - o Utilizes a pertinent model or theory to expand the findings
- Understanding core concepts in information behavior (10 points)
 - o There is evidence that the student uses key concepts and terms covered in class
- Discussion of what was learned from this assignment (10 points)
 - o In the conclusion, the student offers a reflection on his/her information behavior or the assignment itself
- Presentation and format (10 points)
 - o Well-written
 - o Well-organized

Term Project: Search System Evaluation Research Proposal

Part 1: Title and Abstract (check-off)

Part 2: Research Design Draft (10%)

Part 3: Project Proposal (30%)

Keep in mind that the nature of this final project is a proposal, along with the results of a pilot test with users. That means that the focus of this project is on what kinds of lessons you learned while working on the project rather than on coming up with solid findings or conclusions.

The purpose of this term project is to test whether you are capable of designing and executing a novel experimental study involving users in order to evaluate an IR system. I strongly encourage you to do this project in a pair, but it's not required. If you prefer to do it by yourself, feel free to do so. If you do it by yourself, plan to recruit at least 3 subjects. If you do it in a pair, recruit at least 5 subjects.

Part 1: Project Title and Abstract

Email me a title and an abstract (approximately 300 words) of your project. A subject line must include 'Term Project.' If you are doing this project in a pair, one student needs to send me an email, while copying it to the other student. You will need to get the approval from me.

Part 2: Project Research Design Draft (10%)

Designing a user-centered evaluation study involves making many decisions about research methods. The purpose of this assignment is to give you my feedback. I strongly encourage you to have a meeting with me if you would like to receive more specific feedback from me.

Try to include the following elements in your assignment:

- What kind of evaluation study you want to do (scope, focus)
- What IR system you will test
- The population and sample of IR system users
- Evaluation criteria and measures
- Experimental procedures
- Data collection instruments such as questionnaires and exit-interview questions

Part 3: Project Proposal (30%)

Once you have made all the decisions listed above and you feel confident that your data collection instruments are ready and experimental procedures are finalized:

1. First write up the methods section for your proposal. The most critical part of this proposal is the section on methods. You need to describe the methods you'll use, including the following components: justification of sample; how and where subjects would be identified and recruited; descriptions of criteria and measurements that would be used; data collection instruments (questionnaires and/or interview questions); and study procedures, such as duration of subject participation and location of study.
2. Start recruiting test subjects. You should recruit subjects who are close to the population of your IR system. It may take quite a lot of time for you to find test subjects, so start scheduling with subjects early.
3. Prepare a device you will be using. If you are going to use software to capture screen activities, consult SI computing to find resources.
4. Run your experiments with 3-5 subjects either in the IX Lab or remotely. Take notes while running experiments so that you can keep track of what seems to be working as you expected and what is not working well. Again, keep in mind that the nature of this project is to write a proposal and that you are going to write up how you are going to make revisions based on your pilot tests. Therefore, notes you take during the experiments will be critical for your paper.

5. Collect the data using various instruments you have developed. Enter the data using Excel or any other software and transcribe your interviews if you conducted exit interviews.
6. Analyze both quantitative (logs or questionnaires) and qualitative data (interviews or think-aloud). Interpret the results and think through why you have such results. If there were some aspects that did not work out as you expected, speculate about why something did not work out.
7. Report on the results of your experiments. Describe what specific changes you are going to make based on your pilot tests in terms of data collection instruments, study subject sample, and experimental protocols. Also, include general lessons you learned from this project.
8. Discuss the limitations of your study.
9. In the conclusion, make suggestions regarding “next steps” for the future.

The outline of your project proposal should be as follows:

- Introduction – motivation of your project and background
- System – introduce the specific system you evaluated and highlight unique features or techniques you focused on
- Methods – search tasks, subjects, data collection procedures
- Results – subject profiles, characteristics of subjects, other findings
- Discussion – interpretation of findings, surprises, verifications, limitations, weaknesses, revision plans, etc.
- Conclusion – what you learned, future steps
- References
- Appendices (data collection instruments)

The proposal should be approximately 10 pages long (single-spaced). The page limit is NOT strict (no penalty if your paper goes beyond 10 pages). Appendices and references will not be counted toward the 10-page limit.

Grading Rubric

- Introduction (10 points)
- Description of the system (10 points)
- Appropriateness of search tasks (10 points)
- Sampling of users (10 points)
- Appropriateness of evaluation criteria and measures (10 points)
- Description of data collection procedures (10 points)
- Match between evaluation measures and questions covered in questionnaires and exit interviews (10 points)
- Interpretation of pilot test results (10 points)
- Feasibility of revision plans (10 points)
- Insightfulness of reflections and lessons learned (10 points)