

# **INSC680: Information Science Theory**

**SPRING 2016**

**Monday 2:30 pm – 5:15 pm**

## **INSTRUCTOR**

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## **CONTACTING ME**

Feel free to ask questions or share ideas. You are encouraged to drop in during office hours, or we can talk after class, or we can set up an appointment at another time that is more convenient for you. I check e-mail on a regular basis, even when I am traveling. Ask a question via e-mail when it's fresh on your mind – I'll try to answer within 60 hours, but I may get back to you even faster.

## **CATALOG DESCRIPTION**

680: Survey of major theories and studies in information science.

## **ABOUT THIS COURSE**

Intensive study of theories and theoretical frameworks of library and information science, including the definitions of information, information sciences, and information technology. Focus on the intersection of theory and information representation, retrieval, and transfer; theories of human information seeking behavior; bibliometrics and infometrics; exploration of relationships with theories and theoretical frameworks of other disciplines. Discussion of the work of some of the major researchers in information science.

## **COURSE GOALS/OBJECTIVES**

After taking this course students will be able to:

- Understand the theoretical frameworks that influence library and information science research.
- Be aware of a wide range of specific information science theories and research approaches
- Identify major information science researchers and their work.
- Articulate the theories that will inform future research.

## **680 LEARNING COMMUNITY**

This is a seminar course with a stimulating collaborative learning atmosphere. Our learning community includes graduate students, at both the masters and doctoral level, who are interested in a wide range of information science theories, and who have a variety of professional goals. We will establish a general foundation for common knowledge together, however, this class will allow you to follow your own passion and to learn about the areas that capture the interest of your colleagues. Successful students in this class will (1) take advantage of the opportunity to pursue their own interests; and (2) actively engage in class readings, discussion, and activities.

### **ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

The University of Tennessee campus syllabus (see attached) states that, “Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services (ODS) at 865-974-6087 in 100 Dunford Hall to document their eligibility for services. ODS will work with students and faculty to coordinate reasonable accommodations for students with documented disabilities.” **You can also contact [ods@utk.edu](mailto:ods@utk.edu). They will work with you to arrive at the appropriate program and register you for services. Also contact me so we can talk about solutions.**

### **CCI DIVERSITY STATEMENT (CCI BYLAWS, SECTION II-C)**

The College of Communication and Information recognizes that a college diverse in its people, curricula, scholarship, research, and creative activities expands opportunities for intellectual inquiry and engagement, helps students develop critical thinking skills, and prepares students for social and civic responsibilities. All members of the College benefit from diversity, and the quality of learning, research, scholarship and creative activities is enhanced by a climate of inclusion, understanding, and appreciation of differences and the full range of human experience. As a result, the College is committed to diversity and equal opportunity, and it recognizes that it must represent the diversity inherent in American society. The College is acutely aware that diversity and fairness are foundations that unite the College’s faculty, staff, students, and the larger communication and information community (see <http://www.cci.utk.edu/diversity-statement> for CCI’s full Diversity Statement).

### **TEXTBOOKS – REQUIRED**

*Introduction to Information Science and Technology*, edited by Charles H. Davis and Debora Shaw. ASIST monograph series. Medford, NJ: Information Today, 2011. This is particularly relevant to the masters’ students or to students from other disciplines. It is a basic level text that includes practical as well as theoretical topics.

*Theories of Information Behavior*, edited by Karen E. Fisher, Sandra Erdelez and Lynne (E.F.) McKechnie. ASIST monograph series. Medford, NJ: Information Today, 2005. This is the main text for this course. Although it is now 11 years old, you will be working on bringing selected theories up-to-date.

### **TEXTBOOK –OPTIONAL**

*Looking for Information: A Survey of Research on Information, Seeking, Needs, and Behavior*, Donald O. Case. Fourth Edition. Emerald, 2016. Three chapters from this book will be required reading for everyone. It is highly recommended for doctoral students to purchase.

### **READINGS**

There are additional readings for this class (see class schedule and reading list) and I encourage you to read widely and recommend interesting readings to the class. Required readings should be read before class to facilitate discussion and understanding.

### **ASSIGNMENTS (DUE DATES ALSO ON CLASS SCHEDULE)**

- 1) Instant expert. Choose one of the theories in Fisher that is not on the syllabus and become an instant expert on it. Complete a 3-5 page briefing paper that succinctly summarizes the theory and that brings the theory up-to-date since the text was written. Also include a bibliography of 1-2 pages. For this paper you should search widely to see who has used this theory in their articles or dissertations from 2005 onwards and summarize that work. Use citation searching in Web of Science, Scopus, and Google Scholar to see who has cited the main proponents of the theory from 2005 onwards. If there has been little work in those 10 years, summarize the older literature. Make a presentation to the class of 10-12 minutes that summarizes the theory, including how it has been applied, and why it is important. DUE: Choice of Chapter/Theory--Session 3; final paper and ready for report—Session 7 (20%) (Note that reports will be scheduled during a logical time in the semester, depending on your topic.)
- 2) Information Scientist profile. Pick someone from the ASIST award of merit or research award list. Complete a brief paper of 3-5 pages that summarizes their major research and the theories or approaches the person has used in their work, plus a bibliography. See if

you can find who or what theories have most influenced this person's research. Make a presentation of 10-15 minutes to the class. Note that I do not want duplicates so sign up as soon as you know who you would like to profile, but no later than Session 6.

Presentations will be Session 12 and 13. (20%)

3) Class participation (20%)

4) Final paper. (40%)

Choice 1: (suitable for doctoral or master's students). Research Prospectus. Complete a 10-15 page research prospectus that includes:

- Introduction/setting/context to your topic;
- 2-3 research questions to be answered;
- a defined research population;
- overarching theory(ies) that will frame the research;
- contextual literature review of similar research and of other studies that have used your chosen theory(ies);
- proposed approach to use to answer these research questions;
- planned analysis;
- conclusion/what you might expect to find;
- list of references.

Choice 2: (suitable for master's students). Instead of the research prospectus you may choose to do two more instant expert papers on additional theories/chapters in Fisher that have not been covered by others.

### **CLASS PARTICIPATION**

This is a seminar, and it is important to join the conversation! Students are expected to come to class prepared for discussion and ready to participate. Everyone is encouraged to share their opinions, but it is important that each person also honor the opinions of others. If there is a topic or situation that makes you uncomfortable, please let me know privately so we can improve the situation.

### **COURSE POLICIES**

1. **Attendance:** This is a seminar course and attendance is important to participate in class discussions and activities. Excessive absences will negatively affect your grade.

2. **Assignments:** Please submit your work via BlackBoard. Your filename should include your last name and a reference to the assignment (for example, Tenopir\_Biblio1). Late assignments will not be accepted unless the professor has been informed via email and has granted permission.

3. **Plagiarism:** (i.e., presenting someone else's work as your own or without proper acknowledgement) or any other type of academic dishonesty will be considered justification for failure in the course and possible dismissal from the University of Tennessee. The UTK Honor Statement, which is referred to in the Provost's campus syllabus, states: "An essential feature of the University of Tennessee, Knoxville is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity." Further information is available in Hill Topics, the UTK student handbook (see <http://dos.utk.edu/hilltopics>).

4. **Failing the Course:** A student may fail the course if s/he does not complete assignments or meet expectations for assignments as outlined in the syllabus. Also, missing the final student presentations or failing to turn in the final project will result in course failure.

## **SCHEDULE OF TOPICS, READINGS, AND ASSIGNMENTS**

\*\*PLEASE NOTE FOR READINGS: These items should be READ BEFORE our class meeting; some additional readings may be added throughout the semester to meet class interests

\*\*\*PLEASE NOTE FOR ASSIGNMENTS: These items are DUE by midnight of the day of our class (DO NOT miss class just because your assignment is not completed!)

### **Session 1 (1/25)**

Introductions; Go over syllabus and course requirements and expectations

Topics:

What is information science(s)? What is research in the information science context? What topics/research questions/approaches are frequently used in information science research?

Introduction to ASIST and award of merit and research award winners. Overview of some theoretical underpinnings of information science research.

**Required Readings:**

- Davis and Shaw: Chapters 1 and 2
- Fisher: Preface
- Case: Chapter 3 on what is information
- asist.org “about” and “awards”

### **Session 2 (2/1)**

#### **Topics:**

Metatheories; how methodologies and theories interact

#### **Required Readings:**

- Fisher: Chapter 1, Chapter 2, and Theory 25: General Model of Information Seeking of Professionals
- Case: Chapter 7.1, 7.2, 7.3

### **Session 3 (2/8):**

#### **Topics:**

Does “information behavior” include all IS research? If not, what does it miss? Overview of Information behavior and models; the relationship between models and theory and methods; what might be missing?

#### **Required Readings:**

- Fisher: Chapter 3 (and chapter 1 again for our plan of action for the rest of the semester)
- Case: Chapter 7.4, 7.5, 7.6, 7.7
- Marcia Bates, “Information Behavior”, In Encyclopedia of Library and Information Sciences, 3<sup>rd</sup> edition. Marcia J. Bates and Mary Niles Maack, eds. NY: CRC Press, vol 3, pp. 2381-2391. <https://pages.gseis.ucla.edu/faculty/bates/articles/information-behavior.html>

### **Session 4 (2/15):**

#### **Topics:**

Bate’s Metatheories 9 (bibliometric); 10 (Physical); 11 (engineering)

#### **Required Readings:**

- White, Howard, and Katherine McCain. “Visualizing a Discipline: An Author Co-Citation Analysis of Information Science 1972-1995.” *JASIS* 49, no. 4 (1998): 327-355 (bibliometrics)

- Garfield, Eugene. "From the Science of Science to Scientometrics Visualizing the History of Science with *HistCite* Software." *Journal of Informetrics* 3, no. 3 (2009): 173-179 (the first part gives a history of bibliometrics; rest is optional)
- Davis and Shaw: Chapters 8, 11 and 14
- Fisher, Theory 50 Principle of Least Effort (Zipf)

**Session 5 (2/22):**

**Topics:**

Bate's metatheory 2: (constructivist)

**Required Readings:**

- Fisher: Dervin's Sense-Making, Theory 16 and Chapter 2; Kuhlthau's Information Search process; Theory 38; Theory 6 Big6 Skills for Information Literacy; Theory 33 Information Interchange; Theory 37 Krikelas's Model of Information Seeking; Theory 40 Monitoring and Blunting; Theory 45 Organizational Sense Making and Information Use; Theory 46 the PAIN hypothesis; Theory 47 Perspectives on the Tasks in which Information Behaviors are Embedded; Theory 52 Radical Change; Theory 63 Taylor's Information Use Environments; Theory 64 Taylor's Question-Negotiation; Theory 68 Web Information Behaviors of Organizational Workers; Theory 72 World Wide Web Information Seeking
- Davis and Shaw: Chapter 3

**Session 6 (2/29):**

**Topics:**

Bate's metatheory 3: (constructionist or discourse-analytic) and metatheory 4: (philosophical-analytic)

**Required Readings:**

- Fisher: Theory 58, The Social Constructionist Viewpoint on Information Practices; Theory 18, The Domain Analytic Approach to Scholars' Information Practices; Theory 13, Communicative Action; Theory 30 Information Grounds (socio-constructionist); Theory 36 Interpretive Repertoires; Theory 70 Women's Ways of Knowing; Theory 10, Cognitive Authority; Theory 53 Reader Response Theory

**Session 7 (3/7):**

**Topics:**

Bate's metatheory 1 (historical) and 5: (critical theory)

**Required Readings:**

- Rayward, W.B. The history and historiography of information sciences: Some reflections. *Information Processing & Management* 32 (1): 3-17, 1996.
- Fisher: Theory 34, Institutional Ethnography; theory 57 Nan Lin's Theory of Social Capital;; Theory 59 Social Positioning (post modern); Theory 62 Symbolic Violence

**Session 8 (3/21):**

**Topics:**

Bate's metatheory 6: ethnographic

**Required Readings:**

- Fisher: Theory 8: Chatman's Information Poverty and Theory 9: Chatman's Life in the Round; Theory 17 Diffusion Theory; Theory 22 Everyday Life Information Seeking; Theory 54 Rounding and Dissonant Grounds (also Chatman); Theory 55 Serious Leisure

**Session 9 (3/28):**

**Topics:**

Bate's metatheory 7: socio-cognitive and bibliometrics revisited

**Required Readings:**

- Theory 60, The Socio-cognitive theory of users situation in specific contexts and domains; Theory 15, Cultural Models of Hall and Hofstede; Theory 42 Network Gatekeeping; Theory 51 Professions and Occupational Identities; Theory 56 Small-World Network Exploration; Theory 61 Strength of Weak Ties

**Session 10 (4/4):**

**Topics:**

Bate's metatheory 8: cognitive (also affective vs cognitive; linear vs non-linear)

**Required Readings:**

- Theory 2, Anomalous State of Knowing; Theory 21, Ellis's Model of Information-Seeking Behavior, Theory 1, Affective Load, Theory 4 Bandura's Social Cognition, Theory 29 Information Encountering, theory 5 Berrypicking, theory 7, Chang's Browsing; theory 27 Information Acquiring and Sharing; Theory 32 Information Intents; Theory 35 Integrative Framework for Information Seeking and Interactive Information Retrieval; Theory 39 Library Anxiety; Theory 43, Nonlinear Information Seeking;



Theory 49 Practice of Everyday Life; Theory 28 Information Activities in Work Tasks;  
Theory 71 Work Task Information-Seeking and Retrieval Processes

- Davis and Shaw: Chapter 10

**Session 11 (4/11):**

Guest speaker

**Session 12 (4/18):**

**Topics:**

Bate's metatheories 12 (User centered design) and 13 (evolutionary)

**Required Readings:**

- Marchionini, Gary, and Anita Komlodi. "Design of Interfaces for Information Seeking." *ARIST* 33 (1998): 89-130.
- Fisher: Theory 66, Value Sensitive Design; theory 11 Cognitive Work Analysis; Theory 41 Motivational Factors for Interface Design; Theory 19, Ecological Theory of Human Information Behavior; Theory 44 Optimal Foraging; Theory 48, Phenomenography
- Bates, Marcia J. "Information and Knowledge: An Evolutionary Framework for Information Science." *Information Research* 10, no. 4 (2005).
- Davis and Shaw: Chapter 9

**Session 13 (4/25):**

Presentations