

Perspectives on Information INF 380E

Fall 2015
Tuesdays, 9 – 12 pm (noon)

Instructor: Tanya E. Clement
UTA 1.208
tclement@ischool.utexas.edu

Office Hours: By appointment (or via e-mail)

I. Course Description

This course is a multi-disciplinary and historical examination of information as a primary and foundational concept. Contrasts key literature from information studies with perspectives from other fields.

II. Specific Learning Objectives

The broad conceptual foundation provided by this course will enable students to:

- Appreciate the multifaceted extent of information as a concept, as it manifests in a variety of fields.
- Identify the role of information studies, broadly construed, and how it fits in this kaleidoscope.
- Participate in debates regarding current and evolving information forms, tools and technologies, institutions, and policies.
- Envision future directions for information studies and the information professions.
- In subsequent courses, explore conceptual connections between topics that may initially seem disparate, increasing the cohesion of the overall educational experience.

III. Format and Procedures

This is a seminar-style course, so attendance and participation in class are critical to individual success in this course and to the success of the course as a whole. Students should come to class prepared to participate in small group and class discussions, completing all required readings prior to class, and submitting assignments on time.

Grading

- **Grade breakdown**

Class Participation:	10%
Synthesis Posts:	20%
Paper 1:	30%
Paper 2:	30%
Project Verbal Presentation	10%
Total	100%

- **Grade calculations**

	B+	84-89	C+	69-73	
A	95-100	B	79-83	C	60-68
A-	90-94	B-	74-78	F	<60

Late Work Policy

Your classmates need your material done on time, and I see value in meeting deadlines as good preparation for being a practitioner and a researcher. Thus, you will lose a letter grade if your materials are not ready by class time on their due date. You will lose another half a grade per additional day late.

IV. Materials

Required Articles and Book Chapters

All required readings are in available in Canvas.

Canvas

To supplement our in-class discussions we will use Canvas to distribute and share course materials, to communicate and collaborate online, to post grades, and to submit assignments. You can find Canvas support at the ITS Help Desk at 475-9400, Monday through Friday, 8 a.m. to 6 p.m., so please plan accordingly.

V. Tentative Course Schedule ***This syllabus represents current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity.*

Date	Topics and Readings	Evaluation
Week 1 (9/1)	Introduction	
	<ul style="list-style-type: none"> • Nunberg, Geoffrey. (1996) Farewell to the information age . In <i>The future of the book</i>. Geoffrey Nunberg, ed., Brepols (Belgium) and University of California Press. • Bush, Vannevar. (1948) As we may think. <i>The Atlantic Monthly</i>, July 1945: 101-108. 	
Perspective: Information Organization and Access		
Week 2 (9/8)	Information Organization and Access	
	<p><i>What, where is information?</i></p> <ul style="list-style-type: none"> • Chapters from Elaine Svenonius (2000). <i>The Intellectual Foundation of Information Organization</i>, MIT Press. <ul style="list-style-type: none"> • ch.1 Information Organization • ch. 4 Bibliographic Languages • ch. 5 Principles of Description • Gilliland, Anne. "Setting the stage." In <i>Introduction to Metadata</i>. 3rd ed (online edition). Edited by Murtha Baca. • Buckland, Michael K. 1991. "Information as Thing." <i>Journal of the American Society for Information Science</i> (42.5): 351–360. 	Discussion Questions (DQs)
Week 3 (9/15)	Information as Recorded Intellectual Creation (the work)	
	<ul style="list-style-type: none"> • IFLA. Functional Requirements for Bibliographic Records final report. Full report available at: http://www.ifla.org/VII/s13/frbr/frbr.pdf [Read this section on Group 1 entities pages 13-14, 17-24, 31-49]. • McDonough, Jerome, Matthew Kirschenbaum, Doug Reside, Neil Fraistat, and Dennis Jerz. (2010) Twisty little passages almost all alike: applying the FRBR model to a classic computer game. <i>Digital Humanities Quarterly</i> 4(2). • Renear, A. H. and Durbin, D. "Three of the Four FRBR Group 1 Entity Types are Roles, not Types." In <i>Proceedings of the American Society for Information Science and Technology</i> 44, no. 1 (2007): 1-19. <p>Optional:</p> <ul style="list-style-type: none"> • Williams, William Proctor, and Craig S. Abbott. (2009) <i>An introduction to bibliographical and textual studies</i>. 4th ed. New York: Modern Language Association. [Introduction, pp. 1-14] 	DQs CAP
Week 4 (9/22)	Information as evidence (the record)	

<ul style="list-style-type: none"> Gilliland, Anne. (2000) Enduring paradigm, new opportunities: the value of the archival perspective in the digital environment. Council of Library and Information Resources (CLIR). The archival paradigm: the genesis and rationales of archival practices and principles. Full report available at: http://www.clir.org/pubs/reports/pub89/contents.html Macneil, Heather. (2002) Trusting records in a postmodern world. <i>Archivaria</i> 51: 36-47. Bearman, David, and Richard Lytle. (1985) The power of the principle of provenance. <i>Archivaria</i> 21:14-27. Buckland, Michael. (1997) What is a "document"? <i>Journal for the American Society of Information Science</i> 48 (9): 804-809. <p>optional:</p> <ul style="list-style-type: none"> Cvetkovich, Ann. (2003) An archive of feelings: trauma, sexuality, and lesbian public culture. Durham, NC: Duke University Press. [Chapter 7, 239-271] 		DQs CAP
Week 5 (9/29) Information structures: Collections		
<ul style="list-style-type: none"> Venn, Couze. (2006) The collection. <i>Theory, Culture, and Society</i> 23(2-3): 35-40. Lee, Hur-Li. (2000) What is a collection? <i>Journal of the American Society for Information Science</i> 51(12): 1106-1113. Lynch, Clifford. (2002) Digital collections, digital libraries, and the digitization of cultural heritage material. <i>First Monday</i> 7(5). Amy Koester (2015) "Selection is Privilege." <i>The Show Me Librarian</i>. http://showmelibrarian.blogspot.com/2015/02/selection-is-privilege.html <p>Optional:</p> <ul style="list-style-type: none"> King, William Davies. (2008) <i>Collections of nothing</i>. Chicago: University of Chicago Press. [Ch. 4-7, pp. 79-163.] Smith, Roberta. (2012) A museum, reborn, remains true to its old self, only better. <i>New York Times</i>, May 17, 2012. Kennedy, Randy. (2011) An interactive tour through the Barnes Foundation (collector as artist)View in a new window. <i>New York Times</i>, Arts Beat blog, July 11, 2011. [Click the photograph to enter the tour interface.] National Information Standards Organization (NISO). (2007) <i>A framework of guidance for building good digital collections</i>. A recommended practice. 3rd ed. 		DQs CAP
10/4	Due: Paper 1 Proposal	
Perspective: Knowledge Management and Informatics		
Week 6 (10/6) Knowledge Management and Informatics		
<ul style="list-style-type: none"> Claire McInerney. (2002) Knowledge Management and the Dynamic Nature of Knowledge. <i>Journal of the American Society for Information Science and Technology</i>, 53(12): 1009-1018. Orr, Julian. (1996) <i>Talking about machines: an ethnography of a modern job</i>. Ithaca, NY: Cornell University Press. Chapters 6-8. David Fenstermacher (2005) Introduction to bioinformatics. <i>Journal of the American Society for Information Science and Technology</i>, 56(5): 440-446. 		DQs CAP Paper 1 Proposal Workshop
Week 7 (10/13) Informatics for Scientific Data, Bio-informatics, and Medical Informatics		
<ul style="list-style-type: none"> Jim Gray, David Liu, Maria Nieto-Santisteben, Alex Szalay, David DeWitt, and Gerd Herber (2005) Scientific Data Management in the Coming Decade. <i>SIGMOD Record</i>, 34(4): 34-41. William Hersh (2002) Medical Informatics: Improving Health Care Through Information. <i>The Journal of the American Medical Association</i>, 288(16):1955-1958. W. John MacMullen and Sheila O. Denn (2005) Information problems in molecular biology and bioinformatics. <i>Journal of the American Society for Information Science and Technology</i>, 56(5): 447-456. <p>Optional</p> <ul style="list-style-type: none"> Dupre, John. (2006) Scientific classification. <i>Theory, Culture, and Society</i> 23(2-3): 30-32. 		DQs CAP
10/18	Due: Paper 1	
Perspective: Information Processing and Computation		
Week 8 (10/20) Information structures: Standards		
<ul style="list-style-type: none"> Duval, Erik, Wayne Hodgins, Stuart Sutton, and Stuart Weibel. (2002) Metadata principles and practicalities. <i>D-Lib</i> 8(4). 		DQs CAP

	<ul style="list-style-type: none"> • Millerand, F., and Bowker, G. (2009) Metadata standards: trajectories and enactment in the life of an ontologyView in a new window. In S. L. Star & M. Lampland (Eds.), <i>Formalizing Practices: Reckoning with Standards, Numbers and Models in Science and Everyday Life</i>. • Brookshear, J. Glenn, David T. Smith, and Dennis Brylow. (2010) <i>Computer science: an overview</i>. 11th ed. Pearson. [Chapter 4 excerpt, p. 140-173.] <p>Optional:</p> <ul style="list-style-type: none"> • Nunberg, Geoffrey. (2009) Google Books: A metadata train wreck. Language Log blog. [Be sure to skim the comments, especially the responses from Google.] 	
Week 9 (10/27)	Information Processing and Computation	
	<ul style="list-style-type: none"> • Brookshear, J. Glenn., David T. Smith, and Dennis Brylow. (2010) Computer science: an overview. 11th ed. Pearson. [Selections from Chapter 0, Chapter 5, and Chapter 6]. • Wing, Jeannette. (2006) Computational thinkingView in a new window. Communications of the Association for Computing Machinery (ACM) 49(3). • Dourish, Paul. (2010). The View from Arnhem Land in Australia's Remote North: "Computational Thinking" and the Postcolonial in the Teaching from Country Program Learning Communities: The International Journal of Learning in Social Contexts 2, 91-101. <p>Optional</p> <ul style="list-style-type: none"> • Wardrip-Fruin, Noah. (2011). Digital media archaeology: interpreting computational processesView in a new window. In Erkki Huhtamo and Jussi Parikka, eds. Media archaeology: Approaches, applications, and implications. p. 302-322. 	DQs CAP
Week 10 (11/3)	Information structures: databases	
	<ul style="list-style-type: none"> • Jim Gray, David Liu, Maria Nieto-Santisteben, Alex Szalay, David DeWitt, and Gerd Herber (2005) Scientific Data Management in the Coming Decade. SIGMOD Record, 34(4): 34-41. • W. John MacMullen and Sheila O. Denn (2005) Information problems in molecular biology and bioinformatics (Links to an external site.). Journal of the American Society for Information Science and Technology, 56(5): 447-456. • William Hersh (2002) Medical Informatics: Improving Health Care Through Information. The Journal of the American Medical Association, 288(16):1955-1958. <p>Optional</p> <ul style="list-style-type: none"> • Dupre, John. (2006) Scientific classification. <i>Theory, Culture, and Society</i> 23(2-3): 30-32. 	DQs CAP
Week 11 (11/10)	Information structures: search	
Information retrieval	<ul style="list-style-type: none"> • Croft, Bruce. (2009) <i>Search engines and information retrieval</i>. Pearson. [Ch. 1, pp. 2-12] • Manning, Christopher, Prabhakar Raghvan, and Hinrich Schutze. (2008) An introduction to information retrieval. Cambridge, UK: Cambridge University Press. [Ch. 1, Ch. 6, Ch. 11, pp. 1-18, 109-134, 219-236. Some sections in chapter six and eleven are math-heavy. Focus on the introductions and the discussion of the models.] <p>Web search issues</p> <ul style="list-style-type: none"> • Segal, David. (2011) The dirty little secrets of searchView in a new window. New York Times, February 12, 2011. • Lincoln, Denise Santoro. (2011) Google's new recipe search: a food blogger's dilemma. Bay Area Bites blog, March 17, 2011. • Hesser, Amanda. (2011) Google's new recipe search (update). Food52 blog. May 18, 2011. [Read the comments, particularly from Kavi, the Google project manager, and David Lebowitz, the recipe writer. <p>Optional:</p> <ul style="list-style-type: none"> • Cleverdon, Cyril. (1967) The Cranfield tests on index language devices. Reprinted in Readings in Information Retrieval, Karen Sparck Jones and Peter Willet, eds. New York: Morgan Kaufman, 1997. • Cohen, Noam. (2012) UCLA professor makes the case that Google is a publisher. New York Times, May 20, 2012 	DQs CAP
11/15		Due: Paper 2 Proposal
Theoretical Perspectives: Information, language and cognition		
Week 12 (11/17)	Language and cognition	

<ul style="list-style-type: none"> • Lakoff, George. (1987) <i>Women, fire, and dangerous things</i>. Chicago: University of Chicago Press. Chapters 1-4 (pp. 5-76). • Winograd, Terry, and Fernando Flores. (1987) <i>Understanding computers and cognition: a new foundation for design</i>. Reading, MA: Addison-Wesley. [Chapter 5]. • D. C. Blair. (1992) <i>Information Retrieval and the Philosophy of Language</i>. <i>The Computer Journal</i>, 35 (3): 200-207. 	DQs CAP Paper Proposal 2 Workshop
Week 13 (11/24)	Information
<ul style="list-style-type: none"> • Floridi, Luciano. (2010) <i>Information: a very short introduction</i>. Oxford, UK: Oxford University Press. Chapters 2-4, pp. 19-59. • Swanson, Don (1986) <i>Undiscovered Public Knowledge</i>. <i>The Library Quarterly</i>, 56(2): 103-118. 	DQs CAP
Week 14 (12/1)	Final Presentations
<i>No readings</i>	
Due: Information Problem Presentation	
12/4	Due: Paper 2

VI. Course Requirements

- **Class attendance and participation (10%)**
 1. Because the vast majority of the learning in this class will occur within the classroom, you are required to attend class regularly. Absences will only be excused in situations following university policy (illness, religious holy days, participation in University activities at the request of university authorities, and compelling absences beyond your control) with proper documentation and timely notification (prior to class for non-emergencies). Excessive tardiness may be considered as an unexcused absence.
 2. Class participation is a critical element of this course. The effectiveness of the course will be significantly impacted by the quality of your participation. Class participation is not merely attendance, but rather factors in your overall contributions to the collaborative learning environment, based on both the quantity and quality of your interactions in all aspects of the course. You should come to class prepared to discuss the required readings, as well as your perspectives on these readings. You should strive for balance in your contributions, and your participation will not be based on who speaks the loudest or the longest, but on consistent, quality participation.
 3. Please note that regular attendance and active participation in each class session are critical for receiving a good grade in this course. For example, by actively participating in each class, you will receive a full letter grade higher than if you were to skip half of the classes or to be half-awake for all of the classes.
 4. Religious Holy Days: By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.
- **Synthesis Posts (10 @ 2pts = 20%)**

There will be required readings each week. On ten weeks over the semester, students will be expected to post a response to a class discussion question or to his or her own discussion question in Canvas by noon the day before class meets. Demonstrating the ability to find synthesis across readings reflects thoughtful readings of the week's assignment. These posts will demonstrate this understanding (even if that understanding is nascent) of the readings in the context of the proposed question. The class discussion question will be posted no later than two weeks in advance of the due date. If the student is responding to his or her own question, the question should be stated explicitly at the top of the response. These response papers should touch on a majority of the readings for full credit and be approximately 1/2 page in length, single-spaced, or longer. Students can post more than once. Students can ask questions about confusing parts or respond to another person's post (as long as it demonstrates that the student has completed the readings and is contributing his or her own synthesis). *All students are all required to post responses to the Weeks 2 and Week 3 discussion threads.*
- **Paper 1: Metadata in Everyday (Online) Life (30%)**

In this assignment you will describe and analyze a website in terms of the metadata structures and standards it implements to aid people in using their website. Metadata are structured descriptions of objects that are designed to support various functions of identifying, selecting, or using those objects. You will select a

website and write a brief proposal that outlines the purpose of the website, the users you intend to focus on in your analysis, and the objects that the website describes. The website can be from one of the following categories:

- an eCommerce site
 - such as Zappos.com
- a cultural heritage aggregation
 - such as Europeana or The Mountain West Digital Library
- a library website
 - such as the University of Texas library catalog
- a scientific data repository
 - such as the Dryad Digital Repository
- an online information source
 - such as the Internet Movie Database

In your paper, you will describe the structures used on your website to describe and provide organized access to objects. This may include lists of properties used to describe the objects (which may come from published metadata application profiles or schemas), sets of categories used to support browsing, and sets of controlled vocabularies used in descriptions. You will analyze how well the metadata serves the user group you have chosen to focus on. Although you may mention presentational aspects of how the information is displayed, your analysis should primarily focus on the functions of finding objects of potential interest, selecting the best object from possible options, and obtaining the object. Are the properties that are not being exposed by the metadata sufficient for making decisions? Are the categories at a sufficient level of detail to enable effective browsing? Finally, you will make recommendations for the improvement of the system. Focus your recommendations on the use of the website by your identified group of users.

• **Paper 2: Information Problem and Technology (30%)**

This paper will identify an information problem for a particular organization or population and then propose and review a technological approach to addressing the problem. The technology may be a metadata schema, a kind of software, a database design, or some combination.

For example, Dr. Zbornack, a field ecologist. Dr. Z has all her field observation data in little yellow notebooks and in Excel spreadsheets. She is planning to retire, but wants to make her data available to future scientific uses. What is the nature of this problem? What kinds of technologies can be recommended for her? Why?

The paper should include the following:

1. A description of the specific information problem within the context of a more general topic in information studies research. This will include identifying the information problem or problems that researchers are seeking to address with their efforts and a brief review of a body of literature from researchers working on that topic.
 - Describe the information problem or problems the research area focuses on
 - Describe the primary methods used by researchers in the topic
 - Describe the history of the research topic.
 - Were there particular societal or technological shifts that drove interest in the topic?
 - Are there foundational or highly inspirational papers or books on the topic that everybody talks about?
2. A description of an appropriate recommended technological approach. An appropriate recommendation will reflect the following:
 - A consideration for the nature of the information problem (described above) including a consideration for the specific limitations that may be encountered in the context of the specific information problem that is the focus of the paper
 - A brief review of the history of the technology or technologies and its implementation. How long has it been around? Were the original purposes the same as the one recommended in the paper?
3. A bibliography: 10 sources minimum
 - at least two sources should have some discussion of research methods
 - one source can be a literature review of the information problem
 - at least one should be introductory

- at least one should give practical advice about implementing the technology

- **Information Problem Presentation (10%)**

VII. Academic Integrity

University of Texas Honor Code

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Each student in this course is expected to abide by the University of Texas Honor Code. [See the **UT Honor Code above.**] Any work submitted by a student in this course for academic credit will be the student's own work, although collaboration is allowed and required in the project proposal, group report, group presentation, and some aspects of the lab preparation. However, each student is ultimately responsible for preparing their own one-page summary including their own unique outside readings.

The projects combine teamwork with individual accountability. For the project proposal, you will need to work with your team members. For the individual report, you will need to complete your own report without help from other students. For the final project and presentation, you will need to share your individual project results with your team members (after first submitting them to the instructor).

VIII. Other University Notices and Policies

Use of E-mail for Official Correspondence

All students should become familiar with the University's official e-mail student notification policy. It is the student's responsibility to keep the University informed as to changes in his or her e-mail address. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. The complete text of this policy and instructions for updating your e-mail address are available at <http://www.utexas.edu/its/help/utmail/1564>.

Documented Disability Statement

Any student with a documented disability who requires academic accommodations should contact Services for Students with Disabilities (SSD) at (512) 471-6259 (voice) or 1-866-329-3986 (video phone). Faculty are not required to provide accommodations without an official accommodation letter from SSD.

- Please notify me as quickly as possible if the material being presented in class is not accessible (e.g., instructional videos need captioning, course packets are not readable for proper alternative text conversion, etc.).
- Please notify me as early in the semester as possible if disability-related accommodations for field trips are required. Advanced notice will permit the arrangement of accommodations on the given day (e.g., transportation, site accessibility, etc.).
- Contact Services for Students with Disabilities at 471-6259 (voice) or 1-866-329-3986 (video phone) or reference SSD's website for more disability-related information:
http://www.utexas.edu/diversity/ddce/ssd/for_cstudents.php

Behavior Concerns Advice Line (BCAL)

If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual's behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit <http://www.utexas.edu/safety/bcal>.

Emergency Evacuation Policy

Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation:

- Familiarize yourself with all exit doors of the classroom and the building. Remember that the nearest exit door may not be the one you used when you entered the building.
- If you require assistance to evacuate, inform me in writing during the first week of class.
- In the event of an evacuation, follow my instructions or those of class instructors.

Do not re-enter a building unless you're given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.