

INLS101: Foundations of Information Science

Fall 2013, Tuesday & Thursday: 9:30-10:45AM, Dey Hall 303A

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Office hour: Tuesday 11:00-12:00, by appointment

Overview

Examines the evolution of information science; information representation, organization and management; information in social organizations; search and retrieval; human information seeking and interaction; policy, ethics and scholarly communications.

Learning Objectives

1. Students will gain a basic understanding of the history, concepts, techniques and terminology used in information science. Students will also develop an understanding of the various problem areas of information science
2. Students will become aware of their own information behaviors.
3. Students will be able to state specific ways that information science relates to everyday information problems

Evaluation

1. 3 exams: 25%*3 (10/1, 10/31, 8:00 AM on 12/10)
2. Module report: 5% *3 (Due at 11:59 PM on 10/8, 11/5, 12/3)
 - Oftentimes people do not realize what they have learned after due deliberation. Writing a module report provides you a great opportunity to reflect on the readings and lectures, and reading the reports you write provides me a chance to assess to what extent you have met the learning objectives.
 - Please write a 3-page report (double space; Times New Roman; font 12) after each module addressing:
 - (1) Something about the course content: What have you acquired from the previous module? How are things you have learned different from what you knew before the module?
 - (2) Something about yourself: How do you organize, search, and evaluate information? Talk about instances in your academic and non-academic life.
 - (3) Something about life: How do you think information science is related to human life? Share your discoveries.
3. Participation and attendance: 10%

Your participation grade is based on three things: attendance, behavior and general participation.

1. **Attendance.** You are expected to attend all classes and to arrive to class before it starts. You will lose participation points for excessive and unexcused absences and for arriving late to class. You should be seated and ready to start at 9:30 AM. You can miss one day for any reason, no questions asked and without penalty.
2. **Behavior.** Be courteous to your classmates and course instructor by not conversing with others during class lectures. Turn off cell phones, pagers, and other devices that might disrupt class. Use laptops and other devices to support current course activities only. Pay attention. Try not to daydream.
3. **General Participation.** Class participation consists of doing the following: being prepared for class, making observations about the readings, asking questions, taking notes, actively working on in-class exercises and actively listening.
 - Two-minute review: One of you will be asked to summarize what was covered during the last class. The purpose of this activity is to help refresh everyone's memory. Reviewing PPT from the last class will help you prepare for this small presentation. Only ONE of you is expected to present, but ALL of you should be prepared.
 - Two-minute preview: One of you will be asked to summarize the assigned reading(s) for the current class. The purpose of this activity is not to test you, but to encourage you to read before coming to the class. Only ONE of you is expected to present, but ALL of you should be prepared.

If an unexpected problem arises for you during the course of the semester (serious illness, etc.), please let me know so that we can discuss an appropriate plan. If you need to miss class because of a religious holiday, then we can make alternative arrangements for this as well.

How to communicate with me?

- Please email me if you have any question. I will reply generally within a day. To protect your privacy, please use your UNC email for correspondence.
- Please only call my mobile phone if it is really **necessary**. If I do not answer, please text me.
- I have a bad habit of speaking too fast whenever I get nervous. I will let two of you take turns keeping a sign saying "SLOW". Please hold the sign up when you think I am speaking too fast to make sense to you.

Can I ask a favor?

Just like that my Chinese is probably better than most of yours, your English is way better than mine. If you spot me making grammatical mistakes while lecturing or in print, please do not hesitate to let me know. When it comes to English, every one of you is my teacher.

Grading

Points will be converted to letter grades as follows:

A (94-100%) & A- (91-93.9%): Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development. The A grade states clearly that the student has shown such outstanding promise in the aspect of the discipline under study that he/she may be strongly encouraged to continue.

B+ (87-89.9%), B (84-86.9%), & B- (80-83.9%): Strong performance demonstrating a high level of attainment for a student at a given stage of development. The B grade states that the student has shown solid promise in the aspect of the discipline under study.

C+ (77-79.9%), C (74-76.9%), & C- (70-73.9%): A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development. The C grade states that while not yet showing any unusual promise, the student may continue to study in the discipline with reasonable hope of intellectual development.

D+ (67-69.9%), D (64-66.9%), & D- (60-63.9%): A marginal performance in the required exercises demonstrating a minimal passing level of attainment for a student at a given stage of development. The D grade states that the student has given no evidence of prospective growth in the discipline; an accumulation of D grades should be taken to mean that the student would be well advised not to continue in the academic field.

F (0-59.9%): For whatever reasons, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content. A grade of F should warrant questioning whether the student may suitably register for further study in the discipline before remedial work is undertaken.

(The definitions are provided by Undergraduate Bulletin

<http://www.unc.edu/faculty/faccoun/reports/200001/R2001GradingStandardsAddendum.htm>)

Honor Code

The University of North Carolina at Chapel Hill has had a student-led honor system for over 100 years. Academic integrity is at the heart of Carolina and we all are responsible for upholding the ideals of honor and integrity. The student-led Honor System is responsible for adjudicating any suspected violations of the Honor Code and all suspected instances of academic dishonesty will be reported to the honor system. Information, including your responsibilities as a student is

outlined in the Instrument of Student Judicial Governance. Your full participation and observance of the Honor Code is expected. (<http://studentconduct.unc.edu/>)

- Cheating on examinations or other academic assignments, whether graded or otherwise, including but not limited to the following: (a) Using unauthorized materials and methods (notes, books, electronic information, telephonic or other forms of electronic communication, or other sources or methods), or (b) Representing another's work

Schedule

MODULE 1

August 20th: Introduction to Course: What is Information Science?

August 22nd: History of Information Science

- Saracevic, T. "Information Science." Edited by M. J Bates. *Encyclopedia of Library and Information Sciences*. New York: CRC Press, 2010

August 27th: History of Information Science

- Saracevic, T. "Information Science." Edited by M. J Bates. *Encyclopedia of Library and Information Sciences*. New York: CRC Press, 2010.

August 29th: What Is Information?

- Lester, J., and W. C. Koehler. "Fundamental Concepts of Information." In *Fundamentals of Information Studies*, 16–25. 2nd ed. New York: Neal-Schuman, 2007.
- Marchionini, Gary. "The Many Meanings of Information." In *Information Concepts: From Books to Cyberspace Identities*, 1–9. Synthesis Lectures on Information Concepts, Retrieval, and Services. Morgan & Claypool, 2010. (Available online through UNC Library : <http://www.morganclaypool.com.libproxy.lib.unc.edu/doi/pdf/10.2200/S00306ED1V01Y201010ICR016>)

September 3rd: Information Organization

- Glushko, Robert J. "Foundations for Organizing Systems." In *The Discipline of Organizing*, edited by Robert J Glushko, 1–38. MIT Press, 2013.

September 5th: Information Organization

- Glushko, Robert J., Rachele Annechino, Jess Hemerly, and Longhao Wang. “Categorization: Describing Resource Classes and Types.” In *The Discipline of Organizing*, edited by Robert J. Glushko, 203–236. MIT Press, 2013.

September 10th: Information Organization

- Glushko, Robert J., Jess Hemerly, Vivien Petras, Michael Manoochchri, and Longhao Wang. “Classification: Assigning Resources to Categories.” In *The Discipline of Organizing*, 237–275. MIT Press, 2013.

September 12th: Information Structures

September 17th: Information Structures: XML

- Glushko, Robert J. “XML Foundations.” In *Document Engineering*, 42-72. Cambridge, Massachusetts: MIT Press, 2005.
http://people.ischool.berkeley.edu/~glushko/DocumentEngineeringBookDraft/DEBook/ch2_FINAL.pdf.

September 19th: Information Structures: Relational Databases

- Roman, Steven. “Introduction.” In *Access Database Design and Programming*, 3–10. 3rd ed. Sebastopol, California: O’Reilly, 2002.
- Roman, Steven. “The Entity-Relationship Model of a Database.” In *Access Database Design and Programming*, 11–17. 3rd ed. Sebastopol, California: O’Reilly, 2002.

September 24th: Information Structures: Relational Databases

- Roman, Steven. “Implementing Entity-Relationship Models.” In *Access Database Design and Programming*, 18–29. 3rd ed. Sebastopol, California: O’Reilly, 2002.

MODULE 2

September 26th: Search & Retrieval

- Croft, W. Bruce, Donald Metzler, and Trevor Strohman. “Search Engines and Information Retrieval.” In *Search Engines: Information Retrieval in Practice*, 1–12. Boston: Addison-Wesley, 2010.

October 1st: Exam 1 (Module 1)

October 3rd: Search & Retrieval

- Croft, W. Bruce, Donald Metzler, and Trevor Strohman. “Architecture of a Search Engine.” In *Search Engines: Information Retrieval in Practice*, 13–29. Boston: Addison-Wesley, 2010.

October 8th: Search & Retrieval: Indexing (**Module 1 report due**)

- Smucker, Mark D. “Information representation.” In *Interactive information seeking, behaviour and retrieval*, edited by Ian Ruthven and Diane Kelly, 77–93. London: Facet Pub., 2011.

October 10th: Search & Retrieval: Retrieval Models

- Croft, W. Bruce, Donald Metzler, and Trevor Strohman. “Retrieval Models.” In *Search Engines: Information Retrieval in Practice*, 233–241. Boston: Addison-Wesley, 2010.

October 15th: Search & Retrieval: Networks

- Easley, David, and Jon Kleinberg. “Overview.” In *Networks, crowds, and markets: reasoning about a highly connected world*, 1–20. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch01.pdf>.
- Easley, David, and Jon Kleinberg. “Graphs.” In *Networks, crowds, and markets: reasoning about a highly connected world*, 23–46. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch02.pdf>.

October 17th: Fall break

October 22nd: No class (Out of town)

October 24th: The structure of the Web

- Easley, David, and Jon Kleinberg. “The Structure of the Web.” In *Networks, crowds, and markets: reasoning about a highly connected world*, 375–395. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch13.pdf>.

MODULE 3

October 29th: Web Search

- Easley, David, and Jon Kleinberg. “Link Analysis and Web Search.” In *Networks, crowds, and markets: reasoning about a highly connected world*, 397–495. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch14.pdf>.

October 31st: Exam 2 (**Module 2**)

November 5th: Information Needs & Behaviors (**Module 2 report due**)

- Morville, Peter, and Louis Rosenfeld. "User Needs and Behaviors." In *Information Architecture for the World Wide Web*. 3rd ed. Sebastopol, California: O'Reilly, 2006. [PDF](#).

November 7th: Information Needs & Behaviors

- Hearst, Marti. "Models of the Information Seeking Process." In *Search User Interfaces*. Cambridge, UK: Cambridge University Press, 2009. http://searchuserinterfaces.com/book/sui_ch3_models_of_information_seeking.html.

November 12th: Information Needs & Behaviors

- Hearst, Marti. "Models of the Information Seeking Process." In *Search User Interfaces*. Cambridge, UK: Cambridge University Press, 2009. http://searchuserinterfaces.com/book/sui_ch3_models_of_information_seeking.html.

November 15th: Human-Computer Interaction

- Shneiderman, B., and C. Plaisant. "Usability of Interactive Systems." In *Designing the user interface: strategies for effective human-computer interaction*. Upper Saddle River, N.J.: Addison-Wesley, 2010.

November 19th: Search User Interfaces

- Hearst, Marti. "The Design of Search User Interfaces." In *Search user interfaces*. Cambridge; New York: Cambridge University Press, 2009. http://searchuserinterfaces.com/book/sui_ch1_design.html.

November 21st: Information Ethics

- Bynum, Terrell. "Computer and Information Ethics." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Spring 2011, 2011. <http://plato.stanford.edu/archives/spr2011/entries/ethics-computer/>.

November 26th: Catch-up / Wrap-Up / Review / The Future

- Carr, Nicholas. "Is Google Making Us Stupid?" *The Atlantic*, July–August 2008. <http://www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/>.

December 3rd: Catch-up (**Module 3 report due**)

December 10th: Exam 3 (Module 3)