

LIS 861: Information Architecture (Form and Content in Theory and Practice)
University of Wisconsin-Madison
Spring 2016
Mondays 1:30-4pm, Bunge Room, Helen C. White Hall

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Course Description



This is a graduate course studying the relationship between form and content in the structure and transmission of information. Federal (U.S.) usability guidelines define “information architecture” as the “organizing, structuring, and labeling content in an effective and sustainable way,” with the goal of helping “users find information and complete tasks.” In order to achieve those outcomes, we will approach information architecture not only as a set of practices for web development and implementation, but also as a prompt to think about how and why information is structured as it is in print, digital, and other formats – at under different historical, social, and cultural conditions that shapes information, its representation, and its users. Therefore, we will explore practical issues in web design such as coding, usability, navigation, and evaluation always with an eye toward situating these within the larger (and sometimes theoretical or historical) contexts of paratextuality, genre, accessibility, print/digital culture, and media history. The goal of our explorations of form and content in theory and

practice is both basic skills in information architecture for and sophisticated graduate-level understanding of past, present, and future issues pertaining to the representation of information.

In terms of technological skills and practice in the course, students will gain familiarity and practice with BASIC, HTML, CSS, Omeka, Federal Americans With Disabilities Act web accessibility standards, and information visualization. Prior familiarity with any of these is neither assumed nor necessary.

Essential Questions

- How does information content affect forms of information representation?
- How do the affordances with an information architecture structure human life and thought and to what ends?
- How do different cultural, social, political, and historical formations affect the use and representation of information?
- How do the above apply to the representation of information on the world wide web?
- What skills are necessary to evaluate, design, and maintain information on the web using best practices of information architecture and critical thought about the relation of form and content?
- What skills do librarians and humanists have to contribute to discussions of technology and practices of information representation?

Required Books

Most of the reading for this course will be provided through e-reserves or using our library's journal subscriptions. Because the length of some required reading materials, you will be asked to have access to copies of some books. You may buy them, request them through the library system, or access the copy on reserve in the SLIS library.

- Janet Abbate, *Recoding Gender: Women's Changing Participation in Computing*, MIT Press, 2012.
- Michael Clune, *Game Life: A Memoir*, FSG, 2015.
- Abby Covert, *How To Make Sense of Any Mess*, CreateSpace, 2014.
- Johanna Drucker, *Graphesis: Visual Forms of Knowledge Production*, Harvard UP, 2014.
- Henry Petroski, *The Book on the Bookshelf*, Vintage, 2000.

Required books may be purchased at your bookstore or choosing (several are old enough/popular enough that inexpensive used copies should be readily available), or borrowed from a public or campus library. They are also available for 2-hour loans from the reserve desk in the SLIS Library on the 4th floor of Helen C. White. You can also use UW System libraries, Interlibrary Loan, or the Madison Public Library to acquire copies of the required books.

Other readings will be available on course e-reserve, open access, or via our library system's licenses.

Whatever the reading is for the day's meeting, please have a copy (print/digital, owned/borrowed, whatever!) at the ready and have noted particular sections or passages that you'd like to discuss/clarify/question.

Grading Policy

A: 94 - 100

Outstanding achievement. Student performance demonstrates full command of course materials and evinces a high degree of originality and/or creativity that far surpasses course expectations.

AB: 88 – 93

Very good achievement. Student performance demonstrates thorough knowledge of course materials and exceeds course expectations by completing all course requirements in a superior manner.

B: 82 - 87

Good work. Student performance meets designated course expectations, demonstrates understanding of the course materials, and performs at an acceptable level.

BC: 77 - 81

Marginal work. Student performance demonstrates incomplete understanding of course materials.

C: 72-76

Unsatisfactory work and inadequate understanding of course materials. Course work at this level triggers probationary status unless balanced by an A earned in another course during the same semester.

Many of the assignments in this course are graded on an S/U basis (satisfactory, unsatisfactory). This is especially the case for workshop or experiment-based projects.

Academic Integrity

Please see <http://students.wisc.edu/doso/acadintegrity.html> and <http://students.wisc.edu/doso/students.html> for the University's policies on academic integrity and misconduct, including plagiarism.

Accessibility

It is my intention to fully include differently-abled persons in this course. Please let me know immediately if you need any special accommodations to enable you to fully participate. I will try to maintain confidentiality of the information you share with me to the fullest extent possible. To request academic accommodations, please register as soon as possible with McBurney Disability Resource Center (1305 Linden Drive; 263-2741; www.mcburney.wisc.edu.)

Preferred Name / Pronouns

It's sometimes the case that a student's legal name or gender assigned at birth are reported to me on official documents in a form not in keeping with that student's preferred name or gender expression. Please let me know, as you are comfortable, with your preferences. My pronouns are

he/his/him. UW-Madison also has a system in which any student can indicate their preferred name: https://registrar.wisc.edu/preferred_name.htm

Late Assignments

Assignments are due on the dates listed on assignment sheets or in the syllabus calendar. In fairness to your classmates, assignments will be marked down if turned in late. Only catastrophic emergencies will be considered justifiable exceptions to this policy. Late work will incur a penalty of one percentage point a day, unless you contact me on or before the due date, to negotiate an alternative reduction.

Absence Policy

Class attendance is mandatory. Attendance is defined as being present for the entire class meeting. Anything substantially less than that, e.g., leaving at break, will be considered an absence. If illness or an emergency prevents you from attending class, please notify me, and any team members for group projects, by email or telephone before class begins. You should also make arrangements with another student to get her or his notes. An absence will be excused only if the absent student notifies me in advance of the class, or if the absent student can clearly demonstrate that such notification was not possible. If a student does not notify me of an absence prior to the start of class, students should assume that the absence will be considered unexcused.

Description of Assignments and Grading

Complete information on each assignment will be circulated via an assignment sheet with ample time before the due date.

Final Website Project (30%): Working in groups, everyone will create a website that meets certain standards of IA practice (these will be listed in detail later). Approaches and final “products” may vary according to interest, site purpose, and/or client needs.

HTML/CSS (20%): You will create a personal website using HTML and CSS to demonstrate proficiency in the basic practices of creating standards-compliant markup and styling. The HTML should be hand coded, the CSS may be hand coded or based on an existing template.

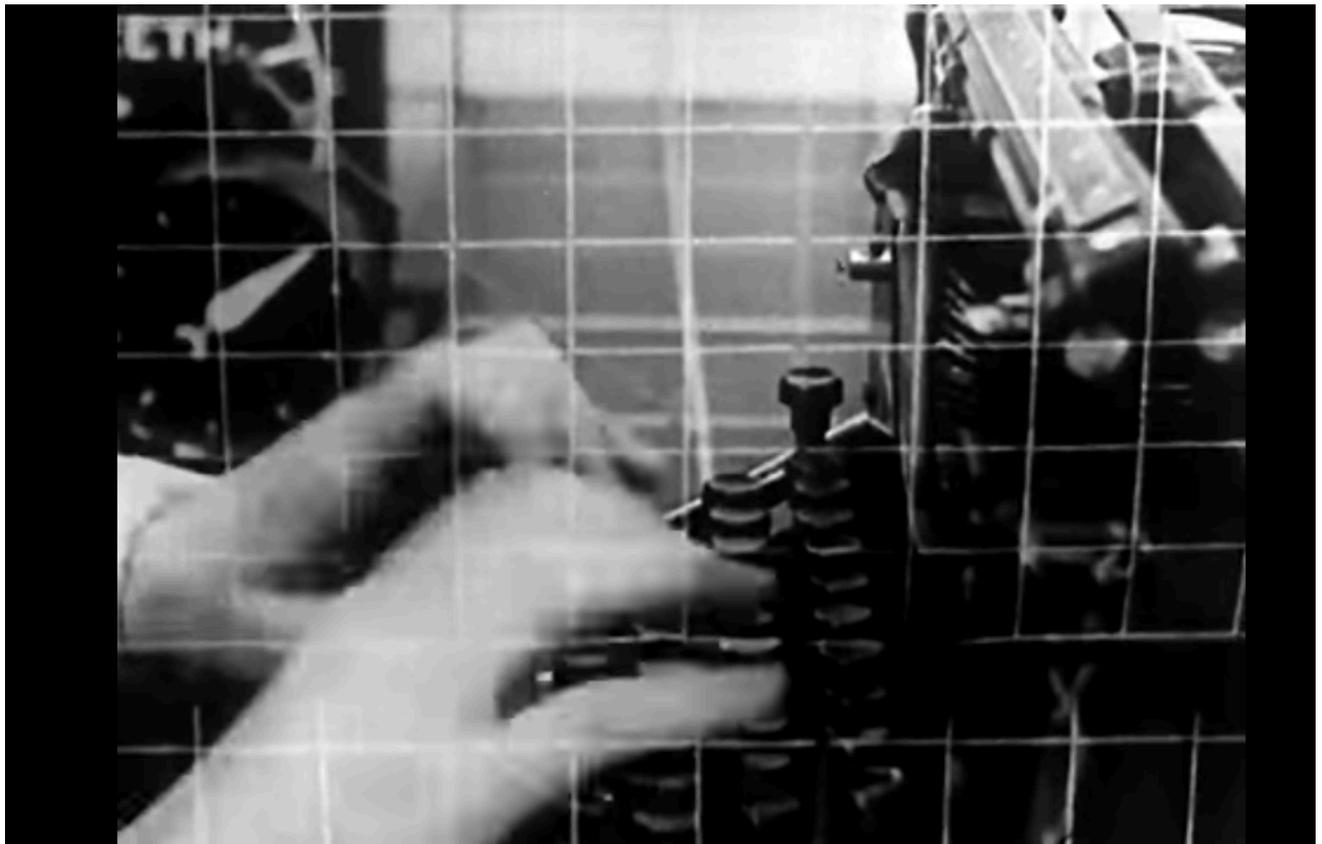
Site Maps (20%): You will analyze/map existing website structures and then propose/describe a redesigned map or navigational system. These will be annotating, explaining your choices. You will do this twice.

Class participation and preparation (30%): An important aspect of this course is your critical engagement with the material and active participation in class. You will be responsible for reading the material before class, having thoughts about that material when you arrive for class, and discussing the material during class. Each student will take a turn being a “discussion leader” for a text on the syllabus. The job of the discussion leader is *emphatically not to summarize* the reading, but to *get discussion going on the reading* by pointing to

interesting/provocative/confusing passages or raising *open ended questions* that the reading raises and that we might pursue in class.

Work for the Course

For graduate level classes, each semester hour of discussion or lecture normally entails at least three hours of outside preparation for the average student. Therefore you should expect to do at least nine hours of preparatory reading and thinking for each class session. You are expected to do the required reading for this course. You are not, however, expected to fully master everything that you are reading at first. I expect that you will make a good faith effort at understanding by doing the reading; looking up words, terms, allusions, and references you may not know; and coming to class meetings with things to say about what you understood and questions about what you haven't yet grasped. In this way, you will become increasingly familiar and confident in the field, and capable of making your own contributions to the practice and scholarship of information studies.



Calendar

Jan 25: Introduction, course goals/outline, Information, Form, and Content

Major keywords and themes of the course: information, form, and content.

Feb 1: Information and Its Architectures: A Long History

Thinking historically about the literal architectures responsive to changing book technologies. Cultural, technological, and architectural responses to changing information forms.

- Henry Petroski, *The Book on the Bookshelf*, entire book.
- Excerpts from *The Dynamic Library: Organizing Knowledge at the Sitterwerk – Precedents and Possibilities*, Soberscove Press, Chicago. (PDF will be circulated)

Feb 8: Foundational IA Concepts and the History of Efficiency, Design, and Labor

Identify, State, Face, Choose, Measure, Play, Prepare. Defining information architecture for the web as a set of principles, practices, and problems. Considered within the complicated historical and ethical context of “Scientific Management.” Efficiency? Rationalization? Design?

- Covert, *How To Make Sense of Any Mess*, entire book
- Frederick Winslow Taylor, *The Principles of Scientific Management* (1911)
Googlebooks:
<https://books.google.com/books?id=HoJMAAAAYAAJ&dq=scientific%20management&pg=PP1#v=onepage&q&f=false>

Watch:

- Gilbreth, Time and Motion labor studies:
<https://www.youtube.com/watch?v=g3sj7G7KSSU>

Skim:

- Usability.gov “Information Architecture Basics” <http://www.usability.gov/what-and-why/information-architecture.html>
- Curtis, “Images of Efficiency: The Films of Frank B. Gilbreth”
<https://www.communication.northwestern.edu/sites/default/files/utopia-imports/files/faculty/SCurtis-ImagesEfficiency.pdf>

Feb 15: How We Learn from Machines and Their Affordances

What We Learn from Games and How They Shape Us, Procedural Thought

- Clune, *Game Life*

Feb 22: BASIC and Cultures of Code

Approaching code as a shaper of and respondent to digital, cultural, and historical environments

- Nick Montfort, Patsy Baudoin, John Bell, Ian Bogost, Jeremy Douglass, Mark C. Marino, Michael Mateas, Casey Reas, Mark Sample, and Noah Vawter, *10 PRINT CHR\$(205.5+RND(1)); : GOTO 10*, Cambridge: MIT Press (2013), entire book. Open Access version here: http://trope-tank.mit.edu/10_PRINT_121114.pdf

DUE: ANNOTATED SITE MAP ONE

Feb 29: HTML and CSS

- Online tutorial in HTML and CSS on either codeacademy or Lynda.com

Lab in Class: HTML site

March 7: CSS

- Online tutorials in HTML, CSS (as needed) and Javascript on either codeacademy or Lynda.com

Lab in Class: CSS site

March 14: Content Management Systems

Using “Out of the Box” Systems like Wordpress, Omeka, and Others To Build and Manage Sites – The Iterability of the Web

- “Choosing a CMS” *Howto.gov* <http://www.howto.gov/web-content/technology/content-management-systems/choosing-a-cms>
- Jacquie Samuels, “Types of Content Management Systems Explained” <http://techwhirl.com/types-of-content-management-systems/>
- **In-class lab using Wordpress.com and Omeka.org/Omeka.net.** Familiarize yourself with both via their websites before class.

DUE: ANNOTATED SITE REMAP

March 21: No Class – Spring Break

March 28: Gender and Cultures of Computing

- Abbate, *Recoding Gender: Women's Changing Participation in Computing*

April 4: Accessibility

The advantages of universal design for all users.

- Rosemarie Garland-Thomson, “Expanding the Concept of Accessible Technology,” Berkman Center for Internet and Society, Harvard University, <http://cyber.law.harvard.edu/events/luncheon/2012/06/garland-thomson>
- Usability.gov on Section 508 - www.usability.gov/pdfs/chapter3.pdf
- “Web Accessibility Tutorial for Section 508” - <http://jimthatcher.com/webcourse1.htm>
- Simpson, Jennifer. "Inclusive Information and Communication Technologies for People with Disabilities" *Disability Studies Quarterly* 29.1 (2009): <http://dsq-sds.org/article/view/167/167>
- Williams, George H. “Disability, Universal Design, and the Digital Humanities.” *Debates in the Digital Humanities*. Minneapolis, MN: U of Minnesota Press, 2012. <http://dhdebates.gc.cuny.edu/debates/text/44>
- Best, Kirsty and Stephanie Butler. "Disability and communication: A consideration of cross-disability communication and technology." *Disability Studies Quarterly* 32.4 (2012): <http://dsq-sds.org/article/view/3290/3179>

April 11: Proprietary / Enterprise IA vs. Openness / Interoperability

- Patrick Caldwell, “EPIC Fail: Digitizing America’s Medical Records was Supposed to Help Patients and Save Money. Why Hasn’t That Happened?” *Mother Jones* (2015) <http://www.motherjones.com/politics/2015/10/epic-systems-judith-faulkner-hitech-ehr-interoperability>
- Li Da Xu, “Information architecture for supply chain quality management” *International Journal of Production Research* (Volume 49, Issue 1) 2011.
- Bläsi and Rothlauf, “On the Interoperability of eBook Formats” European International Booksellers Foundation, <http://www.booksellers.org.uk/BookSellers/media/SiteMediaLibrary/AboutTheBA/On-the-Interoperability-of-eBook-Formats.pdf>

April 18: Information Visualization

Getting beyond text. Reading and creating visual rhetorics.

- Johanna Drucker, *Graphesis: Visual Forms of Knowledge Production*
- John Branch, “Snow Fall: The Avalanche at Tunnel Creek” *The New York Times* <http://www.nytimes.com/projects/2012/snow-fall/#/?part=tunnel-creek>
- Rebecca Greenfield, “What the New York Times’ Snow Fall Means to Online Journalism’s Future” <http://www.theatlanticwire.com/technology/2012/12/new-york-times-snow-fall-feature/60219/>
- Derek Thompson, “Snow Fall isn’t the Future of Journalism” <http://www.theatlantic.com/business/archive/2012/12/snow-fall-isnt-the-future-of-journalism/266555/>

April 25 – Information and Project Lifecycles: Sustainability, Preservation, and Posterity

- Nancy Maron, Sarah Pickle, Ithaka S+R, *Sustaining the Digital Humanities*, <http://sr.ithaka.org/research-publications/sustaining-digital-humanities>
- Nancy Maron, Sarah Pickle, Ithaka S+R, Sustaining the Digital Humanities Toolkit
- Robertson and Borchert, “Preserving Content from Your Institutional Repository” *Serials Librarian* 66.1-4 (2014).
- Zittrain, Albert, and Lessig, “Perma: Scoping and Addressing the Problem of Link and Reference Rot in Legal Citations” *Harvard Law Review*, March 2014, <http://harvardlawreview.org/2014/03/perma-scoping-and-addressing-the-problem-of-link-and-reference-rot-in-legal-citations/>

May 2: Final Project Presentations

Exam Week: Due: Final Project Websites

Course Objectives, Program Level Learning Outcomes, and Assignments

The course is designed to further a number of the program-level learning outcomes of the School of Library and Information Studies Master of Arts degree program. Several assignments will provide evidence of those outcomes, as per the following table.

Course Learning Objective	Official Program-Level Learning Outcomes(s)	Evidence of Learning Outcomes	Assessing Mastery of Learning Outcome
Students develop an understanding of theoretical and historical perspectives that draw on research in other fields of knowledge as well as on LIS.	1a. Students apply key concepts with respect to the relationship between power, knowledge, and information. 1b. Students apply key concepts with respect to theories and practices of literacies, reading, and information use.	Final Website Project Class Participation	Students effectively incorporate some theoretical or historical concept(s) into presentations on assigned reading and in developing/implementing the digital edition project.
Students acquire a strong and informed service ethic grounded in knowledge of local, national, and global information policies and processes, including scholarly processes.	2b. Students apply core ethical principles to professional practice.	Accessibility Evaluations In Class	Students evaluate digital resources according to best practices for accessible and inclusive design.
Students develop core skills in providing information services, analyzing information resources, and analyzing information needs of diverse individuals and communities.	3a. Students organize and describe print and digital information resources. 3d. Students understand and use appropriate information technologies.	Final Website Project Site Mapping HTML/CSS Coding	Students use appropriate coding and metadata techniques to organize information on the web.
		Final Website Project HTML/CSS coding CMS Use	Students will gain practice creating sites and manage content in Omeka, HTML/CSS, and Wordpress with special focus on library and academic uses.
	3c. Students analyze information needs of diverse individuals and communities.	Final Website Project	Students will work with “student clients” at Rice University in the creation of the digital edition, determine their information/design needs, and work together to create the final product.
		Accessibility Evaluations	Students evaluate digital resources according to best practices for accessible and inclusive design.
Students develop critical thinking and writing abilities in order to become more reflective, creative, problem-solving leaders.	4a. Students participate effectively as team members to solve problems.	Final Website Project	Peer evaluations reflect commitment to shared work product, collegiality, and initiative.
	4b. Students demonstrate good oral and written communication skills.	In class participation and presentations	Students articulate questions and criticisms of readings effectively and communicate results of in-class work clearly.
		Data Visualization	Students use visual rhetoric skills to practice presenting data in visual forms.