

**LIS 861: Information Architecture (Form and Content in Theory and Practice)**  
**University of Wisconsin-Madison**  
**Spring 2013**  
**Mondays 1:30-4pm, 4191F Helen C. White Hall**

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Office Hours: W: 4:30-5:30 or by appointment  
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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. 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 information representation.

### Essential Questions

- How does information content affect forms of information representation?
- 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?

## 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.

- Henry Petroski, *The Book on the Bookshelf*, Vintage (2000)
- Bonnie Mak, *How the Page Matters*, University of Toronto Press (2012)
- Steve Krug, *Don't Make Me Think: A Common Sense Approach to Web Usability* (Second Edition), New Riders (2005)
- Henry Jenkins, Sam Ford, and Joshua Greene, *Spreadable Media: Creating Value and Meaning in a Networked Culture*, New York University Press (2013)

## 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.

## 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 persons with disabilities 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, given that we may need to speak with your site supervisor. To request academic accommodations, you must register as soon as possible with McBurney Disability Resource Center (1305 Linden Drive; 263-2741; [www.mcburney.wisc.edu](http://www.mcburney.wisc.edu).)

## **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 (25%):** 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.

**XHTML/CSS (15%):** You will create a personal website using strict XHTML 1 and CSS 2 to demonstrate proficiency in the basic practices of creating standards-compliant markup and styling. The XHTML should be hand coded, the CSS may be hand coded or based on an existing template.

**Site Maps (15%):** You will analyze/map existing website structures and then propose/describe a redesigned map or navigational system.

**Accessibility Evaluation (15%):** You will analyze and critique an existing website according to its accessibility using Federal guidelines and other recommendations for best practices.

**Information Visualization: (15%):** You will create a visual representation of data/information that meaningfully informs the reader/viewer.

**Class participation and preparation (15%):** 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. Quality of in-class participation is much more important than quantity.

In addition, you will be responsible to contributing to and reading online discussions on our course blog: <http://courses.jsench.org/LIS861>. The course blog will serve as a space for asynchronous conversations and questions about readings, current events that relate to the course, and some structured assignments. A certain amount of writing on the blog will be required, and will be available to the public. I will make clear when posting and commenting on the blog is required.

### 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	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.	Final Website Project Site Mapping XHTML/CSS Coding	Students use appropriate coding and metadata techniques to organize information on the web.
	3d. Students understand and use appropriate information technologies.	Final Website Project  XHTML/CSS coding	Students will gain practice creating sites and manage content in Omeka, XHTML/CSS, and Wordpress with special focus on library and academic uses.

	3c. Students analyze information needs of diverse individuals and communities.	Wordpress Use	
		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.

## 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

### **Sept 5: Introduction, course goals/outline, Information, Form, and Content**

*Major keywords and themes of the course: information, form, and content. 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*, New York: Vintage (2000), entire book.

### **Sept 12: 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](http://trope-tank.mit.edu/10_PRINT_121114.pdf)



## **Sept 19: Information Architecture for the Web**

*Defining information architecture for the web as a set of principles, practices, and problems.*

- Elaine G. Toms, “Information Interaction: Providing a Framework for Information Architecture” *Journal of the American Society for Information Science and Technology* 53.10 (2002) 855-862.
- Morville and Rosenfeld, “Defining information architecture” (pp. 3-15) and “Practicing information architecture” (pp. 16-29). *Information Architecture for the World Wide Web*. 3rd ed. Beijing: O’Reilly, 2007. Available via library in Safari TechBooks: <http://proquest.safaribooksonline.com/0596527349>
- Dan Brown, “Eight Principles of Information Architecture” *Bulletin of the American Society for Information Science and Technology* 36.6 (August/September 2010) 30-34
- In Class Lab: Web Navigation Self Study

## **Sept 26: Thinking In Pages**

*Print and digital architectures of the page. Page as structuring metaphor.*

- Bonnie Mak, *How the Page Matters*, University of Toronto Press (2012) (entire book)

## **Oct 3: Disappearing Substrate / Invisible Form**

*The medium as a neutral container, a frictionless nexus. Im/possible?*

- Steve Krug, *Don’t Make Me Think: A Common Sense Approach to Web Usability* (entire book)
- **Due: Mapping and Proposed Remapping of a site**

## **Oct 10: Beginning in Code: XHTML**

*Putting code into practice.*

- Freeman and Freeman, *Head First HTML with CSS and XHTML*  
Available via library in Safari TechBooks:  
<http://proquest.safaribooksonline.com/059610197X>
- **Lab in Class: XHTML site**

## **Oct 17: Beginning in Code: CSS**

*Putting code into practice.*

- Freeman and Freeman, *Head First HTML with CSS and XHTML*  
Available via library in Safari TechBooks:  
<http://proquest.safaribooksonline.com/059610197X>

- **Lab in Class: CSS site**

## **Oct 24: Spreadable Media**

*The Design and Creation of Information for Social (Re)use.*

- Jenkins, Ford, and Greene, *Spreadable Media: Creating Value and Meaning in a Networked Culture* (NYU Press: 2013), entire book.

## **Oct 31: 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](http://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>

## **Nov 7: Infoviz: Information Visualization**

*Getting beyond text. Reading and creating visual rhetorics.*

- Lev Manovich, “What Is Visualization?” <http://goo.gl/byzTa>
- Edward Tufte, “Graphical Excellence” and “Graphical Integrity,” from *The Visual Display of Quantitative Information*
- Malcolm Gladwell, “The Picture Problem” [http://www.newyorker.com/archive/2004/12/13/041213fa\\_fact](http://www.newyorker.com/archive/2004/12/13/041213fa_fact)
- “A Periodic Table of Visualization Methods” [http://www.visual-literacy.org/periodic\\_table/periodic\\_table.html](http://www.visual-literacy.org/periodic_table/periodic_table.html)
- 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/>
- Check twitter for #infoviz
- **Due: Accessibility Evaluation**

### **Nov 14: Content Management Systems**

*Using “Out of the Box” Systems like Wordpress, CBOX, 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/Omekanet.** Familiarize yourself with both via their websites before class.
- **Due: Information Visualization**

### **Nov 21: First Final Project Lab Day**

### **Nov 28 – No Class Meeting – Thanksgiving Break**

### **Dec 5: Machine Reading – Not Everything Is Read By Humans**

*Search Engine Optimization (SEO), Spiders! Crawlers!*

- Dan Cohen, “SEO for Smarties”  
[http://www.dancohen.org/blog/posts/search\\_engine\\_optimization\\_for\\_smarties](http://www.dancohen.org/blog/posts/search_engine_optimization_for_smarties)
- Beel, Gipp, Wilde, “Academic Search Engine Optimization (ASEO): Optimizing Scholarly Literature for Google Scholar & Co.” *Journal of Scholarly Publishing* 41.2 (January 2010): 176-190
- Clifford Tatum, “Deconstructing Google Bombs: A breach of symbolic power or just a goofy prank?” *First Monday: Peer Reviewed Journal on the Internet* 10.10 (October 2005), <http://firstmonday.org/ojs/index.php/fm/article/view/1287/1207>
- Google, “Search Engine Optimization Starter Guide”  
[https://static.googleusercontent.com/external\\_content/untrusted\\_dlcp/www.google.com/en/us/webmasters/docs/search-engine-optimization-starter-guide.pdf](https://static.googleusercontent.com/external_content/untrusted_dlcp/www.google.com/en/us/webmasters/docs/search-engine-optimization-starter-guide.pdf)

### **Dec 12: Second Final Project Lab Day – Mini Project Presentations/Demos**

### **Exam Week: Due: Final Project Websites**