

LCC 6313 Principles of Interactive Design
Mondays / Wednesdays 10-12, Friday 11-12

Lecture/Discussion Class Meetings in Skiles 010 (all Mondays and some Wed. and Fri.);
Lab meetings in Skiles 346 (most Wednesdays and Fridays)

Prof. Janet H. Murray Office hours: to be announced (sign up sheet outside office: Skiles 335B)

Graduate Assistant: Jason Alderman

Hours will be posted to the class list and swiki/co-web and in the IDT Lab for support with lab assignments and projects

Key Design Concepts

- Representational affordances of the digital medium and techniques for maximizing them
- Information abstraction methods including structured documents, relational databases, classification, controlled vocabularies
- Presentation of information to maximize the agency of the interactor

Technical skills

- You will learn XML, PHP, and SQL; use the APIs of several Web services; and practice writing documentation
- Pre-req: This course assumes you have taken LCC 6310 and LCC 6311 or have a basic knowledge of object-oriented programming in Java and/or Flash; if you lack this preparation, please check with Jason Alderman.

Projects (70 % grade, includes 10% for documentation and in class oral presentation)

Project 1: Design and create a prototype for the geographical display of an appropriate data set, using a database, PHP, and Google Maps

Project 2: Design and create a prototype for an information widget using XML resources

Project 3: Group project. Create an artifact that draws on multiple structured data sources and provides multiple views of a complex information resource OR (revised assignment) significantly extend one of your earlier projects.

Design Notebook Entries (20% grade)

6 entries that critique an existing or proposed artifact based on course readings & lectures, and at least 2 entries commenting on the postings of other students. The design notebook should be web-based and entries should be brief & visually presented so that they can be discussed in class. Notebook must be linked to the coweb so that all can share one another's postings. At least 3 entries due before Spring Break. All students should volunteer to present at least 1 entry in class.

Class and Lab Participation (10%)

Grading is based on the quality of your contributions. Prepared regular attendance and completion of all assignments is a *minimal expectation* of the course including completion of all assignments in advance of class, coming prepared to answer questions about the readings and to discuss them, arriving on time, completing all lab exercises, posting all assignments to your personal web page and to the appropriate notebook or project page in advance of class.

Helpfulness bonus: up to 5% for helping other students within areas of your expertise, contributing resources to website, etc.

Texts

Berners-Lee, T., J. Hendler, et al. (2001). "The Semantic Web." *Scientific American* available on line at <http://www.sciam.com/article.cfm?articleID=00048144-10D2-1C70-84A9809EC588EF21&ref=sciam> and on co-web. [SW]

Bowker, G. and S. L. Star (2001). *Sorting Things Out: Classification and Its Consequences*. Cambridge MA, MIT Press. Intro: "To Classify is Human" available from GT library electronic reserve (Recommended in addition: 1, 3, 9, 10) [STO]

Donald, M. (2001). "Memory Palaces: The revolutionary function of libraries." *Queen's Quarterly* 108(4): 559(14). (on co-web) [MP]

Waldrip-Fruin, N. and N. Montfort, Eds. (2003). *The New Media Reader*. Cambridge MA, MIT Press. Readings by Bush, Englebart, Nelson, Berners-Lee [NMC]

Excerpts from Murray, J.H. *Inventing the Medium: Principles of Design for Digital Environments* (unpublished mss in progress) Sections I and III. (On the co-web) [ITM]

Recommended Texts

Garrett, J. J. (2002). *The elements of user experience: user-centered design for the Web*. Indianapolis, Ind., New Riders.

Harrington, J. L. (2002). *Relational database design clearly explained*. New York, Morgan Kaufmann Publishers. [DB]

Rosenfeld, L. and P. Morville (2002). *Information architecture for the World Wide Web*. Cambridge, Mass., O'Reilly.

Note: For guidance on Documentation, see slides in Lecture 1 The Designer's Stance, and Garrett book divisions.

Meeting Schedule

	WEEK	MONDAY	WED	FRI	READ
1	Jan 9/11	The Designer's Stance	Lab: PHP	What is a Medium?	ITM I
2	Jan 16/18	MLK Day Holiday	Lab; PHP forms	Affordances of the Medium	IA DB
3	Jan 23/25	Project 1 prelim	Project I prelims	Lab: PHP Forms Cont'd	DB
4	Jan 30/ Feb 1	Information Architecture	Lab: SQL Joins	Lab: More on GMaps API and questions on Project 1	ITM III
5	Feb 6/8	Project 1 presentations	Project 1 presentations	Lab: Intro to XML (phoogle geocoding)	
6	Feb 13/15	Classification	Lab/symposium prep!	Free lab time	2/16 Attend Thursday Symposium!
7	Feb 20/22	Structured documents and XML	Lab: XML fundamentals + Parsing RSS & ATOM feeds	Lab: XML	XML tutorials
8	Feb27/ Mar 1	Metadata and the Semantic Web	Lab: Getting XML from servers	Lab: Schemas and XSLT	Berners-Lee in NMC and SciAmerican
9	Mar 6/8	Project 2 Prelim	Project 2 Prelim	Lab	
	Mar 13/15	Lab: Design Patterns, MVC, and ORM	Lab	Lab	
11	Mar 20/22	SPRING	BREAK		
12	Mar 27/29	Project 2 presentations	Lab	Project 2 presentations	
13	Apr 3/5	Project 2 presentations Classification and Culture	Classification and Culture; Design Principles	Lab: [AJAX libraries]	Bowker & Starr STO intro ; Memory palaces
14	Apr 10/12	Convergence Design	Convergence Design	Lab	Design Notebook; conferences on Project 3
15	Apr 17/19	Convergence Design	Convergence Design	Lab	Design Notebook
16	Apr 24/26	Project 3	Project 3 presentations	Project 3 presentations	
	May 3		Demo Day		