INFS 260: Information Structures
Fall 2007

Thursdays, 9am–12:30pm
Kinsey Pavilion 1240B (southside Knudsen Hall)

SYLLABUS (September 25, 2007)

Instructor: **Jonathan Furner** <furner@gseis.ucla.edu>
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Catalog description

"Introduction to various systems and tools used to organize materials and provide access to them, with emphasis on generic concepts of organization, classification, hierarchy, arrangement, and display of records. Provides background for further studies in cataloging, reference, information retrieval, and database management."

Textbooks

Required:

> Taylor, A. G. 2004. *The organization of information*. 2nd ed. Westport, CT: Libraries Unlimited.

Recommended:

> Morville, P. 2005. *Ambient findability: What we find changes who we become*. Sebastopol, CA: O'Reilly, 2005.

> Svenonius, E. 2000. *The intellectual foundation of information organization*. Cambridge, MA: MIT Press.

University of Chicago Press. 2003. *The Chicago manual of style: The essential guide for writers, editors, and publishers.* 15th ed. Chicago: University of Chicago Press.

Course aim

The aim of this course is to provide the instruction, guidance, and support that will allow participants to develop a mastery of the fundamental concepts, problems, principles, techniques, and issues that comprise the field of *organization of information*.

Learning outcomes

On successful completion of this course, participants will:

- appreciate that effective *organization* of resources is a necessary condition of effective *access* to, and engagement with, those resources;

- have an understanding of the *problems* that historically have driven the development and testing of *principles* of effective organization;

- be skilled in the use of a range of (general) *techniques* and (specific) software *tools* for the storage, description, categorization, linking, and discovery of resources;

- be familiar with the nature and purpose of a range of *standard* schemata, frameworks, languages, vocabularies, formats, models, and rule-sets;

- have knowledge of appropriate *criteria* on which to base choices among available approaches, techniques, tools, and standards;

- be able to marshal evidence, develop arguments, and articulate positions in relation to contemporary professional *issues*; and

- be prepared for further study of *specialist areas* such as library cataloging and classification, archival arrangement and description, museum registration and documentation, digital asset management, content management, records management, knowledge management, information retrieval, information architecture, digital libraries, metadata, indexing, and thesaurus construction.

Assignments

Assignment 1: RefWorks (10%)
Set -- Class 2: Thursday, October 4, 2007
Due -- Class 4: Thursday, October 18, 2007

Assignment 2: Midterm paper (25%)
Set -- Class 4: Thursday, October 18, 2007
Due -- Class 7: Thursday, November 14, 2007

Assignment 3: CONTENTdm (group project; 40%)
Set -- Class 5: Thursday, October 25, 2007
Due -- End of finals week: 5pm, Friday, December 14, 2007

Assignment 4: Final paper (25%)
Set -- Class 7: Thursday, November 8, 2007
Due -- Class 10: Thursday, December 6, 2007

Syllabus

Class 1: Thursday, September 27, 2007
Introductory case study: How can I organize my photos?

Demos -- Flickr <http://www.flickr.com/>; The ESP Game <http://www.espgame.org/>

Required reading:

> Shneiderman, B., B. B. Bederson, and S. M. Drucker. 2006. Find that photo! Interface strategies to annotate, browse, and share. *Communications of the ACM* 49 (4): 69–71.

> O'Connor, B. C., and M. K. O'Connor. 1999. Categories, photographs & predicaments: Exploratory research on representing pictures for access. *Bulletin of the American Society for Information Science* 25 (6): 17–20.

> Marlow, C., M. Naaman, D. Boyd, and M. Davis. 2006. HT06, tagging paper, taxonomy, Flickr, academic article, to read. In *Hypertext 2006: Proceedings of the 17th International ACM Conference on Hypertext and Hypermedia: Tools for supporting social structures* (Odense, Denmark, August 22–25, 2006), 31–39. New York: ACM Press.

> Rainie, L. 2007. 28% of online Americans have used the internet to tag content. Washington, DC: Pew Internet & American Life Project. http://www.pewinternet.org/pdfs/PIP_Tagging.pdf (accessed September 24, 2007).

> Cox, A. M. 2007. Flickr: What is new in Web 2.0? Paper presented at Towards a Social Science of Web 2.0 (York, England, September 5–6, 2007). http://www.shef.ac.uk/content/1/c6/04/77/66/flickr%20paper.pdf (accessed September 24, 2007).

> Von Ahn, L., and L. Dabbish. 2004. Labeling images with a computer game. In *CHI 2004: Proceedings of the ACM Conference on Human Factors in Computing Systems* (Vienna, Austria, April 24–29, 2004), ed. E. Dykstra-Erickson and M. Tscheligi, 319–326. New York: ACM Press.

> Tešić, J. 2005. Metadata practices for consumer photos. *IEEE MultiMedia* 12 (3): 86–92.

Class 2: Thursday, October 4, 2007
"Information structures": Core concepts and issues I

Demo -- RefWorks <http://www.refworks.com/refworks>

Assignment 1 set -- RefWorks (10%)

Required reading:

Taylor 2004: Chapters 1–3, pp. 1–68.

University of Chicago. *The Chicago Manual of Style* online: Chicago-style citation quick guide. http://www.chicagomanualofstyle.org/tools_citationguide.html (accessed January 18, 2007).

RefWorks. RefWorks tutorial. http://www.refworks.com/tutorial/ (accessed January 18, 2007).

Class 3: Thursday, October 11, 2007
"Information structures": Core concepts and issues II

Demo -- RefWorks, cont'd

Required reading:

Taylor 2004: Chapters 4–6, pp. 69–158.

National Information Standards Organization. 2004. *Understanding metadata*. Bethesda, MD: NISO Press.

Chan, L. M., and M. L. Zeng. 2006. Metadata interoperability and standardization: A study of methodology, Part I: Achieving interoperability at the schema level. *D-Lib Magazine* 12 (6), http://www.dlib.org/dlib/june06/chan/06chan.html (accessed January 18, 2007).

Zeng, M. L., and L. M. Chan. 2006. Metadata interoperability and standardization: A study of methodology, Part II: Achieving interoperability at the record and repository levels. *D-Lib Magazine* 12 (6), http://www.dlib.org/dlib/june06/zeng/06zeng.html (accessed January 18, 2007).

Class 4: Thursday, October 18, 2007
Metadata I: Identifiers

Assignment 1 due -- RefWorks

Assignment 2 set -- Midterm paper (25%)

Required reading:

Buckland, M. K. 1997. What is a "document"? *Journal of the American Society for Information Science* 48:804-809.

Tillett, B. 2004. *What is FRBR? A conceptual model for the bibliographic universe.*
Washington, DC: Cataloging Distribution Service, Library of Congress.
http://www.loc.gov/cds/downloads/FRBR.PDF (accessed January 18, 2007).

Vitiello, G. 2004. Identifiers and identification systems: An informational look at policies
and roles from a library perspective. *D-Lib Magazine* 10 (1).
http://www.dlib.org/dlib/january04/vitiello/01vitiello.html (accessed January 18, 2007).

Mimno, D., G. Crane, and A. Jones. 2005. Hierarchical catalog records: Implementing a
FRBR catalog. *D-Lib Magazine* 11 (10).
http://www.dlib.org/dlib/october05/crane/10crane.html (accessed September 24, 2007).

Class 5: Thursday, October 25, 2007
Metadata II: Schemata and descriptive class labels

Demo -- CONTENTdm

Assignment 3 set -- CONTENTdm (group project; 40%)

Required reading:

Taylor 2004: Chapters 7–8, pp. 159–239.

Furrie, E. 2003. *Understanding MARC Bibliographic: Machine-readable cataloging.* 7th ed.
Washington, DC: Library of Congress, Cataloging Distribution Service.
http://www.loc.gov/marc/umb (accessed January 18, 2007).

Hillmann, D. 2005. Using Dublin Core. Dublin Core Metadata Initiative.
http://dublincore.org/documents/usageguide/ (accessed January 18, 2007).

Baca, M. 2003. Practical issues in applying metadata schemas and controlled vocabularies
to cultural heritage information. *Cataloging & Classification Quarterly* 36 (3/4): 47–55.

Elings, M. W., and G. Waibel. 2007. Metadata for all: Descriptive standards and metadata
sharing across libraries, archives and museums. *First Monday* 12 (3).
http://www.firstmonday.org/issues/issue12_3/elings/ (accessed September 25, 2007).

Bond, T. 2004. Visual image repositories at the Washington State University Libraries.
Library Hi Tech 22 (2): 198–208.

Class 6: Thursday, November 1, 2007
Metadata III: Subject class labels

Demo -- CONTENTdm, cont'd

Required reading:

Taylor 2004: Chapters 9–10, pp. 241–295.

Rayward, W. B. 1997. The origins of information science and the International Institute of Bibliography / International Federation for Information and Documentation (FID). *Journal of the American Society for Information Science* 48:289–300.

Kwasnik, B. H. 1999. The role of classification in knowledge representation and discovery. *Library Trends* 48: 22–47.

Broughton, V. 2006. The need for a faceted classification as the basis of all methods of information retrieval. *Aslib Proceedings: New Information Perspectives* 58 (1/2): 49–72.

National Information Standards Organization. 2005. *Guidelines for the construction, format, and management of monolingual controlled vocabularies.* ANSI/NISO Z39.19-2005. Bethesda, MD: NISO Press.

Svenonius, E. 2000. *LCSH*: Semantics, syntax and specificity. *Cataloging & Classification Quarterly* 29 (1/2): 17–30.

Markey, K. 2006. Forty years of classification online: Final chapter or future unlimited? *Cataloging & Classification Quarterly* 42 (3/4): 1–63.

Vizine-Goetz, D. 2006. DeweyBrowser. *Cataloging & Classification Quarterly* 42 (3/4): 213–220.

Class 7: Thursday, November 8, 2007
Institutional contexts I: The Web

Demo -- CONTENTdm, cont'd

Assignment 2 due -- Midterm paper

Assignment 4 set -- Final paper (25%)

Required reading:

Robertson, S. E., and K. Spärck Jones. 1994. *Simple, proven approaches to text retrieval.* Technical Report 356. Cambridge: University of Cambridge Computer Laboratory. (Revised 2006.)

Voorhees, E. M., and D. K. Harman. 2005. The Text Retrieval Conference. In *TREC: Experiment and evaluation in information retrieval*, ed. E. M. Voorhees and D. K. Harman, 3–19. Cambridge, MA: MIT Press.

Brin, S., and L. Page. 1998. The anatomy of a large-scale hypertextual Web search engine. *Computer Networks* 30 (1–7): 107–117.

Furner, J. 2002. On recommending. *Journal of the American Society for Information Science and Technology* 53 (9): 747–763.

Dillon, A., and D. Turnbull. 2005. Information architecture. In *Encyclopedia of library and information science*, ed. Miriam A. Drake. 2nd ed. New York: Dekker.

Hearst, M. A. 2006. Clustering versus faceted categories for information exploration. *Communications of the ACM* 49 (4): 59–61.

Class 8: Thursday, November 15, 2007
Institutional contexts II: Libraries

Demo -- CONTENTdm, cont'd

Required reading:

Taylor 2004: Chapters 11–12, pp. 297–346.

Markey, K. 2007. The online library catalog: Paradise lost and paradise regained? *D-Lib Magazine* 13 (1/2). http://www.dlib.org/dlib/january07/markey/01markey.html (accessed September 25, 2007).

Marcum, D. 2006. The future of cataloging. *Library Resources & Technical Services* 50 (1): 5–9.

Mann, T. 2006. What is going on at the Library of Congress? Library of Congress Professional Guild. http://www.guild2910.org/AFSCMEWhatIsGoingOn.pdf (accessed January 18, 2007).

Mann, T. 2007. More on what is going on at the Library of Congress. Library of Congress Professional Guild. http://www.guild2910.org/AFSCMEMoreOnWhatIsGoing.pdf (accessed January 18, 2007).

Mann, T. 2007. The Peloponnesian War and the future of reference, cataloging, and scholarship in research libraries. Library of Congress Professional Guild. http://www.guild2910.org/Peloponnesian%20War%20June%2013%202007.pdf (accessed September 25, 2007).

Coyle, K., and D. Hillmann. 2007. Resource Description and Access (RDA): Cataloging rules for the 20th century. *D-Lib Magazine* 13 (1/2), http://www.dlib.org/dlib/january07/coyle/01coyle.html (accessed January 18, 2007).

Week 8: Thursday, November 22, 2007
No class! Happy Thanksgiving!

Class 9: Thursday, November 29, 2007
Institutional contexts III: Archives

Demo -- CONTENTdm, cont'd

Required reading:

> Holmes, O. W. 1964. Archival arrangement: Five different operations at five different levels. *American Archivist* 27 (1): 21–41.

> Fox, M. J., and P. L. Wilkerson. 1998. *Introduction to archival organization and description: Access to cultural heritage*. Los Angeles, CA: Getty Information Institute.

> International Council on Archives. 2000. *ISAD(G): General International Standard Archival Description*. 2nd ed. Ottawa, Canada: ICA.

> Society of American Archivists. 2001. Statement of principles for the CUSTARD project. http://www.archivists.org/news/custardproject.asp (accessed September 17, 2007).

> Thurman, A. C. 2005. Metadata standards for archival control: An introduction to EAD and EAC. *Cataloging & Classification Quarterly* 40 (3/4): 183–212.

> Leigh, A. 2006. Context! Context! Context!: Describing moving images at the collection level. *The Moving Image* 6 (1): 33–65.

Class 10: Thursday, December 6, 2007
Institutional contexts IV: Museums

Demo -- CONTENTdm, cont'd

Assignment 4 due -- Final paper

Required reading:

> Canadian Heritage Information Network. 2002–. Guide to museum documentation standards. http://www.chin.gc.ca/English/Standards/index.html (accessed September 17, 2007).

> Visual Resources Association. 2006. *Cataloging Cultural Objects*: A guide to describing cultural works and their images. http://www.vraweb.org/ccoweb/ (accessed September 17, 2007).

> Visual Resources Association. 2002. VRA Core categories, version 3.0. http://php.indiana.edu/~fryp/vracore3.htm (accessed September 17, 2007).

> Visual Resources Association. 2007. Welcome to the VRA Core 4.0. http://www.vraweb.org/projects/vracore4/index.html (accessed September 17, 2007).

Week 11: Thursday, December 13, 2007
No class! Happy Finals Week!

Assignment 3 due (5pm, Friday, December 14, 2007) -- CONTENTdm (group project)