Fall 2017 Online Class

# INLS 520-03W

# INLS 520 Organization of Information (Online)

# **Course Description**

In this version of INLS 520, we will focus on fundamental concepts of organizing systems that transcend particular implementations or professional contexts. We will not restrict ourselves to the traditional concerns of information science, narrowly defined, because organizing systems are not so restricted.

You will be able to use what you learn in INLS 520 in all information professions. INLS 520 will help you to understand, use, explain, create, assess, and interrogate any organizing system.

Although organizing systems are simple in the abstract, they become incredibly complex in practice. This is because organizing systems attempt to make an unruly, messy, and ambiguous world appear systematic and orderly—and, often, the world isn't having it. For INLS 520, this means that easy answers are impossible, and you cannot find refuge in following rules. But this is what makes organizing information fun—and fascinating.

# **Learning Objectives**

This course is designed to teach you:

- Basic elements that constitute the structure and arrangement of organizing systems:
  - Things (entities, resources, items, phenomena...).
  - Categories (attributes, dimensions, properties, elements, fields...).
  - Values (terms, tags, descriptors, categories...).
  - Relationships (between things, between categories, between values).
- The role of categorization
- The ubiquity of organizing systems and categorization processes and their complex integration throughout our forms of life—social, cultural, scientific, technical.
- The inherent instability, ambiguity, and arbitrariness of any organizing system
- The power and potential for misuse of organizing systems

#### Instructor: GRACE SHIN

E-Mail: gshin6@live.unc.edu School of Information and Library Science UNC-Chapel Hill

# **Required Textbook**

There is one required textbook for this class:

The Discipline of Organizing, edited by Robert J. Glushko, 3rd ed. O'Reilly, 2015. You can use either the **Professional** Edition or the Core Concepts Edition.

#### **Course Acknowledgements**

The design, materials, and implementation of this version of INLS 520 is the product of a collaborative effort of SILS instructors: Samantha Kaplan, Melanie Feinberg, Ryan Shaw Jane Greenberg, and myself. At the end of this course, you will be able to:

- Design an organizing system.
- Implement an organizing system: Explain how others should implement it. Assess an organizing system.
- Explain an organizing system.

# **Course Requirements**

- Discussion participations 10 points
- 4 Virtual presentations 20 points (5 points each)
- 4 Assignments 40 points (10 points each)
- Final Exam 30 points

# Grading

Based on current UNC grading scales, the following grades and corresponding numeric ranges are applicable:

Grad Grade	Range	Definitions*
Н	95-100	High Pass
Р	80-94	Pass
L	79-79	Low Pass
F	69 or Below	Fail

\*Definitions are from: <u>http://registrar.unc.edu/academic-</u> services/grades/explanation-of-grading-system/

### Late work & Extension

Late work: If you submit an assignment late there is a 10% point penalty.

**Extensions:** Depending on circumstances and the date requested, extensions will be granted at the discretion of the instructor. If you anticipate needing an extension, please set up a meeting to discuss it as soon as possible. Asking for extensions at the last minute will not be regarded with welcome except for extreme circumstances.

### Assignments & Assessments

Materials. All materials can be found in Sakai. The course syllabus, schedule, slides, videos, assignments, and other resources will be there.

#### Video & Slides will be released every Tuesday

**Readings.** A list of readings, organized in recommended order is provided for each class. Do not be overwhelmed by the length of some lists – most readings are only a few pages long and/or only select pages from each reading are required (details will be listed in each course module). Readings should be completed prior to the beginning of each week so you are prepared to engage in class discussion.

**Discussion**. We will be using the **discussion forum** as the main form of course interaction. You are expected to visit the course site at least **2-3 days out of each week** (the instructor will be monitoring the forum daily) to post your responses to discussion prompts and to offer thoughtful replies to your classmates' posts. We will use the forum for formal discussions of weekly readings, your individual assignments (see below) and to informally discuss any topics/issues that come up during the course. The course is short in duration, so your active engagement in forum discussions is the best way to get the most out of the course!

Four Assignments. There are four main assignments for this course. The assignment description will be posted in the Assignment tool.

- 1. Scoping and Identifying Resources Assignment
- 2. Creating a Vocabulary & Descriptions Assignment
- 3. Building a Taxonomy Assignment
- 4. Classifying with Facets Assignment

**Four Virtual Presentations**. The purpose of these assignments is to allow students to explore a topic of their choice in more detail for each module and to share the results with classmates. You are required to provide a short report in the form of a <u>slide</u> <u>presentation (10 slides)</u> on a topic relevant to each of the 4 course modules. A list of suggested topics will be provided in the Resources section of the course site but feel free to choose other topics of interest (pending instructor approval). The presentations should be based on scholarly information sources (make sure to include a proper list of references). Try to use non-textual materials in your presentation (online videos or examples, tables, charts, diagrams) as a way to synthesize and present the key ideas and themes. If some text is necessary, please limit it to very short paragraphs and bulleted lists. Please include voice narration with your presentations. All presentations will be posted on the course website for comments from other class participants. The author is expected to respond to any questions posted by classmates.

**Final Exam.** The purpose of the final exam is to assess the knowledge gained from the course. As such, it will be based on assigned readings, lectures, and assignments. The exam which is essentially 'open book' will require your responses to a series of short essay questions. The time limit for the exam is approximately **3 hours**. The questions will require that you integrate and summarize what has been covered in the course. Pre-exam review suggestions will be provided.

# **Course Communication**

**Course announcements.** Announcements will be posted on Sakai. Announcements may include information about the week's work, or other timely information.

**Messages.** I may use the message tool to send individual messages to you; I may also copy the message to your email address. You can also use the tool to send a message to me.

**Email.** Email is the best way to contact me. I try to reply to student emails within 48 hours, there are times that it may take me 2-3 days to reply.

# **Course Schedule**

The schedule is subject to change – It's possible that items will be added or deleted through the term.

# Module 1. Concepts and Representation

# What is organization? A look at organizing principles, ER diagrams, and defining your organizational domain and scope

#### Week 1 - Introduction (Tuesday. Aug. 22)

Introduction to the class and distribution of the syllabus. Important dates, exam, and assignments described.

#### Material:

- 1. Video & slides
- 2. Syllabus
- 3. Forum: Introduce Yourself! (Deadline 9/1/2017)

#### Week 2 - What are Organizing System? (Tuesday. Aug. 29)

#### Material:

#### 1. Video & slides

- 2. Glushko, Robert J. "1. Foundations for Organizing Systems." In *The Discipline of Organizing*, edited by Robert J. Glushko, 3rd ed. O'Reilly, 2015.
- 3. Buckland, M. (1991). Information as a Thing. Journal of the American Society of Information Science, 42(5): 351-360 [E-Journal Finder], or a preprint is available at: http://people.ischool.berkeley.edu/~buckland/thing.html.

#### Week 3 - Retrieval Tools (Tuesday Sep. 5)

#### Material:

- 1. Video & slides
- 2. Assignment 1 Scoping and Identifying Resources: Assignment 1 is due September 12, 2017, all comments and responses are due by September 18, 2017.
- Buckland, Michael K. "What is a 'Document'?" Journal of the American Society for Information Science 48, no. 9 (September 1997):804-809 - Download it from Resource Section on Sakai. Also available: http://www.sims.berkeley.edu/~buckland/whatdoc.html.
- 4. Levy, David M. "Cataloging in the Digital Order." In Digital Libraries '95: The Second Annual Conference on the Theory and Practice of Digital Libraries, June 11-13, 1995, Austin, Texas. Available: http://www.csdl.tamu.edu/DL95/papers/levy/levy.html
- 5. Matthews, Joseph R. "The Value of Information: The Case of the Library Catalog." Technical Services Quarterly 19, no. 2 (2001):1-16. **Download it from Resource Section on Sakai**
- Virtual Presentation1: By September 5, 2017, please select a topic and begin working on your module presentation. Presentations are due September 15, 2017, all comments and responses are due by September 18, 2017.

#### Week 4 - Activities in Organizing Systems (Tuesday Sep.12)

- 1. Video & slides
- 2. Glushko, Robert J., Erik Wilde, and Jess Hemerly. "Activities in Organizing Systems." Chapter 2 in The Discipline of Organizing, edited by Robert J. Glushko, 2012.
- 3. Morville, Peter and Rosenfeld, Louis. "User Needs and Behaviors" Chapter 3 in *Information Architecture for the World Wide Web*," Third Edition. *This is an e- book available through the UNC library.*

- 4. Jones, W. (2004).Finders, keepers? The present and future perfect in support of personal information management. *First Monday*, 9(3). Available at: http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1123/1043
- 5. Hearst, Marti. 2009. Chapter 4: "Query Specifications" in *Search User Interfaces*, http://searchuserinterfaces.com/book/sui\_ch4\_query\_specification.html
- 6. Hearst, Marti. "Models of the Information Seeking Process." In Search User Interfaces. Cambridge, UK: Cambridge University Press, 2009. <u>http://searchuserinterfaces.com/book/sui\_ch3\_models\_of\_information\_seeking.html</u>.(You only need to read sections 3.1–3.4 of "Models of the Information Seeking Process)

# Module 2. Resources and XML: Creating your own vocabulary

#### Week 5 - Resources in Organizing Systems (Tuesday Sep. 19)

#### Material:

- 1. Video & slides
- Glushko, Robert J., Daniel D. Turner, Kimra McPherson, and Jess Hemerly. "Resources in Organizing Systems." Chapter 3 in The Discipline of Organizing, edited by Robert J Glushko, 2012. Sections 3.1 and 3.2 only.
- 3. Tillett, B. (2004). What is FRBR? Library of Congress: http://www.loc.gov/cds/downloads/FRBR.PDF
- Functional Requirements for Bibliographic Records: Final Report. Approved by the Standing Committee of the IFLA Section on Cataloguing. (1997, amended & corrected through Feb. 2009): <u>http://www.ifla.org/files/cataloguing/frbr/frbr\_2008.pdf</u>
- 5. Berners-Lee, Tim. Cool URIs Don't Change. W3C Style. W3C, 1998. http://www.w3.org/Provider/Style/URI.html.

#### Week 6 - eXtensible Markup Language (Tuesday Sep. 26)

#### Topics

- XML and creating your own vocabulary
- HTML
- Content standards
- Controlled Vocabularies
- 1. Video & slides
- 2. Assignment 2 Creating a Vocabulary & Descriptions: Assignment 2 is due October 3, 2017, all comments and responses are due by October 9, 2017.
- 3. Birnbaum, David J. "What is XML and why should humanists care? An even gentler introduction to XML", January 5, 2012. <u>http://dh.obdurodon.org/what-is-xml.xhtml</u>.
- 4. Fast, K., & Leise, F (2002). What is a controlled vocabulary? <u>http://boxesandarrows.com/what-is-a-controlled-vocabulary/</u>

#### Week 7 - Resource Description and Metadata (Tuesday Oct. 3)

#### Topics

- Metadata
- Dublin Core
- 1. Video & slides
- Glushko, Robert J., Kimra McPherson, Ryan Greenberg, Matthew Mayernik, Graham Freeman, and Carl Lagoze. "4. Resource Description and Metadata." In The Discipline of Organizing, edited by Robert J. Glushko, 3rd ed. O'Reilly, 2015.
- 3. Wheatly, Malcolm. "Operation Clean Data." CIO, September 10, 2005. http://www.cio.com.au/article/166533/operation\_clean\_data

 Elings, Mary W. and Günter Waibel. "Metadata for All: Descriptive Standards and Metadata Sharing across Libraries, Archives and Museums." First Monday, volume 12, number 3 (March 2007). <u>http://firstmonday.org/article/view/1628/1543</u>

#### Week 8 - Describing Resources (Tuesday Oct. 10)

#### Topics

- Describing Multimedia Resources
- Thesauri
- 1. Video & slides
- Harpring, Patricia. "The Language of Images: Enhancing Access to Images by Applying Metadata Schemas and Structured Vocabularies." In Introduction to Art Image Access: Issues, Tools, Standards, and Strategies, edited by Murtha Baca. Los Angeles: Getty Publications, 2002.
  http://www.getty.edu/recearch/wublications/cleatronic\_publications/intro.eig/harmsing.pdf

http://www.getty.edu/research/publications/electronic\_publications/intro\_aia/harpring.pdf.

- Corthaut, Nik, Sten Govaerts, Katrien Verbert, and Erik Duval. "Connecting the Dots: Music Metadata Generation, Schemas and Applications." In Proceedings of the 9th International Conference on Music Information Retrieval. Philadelphia, 2008. <u>http://ismir2008.ismir.net/papers/ISMIR2008\_213.pdf</u>.
- 4. Thesaurus principles and practice. (2008, rev. from 1992 doc.). Willpower Information Management Consultants: http://www.willpowerinfo.co.uk/thesprin.htm.
- Virtual Presentation 2: By October 3, 2017, please select a topic and begin working on your module presentation. Presentations are due October 13, 2017, all comments and responses are due by October 16, 2017.

# Module 3. Classification and Categorization, Metadata

#### Week 9 - Relationships and Structures (Tuesday Oct. 17)

- 1. Video & slides
- 2. Glushko, Robert J., Matthew Mayernik, Alberto Pepe, and Murray Maloney. "5. Describing Relationships and Structures." In The Discipline of Organizing, edited by Robert J. Glushko, 3rd ed. O'Reilly, 2015
- Fellbaum, Christiane. "WordNet." In Theory and Applications of Ontology: Computer Applications, edited by Roberto Poli, Michael Healy, and Achilles Kameas, 231–243. Springer Netherlands, 2010. <u>http://www.springerlink.com/content/n2516j53k5p26x76/abstract/</u>.

#### Week 10 – Classification: Assigning Resources to Categories and Classification Structures (Tuesday Oct. 31)

#### Topics

- Taxonomy building
- Classification schemes
- Facet classification

#### Material:

- 1. Video & slides
- 2. Assignment 3- Building a Taxonomy: Assignment 3 is due October 24, 2017.
- Glushko, Robert J., Jess Hemerly, Vivien Petras, Michael Manoochehri, Longhao Wang, Jordan Shedlock, and Daniel Griffin. "7. Classification: Assigning Resources to Categories." In The Discipline of Organizing, 3rd ed. O'Reilly, 2015.

- 4. Lambe, P. (2007). Taxonomies can take many forms. In Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness, 4-48. Oxford: Chandos.
- 5. Hearst, L. (2008). UIs for Faceted Navigation: Recent Advances and Remaining Open Problems. In Proceedings of the Workshop on Computer Interaction and Information Retrieval (HCIR 2008). Redmond, Washington. Available at: http://flamenco.berkeley.edu/papers/hcir08.pdf

#### Week 11 - Categories: Describing Resource Classes and Types (Tuesday Oct. 24)

#### Material:

- 1. Video & slides
- 2. Glushko, Robert J., Rachelle Annechino, Jess Hemerly, and Longhao Wang. "6. Categorization: Describing Resource Classes and Types." In The Discipline of Organizing, edited by Robert J. Glushko, 3rd ed. O'Reilly, 2015.
- Glushko, Robert J, Paul P Maglio, Teenie Matlock, and Lawrence W Barsalou. "Categorization in the Wild." Trends in Cognitive Sciences 12, no. 4 (April 2008): 129–35. http://www.sciencedirect.com/science/article/pii/S1364661308000557
- 4. Glushko, Robert J., Jess Hemerly, Vivien Petras, Michael Manoochehri, Longhao Wang, Jordan Shedlock, and Daniel Griffin. "7. Classification: Assigning Resources to Categories." In The Discipline of Organizing, 3rd ed. O'Reilly, 2015.

#### Week 12 - Interactions with Organizing Systems (Tuesday Nov. 7)

- 1. Video & slides
- Williams, Ashley. "User-centered Design, Activity-centered Design, and Goal-directed Design: a Review of Three Methods for Designing Web Applications." In Proceedings of the 27th ACM International Conference on Design of Communication, 1–8. SIGDOC '09. New York, NY, USA: ACM, 2009. http://doi.acm.org/10.1145/1621995.1621997.
- Norman, Donald A. "Logic Versus Usage: The Case for Activity-centered Design." Interactions 13, no. 6 (November 2006): 45–ff. <u>http://doi.acm.org/10.1145/1167948.1167978</u>.
- Virtual Presentation 3: By October 24, 2017, please select a topic and begin working on your module presentation. Presentations are due November 10, 2017, all comments and responses are due by November 13, 2017.

# Module 4. Standard, Linked data, and Semantic Web

#### Week 13 - Standards for Organizing I (Tuesday Nov. 14)

- 1. Video & slides
- 2. XML Foundations: XML Foundations
- 3. XML tutorials at **ZVON** and **W3Schools**
- 4. Explanation of RDF(Resource Description Framework) at RDF for Librarians presentation

#### Week 14 - Standards for Organizing II (Tuesday Nov. 21)

- 1. Video & slides
- 2. Value standard: ISO <u>3166-1</u>
- 3. Complex value standards resemble (or are) classifications, with faceted and/or hierarchical structure: Medical Subject Headings (MeSH).
- 4. Starndard: Database guidelines

#### Week 15 - Computational Approaches to Categorization & Classification (Tuesday Nov. 28)

#### Topics

- Semantic Web
- Linked Data
- 1. Video & slides
- 2. Ray, Kate. Web 3.0, 2010. http://vimeo.com/11529540. A video about the Semantic Web.
- Heath, Tom, and Christian Bizer. "Introduction." In Linked Data: Evolving the Web into a Global Data Space. Synthesis Lectures on the Semantic Web: Theory and Technology. Morgan & Claypool, 2011. http://linkeddatabook.com/editions/1.0/#htoc1.
- Virtual Presentation 4: By November 21, 2017, please select a topic and begin working on your module presentation. Presentations are due December 1, 2017, all comments and responses are due by December 4, 2017

Week 16 – Final Review and Wrap Up (Tuesday Dec. 5)

#### Final Exam

Exams will take place on December 7, 2017 from 8AM – 11AM EST. Please contact the instructor if you need to schedule an alternate three hours window to complete your final exam.

# **Policies on Academic Integrity and UNC Honor Code**

Chapel Hill has had a student-administered honor system and judicial system for over 100 years. Because academic honesty and the development and nurturing of trust and trustworthiness are important to all of us as individuals, and are encouraged and promoted by the honor system, this is a most significant University tradition. More information is available at <a href="http://studentconduct.unc.edu/honorsystem">http://studentconduct.unc.edu/honorsystem</a>