THE UNIVERSITY OF BRITISH COLUMBIA
iSchool (Library, Archival & Information Studies)
Faculty of Arts

We acknowledge that we are on the traditional, ancestral and unceded territory of the hən̓q̓əmin̓əm̓ speaking Musqueam people.

The mission of UBC iSchool is to enhance humanity's capacity to engage information in effective, creative and diverse ways, through innovative research, education and design.

LIBR 514E: Taxonomies: Research and Evaluation– Course Syllabus (3)

Program:	Master of Library and Information Studies
Year:	2018-2019 Winter Session, term 1
Course Schedule:	Mondays, 6:00 to 8:50 PM
Location:	
Instructor:	Aaron Loehrlein
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Office hours:	
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Learning Management Site:	canvas.ubc.ca

Course Goal: The primary focus of this course is taxonomies and how they are used. It builds on skills and techniques you learned in courses in the LIBR core. Taxonomies are hierarchical arrangements of concepts. They are used in a wide variety of information systems, including library catalogs, popular websites, e-commerce sites, medical and scientific databases, and repositories of music and art. While it is important that information professionals use taxonomies correctly, it is even more important to understand how non-professionals use taxonomies. By doing so, we can see what users expect from taxonomies and which types of taxonomic structures people are most comfortable with. This course considers two major aspects of taxonomies. The first aspect concerns usability studies for taxonomies. The second aspect concerns the theories and philosophies that form the basis of high quality taxonomies. In professional practice, the evaluation of taxonomies is often not approached systematically. This course will explore methods for evaluation that are widely used, as well as methods that are less well known.

Course Objectives:

Upon completion of this course students will be able to:

1. Describe and interpret current issues regarding the creation and use of taxonomies [1.2, 3.1, 4.1]
2. Evaluate taxonomies as tools for organizing information [1.2, 4.1]
3. Design and revise taxonomies to address the social and cognitive issues that people encounter when searching for information [1.2, 2.2, 3.1]

Course Topics:

- Hierarchical structure and labeling

- Navigating taxonomies
- Making inferences based on taxonomic structure
- Qualitative and quantitative theories that model the design and use of taxonomies
- Philosophical assumptions underlying taxonomies
- Studies of specific taxonomies
- Studies involving general types of taxonomies

Prerequisites:
MLIS and Dual MAS/MLIS: Completion of MLIS Core or permission of the iSchool Graduate Advisor
MAS: completion of MAS core and permission of the iSchool Graduate Advisor

Format of the course: Class meets on Monday evenings. Class sessions will be primarily discussions, some of which will be led by students. Some class sessions will also include lectures by the instructor.

Required and Recommended Reading: Provided online, via Canvas, or via UBC Libraries

Tentative reading list:

- Bang, M., Medin, D. L., & Atran, S. (2007). Cultural mosaics and mental models of nature. Proceedings of the National Academy of Sciences, 104(35), 13868 –13874. http://doi.org/10.1073/pnas.0706627104
- Bilal, D., & Wang, P. (2005). Children's conceptual structures of science categories and the design of Web directories. Journal of the American Society for Information Science and Technology, 56(12), 1303–1313. http://doi.org/10.1002/asi.20216
- Bowker, G. C. & Star, S. L. (2000). The ICD as information infrastructure. In *Sorting Things Out: Classification and Its Consequences* (pp. 107-134). Cambridge, MA: MIT Press. (Canvas)
- Bowker, G. C. & Star, S. L. (2000). The kindness of strangers: Kinds and politics in classification. In *Sorting Things Out: Classification and Its Consequences* (pp. 53-106). Cambridge, MA: MIT Press. (Canvas)
- Dahlberg, I. (1988). Concept and definition theory. In Classification theory in the computer age: Conversations across the disciplines: Proceedings from the Conference, November 18-19, 1988, Albany New York (pp. 12–24). Albany: Nelson A. Rockefeller College of Public Affairs and Policy, University at Albany, State University of New York.
- Frické, M. (2011). Faceted classification: Orthogonal facets and graphs of foci? Knowledge Organization, 38(6), 491–502.
- Furner, J. (2007). Dewey deracialized: A critical race-theoretic perspective. Knowledge Organization, 34(3), 144–168.
- Giess, M. D., Wild, P. J., & McMahon, C. A. (2008). The generation of faceted classification schemes for use in the organisation of engineering design documents. International Journal of Information Management, 28(5), 379–390.

- Glushko, R. J., Maglio, P. P., Matlock, T., & Barsalou, L. W. (2008). Categorization in the wild. Trends in Cognitive Sciences, 12(4), 129-135.
- Goldstone, R. L., & Barsalou, L. W. (1998). Reuniting perception and conception. Cognition, 65(2-3), 231–262.
- Hedden, H. (2011). Taxonomy planning, design, and creation. In The Accidental Taxonomist (pp. 289-320). Medford, NJ: Information Today. (Canvas)
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? Behavioral and Brain Sciences, 33(2–3), 61–83.
- Hjørland, B. (2009). Concept theory. Journal of the American Society for Information Science and Technology, 60(8), 1519–1536. doi:10.1002/asi.21082
- Jacob, E. K. (2002). Augmenting human capabilities: Classification as cognitive scaffolding. In Challenges in knowledge representation and organization for the 21st century. Integration of knowledge across boundaries (pp. 38–44). Würzburg, Germany: Ergon Verlag. (Canvas)
- Katz, M. A., & Byrne, M. D. (2003). Effects of scent and breadth on use of site-specific search on e-commerce Web sites. *ACM Transactions of Computer-Human Interaction, 10*(3), 198–220.
- Keshet, Y. (2011). Classification systems in the light of sociology of knowledge. *Journal of Documentation, 67*(1), 144–158. doi:http://dx.doi.org.ezproxy.library.ubc.ca/10.1108/00220411111105489
- Kim, K., Jacko, J., & Salvendy, G. (2011). Menu Design for Computers and Cell Phones: Review and Reappraisal. International Journal of Human-Computer Interaction, 27(4), 383–404. http://doi.org/10.1080/10447318.2011.540493
- Lambe, P. (2007). Defining our terms. In *Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness* (pp. 1-12). Cambridge, MA: Woodhead Publishing.
- Lambe, P. (2007). Taxonomies can take many forms. In *Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness* (pp. 13-48). Cambridge, MA: Woodhead Publishing.
- Larson, K., & Czerwinski, M. (1998). Web page design: Implications of memory, structure and scent for information retrieval. In *Proceedings of the SIGCHI conference on Human factors in computing systems* (pp. 25–32). Los Angeles, California, United States: ACM Press/Addison-Wesley Publishing Co.
- Mai, J.-E. (2010). Classification in a social world: Bias and trust. *Journal of Documentation, 66*(5), 627-642.
- Nisbett, R. E. (2003). Is the world made up of nouns or verbs? In *The Geography of Thought* (pp. 137-164). New York: Free Press. (Canvas)
- OptimalSort demo: http://www.optimalworkshop.com/optimalsort.htm
- Reamy, T. (2010). Folksonomy Folktales. URL: http://www.kmworld.com/Articles/ReadArticle.aspx?ArticleID=71998
- Righi, C., James, J., Beasley, M., Day, D.L., Fox, J.E., Gieber, J., Howe, C., & Ruby, L. (2013). Card sort analysis best practice. *Journal of Usability Studies, 8*(3), 69–89. http://www.upassoc.org/upa_publications/jus/2013may/JUS_Righi_May_2013.pdf

- Rorissa, A., & Iyer, H. (2008). Theories of cognition and image categorization: What category labels reveal about basic level theory. Journal of the American Society for Information Science and Technology, 59(9), 1383–1392.
- Stock, W. G. (2010). Concepts and semantic relations in information science. Journal of the American Society for Information Science and Technology, 61(10), 1951–1969. http://doi.org/10.1002/asi.21382
- Szostak, R. (2011). Complex concepts into basic concepts. Journal of the American Society for Information Science and Technology, 62(11), 2247–2265. http://doi.org/10.1002/asi.21635
- Tennis, J. T. (2012). The strange case of eugenics: A subject's ontogeny in a long-lived classification scheme and the question of collocative integrity. Journal of the American Society for Information Science and Technology, 63(7), 1350–1359. http://doi.org/10.1002/asi.22686
- Turnbow, D., Kasianovitz, K., Snyder, L., Gilbert, D., & Yamamoto, D. (2005). Usability testing for web redesign: a UCLA case study. *OCLC Systems & Services, 21*(3), 226–234. doi:10.1108/10650750510612416
- Whitenton, K. (2013). Flat vs. deep website hierarchies. http://www.nngroup.com/articles/flat-vs-deep-hierarchy/
- Yee, K.-P., Swearingen, K., Li, K., & Hearst, M. (2003). Faceted metadata for image search and browsing. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 401–408). New York, NY: ACM.

Course Assignments

Assignment Name	Due Date	Weight	Graduate Competencies
Briefing Paper	Oct 15	10%	1.2
Critique of Taxonomy	Dec 3	40%	1.2, 2.2, 4.1
Leading Discussion	Varies by student	25%	3.1, 4.1
Class participation and attendance	Throughout the term	25%	2.2, 3.1

Assignment Descriptions

Leading a Class Discussion – students will plan and manage a class discussion session of their choosing (approximately 20-30 minutes). Students will prepare supplemental readings, class activities, and discussion questions for the class, coordinated in advance with the instructor. Discussion topic selection will occur at our second class meeting.

Taxonomy Briefing– Students will select an existing taxonomy. They will write a short paper (approximately 1,000-1,500 words) that describes the function and form of the taxonomy. This paper will be due on October 16. The taxonomy that is chosen should meet these criteria:

- The taxonomy has a user base. That is, there are people who actually use it. Taxonomies that are created as course projects often do not fit this criterion.

- The taxonomy should consist of:
  - Nodes/Headings/Terms
  - Relationships (nested relationships are okay)
  - There should be a set of items that is organized by the taxonomy, even if it is just "sample" items.
- The taxonomy should be large enough to provide the basis for a meaningful description. At a minimum, the taxonomy should contain at least 50 nodes. However, the taxonomy should not be so large as to be overwhelming and impossible to analyze. For example, the Medical Subject Headings (MeSH) taxonomy has approximately 25,000 headings. If you choose to describe MeSH, or another large taxonomy, you should describe the taxonomy at a high, general level.
- It does not matter if the taxonomy is formally referred to as a "taxonomy." Many taxonomies are referred to as thesauri, subject heading systems, classification schemes, etc. As long as it fits the criteria above, the particular name given the taxonomy is not an issue.
- Write a brief description of the taxonomy (approximately 1,000-1,500 words). The description should cover these points, but is not limited to these points:
- The name of the taxonomy
- The conceptual domain of the taxonomy. That is, what concepts in general are covered by the taxonomy. Your description should what you feel are the major concepts in the taxonomy. Also, if applicable, provide a few illustrative examples of topics that the taxonomy covers in less detail. Feel free to use you own intuitions in identifying the concepts covered by the taxonomy.
- The person or organization who maintains the taxonomy
- The people, or types of a people (e.g., a profession) for whom the taxonomy has been designed.
- The typical use or uses of the taxonomy. For example, it may be used to organize and provide access to a set of documents. If so, briefly describe the documents, who is likely to use them, and what they are likely to use them for.
- Also, describe your initial impression of the taxonomy. Does it seem to be useful? Are there any features of the taxonomy that are a cause for concern?

Revised Taxonomy – Working separately or in groups, students will propose a revision to the taxonomy that they have selected. The students should select a particular section of the taxonomy and redesign it, so that it can better meet the use to which it is put. Alternately, the student may focus on one or more aspects of the taxonomy (users, relationship types, etc.) and propose revisions to that aspect. Additional details regarding this assignment will be provided later in the semester. Students will informally present and discuss their proposals in the last session of class.

Course Schedule [week-by-week]:

Topic	**Date**
Week 1 Introduction and course expectations	Sep 10
Week 2 Foundations and Taxonomic Structures • Lambe, P. (2007) (Canvas) o Defining our terms (pp. 1-12) o Taxonomies can take many forms (pp. 13-48) • Hedden, H. (2011) (Canvas)	Sep 17

• Stock (2010) (UBC Libraries) Optional Reading: • Glushko et al (2008) (UBC Libraries)	
Week 3 Taxonomies in LIS • Mai, J.-E. (2010) (UBC Libraries) • Furner (2007) (Canvas) Optional Reading: • Tennis, J. T. (2012)	Sep 24
Week 6 Taxonomies in Health Care • Bowker and Star (2000) (Canvas) o The Kindness of Strangers (pp. 53-106) o ICD as Information Infrastructure (pp. 107-134)	Oct 1
No Class: Thanksgiving Day	Oct 8
Week 7 Culture and Conception • Henrich et al (2010) (UBC Libraries) Note: Only the first 23 pages are required • Bang et al (2007) UBC Libraries) Optional Reading: • Nisbett (2003) (Canvas)	Oct 15
Week 8 Conceptual Theories and Grounding • Jacob (2002) (Canvas) • Hjørland (2009) (UBC Libraries) • Szostak (2011) (UBC Libraries) • Goldstone & Barsalou (1998) (UBC Libraries)	Oct 22
Week 10 Navigation • Whitenton (2013) (online) • Kim, Jacko, & Salvendy (2011) (UBC Libraries) Optional Reading: • Bilal & Wang (2005) (UBC Libraries)	Oct 29
Week 11 Card Sorting • Righi et al (2013) (online) • Turnbow et al (2005) (UBC Libraries) • OptimalSort demo	Nov 5

No class: Remembrance Day	Nov 12
Week 12 Taxonomies and Folksonomies • Keshet (2011) (UBC Libraries) • Reamy (2010) (online) • Rorissa & Iyer (2008) (UBC Libraries)	Nov 19
Week 13 Presentations	Nov 26

Attendance: Excessive absences may result in lower marks for class participation.

Evaluation: All assignments will be marked using the evaluative criteria given on the iSchool web site.

Access & Diversity: Access & Diversity works with the University to create an inclusive living and learning environment in which all students can thrive. The University accommodates students with disabilities who have registered with the Access and Diversity unit: [https://students.ubc.ca/about-student-services/access-diversity]. You must register with the Disability Resource Centre to be granted special accommodations for any on-going conditions.

Religious Accommodation: The University accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Please let your instructor know in advance, preferably in the first week of class, if you will require any accommodation on these grounds. Students who plan to be absent for family obligations, or other similar commitments, cannot assume they will be accommodated, and should discuss with the instructor before the course drop date. UBC policy on Religious Holidays: http://equity.ubc.ca/days-of-significance-calendar/

Academic Integrity
Plagiarism

The Faculty of Arts considers plagiarism to be the most serious academic offence that a student can commit. Regardless of whether or not it was committed intentionally, plagiarism has serious academic consequences and can result in expulsion from the university. Plagiarism involves the improper use of somebody else's words or ideas in one's work. The UBC policy on Academic Misconduct is available here: http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,54,111,959.

It is your responsibility to make sure you fully understand what plagiarism is. Many students who think they understand plagiarism do in fact commit what UBC calls "reckless plagiarism." The UBC Learning Commons has a resource page on how to avoid plagiarism, with policies on academic integrity and misconduct found here: [http://learningcommons.ubc.ca/resource-guides/avoid-plagiarism/

If after reading these materials you still are unsure about how to properly use sources in your work, please ask your instructor for clarification.