Information Organization and Access

University of Illinois School of Information Sciences

Sun, Aug 7, 2016 3:12:24 PM

LIS 501A Fall 2016 Tuesday 1:00-2:50pm Room 126 Thursday 1:00-3:50pm Room 46 4 credit hours

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Course Description

This course provides an intensive and thorough introduction to fundamentals of information organization and access from the point of view of the field of library and information science. The course is not an introduction to LIS as a whole or to the profession of librarianship—the focus is squarely on information organization and access. 501 aims to acquaint you with the principal problems of information organization and access, the main streams of thought, and the key thinkers and contributors. The material covered is broad in scope and applicable to a wide variety of settings and systems. The course emphasizes the

central position of people, communities, and information users in problems of information organization and access.

Course Overview

The central themes of the course are:

- 1. Who uses information, how they use it, and what constraints shape their use of information:
- 2. How recorded knowledge can be organized and structured;
- 3. Ways of providing access to the world's knowledge.

Learning Objectives

- 1. To provide a foundation for further study in library and information science, including an appreciation for forms of systematic research in LIS.
- 2. To introduce central concepts, theories, principles, research issues, and people associated with the practice and study of information organization and access.
- 3. To advance a common set of ideas that help to define the profession's orientation toward problems of information organization and access.

Course Materials

There is no required textbook for this course; required articles and book chapters are available electronically, through the UIUC Library's electronic reserves system (https://reserves.library.illinois.edu/ares/), the UIUC Library's e-journals search tool (http://openurl.library.uiuc.edu/sfxlcl3/az), or the open Web (as indicated).

The textbook *The Discipline of Organizing* by Robert J. Glushko is recommended for those new to the field. It provides a discussion of many of the concepts we will discuss in class, and can be accessed online at http://vufind.carli.illinois.edu/vf-uiu/Record/uiu_7572272.

This course will introduce you to many terms and concepts that may be new to you.

Remember that the Library provides access to some reference sources online that may be helpful in providing additional background and explanations.

These titles are linked from: http://www.library.illinois.edu/lsx/findit/tools/encyclopedias.html and http://www.library.illinois.edu/lsx/findit/tools/dictionaries.html.

They include: ODLIS: Online Dictionary for Library and Information Science and the Encyclopedia of Library and Information Sciences.

About Maria Bonn

Maria is a senior lecturer at the Graduate School of Library and Information Science at the GSLIS. She is developing courses on the role of libraries in scholarly communication and publishing. Prior to her teaching appointment, Maria served as the associate university librarian for publishing at the University of Michigan Library, with responsibility for publishing and scholarly communications initiatives, including the University of Michigan Press, the Library's Scholarly Publishing Office, the institutional repository (Deep Blue), the Copyright Office, and the Text Creation Partnership. She has also been an assistant professor of English at Albion College and taught at Sichuan International Studies University (Chongqing, China) and Bilkent University (Ankara, Turkey). She received a bachelor's degree with a major in English from the University of Rochester, masters and doctoral degrees in American Literature from SUNY Buffalo, and a masters in information and library science from the University of Michigan.

About Dave Dubin

David Dubin is a Research Associate Professor at GSLIS. His research explores the foundations of information representation and description as well as issues of expression and encoding in documents and digital information resources.

About Jodi Schneider

Jodi Schneider is an assistant professor at the School of Information Sciences. She studies scholarly communication and social media through the lens of arguments, evidence, and persuasion. She is developing Linked Data (ontologies, metadata, Semantic Web) approaches to manage scientific evidence. Jodi holds degrees in informatics (Ph.D., National University of Ireland, Galway), library & information science (M.S. UIUC), mathematics (M.A. UT-Austin), and liberal arts (B.A., Great Books, St. John's College). She worked in academic libraries and bookstores for 6 years. She has also held research positions across the U.S. as well as in Ireland, England, France, and Chile.

Library Resources

http://www.library.illinois.edu/lsx/lislib@library.illinois.edu

Phone: 217-333-3804

Writing Resources

The Writers Workshop provides free consultations. For more information see http://www.cws.illinois.edu/workshop/

Academic Integrity

Please review and reflect on the academic integrity policy of the University of Illinois, http://admin.illinois.edu/policy/code/article1_part4_1-401.html to which we subscribe. By turning in materials for review, you certify that all work presented is your own and has been done by you independently, or as a member of a designated group for group assignments. If, in the course of your writing, you use the words or ideas of another writer, proper acknowledgement must be given (using APA, Chicago, or MLA style). Not to do so is to commit plagiarism, a form of academic dishonesty. If you are not absolutely clear on what constitutes plagiarism and how to cite sources appropriately, now is the time to learn. Please ask me! Please be aware that the consequences for plagiarism or other forms of academic dishonesty will be severe. Students who violate university standards of academic integrity are subject to disciplinary action, including a reduced grade, failure in the course, and suspension or dismissal from the University.

Statement of Inclusion

http://www.inclusiveillinois.illinois.edu/chancellordivstmtswf.html#ValueStmt

As the state's premier public university, the University of Illinois at Urbana-Champaign's core mission is to serve the interests of the diverse people of the state of Illinois and beyond. The institution thus values inclusion and a pluralistic learning and research environment, one which we respect the varied perspectives and lived experiences of a diverse community and global workforce. We support diversity of worldviews, histories, and cultural knowledge across a range of social groups including race, ethnicity, gender identity, sexual orientation, abilities, economic class, religion, and their intersections.

Accessibility Statement

To obtain accessibility-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TTY), or e-mail a message to disability@uiuc.edu.

Assignments and Evaluation

All assignments are required for all students. Completing all assignments is not a guarantee of a passing grade. All work must be completed in order to pass this class. Late or incomplete assignments will not be given full credit unless the student has contacted the instructor prior to the due date of the assignment (or in the case of emergencies, as soon as practicable). There will be three main assignments, and ten labs. The weighting of each assignment in the final grade is noted below.

Assignments, Exercises & Grade Distribution:

- Assignment 1: Information Needs/Information Seeking Behavior. Due September due date at 11:59 PM (20%).
- Assignment 2: Digital Collections Assessment. Due October due date at 11:59 PM (20%).
- Assignment 3: Final Project. Due October due date at 11:59 PM (40%).
- 10 Labs for Attendance and Completion/Class Participation (20%)

Labs:

- 1. Library resources (August 25)
- 2. ITD on computing resources (September 1)
- 3. Zotero bibliography and formatting (September 29)
- 4. Cultural heritage object description (September 15)
- 5. Research methods exercise (September 22)
- 6. Pandoc encoding and transformation (September 8)
- 7. Bibo/DC output from Zotero (October 6)
- 8. Collection stewardship exercise (October 13)
- 9. Poster prep (October 20)
- 10. Poster presentations (October 27)

Grading Scale:

94-100 = A

90-93 = A-

87-89 = B+

83-86 = B

80-82 = B-

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77-79 = C+
73-76 = C
70-72 = C-
67-69 = D+
63-66 = D
60-62 = D-
59 and below = F
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Assignment 1 Information Needs/Information Seeking Behavior

Due September due date at 11:59 PM. This assignment is worth 20 points.

Rationale

The purpose of this exercise is two-fold. First, it is intended to allow you to examine the factors that condition the information needs or influence the information seeking behavior of a specific user group. Second, it affords you the opportunity to explore what types of research methods are used to do research on concrete user groups. The handout from the first lab of class will assist you with this exercise. Methods Handout If you'd like to know more about the method(s) in your article, you can refer to this Research Methods portal: http://InformationR.net/rm/

Tasks

- 1. Select a category of information user that interests you (e. g., high school student, scientist, health care consumer, migrant farm worker).
- 2. Identify a published research study that investigates information needs and/or information seeking behavior of individuals from this population.

Deliverable

In a brief essay of 600-700 words (1-2 pages) discuss your article's research question, methods, findings, and implications for design of information systems and services (in-person, web-based, or both). Integrate relevant readings from those assigned for class and especially those you have read to date (and from the users and information needs session in particular) in support of your arguments.

Submitting

- 1. Upload your essay to the Assignment 1 Moodle dropbox.
- 2. Post a one-paragraph summary of your article on the Assignment 1 discussion forum.
- 3. Bring a copy of your article to class for small group discussion.

Strategies for locating research studies

Articles indexed under the subject "Information needs" or "Information-seeking behavior" in Library & Information Science Source (link from http://www.library.illinois.edu/lsx/http://openurl.library.uiuc.edu/sfxlcl3/az)

Articles indexed under the descriptor "Information seeking behaviour" or "User needs" in LISA (link from http://www.library.illinois.edu/lsx/ http://openurl.library.uiuc.edu/sfxlcl3/az http://www.library.uiuc.edu/orr/results.php?types= A&subject=29)

Studies need not be recently published, but an example of a recent study of this type is the following:

Darby, P.; Clough, P. (2013). Investigating the information-seeking behaviour of genealogists and family historians. Journal of Information Science 39(1): 73-84.

People are increasingly investigating their family history (or genealogy) as part of their everyday information-seeking activities. This paper provides insight into this behaviour and presents a new conceptual model that captures the stages of activity carried out during people's lifelong family history research. The model offers a multi-phase view of the research process, intended to illustrate: (a) the different research phases themselves; (b) the inter-relationship between phases; (c) distinct phase-specific behaviours; and (d) phasespecific resource preferences. Data collected from amateur family historians by interview and questionnaire has helped to validate the model and provide insights into the information resources used. The findings complement existing knowledge about family history research and will benefit: family historians as they seek to navigate within the research process; providers of genealogical resources as they seek to better support users; and academics as they study information-seeking behaviours in various contexts.

To determine whether the full text of an article is available online, search for the journal title at: http://openurl.library.uiuc.edu/sfxlcl3/az. The text of the article may also be freely available on the web (e. g., on the author's web site), so you might also try doing a Google search using the article title. If the text is not available online, you will need to request a copy of the article. See the

LibGuide for Online and Continuing Education Student Resources from the Library:

 $\label{libguides.com/content.php?pid=28713&sid=209698} $http://uiuc.libguides.com/content.php?pid=28713&sid=214766 $http://u$

Topic Schedule

Week 1, August 23: LIS Education and professional life

- Background: (Glushko 2015c), (Wright 2014b), (Wright 2014a), (Levie and Sofidoc Productions. 2004).
- Required: (Ferraris 2011), (Lavoie, Dempsey, and Connaway 2006), (Dyson 2011), (Bush 1945), (Buckland 1997), (Bates 1999).

Week 2, August 30: Users and information needs

- Background: (Glushko 2015d), (Naumer and Fisher 2009), (Wilson 2008), (Miksa 2009), (Foss et al. 2012), (Hyder 2014), (David Johnson 2014), (Connaway and Faniel 2014), (Marcia J. Bates 2009), (Connaway and Powell 2010).
- Required: (Connaway, Dickey, and Radford 2011), (Blair 2003), (Bawden and Robinson 2009).

Week 3, September 6: Research Methods

- Background: (Fidel 2008), (Brett Sutton 2009), (Sandstrom and Sandstrom 1995), (Connaway and Powell 2010).
- Required: (Shachaf and Horowitz 2006), (Whitmire 1999).

Week 4, September 13: Structures and Standards

- Background: (Glushko 2015b), (Bettels and Bishop 1993).
- Required: (Vogt 2013), (DeRose 2014), (Coombs, Renear, and DeRose 1987).

Week 5, September 20: Approaches to organizing information

- Background: (Glushko 2015e).
- Required: (Kennedy 2008), (Maxwell 2010), (Warren 2015), (Swoger 2012).

Week 6, September 27: Collections

- Background: (Junus 2014), (Glushko 2015a).
- Required: (Hadro 2013), ("Update on the Twitter Archive at the Library of Congress." 2013), (Hunter and Oehlerts 1981), (Lewis 2013).

Week 7, October 4: Preservation

• Background: (Glushko 2015f).

• Required: (Shilton and Srinivasan 2007), (Teper 2014).

Week 8, October 11: Search and discovery

- Background: (Gossen and Nürnberger 2013), (Hearst 2009), (Duffy 2013), (Bates 2007).
- Required: (Saarinen and Vakkari 2013), (Bawden 2011), (Barton and Mak 2012), (Adkins and Bossaller 2007).

Week 9, October 18: Evaluation of systems and services

- Background.
- Required: (Asher, Duke, and Wilson 2013), (Voorhees 2002).

Week 10, October 25: Subject analysis and subject languages

- Background: (Kreyche 2013), (Mitchell and Vizine-Goetz 2009), (Chan and Hodges 2009), (Anderson and Pérez-Carballo 2009), (Beghtol 2009).
- Required: (Lee 2011), (Higgins 2012), (Fister 2009), (Buckland 2012), (Brown-Sica and Beall 2008).

References

Adkins, Denice, and Jenny E. Bossaller. 2007. "Fiction Access Points Across Computer-Mediated Book Information Sources: A Comparison of Online Bookstores, Reader Advisory Databases, and Public Library Catalogs." Library & Information Science Research 29 (3): 354–68. doi:10.1016/j.lisr.2007.03.004.

Anderson, James Doig, and José Pérez-Carballo. 2009. "Library of Congress Subject Headings (LCSH)." In *Encyclopedia of Library and Information Sciences*, *Third Edition*, 3392–3405. Taylor & Francis. http://www.tandfonline.com/doi/abs/10.1081/E-ELIS3-120043717.

Asher, Andrew D, Lynda M Duke, and Suzanne Wilson. 2013. "Paths of Discovery: Comparing the Search Effectiveness of EBSCO Discovery Service, Summon, Google Scholar, and Conventional Library Resources." College & Research Libraries 74 (5): 464–88. doi:10.5860/crl-374.

Barton, Joshua, and Lucas Mak. 2012. "Old Hopes, New Possibilities: Next-Generation Catalogues and the Centralization of Access." *Library Trends* 61 (1): 83–106. doi:10.1353/lib.2012.0030.

Bates, Marcia J. 1999. "The Invisible Substrate of Information Science." Journal of the American Society for Information Science 50 (12): 1043-50. doi:10.1002/(SICI)1097-4571(1999)50:12<1043::AID-ASI1>3.0.CO;2-X.

———. 2007. "What Is Browsing—really? A Model Drawing from Behavioural Science Research." *Information Research* 12 (4). http://www.informationr.net/

ir/12-4/paper330.html.

Bawden, David. 2011. "Encountering on the Road to Serendip? Browsing in New Information Environments." In *Innovations in Information Retrieval:* Perspectives for Theory and Practice London. London: Facet Publishing. https://reserves.library.illinois.edu/.

Bawden, David, and Lyn Robinson. 2009. "The Dark Side of Information: Overload, Anxiety and Other Paradoxes and Pathologies." *J. Inf. Sci.* 35 (2): 180–91. doi:10.1177/0165551508095781.

Beghtol, Clare. 2009. "Classification Theory." In *Encyclopedia of Library and Information Sciences, Third Edition*, 1045–60. Taylor & Francis. http://www.tandfonline.com/doi/abs/10.1081/E-ELIS3-120043230.

Bettels, Jürgen, and F. Avery Bishop. 1993. "Unicode: A Universal Character Code." *Digital Tech. J.* 5 (3): 21–31. http://www.hpl.hp.com/hpjournal/dtj/vol5num3/vol5num3art2.pdf.

Blair, Ann. 2003. "Reading Strategies for Coping With Information Overload ca.1550-1700." *Journal of the History of Ideas* 64 (1): 11–28. doi:10.1353/jhi.2003.0014.

Brett Sutton. 2009. "Qualitative Research Methods in Library and Information Science [ELIS Classic]." In *Encyclopedia of Library and Information Sciences*, *Third Edition*, null:4380–93. null. Taylor & Francis. http://dx.doi.org/10.1081/E-ELIS3-120044785.

Brown-Sica, Margaret, and Jeffrey Beall. 2008. "Library 2.0 and the Problem of Hate Speech." *Electronic Journal of Academic and Special Librarianship* 9 (2). http://southernlibrarianship.icaap.org/content/v09n02/brown-sica_m01.html.

Buckland, Michael K. 1997. "What Is a 'Document'?" Journal of the American Society for Information Science 48 (9): 804-9. doi:10.1002/(SICI)1097-4571(199709)48:9<804::AID-ASI5>3.0.CO;2-V.

——. 2012. "Obsolescence in Subject Description." *Journal of Documentation* 68 (2): 154–61. http://www.emeraldinsight.com/doi/abs/10.1108/00220411211209168.

Bush, Vannevar. 1945. "As We May Think." *The Atlantic Monthly* 176 (1): 101–8. http://www.theatlantic.com/unbound/flashbks/computer/bushf.htm.

Chan, Lois Mai, and Theodora L. Hodges. 2009. "Library of Congress Classification (LCC)." In *Encyclopedia of Library and Information Sciences, Third Edition*, 3383–91. Taylor & Francis. http://www.tandfonline.com/doi/abs/10. 1081/E-ELIS3-120043714.

Connaway, Lynn Silipigni, and Ixchel M. Faniel. 2014. Reordering Ranganathan: Shifting User Behaviors, Shifting Priorities. Dublin, OH: OCLC Research. http://www.oclc.org/content/dam/research/publications/library/2014/

oclcresearch-reordering-ranganathan-2014.pdf.

Connaway, Lynn Silipigni, and Ronald R. Powell. 2010. "Selecting the Research Method." In *Basic Research Methods for Librarians*, 71–106. Library and Information Science Text Series. Santa Barbara, Calif: Libraries Unlimited. http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN= 348676&site=ehost-live.

Connaway, Lynn, Timothy Dickey, and Marie Radford. 2011. "'If It Is Too Inconvenient I'm Not Going After It:' Convenience as a Critical Factor in Information-Seeking Behaviors'." *Library & Information Science Research* 33 (3): 179–90. doi:http://dx.doi.org/10.1016/j.lisr.2010.12.002.

Coombs, James H., Allen H. Renear, and Steven J. DeRose. 1987. "Markup Systems and the Future of Scholarly Text Processing." *Commun. ACM* 30 (11): 933–47. doi:10.1145/32206.32209.

David Johnson, J. 2014. "Health-Related Information Seeking: Is It Worth It?" Information Processing & Management 50 (5): 708-17. doi:10.1016/j.ipm.2014.06.001.

DeRose, Steven J. 2014. "What Do We Still Lack? Or: Prolegomena to Any Future Hypertext System." In *Proceedings of the Symposium on HTML5 and XML*. Vol. 14. Balisage Series on Markup Technologies. Washington, DC: Muberry Technologies, Inc. doi:10.4242/BalisageVol14.DeRose01.

Duffy, Eamon P. 2013. "Searching HathiTrust: Old Concepts in a New Context." *Partnership: The Canadian Journal of Library and Information Practice and Research* 8 (1). https://journal.lib.uoguelph.ca/index.php/perj/article/view/2503.

Dyson, Freeman. 2011. "How We Know." *The New York Review of Books*, March. http://www.nybooks.com/articles/archives/2011/mar/10/how-we-know/.

Ferraris, Maurizio. 2011. "Social Ontology and Documentality." In Approaches to Legal Ontologies: Theories, Domains, Methodologies, edited by Giovanni Sartor, Pompeu Casanovas, Mariangela Biasiotti, and Meritxell Fernández-Barrera, 1:83–97. Law, Governance and Technology Series. Dordrecht: Springer Netherlands. http://dx.doi.org/10.1007/978-94-007-0120-5 5.

Fidel, Raya. 2008. "Are We There yet?: Mixed Methods Research in Library and Information Science." Library & Information Science Research 30 (4): 265–72. doi:10.1016/j.lisr.2008.04.001.

Fister, Barbara. 2009. "The Dewey Dilemma." Library Journal 134 (16): 22–25. http://eric.ed.gov/?id=EJ859403.

Foss, Elizabeth, Allison Druin, Robin Brewer, Phillip Lo, Luis Sanchez, Evan Golub, and Hilary Hutchinson. 2012. "Children's Search Roles at Home: Implications for Designers, Researchers, Educators, and Parents." Journal

of the American Society for Information Science and Technology 63 (3): 558–73. doi:10.1002/asi.21700.

Glushko, Robert J. 2015a. "Activities in Organizing Systems." In *The Discipline of Organizing*, 3rd ed., 97–168. O'Reilly. http://disciplineoforganizing.org/.

- ——. 2015b. "Describing Relationships and Structures." In *The Discipline of Organizing*, 3rd ed., 295–344. O'Reilly. http://disciplineoforganizing.org/.
- ———. 2015c. "Foundation for Organizing Systems." In *The Discipline of Organizing*, 3rd ed., 33–96. O'Reilly. http://disciplineoforganizing.org/.
- ———. 2015d. "Interactions with Resources." In *The Discipline of Organizing*, 3rd ed., 499–542. O'Reilly. http://disciplineoforganizing.org/.
- ———. 2015e. "Resources in Organizing Systems." In *The Discipline of Organizing*, 3rd ed., 169–230. O'Reilly. http://disciplineoforganizing.org/.
- ———. 2015f. "The Organizing System: Roadmap." In *The Discipline of Organizing*, 3rd ed., 543–70. O'Reilly. http://disciplineoforganizing.org/.

Gossen, Tatiana, and Andreas Nürnberger. 2013. "Specifics of Information Retrieval for Young Users: A Survey." *Information Processing & Management* 49 (4): 739–56. doi:10.1016/j.ipm.2012.12.006.

Hadro, J. 2013. "What's the Problem with Self-Publishing?" *Library Journa* 138 (7): 34–36. http://lj.libraryjournal.com/2013/04/publishing/whats-the-problem-with-self-publishing/.

Hearst, Marti A. 2009. "The Evaluation of Search User Interfaces." In *Search User Interfaces*. Cambridge: Cambridge University Press. http://searchuserinterfaces.com/book/sui_ch2_evaluation.html.

Higgins, Colin. 2012. "Library of Congress Classification: Teddy Roosevelt's World in Numbers?" Cataloging & Classification Quarterly 50 (4): 249–62. http://www.tandfonline.com/doi/abs/10.1080/01639374.2012.658989.

Hunter, N. C., Legg, and J.B. Oehlerts. 1981. "Two Librarians, an Archivist, and 13,000 Images: Collaborating to Build a Digital Collection." *Library Quarterly* 80 (1): 81–103. doi:10.1086/648464.

Hyder, Eileen Mary. 2014. "Reading Groups and Social Justice." In *Reading Groups, Libraries and Social Inclusion: Experiences of Blind and Partially Sighted People*, 49–63. Farnham, Surrey, England: Burlington, VT: Ashgate Publishing, Ltd.

Junus, Ranti. 2014. "Digital Collections and Accessibility." MSU Libraries Blogs. *Digital Scholarship Collaborative Sandbox*. http://blogpublic.lib.msu.edu/index.php/dscsandbox/digital-collection-and-accessibility.

Kennedy, M.R. 2008. "Nine Questions to Guide You in Choosing a Metadata Schema." *Journal of Digital Information* 9 (1). http://journals.tdl.org/jodi/

article/view/226/205.

Kreyche, Michael. 2013. "Subject Headings in Spanish: The Lcsh-Es. Org Bilingual Database." *Cataloging & Classification Quarterly* 51 (4): 389–403. http://www.tandfonline.com/doi/abs/10.1080/01639374.2012.740610.

Lavoie, Brian, Lorcan Dempsey, and Lynn Silipigni Connaway. 2006. "Making Data Work Harder." *Library Journal* 131 (1): 40–42. http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=19426604&site=ehost-live.

Lee, Deborah. 2011. "Indigenous Knowledge Organization: A Study of Concepts, Terminology, Structure and (Mostly) Indigenous Voices." *Partnership: The Canadian Journal of Library and Information Practice and Research* 6 (1). https://journal.lib.uoguelph.ca/index.php/perj/article/view/1427.

Levie, Françoise., and Sofidoc Productions. 2004. "The Man Who Wanted to Classify the World." http://www.aspresolver.com/aspresolver.asp?VASC; 1641522.

Lewis, D. W. 2013. "From Stacks to the Web: The Transformation of Academic Library Collecting." *College & Research Libraries* 14 (2): 159–76. doi:10.5860/crl-309.

Marcia J. Bates. 2009. "Information." In *Encyclopedia of Library and Information Sciences, Third Edition*, null:2347–60. null. Taylor & Francis. http://dx.doi.org/10.1081/E-ELIS3-120045519.

Maxwell, R.L. 2010. "Bibliographic Control. 497-505." *Encyclopedia of Library and Information Sciences*, locate from: http://www.library.illinois.edu/lsx/findit/tools/encyclopedias.html].

Miksa, Francis. 2009. "Information Organization and the Mysterious Information User." Libraries & the Cultural Record 44 (3): 343–70. http://www.jstor.org/stable/25549558.

Mitchell, Joan S., and Diane Vizine-Goetz. 2009. "Dewey Decimal Classification (DDC)." In *Encyclopedia of Library and Information Sciences, Third Edition*, 1507–17. Taylor & Francis. http://www.tandfonline.com/doi/abs/10.1081/E-ELIS3-120043240.

Naumer, Charles M., and Karen E. Fisher. 2009. "Information Needs." In *Encyclopedia of Library and Information Sciences*, *Third Edition*, null:2452–8. null. Taylor & Francis. http://www.tandfonline.com/doi/abs/10.1081/E-ELIS3-120043243.

Saarinen, Katariina, and Pertti Vakkari. 2013. "A Sign of a Good Book: Readers' Methods of Accessing Fiction in the Public Library." *Journal of Documentation* 69 (5): 736–54. doi:10.1108/JD-04-2012-0041.

Sandstrom, Alan R., and Pamela Effrein Sandstrom. 1995. "The Use and Misuse of Anthropological Methods in Library and Information Science Research." *The*

Library Quarterly: Information, Community, Policy 65 (2): 161–99. http://www.jstor.org/stable/4309020.

Shachaf, Pnina, and Sarah Horowitz. 2006. "Are Virtual Reference Services Color Blind?" *Library & Information Science Research* 28 (4): 501–20. doi:10.1016/j.lisr.2006.08.009.

Shilton, Katie, and Ramesh Srinivasan. 2007. "Participatory Appraisal and Arrangement for Multicultural Archival Collections." *Archivaria* 63: 87. http://rameshsrinivasan.org/wordpress/wp-content/uploads/2010/03/8-Final-ShiltonSrinivasan-Archivaria.pdf.

Swoger, B. 2012." What Is Metadata? A Christmas-Themed Exploration. Info Culture." *Sicientific American*. http://blogs.scientificamerican.com/information-culture/2012/12/17/what-is-metadata-a-christmas-themed-exploration/.

Teper, Jennifer Hain. 2014. "Selection for Preservation." *Library Resources & Technical Services* 58 (4): 220–32. http://search.ebscohost.com/login.aspx? direct=true&db=a9h&AN=99263271&site=ehost-live.

"Update on the Twitter Archive at the Library of Congress." 2013. Library of Congress. http://www.loc.gov/today/pr/2013/files/twitter_report_2013jan.pdf.

Vogt, Lars. 2013. "eScience and the Need for Data Standards in the Life Sciences: In Pursuit of Objectivity Rather Than Truth." Systematics and Biodiversity 11 (3): 257–70. doi:10.1080/14772000.2013.818588.

Voorhees, EllenM. 2002. "The Philosophy of Information Retrieval Evaluation." In *Evaluation of Cross-Language Information Retrieval Systems*, edited by Carol Peters, Martin Braschler, Julio Gonzalo, and Michael Kluck, 2406:355–70. Lecture Notes in Computer Science. Springer Berlin Heidelberg. http://dx.doi.org/10.1007/3-540-45691-0_34.

Warren, John. 2015. "(2015) Zen and the Art of Metadata Maintenance." Journal of Electronic Publishing 18 (3). http://dx.doi.org/10.3998/3336451.0018.305.

Whitmire, Ethelene. 1999. "Racial Differences in the Academic Library Experiences of Undergraduates." *The Journal of Academic Librarianship* 25 (1): 33–37. doi:10.1016/S0099-1333(99)80173-6.

Wilson, Tom. 2008. "The Information User: Past, Present and Future." Journal of Information Science 34 (4): 457-64. doi:10.1177/0165551508091309.

Wright, Alex. 2014a. Cataloging the World: Paul Otlet and the Birth of the Information Age. Oxford: Oxford University Press. http://vufind.carli.illinois.edu/vf-uiu/Record/uiu 7507894.

———. 2014b. "The Secret History of Hypertext — The Atlantic." http://www.theatlantic.com/technology/archive/2014/05/in-search-of-the-proto-memex/371385/.