LIS 663: Basic Database Searching (HITS) | Fall 2009

Thursdays 4-6:40 p.m., 204 Kuykendall | Manoa CRN 72519 / Outreach CRN 1031
Rich Gazan | gazan@hawaii.edu
office: POST 314D (office hours Thursdays 2-4, or by appointment)
Course Website: http://laulima.hawaii.edu

The goal of this course is for students to gain a functional understanding of information retrieval systems, how they are implemented in a diverse array of Web and professional online databases, and how to search and use them effectively in research and reference work. Prerequisite: LIS 601, Introduction to Reference and Information Services.

LIS Program Learning Objectives

- Demonstrate theoretical understanding of and basic competencies in evaluating, selecting and organizing information sources. (#5)
- Demonstrate theoretical understanding of and basic competencies in retrieval, dissemination, utilization and evaluation of information sources. (#6)
- Apply basic competencies and knowledge that are essential for providing, managing, and designing information services in a variety of information environments. (#3)
- Demonstrate basic competency in the latest specialized information technologies. (#11)
- Demonstrate an understanding of the above goals within the perspective of prevailing technologies. (#12)

Course Learning Objectives

- Learn to search online databases efficiently and effectively, emphasizing their use as part of reference service in libraries and information/media centers;
- Become acquainted with the characteristics of bibliographic and non-bibliographic databases from a professional searcher's point of view;
- Learn the basics of searching the most widely used professional online information systems in college, public and school libraries;
- Understand the role and functions of the search intermediary and search instructor;
- Raise awareness of the deficiencies in the expensive professional online information systems.

ALA Core Competencies addressed:

- Knowledge Organization: standards to control and create information structures, principles involved in the organization and representation of knowledge and information structures. (#3)
- Technological Knowledge: current information and communication technologies as they affect information centers, concepts and processes related to assessing and evaluating impact and efficacy of tech-based products and services, use of Information and Communication Technology (ICT) and tools; (#4)
- Knowledge Dissemination—Service: concepts, principles and techniques that facilitate information access for users, interaction with users to provide consultation or guidance in use of information resources, assessment of user needs, diversity in user need. (#5)

Professional expectations

All students in the Program are expected to become familiar with and adhere to the Professional Expectations, at http://www.hawaii.edu/lis/students.php?page=profexp

Teaching method

This course will be conducted in a lecture/discussion format, with regular exercises inside and outside of class to impart and reinforce key concepts and practices of effective online information retrieval. In this course, you will be required to spend an extraordinary amount of time working on your own and in groups, familiarizing yourself with a wide variety of databases, to put concepts from lectures and readings into practice. Discussions allow more in-depth exploration of readings and live systems, and allow students to contribute to the direction of the course. Assignments and exercises provide the opportunity for students to develop and demonstrate a professional level of database searching expertise. All readings are online, available through the Resources section of the Laulima course website (http://laulima.hawaii.edu/).

Research methods

Research methods employed in this course include action research, case studies, experiments, heuristic evaluation and information retrieval.

Assignments and grading

Assignments 1 and 2 will be online searching exercises done in groups; submit one joint paper per group by midnight before the due date. Assignments are based on lectures, discussions, readings, and the expectation that students will work independently to gain understanding, well beyond what assignments require. General guidelines and requirements:

- Use the databases intensively and critically.
- Consult database Help files, readings and lecture slides, early and often.
- Expect frustration. Persevere.
- Work on your own, then reach consensus with your group on the best solutions.
- Keep a digital diary of your search steps, rationale and results. Screenshots are mandatory. Be prepared to demonstrate and discuss your results in class.
- Submit assignments digitally, to gazan@hawaii.edu. Back up your files.
- Don't procrastinate. Late assignments will be penalized 5 points for each 24 hour period after the deadline, and you may be asked to leave class during discussion.
- Don't free-ride. Team underperformers will be identified in individual assessment papers, and their grade adjusted accordingly.
- Don't plagiarize. Plagiarism may result in dismissal from the LIS Program.

The midterm, final and individual assessment will be done individually. The midterm will be a collection of challenging search exercises distributed in Week 10 and due Week 12. For the final, you will declare an area of topic expertise in Week 6, and will be presented with a reference question in your topic area for you to solve live in class on Week 16. You will then have three days to write up a brief analysis of your experience. The individual assessment is a brief reflective report of your group experience in Assignments 1 and 2. More detail on all the assignments will be provided in class. There will also be occasional in-class exercises that will not be graded individually, but will form part of your participation grade.

- Assignments 1 and 2: 15 points each
- Midterm: 25 points
- Final project: 30 points (20 presentation + 10 writeup)
- Individual assessment: 5 points
- Exercises and participation: 10 points

99-100 A+ | 93-98 A | 90-92 A- | 88-89 B+ | 83-87 B | 80-82 B- | 78-79 C+ | 73-77 C

Schedule (subject to change)

Date	**Topic / Assignments**	**Readings** (try to read these in the order listed)
Week 1 8/27	Introduction and core concepts	Wells Bush Swanson Belkin Tennant Storey
Week 2 9/3	Search flow: interactions and interfaces	Saracevic Xie Novotny Haglund
Week 3 9/10	Search flow: strategies and tactics	Jacsó (1999) Bates (1989) Morton Proctor
Week 4 9/17	Abstracting and indexing services **DUE: Assignment 1 (9/16, 11:59pm)**	Lawlor Regazzi De Guire
Week 5 9/24	Controlled vocabulary	Furnas Bates (1998) Shiri Jacsó (2003, parts 1-3) Gault
Week 6 10/1	Web search models and natural language searching **DUE: Final project proposal (9/30, 11:59pm)**	Falagas Jansen (1998) Choo Jacsó (2005e) Zhou
Week 7 10/8	Search engine optimization	Google + SEO readings Jansen (2008)
Week 8 10/15	Advanced search operations and query refinement **DUE: Assignment 2 (10/14, 11:59pm)**	Jacsó (2004b, 2005d) Othman
Week 9 10/22	Citation-based searching	Garfield Tenopir (2001) Jacsó (2004a, 2005a, 2007a-c, 2008)
Week 10 10/29	Midterm	
Week 11 11/5	ASIST conference—no class meeting	
Week 12 11/12	Enhancing and evaluating search results **DUE: Midterm (11/11, 11:59pm)**	Harter Quint (parts 1-2) Ojala Jacsó (2005c, parts 1-2)
Week 13 11/19	Database selection and resource discovery	Tenopir (2002) Meier
Week 14 11/26	Hybrid models	Tenopir (2008) Gazan
Week 15 12/3	Project work day	
Week 16 12/10	**DUE: Final project presentation (12/10)** **Final project writeup + Individual assessment (12/13, 11:59pm)**	

Readings

Bates, Marcia J. (1989). The Design of Browsing and Berrypicking Techniques for the Online Search Interface. Online Review (13), 407-424. http://www.gseis.ucla.edu/faculty/bates/berrypicking.html

Bates, Marcia J. (1998). Indexing and Access for Digital Libraries and the Internet: Human, Database, and Domain Factors. Journal of the American Society for Information Science 49(13), 1185-1205. http://www.gseis.ucla.edu/faculty/bates/articles/indexdlib.html

Belkin, Nicholas J. (2000). Helping People Find What They Don't Know. Communications of the ACM. 43(8), 58-61.

Bush, Vannevar (1945). As We May Think. Atlantic Monthly 176(1), 101-108. http://www.theatlantic.com/doc/print/194507/bush

Choo, C.W., B. Detlor, and D. Turnbull (2000). Information Seeking on the Web: An Integrated Model of Browsing and Searching. First Monday 5(2). http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/729/638

De Guire, Eileen J. (2006). Publish or Perish: Afterlife of a Published Article. CSA Discover Guides. http://www.csa.com/discoveryguides/publish/review.php

Falagas, Matthew E., Efthymia A. Karveli, Vassiliki I. Tritsaroli (2008). The Risk of Using the Internet as Reference Resource: A Comparative Study. International Journal of Medical Informatics 77, 2008: 280-286.

Furnas, G.W., T.K. Landauer, L.M. Gomez, S.T. Dumais (1987). The Vocabulary Problem in Human-System Communication. Communications of the ACM 30(11), 964-971.

Garfield, Eugene (1955). Citation Indexes for Science. Science, New Series 122(3159), 108-111.

Gault, Lora V. and Mary Shultz, Kathy J. Davies (2002). Variations in Medical Subject Headings (MeSH) Mapping: From the Natural Language of Patron Terms to the Controlled Vocabulary of Mapped Lists. Journal of the Medical Library Association 90(2), 173-180. http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=100762

Gazan, Rich (2008). Social Annotations in Digital Library Collections. D-Lib 14(11/12). http://www.dlib.org/dlib/november08/gazan/11gazan.html

Google + SEO readings (2009).

Google Online Marketing Challenge main page.
http://www.google.com/onlinechallenge/index.html

Dodging Google Sheriff
http://www.theage.com.au/news/web/dodging-google-sheriff/2007/08/20/1187462175390.html?page=fullpage

SEOmoz site
http://www.seomoz.org/article/search-ranking-factors

Google AdWords info and tutorials
http://www.google.com/onlinechallenge/adwords.html

Haglund, Lotta and Per Olsson (2008). The Impact on University Libraries of Changes in Information Behavior Among Academic Researchers: A Multiple Case Study. The Journal of Academic Librarianship, 34(1) 2008: 52-59.

Harter, Stephen P. (1992). Psychological Relevance and Information Science. Journal of the American Society for Information Science 43(9), 602-615.

Jacsó, Péter (1999). Savvy Searching Starts with Browsing. Online & CD-ROM Review 23(3), 169-172.

Jacsó, Péter (2003). Using Controlled Vocabulary
Part 1: Content. Online Information Review 27(4), 284-286.
Part 2: Software Issues. Online Information Review 27(5), 359-363
Part 3: Query Mapping and Thesaurus Term Suggestion. Online Information Review 27(6), 446-450.

Jacsó, Péter (2004a). Citation-Enhanced Indexing/Abstracting Databases. Online Information Review 28(3), 235-238.

Jacsó, Péter (2004b). Query Refinement by Word Proximity and Position. Online Information Review 28(2), 158-161.

Jacsó, Péter (2005a). As We May Search – Comparison of Major Features of the Web of Science, Scopus and Google Scholar Citation-Based and Citation-Enhanced Databases. Current Science 89(9), 1537-1547.

Jacsó, Péter (2005b). Browsing Indexes of Cited References. Online Information Review 29(1).

Jacsó, Péter (2005c). Options for Presenting Search Results
Part 1: Online Information Review 29(3) 311-319.
Part 2: Online Information Review 29(4), 412-418.

Jacsó, Péter (2005d). Relevance in the Eye of the Search Software. Online Information Review 29(6), 676-682.

Jacsó, Péter (2005e). Visualizing Overlap and Rank Differences Among Web-Wide Search Engines. Online Information Review 29(5), 554-560.

Jacsó, Péter (2007a). Scopus. Peter's Digital Reference Shelf.
http://www.gale.cengage.com/reference/peter/200711/scopus.htm

Jacsó, Péter (2007b). Software Issues Related to Cited References. Online Information Review 31(6), 892-905.

Jacsó, Péter (2007c). The Web of Science. Peter's Digital Reference Shelf.
http://www.gale.cengage.com/reference/peter/200701/wos.htm

Jacsó, Péter (2008). Google Scholar Revisited. Online Information Review 32(1), 102-114.

Jansen, Bernard, Karen Hudson, Lee Hunter, Fang Liu and Jamie Murphy (2008). The Google Online Marketing Challenge: Classroom Learning with Real Clients, Real Money, and Real Advertising Campaigns. Journal of Interactive Advertising 9(1). http://jiad.org/article109

Jansen, Bernard, Amanda Spink and Tefko Saracevic (1998). Failure Analysis in Query Construction: Data and Analysis from A Large Sample of Web Queries. Proceedings of the 3rd ACM Conference on Digital Libraries. Pittsburgh, PA.

Lawlor, Bonnie (2003). Abstracting and Information Services: Managing the Flow of Scholarly Communication—Past, Present, and Future. Serials Review 29(3), 200-209.

Meier, John, Thomas W. Conkling (2008). Google Scholar's Coverage of the Engineering Literature: An Empirical Study. The Journal of Academic Librarianship, 34(3), 196-201.

Morton, Douglas (1993). Refresher Course: Boolean AND (searching OR retrieval). Online 17(1), 57-59.

Novotny, E. (2004). I Don't Think, I Click: A Protocol Analysis Study of Use of a Library Online Catalog in the Internet Age. College & Research Libraries 65(6), 525–37.

Ojala, Marydee (2003). When Bad Searches Happen to Good Searchers. Online, 27(1), 58-60.

Othman, Roslina and Nor Sahlawaty Halim (2004). Retrieval Features for Online Databases: Common, Unique, and Expected. Online Information Review 28(3), 200-210.

Proctor, Edward (2002). Boolean Operators and the Naive End User. Moving to AND. Online 26(4), 34-37.

Quint, Barbara (1991). Inside a Searcher's Mind: The Seven Stages of an Online Search
Part 1: Online 15(3), 13-18.
Part 2: Online 15(4), 28-35.

Regazzi, John J. (2004). The Battle for Mindshare: A Battle Beyond Access and Retrieval. Information Services & Use 24, 83-92.

Saracevic, Tefko (1996). Modeling Interaction in Information Retrieval (IR): A review and proposal. Proceedings of the American Society for Information Science 33, 3-9.

Shiri, Ashgar, Crawford Revie, and Robinda Chowdhury (2002). Thesaurus-Enhanced Search Interfaces. Journal of Information Science 28(2), 111-122.

Storey, Tom (2007). Search for Tomorrow: Preparing for a New Age in Information Gathering. NextSpace: The OCLC Newsletter 6(1). http://www.oclc.org/nextspace/006/1.htm

Swanson, Don (1988). Historical Note: Information Retrieval and the Future of an Illusion. Journal of the American Society for Information Science 39(2), 91-97.

Tennant, Roy (2001). Digital Libraries - The Convenience Catastrophe. Library Journal 15 December 2001. http://www.libraryjournal.com/article/CA185367.html

Tenopir, Carol (2001). Online Databases - The Power of Citation Searching. Library Journal 1 November 2001. http://www.libraryjournal.com/article/CA178212.html

Tenopir, Carol (2002). Online Databases - Sorting Through Online Systems. Library Journal 1 May 2002. http://www.libraryjournal.com/article/CA213863.html

Tenopir, Carol (2008). Online Databases - The Past Catches Up. Library Journal, 15 July 2008. http://www.libraryjournal.com/article/CA6573363.html

Wells, H.G. (1937). The Idea of a Permanent World Encyclopedia. Encyclopedie Francaise. https://sherlock.ischool.berkeley.edu/wells/world_brain.html

Xie, Hong (Iris) (2003). Supporting Ease of Use and User Control: Desired Features and Structure of Web-Based Online IR Systems. Information Processing and Management 39, 899-922.

Zhou, L. (2007). Natural Language Interface for Information Management on Mobile Devices. Behaviour & Information Technology 26(3), 197-207.