

CHARLES H. DAVIS



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CURRENT POSITIONS

Senior Fellow and Adjunct Professor,
[Dept. of Information and Library Science, Indiana University at Bloomington;](#)

School of Informatics and Computing
[School of Informatics and Computing; Chemical Nomenclature Lecture Notes](#)

Professor Emeritus, [Graduate School of Library and Information Science](#)
[University of Illinois at Urbana-Champaign](#)

FORMAL EDUCATION

Ph.D. M.A., Indiana University at Bloomington
(Major: Information Science; Minors: Research Libraries, Toxicology)

University of Munich, Germany, German Government Fellow
(Major: Organic Chemistry; Minor: Astronomy)

B.Sc., Indiana University
(Major: Chemistry; Minors: Math/Physics)

HONORS, AWARDS

- Elected to Sigma Xi, Scientific Research Society
- Elected to Phi Lambda Upsilon, Honorary Chemical Society
- Elected to Beta Phi Mu, Library and Information Science Honorary
- Alumni Association Award, Indiana University
- President's Circle, Indiana University
- Arbutus Society, Indiana University
- Association for Information Science and Technology Watson Davis Award
- German Government Fellow

- **National Science Foundation Grant for Undergraduate Research Participation**

PROFESSIONAL SOCIETIES

- [Association for Information Science and Technology](#) (National President, 1982-83)
- American Chemical Society
- Association for Computing Machinery (Elected Senior Member)
- American Association for the Advancement of Science
- New York Academy of Sciences
- Special Libraries Association
- American Library Association
- Phi Lambda Upsilon (Chemistry Honorary)
- Alpha Chi Sigma (Professional Chemistry Fraternity)

LANGUAGES

NATURAL: German (read, write, speak); Classical Latin, French, Spanish (read)

COMPUTER: Pascal, PL/I, BASIC, COMIT, FORTRAN, SNOBOL, HTML

PROFESSIONAL EXPERIENCE

**Senior Fellow and Adjunct Professor,
School of Library and Information Science and
Affiliated Faculty Member, School of Informatics (1997-)**

**Visiting Scholar and Adjunct Professor,
School of Library and Information Science, Indiana University (1989-1997)**

**Professor, Graduate School of Library and Information Science,
University of Illinois (1979-1993); Professor Emeritus (1993-)**

**Dean and Professor, Graduate School of Library and Information Science,
University of Illinois (1979-1986)**

**Dean and Professor, Faculty of Library Science, The University of Alberta,
Edmonton, Alberta, Canada (1976-79)**

**Associate Professor, School of Library Science, The University of Michigan,
Ann Arbor, Michigan (1971-76)**

**Assistant Professor, Graduate School of Library Science, Drexel University,
Philadelphia, Pennsylvania (1969-1971)**

**Visiting Assistant Professor, Research Center for Library and Information Science and
the School of Education, Indiana University (1969)**

**Director of Systems, ERIC/CRIER (The Clearinghouse on Reading), Indiana
University (1967-1969)**

**Staff Chemist, Aerospace Research Applications Center (ARAC), Indiana University
(1965-1966)**

Assistant Editor, Subject Index Division, Chemical Abstracts Service (1962-1965)

Research Assistant, Toxicology Department, Indiana University School of Medicine (1961-1962)

Research Assistant, Biochemistry Department, Indiana University School of Medicine (Summer 1959)

PUBLICATIONS

Ph.D. Dissertation. *An Approach to Automated Vocabulary Control in Indexes of Organic Compounds*, Indiana University, 1969.

M.A. Thesis. *A Method for Improving the Storage and Retrieval of Tautomeric Information in a File of Chemical Compounds*, Indiana University, 1966.

BOOKS

Davis, Charles H. and Debora Shaw, eds., [*Introduction to Information Science and Technology*](#). Medford, NJ, Information Today, Inc. Published for the [American Society for Information Science and Technology](#), 2011.

Davis, Charles H. and James E. Rush, [*Information Retrieval and Documentation in Chemistry*](#). Westport, Connecticut, Greenwood Press, 1974. [Japanese ed. by Maruzen Publishing Co.]

Davis, Charles H., [*Illustrative Computer Programming for Libraries: Selected Examples for Information Specialists*](#). Westport, Connecticut, Greenwood Press, 1974. [2d ed. (with G. W. Lundeen), 1981.]

Davis, Charles H. and James E. Rush, [*Guide to Information Science*](#). Westport, Connecticut, Greenwood Press, 1979. [Chinese ed. by Margaret C. Fung, Chinese Library Association, Taipei, Taiwan]

Davis, Charles H., Gerald W. Lundeen, and [Debora Shaw](#), [*Pascal Programming for Libraries: Illustrative Examples for Information Specialists*](#). Westport, Connecticut, Greenwood Press, 1988.

Davis, Charles H. (ed.), [*Database Management: How Much Power Is Enough?: Issues for Librarians and Information Scientists*](#) (Clinic on Library Applications of Data Processing). Urbana-Champaign, University of Illinois, 1991.

Bullen, Andrew H. and Charles H. Davis, [*Database Techniques: A Primer Using Turbo Pascal*](#). New York: Macmillan/G.K. Hall, 1993.

BIBLIOGRAPHIES

Davis, Charles H. (comp.), *Doctoral Dissertations in Library Science, 1930-1975*. Ann Arbor, Michigan, University Microfilms International, 1976.

_____, *Library Science: A Dissertation Bibliography*. Ann Arbor, Michigan, University Microfilms International, 1981.

Davis, Charles H. and Debora Shaw (comps.), *Library & Information Science: A Catalog of Selected Doctoral Dissertation Research*. Ann Arbor, Michigan, University Microfilms International, 1986. [n.b.: UMI's chosen title does not reflect that this work includes masters theses and covers the period 1970 to 1985. chd]

_____, *Research on Library & Information Sciences: a Catalogue of Doctoral Dissertations, 1979-1985*. Ann Arbor, Michigan, University Microfilms International, 1986.

ARTICLES

Davis, Charles H., Robert B. Forney, and Francis Hughes, "Extraction of the Phenolic Compounds of *Cannabis sativa* and Preparation of a Synthetic Intermediate," *The Pharmacologist* 4:161 (1962). (Reference is to the abstract of a paper delivered before the American Society for Pharmacology and Experimental Therapeutics, August 28, 1962, at Vanderbilt University.)

Davis, Charles H., "A Simple Code for Improving the Retrieval of Information Associated with Keto-Enol Tautomers," *Journal of Chemical Documentation* 6:199-205 (1966).

_____, "SDI: A Program for Public Libraries," *American Documentation* 18:139-145 (1967).

_____, "An Approach to Automated Vocabulary Control in Indexes of Organic Compounds," *Journal of Chemical Documentation* 7:131-134 (1967).

_____, "Integrating Vocabularies with a Classification Scheme," *American Documentation* 19:101 (1968).

_____, "A Note on the Origins of Information Science," *Focus on Indiana Libraries* 22:58 (1968).

_____, "The Dynamic Provision of Information by Libraries and Information Centers," *Focus on Indiana Libraries* 22:30-32 (1968).

_____, "Retrieval by Computer," *Reading and Realism*, pp. 893-895. Proceedings of the Annual Convention, Volume 13, International Reading Association, edited by J. Allen Figurel, 1968.

_____, "The Binary Search Algorithm," *American Documentation* 20:167 (1969).

_____, "An Approach to Automated Vocabulary Control in Indexes of Organic Compounds, II," *Journal of Chemical Documentation* 9:252-256 (1969).

Davis, Charles H. and Peter Hiatt, "An Automated Current Awareness Service for Public Libraries," *Journal of the American Society for Information Science* 21:29-33 (1970).

Davis, Charles H., W. Robert Kearney, and Bonnie M. Davis, "A Computer Based Procedure for Keyword Indexing of Newspapers," *Journal of the American Society for Information Science* 22(5):348-351 (1971).

Davis, Charles H. and Peter Hiatt, "SDI is for People," *Library Journal* 96(19): 3573-3575 (1971).

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Spencer, Bette A. and Charles H. Davis, "Efficient Automatic Analysis of One Problem in Twelve Tone Music," *Journal of the American Society for Information Science* 25(3):202-203 (1974).

Magrill, Rosemary and Charles H. Davis, "Public Library SDI: A Pilot Study," *RQ* 14(2):131-137 (1974).

Davis, Charles H. and Carolyn L. Gryczkowski, "OnLine Searching in the Classroom," *Proceedings of the 5th ASIS MidYear Meeting*, pp. 171-176 (May 1976).

Davis, Charles H., "Pragmatic Expansion of an Enumerative Classification Scheme," *Journal of the American Society for Information Science* 27(3): 174-175 (1976).

Davis, Charles H. and Sheila K. Bertram, "Information Science Course Grade Distributions as a Function of Undergraduate Major," *Proceedings of the 9th Annual Meeting, ASIS Western Canada Chapter*, pp. 79-85 (September 1977).

Davis, Charles H., "Computer Programming for Librarians," *Journal of Education for Librarianship* 18(1):41-52 (Summer 1977).

Davis, Charles H. and Susan Dingle-Cliff, "Evidence of OCLC's Potential for Special Libraries and Technical Information Centers," *Journal of the American Society for Information Science* 29(5):255-256 (September 1978).

Davis, Charles H., "Problems, Real and Imaginary, in Integrating Library and Information Science Curricula," *Information Reports and Bibliographies* 7(45):19-23 (1978).

_____, "Programming Aptitude as a Function of Undergraduate Major," *Special Libraries* 69(12):482-485 (December 1978).

Davis, Charles H. and Debora Shaw, "Collection Overlap as a Function of Library Size: A Comparison of American and Canadian Public Libraries," *Journal of the American Society for Information Science* 30(1):19-24 (January 1979).

Dingle-Cliff, Susan and Charles H. Davis, "Collection Overlap in Canadian Addictions Libraries," *Special Libraries* 70(2):76-81 (February 1979).

Davis, Charles H. and Debora Shaw, "Relative Percentages of Fiction and NonFiction in Selected Canadian and American Public Libraries," *Public Library Quarterly* 1(2):159-165 (Summer 1979).

Shaw, Debora and Charles H. Davis, "Cooperative Cataloging and Automated Bibliographic Networks; Considerations for Public Libraries," *Public Library Quarterly* 1(4):387-397 (Winter 1979).

Dingle-Cliff, Susan and Charles H. Davis, "Comparison of Recent Acquisitions and OCLC Find Rates for Three Canadian Special Libraries," *Journal of the American Society for Information Science* 32(1):65-69 (January 1981).

Rush, James E. and Charles H. Davis, "Development of an Intensive Short Course in Library Automation for Practicing Librarians," *Proceedings of the 45th ASIS Annual Meeting*, pp. 250-253 (October 1982).

Davis, Charles H., "Information Science and Libraries: A Note on the Contribution of Information Science to Librarianship," *The Bookmark* 51 & 52:84-96 (1982).

Lundeen, Gerald W. and Charles H. Davis, "Library Automation," *Annual Review of Information Science and Technology*, Vol. 17, Chapter 6, pp. 161-186, 1982, Martha E. Williams, ed.

Davis, Charles H., "A Note on Where and How Librarians Learn to Manage," *Illinois Libraries* 64:133-135 (Fall 1982).

_____, "A Note on the Impact of Modern Technology," *Proceedings of the First Asian-Pacific Conference on Library Science*, pp. 31-34. Taipei, Taiwan; Cultural and Social Centre for the Asian and Pacific Region, Seoul, Korea; National Central Library, Taipei (March 1983).

Shaw, Debora and Charles H. Davis, "Entropy and Information: A Multi-disciplinary Overview," *Journal of the American Society for Information Science* 34(1):67-74 (January 1983).

_____, "The Concept of Entropy in the Arts and Humanities," *Journal of Library & Information Science* 9(2):135-148 (October 1983).

Davis, Charles H., "Portable Micros: Potentials for Information Management," *Microcomputers for Information Management* 1(1):57-65 (March 1984).

Kohl, David F. and Charles H. Davis, "Ratings of Journals by ARL Library Directors and Deans of Library and Information Science Schools," *College & Research Libraries* 46(1):40-47 (January 1985).

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_____, "Teaching of Chemical Information Science to Graduates," *Journal of Chemical Information and Computer Sciences* 25(3):323-326 (1985).

Warner, Amy J. and Charles H. Davis, "Teaching PL/I Using Microcomputers," *Journal of Education for Library and Information Science* 26(2):96-104 (Fall 1985).

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***Library and Information Science Education: An International Symposium*, James S.C. Hu, ed., pp. 29-36. Taipei, Taiwan, National Taiwan University (1986).**

_____, "Moving from Mainframe to Micros," *Proceedings of the Second International Conference on the Application of MicroComputers in Information, Documentation and Libraries*. BadenBaden, Federal Republic of Germany, Elsevier (1987).

Davis, Charles H. and Debora Shaw, "Comparison of Retrieval System Interfaces Using an Objective Measure of Screen Design Effectiveness," *Library & Information Science Research* 11(4):325-334 (1989).

Davis, Charles H. "Programming Languages Taught in Library Schools, 1980 1986," *Journal of Education for Library and Information Science* 31(1):25-32 (Summer 1990).

Davis, Charles H. and Blaise Cronin, "Acknowledgments and Intellectual Indebtedness: A Bibliometric Conjecture," *Journal of the American Society for Information Science* 44(10):590-592 (December 1993).

Davis, Charles H., "Beyond Boole: The Next Logical Step," *Bulletin of the American Society for Information Science* 21(5):17-20 (1995).

Shaw, Debora and Charles H. Davis, "The Modern Language Association: Electronic and Paper Surveys of Computer-Based Tool Use," *Journal of the American Society for Information Science* 47(12):932-940 (December 1996).

Davis, Charles H., "From Document Retrieval to Web Browsing: Some Universal Concerns," *Journal of Information, Communication & Library Science* 3(3):3-10 (Spring 1997).

Wiggins, Gary and Charles H. Davis, "Education of Chemistry Librarians and Chemical Information Specialists in the Age of Informatics," *Chemistry in Space: ACS 31st Central Regional Meeting* (Abstract #258) (June 1999). (See also <http://acscinf.org/docs/meetings/219nm/219cinfabstracts.htm#30>.)

Davis, Charles H. and Geoffrey W. McKim, "Systematic Weighting and Ranking: Cutting the Gordian Knot," *Journal of the American Society for Information Science* 50(7):626-628 (1999).

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Shaw, Debora, and Charles H. Davis (2003). "American Society for Information Science and Technology." In *Encyclopedia of library and information science*, (2nd ed.) pp. 130-132. New York: Marcel Dekker.

Nisonger, Thomas E. and Charles H. Davis (2005). "The Perception of Library and Information Science Journals by LIS Education Deans and ARL Library Directors: A Replication of the Kohl-Davis Study," *College & Research Libraries* 66(4):341-377.

OTHER ACTIVITIES [Bloomington Symphony Orchestra](#), [Bloomington Community](#)

[Band](#), [Tennis](#), Photography

SPECIAL PROJECT

A colleague and I have implemented a ranking algorithm particularly well suited for information retrieval from large databases or the World Wide Web. SWEAR™ (Systematic WEighting And Ranking) produces discrete, well-defined result sets. A summary of the algorithm appears here: [DavisMcKimAlgorithm](#).

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