

GERALD BENOÎT, PH.D.

8 Newton Street,
Cambridge, MA USA 02139
+01 (617) 909-0798
<https://bix.digital/index.html>
benoit@fas.harvard.edu, gb@bix.digital

PROFESSIONAL PROFILE

- *Professional employment as a systems analysis/programmer*
- *Doctorate in information science, dissertation applying Habermas' "Theory of Communicative Action" to normative roles and language in information seeking for human-human and human-computer interaction*
- *Experienced teaching technical subjects: information systems analysis and design, information visualization (as part of CS and Data Science), programming, and retrieval systems, theory, and relational database design and programming*
- *Research program in information science, particularly interactive retrieval systems, interactive information visualization applied to art history, visual resources, education, financial and biomedical corpora*
 - *Developer of "proof of concept" systems applied to digital humanities, museum and archive, and biomedical collections as data integration projects*
- *Teach undergraduate computer science and health informatics students*
- *Teach graduate and doctoral students information science students*
- *Service in local, college, and international organizations – created the IS&T, member of Data Science program, direct doctoral dissertations*
 - *Peer-reviewer for IEEE, SIGIR, ASIST, Trends in Biomedical Computing; Preservation, Digital Technology & Culture; Grant proposal reviewer for national and international foundations*

EDUCATION

- 2014 Online Teaching Certificate, Simmons College.
- 2007 Discrete Mathematics, Harvard University, Continuing Education.
- 1998 Ph. D., University of California-Los Angeles.
- 1986 Graphic design, The Art Center, Los Angeles.
- 1984 M. S., Columbia University, New York, NY.
- 1983 B. A., University of California-Davis. Double majors: French & Russian.
- 1979 Certificate, United States Navy, Defense Language Institute, Monterey, CA. Russian.

EMPLOYMENT HISTORY

- 2005 - Present **Associate Professor** Simmons College, College of Organizational, Computational, and Information Sciences (COCIS), 300 The Fenway, Boston, MA 02115 USA
 * = courses and programs I created
- Teaching:* **Course Load: 3/3 or 3/4** - 3-4 *different* courses per term. In-class and online courses.
 Systems Analysis (UG and Grad levels)*
 Information Visualization*
 Information Retrieval*
 Programming (Introduction; Python)
 Data Interoperability (Advanced programming)*
 Doctoral Seminar*
 Statistics*
 Web Development/Information Architecture
 Visual Communication*
 Technology for Information Professionals
 Technical Foundations of Information Science*
- 2013-2017 Information Science/Technology Program director*
- 2012 - 3+1 BS/MS program director (Computer Science/Cocis)*
- 2008, Fall Visiting Professor, University of Washington
- 2006 - Harvard College, Adams House Associate, Senior Common Room, faculty tutor
- 2006-2013 Periodic consultant on information systems design, use, and work flow analyses for local organizations and international businesses in the Boston area
- 2003-2006 **Assistant Professor**, Simmons College, COCIS and Computer Science, 300 The Fenway, Boston, MA 02115
- 1998-2003 **Assistant Professor**, University of Kentucky, College of Communications and Information, Lexington, KY USA
- 1987-1994 **Programmer/Analyst II**, University of California (Berkeley-Information Systems Office; Davis-School of Medicine, Information Services Support Group)

ACADEMIC EXPERIENCE

Grants

1. Benoît, G., & Leonard, D. (2016). Metadata for information discovery [with Boston Public Library]. Dole, \$6,000.
2. Benoît, G. (2013). Information Science Experience Lab. President's Fund for Excellence, Simmons College, \$7900.
3. Benoît, G. [PI], & Agarwal, N. (2012). End-user interface experience project. Hollowell Grant.
4. Thomasian, R., Arakelyan, A., & Benoît, G. [Consultant] (2006-2010). Bilezikian Foundation Grant, \$104,620, multilingual digital library project.
5. Benoît, G. (2006-7). Phrasal parsing of English and Chinese bilingual corpora. Hollowell Grant.

6. Johnson, J. D., N. Harrington, J. Andrews, ... G. Benoît [technical advisor], et al. (2002). CECCR – RO1: “Increasing the Effectiveness of Tailored Health Message” (a multimedia project) National Institutes of Health. \$10,000,000.
7. Jeng, L-H., & Benoît, G. [Co-PI] (2000). National Leadership Grants, IMLS, LL-90187-99, “Improving electronic information seeking in emerging fields of research: a case of bio-acoustics”, \$214,000.
8. Benoît, G. (2000). Summer research fellowship. Univ. of Kentucky, \$5,000.

PUBLICATIONS

Monographs:

1. *Information Visualization: turning data into meaningful information*. New York: Rowman & Littlefield (in press for mid-2018)
2. *Critical Theory, Habermas, & Civic Engagement*. [Monograph submitted, MIT Press]

Submissions submitted; being revised:

1. Benoît, G. (2018) “Applying linguistic registers to multilingual, interactive retrieval.” Submitted SIGIR.
2. Benoît, G. & Ferry, N. (2018). “Critical Theory and critical theories in information studies”

Peer-reviewed articles:

1. Benoît, G. (2016, Sept). The ‘beautiful’ in information: Thoughts about visual literacy and aesthetics. *Journal of Visual Literacy*, 35(1), 60-78.
2. Benoît, G. (2015). Visual communication as an information activity. *Journal of Visual Literacy*, 34(2), 51-67.
3. Benoît, G. (2014). The aesthetic turn: thoughts about knowledge claims of information visual systems. *Preservation, Digital Technology & Culture* 43(2), 100-113. DOI 10.115/pdpc-2014-0003.
4. Benoît, G. (2012). Measuring relevance theory’s effects in an image-driven explorative information system. *iConference ‘12 Proceedings*. New York: ACM, 438-440.
5. Benoît, G. (2012). auroraDL and responding to end-user digital library needs. New York: ACM *Proceedings of the 2012 iConference*, pp. 444-446.
6. Benoît, G., & Agarwal, N. (2012). All-visual retrieval: how people search for and respond to an affect-driven visual information retrieval system. *Proceedings, ASIST*.
7. Benoît, G. (2011-Dec.). Integrating use history as a context for dynamically-updated metadata. *Journal of Library Metadata*, 11(3-4), 129-154.
8. Benoît, G., & Hussey L. (2011). Repurposing digital objects: Case studies across the publishing industry. *JASIST*, 62(2), 363-374.
9. Benoît, G. (2010). The ‘beautiful’ in information: philosophy of aesthetics and information visualization. 2nd Int’l Conference on the Theory of Information Retrieval. Microsoft Research, Cambridge, UK. *Lecture Notes in Computer Science*, Vol. 5766, 338-341. Berlin & New York: Springer.
10. Benoît, G., & Rashid, F. (2009, Nov.). Iraq’s Digital Library Dilemma: OpenSource Digital Objects Repository architecture, tools, and interface project. ASIST, Vancouver, BC. [in Arabic]
11. Benoît, G. (2008, Oct.). Interactive 3D Visual Retrieval for Art History Education. *Proceedings ASIST*.
12. Benoît, G. (2007, Oct.). Critical Theory and the legitimacy and information science. *Information Research*, 12(4). <http://InformationR.net/ir/12-4/colis01.html>

13. Benoît, G. (2005). Application of Markov chains in an interactive information retrieval system. *Information Processing & Management*, 41, 843-857. DOI:10.1016/j.ipm.2004.06.005
14. Benoît, G., Chan, L.-M., Andrews, J. E. (2004). "lois" – locally-organized information system. Information Seeking in Context, Dublin, Ireland, Sept. 2004. *Information Research*.
15. Benoît, G. (2004, April). Properties-based retrieval and user decision states: user control and behavior modeling. *Journal of the American Society for Information Science & Technology*, 55(6), 471-487.
16. Benoît, G. (2002). Data discretization for novel relationship discovery in information retrieval. *Journal of the American Society for Information Science & Technology*, 53(9), 736-746.
17. Benoît, G. (2002, Oct.). Towards a critical theoretic perspective in information systems. *Library Quarterly*, 72(4), 444-474.
18. Benoît, G. (2002, Sept.). Properties-based tailoring of information seeking contexts. *New Review of Information Seeking Behavior Research*, 3/4, Sept. 2002/2003.
19. Benoît, G. (2001). Critical theory as a foundation for pragmatic information systems design. *Information Research*, 6(2). <http://www.shef.ac.uk/~is/publications/infres/6-2/paper98.html>
20. Benoît, G. (2002). Data discretization for novel information discovery. *Journal of the American Society for Information Science & Technology*, 53(9), 736-746.
21. Benoît, G. (2002, May). Interactive visualization for resource co-location, Special Supplement *MLA '02 Abstracts*, Medical Library Assoc., Dallas, TX, p. 36.
22. Benoît, G. (2002). Markov chain model for evidence-adaptive clinical decision support system. *Proceedings*, American Medical Informatics Association, San Antonio, TX.
23. Benoît, G. (2002, Nov.). Weighted Markov chains and interactive graphic state nodes for information retrieval. *Proceedings of the American Society for Information Science Annual Meeting*, pp. 115-123.
24. Benoît, G., & Andrews, J. (2000). Data discretization for novel resource discovery in large medical datasets. *Proceedings of the American Medical Informatics Association Symposium*, 61-5. <http://www.amia.org/pubs/symposia/D200636.pdf>
25. Stapley B. J., & Benoît, G. (2000). BioBibliometrics: information retrieval and visualization from co-occurrences of gene names in Medline abstracts. *Proceedings of the Pacific Symposium of Biocomputing*, 5, 529-540.

CONFERENCE POSTERS (PEER-REVIEWED):

1. Benoît, G., & Agarwal, N. (2012). All-visual retrieval: searching and responses in an affect-driven visual IR System. ASIST.
2. Benoît, G. (2012). auroraDL and responding to end-user digital library needs. iSchool Conference, Toronto, Canada.
3. Benoît, G., Hussey, L., & Bartley, P. (2012). Digital Object Repurposing. ASIST Annual Conference.
4. Benoît, G., & Rashid, F. (2009, Nov.). Iraq's Digital Library Dilemma: OpenSource Digital Objects Repository architecture, tools, and interface project. ASIST, Vancouver, BC.
5. Benoît, G., Bartley, P. T., & Hussey, L. (2009, Nov.). Repurposing digital objects: seven case studies across the publishing and information industry. ASIST, Vancouver, BC
6. Benoît, G., & Andrews, J. (2000, Nov.). Data discretization for novel resource discovery in large medical datasets. Proceedings American Medical Informatics Assoc Symposium, Los Angeles, CA.

PEER-REVIEWED INVITED CHAPTERS:

1. Benoît, G. (2013). Critical theory. In T. D. Wilson & Em. Maceviciute (Eds.) *Theories of Information Behavior Research - an information research reader*. London: Eiconics.
2. Chan, L. M. (2007). Contributed section on SGML and XML for Chan's *Cataloging and Classification*. New York: McGraw-Hill.
3. Benoît, G. (2007). Theory of Communication Action and LIS. *Epistemological Lifeboat*, B. Hjørland, Ed. www.db.dk/jni/lifeboat/home.htm
4. Benoît, G. (2005). Theory of Communicative Action. In K. Fisher, S. Erdelez, & L. McKechnie (Eds.), *Theories of information behavior: a researcher's guide*. Medford, NJ: Information Today.
5. Benoît, G. (2004). Bioinformatics. In B. Cronin (Ed.), *Annual Review of Information Science and Technology*, vol. 40. Medford, NJ: Information Today for ASIST.
6. Benoît, G. (2002). Data mining. In B. Cronin (Ed.), *Annual Review of Information Science and Technology (ARIST)*, vol. 36, pp. 265-310. Medford, NJ: Information Today for ASIST.

PRESENTATIONS: CONSULTING, LECTURES, INVITED PRESENTATIONS:

- 2018, Feb 28 Information Visualization challenges and opportunities. Adams House, Harvard Univ.
- 2017, Mar 3 The value of Habermas and Critical Theory in Information Science, Simmons College.
- 2017 Information retrieval design. Harvard University Libraries Professional Seminars.
- 2016, Sept 1 Developing "Literary Tourism" - an collaborative model for government, local agencies, and libraries to encourage cultural tourism. Mass. Center for the Book, Boston.
- 2016, Dec 21 Information Visualization: room for all. Univ. of Rhode Island.
- 2016 Current State of Metadata Interoperability in Libraries. Boston Public Library.
- 2016 Massachusetts Center for the Book; "Literary Tourism GIS"
- 2015, May 20 Updating information systems for digital humanities research. American Antiquarian Society.
- 2015, Feb 12 Participatory Computing, Simmons College SLIS Research Colloquium.
- 2014, Mar 4 Information Visualization. Simmons GSLIS Research Colloquium.
- 2014, Mar 4 Demystifying Search Engine Algorithms: Harvard Discovery Initiative Project..
- 2014 American Antiquarian Society
- 2013, Oct 23 The Rome Experience, summer 2013. [With Bethany Fair, Laura Saunders.] Simmons GSLIS Research Colloquium.
- 2012, Apr 24 Using auroraDL to integrate your digital items. Simmons GSLIS Research Colloquium.
- 2012 American Institute for Conservation of Historic and Artistic Works, Computing in Preservation - History of Computing.
- 2011, Nov 3 Applying ruby to improve user engagement with encoded texts and manuscript arts. Simmons GSLIS Research Colloquium.
- 2011, Apr 7 Aesthetics and future of truth in information systems. Simmons GSLIS Research Colloquium.
- 2011, Apr 28 Challenges for information visualization. Simmons GSLIS Research Colloquium.
2010. Bioinformatics Education panel (moderator, ASIST Annual Conference).
- 2010, Feb 23 Visualization and visual information management. [Panel discussion with Naresh Agarwal, Martha Mahard]. Simmons GSLIS Research Colloquium.
- 2010 Peabody-Essex Museum, Library and Archives. Data Unity Merger project.

- 2010 Harvard College, Office of Student Life, Systems Analysis training.
- 2010 Boston Public Library. Systems Analysis training.
- 2010 Berkman Center, Harvard Univ.
- 2009, Feb The 'beautiful' in information: philosophy of aesthetics and information visualization. Simmons GSLIS Research Colloquium.
- 2009, 2010 Ponogansett High School, Gloucester, RI; Technology in Education.
- 2009 Jouve Publishing Comp.
- 2008, Oct 25. Interactive 3D Visualization for Art History Education, ASIST Annual Conference.
- 2008, Jan Doctoral seminar - 3D visualization, University of Washington, Seattle.
- 2007, Aug 16. Critical theory and the legitimacy of information science. CoLIS7, Högskolan i Borås. Borås, Sweden.
- 2006, Apr 18 Bioinformatics and LIS. Simmons GSLIS Research Colloquium.
- 2006 American Institute for Conservation of Historic and Artistic Works, "Theory & Practice of Conservation Research."
- 2005, Dec 1 The role of philosophy in information studies. Simmons GSLIS Research Colloquium.
- 2005-2013 XPlana Corp. - working as a consulting thru XPlana training in systems use, metadata, ontology creation for Thomson Learning, Centage, McGraw-Hill.
2004. Cross-language information retrieval. Int'l Federation of Library Assoc. Buenos Aires.
- 2004, Oct 21 Information science: what is it? Simmons GSLIS Research Colloquium.
- 2004, Nov 18 Application of Markov chains in an interactive information retrieval system. Simmons GSLIS Research Colloquium.
- 2004, June Habermas' Critical Theory. National Library of Ireland, Dublin. [Lecture].
2002. Markov-Chain Model for Evidence-Adaptive Clinical Decision Support System. American Medical Informatics Association, San Antonio, TX.
2002. Interactive visualization for resource co-location. Medical Library Assoc.
- 2002, Sep. Properties-based tailoring of information seeking contexts. Information Seeking in Context, Lisbon, Portugal.
- 2002, Nov. Weighted Markov chains and graphic state nodes for information retrieval. ASIS&T Annual Meeting, Philadelphia.
- 2002, May. Interactive Visualization for Resource Co-Location, Medical Library Assoc., Dallas, TX.
- 2002, Jun. Applying Communicative Action to Inter-group Computer Mediated Cooperative Work. International Communications Assoc annual conference, Seoul, S. Korea. With James Andrews.
2000. PCSB 2000: Pacific Conference on Structural Biology – BioBibliometrics: information retrieval and visualization from co-occurrence of gene names in Medline abstracts. (With Benjamin Stapley.)
- 2000, Aug 16. Critical theory as a foundation for pragmatic information systems design, Information Seeking in Context 2000, Gothenburg, Sweden.
- 1999, Oct 7 Logic, language and communication in information systems. Graduate Communications Seminar, University of Kentucky.
- 1999, Aug 6. ISMB1999, 7th International Conference on Intelligence Systems for Molecular Biology, Heidelberg, Germany. (With Benjamin Stapley.)

- 1999, Apr 19 Systems, Theories & Language: the cyclic nature of technological change. Univ. of Rhode Island, Graduate School of Library & Information Science.
- 1998, Jun 9 The Use of Information Technology in the Foreign Language Curriculum, Middlebury College.

REVIEWS:

- 2011 Critical theory in Library & Information Science. (Buschman & Liecke) *LISR*.
- 2006 Link analysis: An information science approach. (M. Thewall) *JASIST*, 57(13), 1855-1858.
- 2002 Animating the Letter (L. Kendrick). *Library Quarterly*.
- 2001 Snap to grid: A user's guide to digital arts, media, and cultures. *JASIST*, 52(6), 509-510.
- 2001 Intelligent applications in LIS (F. Lancaster & A. Warner). *LISR* 23, 4-6.
- 2001 Ethical Issues in Biomedical Publication (A. H. Jones & F. McLellan). *Library and Information Science Research*.
- 2001 Snap to Grid (Peter Lunenfeld). *JASIS*, 52(7).
- 2000 Languages of the World (Andrew Dalby). *Library Quarterly*, 265-266.
- 1999 Concise Dictionary of Library and Information Science (Stella Keenan). *Library Quarterly*, 67(2), 180-184.
- 1999 From Writing to Computers (J. Warner). *Library Quarterly*, 66(2), 213-216.

TRANSLATIONS:

- 1999 Scientific Elite: Nobel Laureates in the United States (Galina F. Godrukalova/Harriet Zuckerman). *Library Quarterly*. (I translated this from Russian to English for LQ.)

SERVICE ACTIVITIES AND ADMINISTRATIVE RESPONSIBILITIES:

Dept. Communications Committee
 Computer Science Faculty Committee
 Data Science & Analysis creation committee for new BS and MS programs
 Curriculum Committee
 Created & directed the Information Science & Technology concentration in the MS program=
 Public Lecture Series (founded as Research Colloquium, 2004 - present)
 Created and co-direct the 3+1 accelerated program (BS/MS, CS/LIS) program
 Doctoral Committee - founding member, oral and written examiner
 Created, lead Simmons Summer Courses in Paris and Rome
 Lazerow Lecture Committee
 Hollowell Research Committee
 Health Informatics Campus Initiative
 Faculty Compensation Sub-committee, Fiscal Affairs

PROFESSIONAL SERVICE:

Communications Officer, ASIST SIG-InfoVis (2017 Sig of the Year)
 ASIST Publication Panel
 Acquisitions and Series Editor, ASIS&T Monograph Series, 2013-present
 Annual Meeting, Co-Chair, Track III, Innovation, 2011

Communications Officer, SIG-BIO, 2008-09

ALISE Planning Committee, 2008

NSF, Korean science foundation, Israel science foundation grant reviewer

ON-GOING PEER REVIEWER:

Journal of Bioinformatics Computing

Journal of the Assoc for Information Science & Technology and Annual Meetings: contributed paper, and poster reviewer

Études de communication

iSchool Conferences, contributed paper reviewer

IEEE, 2010 - contributed papers

ACM (SIGIR) conference, 2006-present - contributed papers and posters

Cambridge Univ. Press (monograph submissions related to NLP, Data Science, Communication)

MISCELLANEOUS:

CREATIVE ACTIVITIES: SOFTWARE AND WEB APPLICATIONS: *for research projects and teaching*

This lists a few samples of applications (the names of the applications are in quotes) used for research projects and teaching.

1. Harvard University Libraries Information Visualization Service Project. Professional development for librarians and information visualization platform (using d3.js) for researchers and students. 2017 - ongoing.
2. Multilingual interactive retrieval project applying linguistic register data.
3. Communications/Project Management Suite ("AskKath") for improving institutional communication.
4. Boston Public Library, Prints Department. "Tiaras" Application: A unified record creation, management, and retrieval system [web-based using python, pdo sql] 2016-present.
5. Identity Management Program - integrated college services program written for Simmons College Technology Office - as part of the Spring 2015 systems analysis class project.
6. Participatory Computing - increasing participation and understanding innovation.
7. Online EBook Creation Tool.
8. "auroraDL" - full-featured record-creation, search, display, and integrated resource system.
9. "Waystation" - privacy-protecting file sharing utility, using jQuery, PHP, flat-files and sql resources.
10. "NICK" - networked information and contact knowledge-base demonstrating data-driven model, ease of maintenance.
11. "Martha" - an image collection builder, demonstrating drag-and-drop interfaces with tools to build teaching lessons.
12. Chinese-English bi-lingual retrieval engine (in Java to test ranking of multilingual collections)
13. "Build-a-collection" pdf creator (searches, integrates heterogeneous file types (text, .html, .xml, .svg) using XML-Formatting Objects code libraries to convert XML to PDF as the result of searching collections.
14. Survey and Quiz maker tools - web-based data gathering tools, tailorable surveys and stat analysis.
15. Self-grading quiz tools - randomizes questions and answer selections in self-grading quizzes, with links to review materials, test question beds, etc.

16. "DUM" - Data Utility Merger project - Java programs and web-enabled databases to create enterprise-wide records integrating from library, archive, photography and other collections into a unified, searchable, standards-based data model and system. Part of Peabody Essex Museum project.
17. Student record, advising and enrollment management tools, includes enrollment projections, visualizations.

COMPUTER TECHNOLOGY SKILLS:

<i>Programming</i>	Java, JavaScript, Python, PHP, Perl, Unix, jQuery libraries; d3.js Using IDLE, Anaconda; Python 3 with pandas, numpy, other libraries.
<i>Stats</i>	R, SPSS
<i>Operating Systems</i>	Unix, Mac
<i>XML, JSON</i>	Facility with XML DTD, Schema creation (.xsd and .dtd) and various standards and technologies (XSLT, FO, programming .xml), data interoperability standards
<i>Web Servers</i>	Apache Tomcat; limited experience with Hadoop and Spark.
<i>Visualization</i>	d3.js, Tableau, Bokey
<i>RDBMS</i>	MySQL, PDO, PL/SQL; MongoDB
<i>Design Software</i>	Adobe Illustrator, Photoshop, Gimp
<i>HTML</i>	HTML4 and HTML5; Cascading Style Sheets (CSS3); Bootstrap, w3s.css

LANGUAGE SKILLS:

English: native	French: fluent	German: intermediate
Italian: conversational, reading	Russian: intermediate	Spanish: intermediate
Sign language: functional	Swedish & Danish: basic	Portuguese: reading

REFERENCES FOR GERALD BENOÎT

James Matarazzo, Ph.D.

Dean Emeritus, Simmons College, 300 The Fenway, Boston, MA 02115
(617) 521-2815 james.matarazzo@simmons.edu

Michèle V. Cloonan, Ph.D.

Professor and Dean Emerita, Simmons College, 300 The Fenway, Boston, MA 02115
(617) 521-2806 michele.cloonan@simmons.edu

Rong Tang, Ph.D.

Associate Professor, Simmons College, 300 The Fenway, Boston, MA 02115
(617) 521-2880 rong.tang@simmons.edu

Yan Ma, Ph.D.

Professor, University of Rhode Island, Harrington School, Kingston, RI
(401) 874-2819 yanma@uri.edu

James Andrews, Ph.D.

Associate Professor and Director, Univ. of South Florida,
School of Information, 4202 E. Gowler Ave., CIS1040, Tampa, FL 33620-8100
(812) 855-3260 jimandrews@usf.edu

David Leonard

President, Boston Public Library, 700 Boylston St., Boston, MA 02116
(617) 859-2371 dleonard@bpl.org

Margaret Menzen, Ph.D.

Professor, Chair of the Dept of Math and Statistics and Professor of Computer Science, Simmons College, 300 The Fenway, Boston, MA 02115
(617) 521-2704 margaret.menzin@simmons.edu

Michael Leach

Head, Collection Development, Cabot Science Library, Harvard University, Cambridge, MA 02138
(617) 495-0791 mrleach@fas.harvard.edu