



Curriculum Vitae

Ronald Michael Baecker

1 March 2010

PERSONAL DATA

Current Position: Professor
Departments of Computer Science and
Electrical & Computer Engineering, and Faculty of Management
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Citizenship and residency: U.S. citizen, permanent resident of Canada

EDUCATION

Ph.D., Computer Science, Department of Electrical Engineering, M.I.T., June 1969.
Studied mathematics at University of Heidelberg, Germany, Nov. 1964 to July 1965. No degree.
M.S., Electrical Engineering, M.I.T., September 1964.
B.S., Physics, M.I.T., June 1963.

POSITIONS HELD

Professor of Computer Science (cross-appointed to Electrical and Computer Engineering) , University of Toronto, 1989-present.

Director, Technologies for Aging Gracefully Laboratory (TAGlab), University of Toronto, 2009-present.

Bell University Laboratories Chair in Human-Computer Interaction, Univ. of Toronto, 1 Jan. 2002-31 Dec. 2011.

Founding Chairman of the Board, ePresence Inc., 2008-present.

Adjunct Scientist, Toronto Rehabilitation Institute, September 2007-present.

Affiliate Scientist with the Kunin-Lunenfeld Applied Research Unit of Baycrest, December 2004-present.

Interim Director, Knowledge Media Design Institute, Univ. of Toronto, 1 Aug. 2008-31 Dec. 2009.

Chief Scientist, Knowledge Media Design Institute, Univ. of Toronto, 1 Jan. 1999-30 June 2009.

Visiting Professor, Cognitive Neuroscience Division, Taub Institute, Columbia University College of Physicians and Surgeons, February-May 2006.

Founder and CEO, Expresto Software Corp., 1 May 1998-31 Oct 2002.

Principal Researcher, Information Technology Research Centre, 1990-2000.

Founding Director, Knowledge Media Design Institute, University of Toronto, 1 July 1996-31 Dec. 98.

Visiting Professor, The Media Laboratory, M.I.T., spring 1993.

Visiting Professor, Dept. of Computer Science & Faculty of Commerce, Univ. of British Columbia, winter 1993.

Chairman of the Board, Human Computing Resources Corporation (HCR), 1977-90.

Senior Visiting Scholar, Human Interface Group, Adv. Tech. Div., Apple Computer, Feb.-July 89.

Associate Prof. of Computer Science, Elec. Eng., and Mgmt (tenured), Univ. of Toronto, 1985-89.

Founder and CEO, Human Computing Resources Corporation (HCR), 1976-78 (part time), 1978-81 (half time), 1981-84 (full time).

Adjunct Associate Professor, Department of Computer Science, University of Toronto, 1983-85.

Director or Co-Director, Dynamic Graphics Project, Computer Systems Research Institute, University of Toronto, 1972-81, 1985-present.

Associate Professor (tenured), Department of Computer Science, also Electrical Engineering Dept., University of Toronto, 1975-78 (full time), 1978-81 (half time), 1981-83 (on leave).

Assistant Professor, Department of Computer Science, University of Toronto, 1972-75.

Summer Staff Member, Learning Research Group, Xerox Palo Alto Research Center, summer 1974.

Visiting Assistant Professor, Department of Computer Science, University of Maryland, 1971-72.

Commissioned Officer, U.S. Public Health Service, Division of Computer Research and Technology, National Institutes of Health, 1969-71.

Ph.D. Thesis Student, M.I.T. Projects MAC and Lincoln Laboratory, 1966-69.

Summer Staff Member, Computer Graphics Section, M.I.T. Lincoln Laboratory, 1966-67.

M.Sc. Thesis Student, Cognitive Information Processing Group, M.I.T., 1963-64.

B.Sc. Thesis Student, Communications Biophysics Laboratory, M.I.T., spring 1963.

Technician, Communications Biophysics Laboratory, M.I.T., 1961-62.

Research Assistant, Brookhaven National Laboratory, summer 1962.

Research Assistant, Pittsburgh Plate Glass Research Labs, summer 1961.

Research Assistant, Koppers Company Research Labs, summer 1960.

HONOURS AND AWARDS

Awarded the 2007 Leadership Award of Merit from the Ontario Research and Innovation Optical Network (ORION) in June 2007.

Awarded the Canadian Human Computer Communications Society Achievement Award in May 2005.

Elected to the ACM SIGCHI CHI Academy in February 2005.

Named as one of 60 Pioneers in Computer Graphics by ACM SIGGRAPH, and honoured with a photographic collection exhibited at SIGGRAPH'98 and later at the Boston Computer Museum, July 1998.

ENTREPRENEURIAL AND MANAGEMENT EXPERIENCE AND ACCOMPLISHMENTS

My responsibilities have included the leadership and management of two start-up software companies, a “virtual non-profit foundation” distributing open source software, a Canada-wide research network, a campus-wide research institute, and a departmental research laboratory. Responsibilities have included market and product planning; R&D management; financial planning and management; marketing and sales, fund raising via grants, contracts, and venture capital; contract negotiation; and recruiting and personnel management. I was also recently instrumental in the creation of a third software company as “Founding Chairman of the Board”.

Significant Entrepreneurial and Management Contributions

(Most significant accomplishments indicated by **).

(**) I originated the concept, developed the strategy, successfully negotiated with the University, and led the execution of the first official open source software release from the University of Toronto — ePresence Interactive Media, operating as a kind of “virtual non-profit foundation” within the university, 2004-2008. I was then instrumental in spinning out a company to develop and market ePresence solutions worldwide, 2008-present, and am serving as founding Chairman of the Board.

(**) I founded and became the first Director of the Knowledge Media Design Institute (KMDI) of the University of Toronto, 1995-1998. KMDI is a multi-disciplinary distributed research and teaching community of over 70 faculty at U of T who share interests in using computer, communications, and media technologies to enhance communications, creativity, learning, and knowledge building of individuals and communities. I continued to provide intellectual leadership to the institute as its Chief Scientist, 1998-present. Currently, as Interim Director for 2008-9, I am negotiating the acquisition of the institute by a new faculty, and trying to orchestrate a turn-around to lead to a new period of growth.

(**) I originated the concept, built the team, led the development of the proposal and the recruiting of industrial sponsors, and served as the PI of a successful proposal for an NSERC Research Network entitled the Network for Effective Collaboration Through Advanced Research (NECTAR). Seeking the funding began in 2002. NECTAR has provided \$5.5M in research funding for 13 investigators at 6 Canadian universities over the period 2004-9.

(**) I founded Expresto Software Corp. in 1998 to commercialize digital video authoring and publishing technology developed by my research group at the University. I successfully negotiated a win-win technology-transfer agreement with the University; raised initial seed capital of over \$1,000,000; and led the company in its early stages, including the development of its business definition, marketing, product development, and service offering strategies. In 2002 I negotiated the graceful wind-down and sale of the company and its major asset, with some return to the shareholders. 1998-2002.

(**) I founded with an investment of \$11,000, led, and built a successful, world class, multi-million dollar software company, HCR (formerly, Human Computing Resources) Corporation in 1976. Between 1978 and 1982, although no other money had been invested, I led the company through growth of 100% per annum to annual revenues of \$1.3 million, and to a position as one of the world's premiere companies specializing in UNIX-based software. With the help of venture capital, HCR grew to 1984 annual revenues of \$4 million. I hired a new President to run the company in 1984. We sold HCR to the Santa Cruz Operation (SCO) in 1990, and it continued as SCO Canada until early 1996.

(**) I named the Dynamic Graphics Project of the Computer Systems Research Institute of the University of Toronto, and built it into a world class laboratory doing research on interactive computer graphics and human-computer interaction, 1972-81, and led it through a phase of significant growth, 1985-91.

I served as Chair or Co-Chair of six major international professional conferences, Usenix Summer '79, Graphics Interface '82, Human Factors in Computing Systems + Graphics Interface (CHI+GI) '87, Computer Supported Cooperative Work (CSCW) '92, The Internet: Beyond the Year 2000 (1996), and Open Source and Free Software (2004). These conferences were run with minimal paid staff (usually one person) and volunteer organizations of 25-100 individuals each that I recruited and led.

I directed and curated a retrospective exhibition of 20 years of work in interactive computer graphics and human-computer interaction at the University of Toronto, Koffler Student Centre, May 1987; and led the team responsible for a 2-day Research Workshop and 40 year Reunion of the Dynamic Graphics Project, (DGPis40), May 2008.

RESEARCH

Summary of Research Interests

Human-computer interaction and user interface design
Technology for aging gracefully, including cognitive prostheses such as electronic memory aids
Computer applications in education
Computer-supported cooperative learning
Multimedia
Software visualization
Groupware and computer-supported cooperative work
Computer animation and interactive computer graphics
Computer literacy
Entrepreneurship and the management of small business
Research management and the stimulation of innovation
Social implications of computing, especially the issue of responsibility
The history of computing

Significant Research Contributions (*Most significant accomplishments underlined*).

Interactive computer animation. I developed, as a Ph.D. student at MIT Lincoln Laboratory from 1966 through 1969, the first comprehensive conceptual framework for computer animation, embodied in Genesys — the first significant interactive computer animation system. This work helped launch the field of computer animation, now a several billion dollar a year industry. Later, in the late 1980s, I worked on the problem of exploiting computer animation for the benefit of enhanced human-computer interaction, leading to the widely cited technique of animated icons.

I developed, as a Ph.D. student, the first comprehensive conceptual framework for computer animation and the first significant interactive computer animation system, at M.I.T. Lincoln Lab, 1966-71, and documented the result on film, 1969-71. (*Publications B1, D2, H4, K1*)

Together with students, I continued Ph.D. research into the development and use of conversational extensible languages for computer animation, and, in Smalltalk, built a novel computer animation system for children, at the Xerox Palo Alto Research Center, 1974. (*Publication C3*)

I developed, together with colleagues, a broad concept of uses of animation at the interface, and then guided the realization and testing of one specific manifestation, the animated icon, 1988-90. (*Publications B3, D22, P1, P2*)

Software visualization (SV). In the early- to mid-70s I began to focus more on software visualization, and produced one of the first profound demonstrations of the potential of computer animation to portray and elucidate computer program behaviour — the half hour film, *Sorting Out Sorting* (1981). This movie is widely acknowledged as the seminal contribution that launched the field of algorithm animation. I also developed, together with designer Aaron Marcus, a systematic approach to enhancing the presentation and readability of computer program source code through applying graphic design principles, documented in a 1990 book. Together with colleagues and students, I also developed, from 1981 through 1992, a comprehensive, influential, and much cited conceptual framework for SV.

Together with students and colleagues, I devised and demonstrated a novel technique for using computer animation to portray the behaviour of models of transportation systems, 1974-77. (*Publications C2, C4, K3, K4*)

I produced, with the assistance of staff, the half hour film — *Sorting Out Sorting*, one of the first profound demonstrations of the potential of computer animation to portray and elucidate computer program behaviour, 1971-81. (*Publications B7, C13, D3, D4, G2, J5, K2*)

I developed, together with Aaron Marcus, a systematic and comprehensive new approach to enhancing the presentation of computer program source code through the application of graphic design principles, 1982-88. (*Publications A2, B6, D15, D16, D17, D18, H5*)

Together with colleagues and students, I formulated comprehensive conceptual frameworks for software visualization, 1981-92. (*Publications B5, B8, C13, C12, D14, D25, J7*)

I created, together with students, a methodology for constructing powerful yet unobtrusive systems for the visualization of programs in particular programming languages, and then applied it to the LOGO language, 1988-94. (*Publications C13, D19, D28, E1*)

Collaboration technologies, especially for multimedia authoring and publishing. In the early 1990s, I participated in two important research projects on telepresence, and guided an NSERC Strategic Grant on collaborative writing. This work included developing both a new understanding of how people write collaboratively and also a new system for collaborative writing. Since then, and through the present day, I have been developing, together with students, colleagues and staff, two innovative collaborative multimedia technologies. In the first case, we were the first group to employ hierarchically structured multimedia for the interactive authoring of digital video and other dynamic visual presentations, and the first to apply such a system to the creation of materials for software support and training [D45]. More recently, we have worked on the use of highly interactive webcasting with structured archives as an environment for collaborative learning [D62-64, D59, D56-57, D53-D54, D50-D51, D47, E29, E22, E13-14, E11, D11-12, F5]. Our contributions include the support of structured, navigable, searchable, taggable, and embeddable archives [D62, D48, D46, E23, E10], work on the use of speech recognition technology in creating lecture transcripts [D66, D64, D59, D56-D57, E25], and the first attempt to seamlessly integrate webcasting and conferencing technologies [D63, E24, E17].

I assisted 2 colleagues with a Strategic Grant investigating the development and evaluation of video, audio, and computer technologies to facilitate the real-time collaboration of individuals working at a distance, 1989-92. (*Publications D21, D29, D30, F4*)

Together with colleagues, I guided a Strategic Grant on collaborative writing, including developing and testing a new understanding of how people write collaboratively and novel prototypes of collaborative writing technology, 1990-96. (*Publications B4, D26, D31, D35, D39, G4*)

I led a team producing a comprehensive body of research on bridging the gap between what users know and what they need to know, 1998-present. (*Publications C14, D45, D44, D43, H8, L4, L5*)

Together with students and staff, I developed an innovative approach to using computer-based multimedia to authoring motion pictures and other dynamic visual presentations; created a related innovative approach to highly interactive webcasting with structured archives (ePresence Interactive Media; see <http://epresence.tv/>); applied both in novel ways to education, training, and support, 1991-present. (*Publications B12, B11, B9, D66, D63, D62, D59, D57, D56, D54, D53, D51, D50, D48, D47, D46, D45, D39, D37, D36, D33, E29, E28, E25, E24, E23, E22, E17, E16, E14, E13, E11, E10, E7, E6, E4, E3, F5*)

Technology for aging gracefully. My current research programme focuses on the design of technologies for aging gracefully, including electronic memory aids and other cognitive prostheses. This has concluded important work on the use of participatory design with individuals with severe cognitive impairments such as anterograde amnesia [D52, D49, E18, B16, B13], research on memory aids as collaboration technology [D67], the development of a method for creating multimedia biographies for individuals with Alzheimer's disease and their families [C17, C15, E33, E27, E21, E15, E12, B14], the testing of the value of such biographies [C16, C15, D61, E26, E20], work on the human factors of cell phones [D65, E19], the development of cell phone software for aiding name recall [E32, E30], work the lifelogging technology SenseCam [E34], and the creation of a comprehensive taxonomy for guiding work in this field [D60, E31, E18, J9].

Other research projects.

I carried out an extensive critical survey of computer use in adverse drug reaction data handling, and proposed a sweeping program of future R&D, at the U.S. National Institutes of Health, 1971-72. (*Publication C1*)

I specified and prototyped, together with students, the first highly congenial user interface for electronic newspaper page makeup, 1975-76. (*Publications C6, G1*)

Together with students, I created novel computer systems for the motion analysis of video tape records, 1977-92. (*Publications C11, D27, D32, J6*)

I developed, together with students, a time-based interface for email management and visualization, 1994-1998. (*Publication D38*)

I guided a program of research on Web technologies, Web user interfaces, and Web-based virtual communities, 1996-present. (*Publications D40, D41, D42, E5*)

I guided, together with colleagues, research on interactive system design and evaluation methodologies 1996-present. (*Publications B15, D58, D55, D39*)

Finally, I initiated research on open source software commercialization strategies, 2004-present. (*Publications E16, L6*)

Recent Grants and Contracts

Baecker, R.M., Google Research Award, Context-Aware Mobile Communication Aids, U.S. \$50,000, 2010.

Booth, K., Baecker, R.M. and 48 others, Networks of Centers of Excellence Award, Graphics, Animation, and New Media Canada (GRAND), \$25,125,000, 2010-2014.

Coyte, P., Baecker, R.M., and 25 others, Health Care, Technology, and Place (HCTP): A Strategic Training Initiative. CIHR Training Grant, \$1,900,000, 2009-2015.

Chau, T. Baecker, R.M., and 9 others, Collaborative Academic Rehabilitation Engineering (CARE), NSERC Collaborative Research and Training Experience (CREATE) Program Grant, \$1,650,000, 2009-2015.

Graham, T.C.N., Gutwin, C., and Baecker, R.M., NSERC Strategic Grant, Technology for Rich Group Interaction in Networked Games, \$482,000, 2008-2011.

Baecker, R.M., Black, S. DeLara, E., Rochon, E., and Ryan, D., Context-aware Mobile Devices and Wireless Services as Cognitive Aids for Senior Citizens, NSERC Collaborative Research and Development Grant, \$214,000 (matching funds), 2008-2011.

Baecker, R.M., and 12 others, Strategic Network Enhancement Initiative Proposal, NSERC, \$300,000, 2007-March 2009.

Baecker, R.M., Stern, Y., and Black, S., Research Comparing and Contrasting SenseCam "External Episodic Visual Memories" with Authored Multimedia Biographies, Microsoft Research Cambridge (U.K.) Gift in Support of Research, \$105,000, 2007-2010.

Baecker, R.M., Black, S. DeLara, E., Rochon, E., and Ryan, D., Context-aware Mobile Devices and Wireless Services as Cognitive Aids for Senior Citizens, Bell University Laboratories (BUL) Grant, \$75,000, 2007-2008.

Baecker, R.M. Research on Internet-based Multimedia to Enhance the Multi-campus Delivery & Use of CS Undergraduate Course Content, University of Toronto Student Experience Fund, \$50,000, 2007-2008.

Baecker, R.M. Innovative Deployment of Webcasting & Audioconferencing for Tri-campus Education, University of Toronto Courseware Development Fund, \$17,000, 2006.

Baecker, R.M., Knowledge Media Design Methods, NSERC Discovery Grant, \$36,000 per year, 2005-2010.

Baecker, R.M. and Marziali, E., Internet Multimedia Technology to Support Alzheimer's Caregivers and Families, Alzheimer's Association, U.S.\$185,130, 2004-7.

Baecker, R.M., and 13 others, Network for Effective Collaboration Technologies through Advanced Research, NSERC Research Networks Grant Application, total of \$4,465,811 provided by NSERC, \$1,116,452 provided by industrial sources, yielding roughly \$100,000 per year for my research, 2004-March 2009.

Baecker, R.M., Chignell, M., and Sheffel-Dunand, D., Audio Spaces for Internet Multimedia Webcast Communications: Implementation and Evaluation, \$76,475 in 2004, \$56,000 in 2005.

Baecker, R.M., Moore, G., and Spero, L., ePresence Laboratory, Bell University Laboratories Grant, \$136,000, 2001-2003.

Baecker, R.M., Interface Design for Managing Complexity, NSERC Discovery Grant, \$36,000 per year, 2001-2005.

Chignell, M., Baecker, R.M., and Spence, I., Personalization Technologies for Knowledge Management and Digital Libraries, Communications and Information Technology Ontario (CITO) Grant, total of \$100,000, including \$30,000 to my group, 2000-2002.

Baecker, R.M. and Moore, G., eSeminar-Meeting Environment, Bell University Laboratories Grant, \$184,000, 2000-2001.

Schraefel, M.C. and Baecker, R.M., User-Sensitive, Video-Enabled Software Help Systems, Bell University Laboratories Grant, \$138,000, 2000-2001.

Mendelzon, A., Baecker, R.M., Chignell, M., and Clarke, C., Personal Information Management, Ontario Centres of Excellence Communications and Information Technology Ontario (CITO) Grant, total of \$260,000, including \$80,000 to my group, 1998-2000.

Baecker, R.M., Designing Knowledge Media, NSERC Operating Grant, \$31,000 per year, 1997-2001.

Baecker, R.M., "Design and Evaluation of Multimedia Tools," Federal Networks of Centres of Excellence TeleLearning Research Network, total of \$70,000, 1995-99.

Baecker, R.M., "Technology and Application of Collaborative Multimedia in Telelearning," Federal Networks of Centres of Excellence TeleLearning Research Network, total of \$220,000, 1995-99.

Mendelzon, A., Baecker, R.M., and Chignell, M., "Information Access and Interpersonal Communications on the Internet," Ontario Centre of Excellence Information Technology Research Centres (ITRC) Grant, total of \$360,000, including \$90,000 to my group, 1995-98.

Calvert, T., Baecker, R.M., et al., "A Cognitive Basis for the Design of Knowledge-based Interfaces to Complex Systems," Federal Networks of Centres of Excellence Institute for Research on Intelligent Systems (IRIS) Grant, total of \$100,000 to my group, 1994-98.

Baecker, R.M., "Improving Human-Computer Interaction Through Dynamic Multi-Media," NSERC Operating Grant, \$25,000 per year, 1993-97.

Baecker, R.M. and Chignell, M., "Multimedia Information Visualization of Complex Systems," Ontario Centre of Excellence Information Technology Research Centre (ITRC) Grant, total of \$132,000, 1993-95.

Baecker, R.M., "Research on Interactive Movie Authoring and Design," CulTech Collaborative Research Centre Grant, \$24,000, 1993-94.

Baecker, R.M., Greenberg, S., Mantei, M.M., Scardamalia, M.L., Hirst, G.J., "Collaborative Writing and Shared Documents in Computer Supported Cooperative Work," NSERC Strategic Grant, \$120,000 per year, 1992-95.

Baecker, R.M., Greenberg, S., Mantei, M.M., Scardamalia, M.L., Hirst, G.J., "Collaborative Writing and Shared Documents in Computer Supported Cooperative Work Equipment," NSERC Strategic Equipment Grant, \$93,101, 1992-93.

Calvert, T., Baecker, R.M., et al. "Design and Human Interfaces," Federal Networks of Centres of Excellence IRIS Grant, total of \$159,000 to my group, 1990-94.

Baecker, R.M., "Video Annotation and Analysis Tools," Ontario Telepresence Project Grant, \$19,000 per year, 1992-93.

Mantei, M.M., Baecker, R.M., et al., "Designing for Users with Animated CASE Tools," Ontario Centre of Excellence Information Technology Research Centre Grant, total of \$100,000, 1991-93.

Mantei, M.M., Baecker, R.M., et al., "Video Enhanced Computer Supported Cooperative Work," NSERC Strategic Grant, \$95,000 per year, 1989-92.

Baecker, R.M. and Buxton, W., Grant-in-aid of Research of the Dynamic Graphics Project, Apple Computer, total of \$188,000 + over \$150,000 of hardware and software, 1988-92.

Baecker, R.M., Buxton, W., et al., "Telepresence Research," Ontario Centre of Excellence Information Technology Research Centre Grant, total of \$62,000, 1990-91.

Mantei, M.M., Baecker, R.M., et al., "Video Enhanced Computer Supported Cooperative Work Installation," NSERC Strategic Equipment Grant, total of \$87,00, 1989.

Baecker, R.M., Mantei, M.M., Buxton, W., Danahy, J. , and Booth, K. "Novel Human-Computer Interaction Techniques", Information Technology Research Centre Grant, total of \$165,000, 1988-90.

Baecker, R.M., Fournier, A. et al., Grant-in-aid of Research of the Dynamic Graphics Project, Silicon Graphics, \$39,000 of hardware and software, 1988.

Buxton, W. and Baecker, R.M., Grant-in-aid of Research of the Dynamic Graphics Project, Xerox Corporation, \$37,000 of hardware and software maintenance and support, 1988.

Baecker, R.M., Fournier, A., Muter, P., and Spence, I., "Enhanced Processing of Visual Displays", NSERC Strategic Grant, \$95,000 per year, 1985-88.

Baecker, R.M., Fournier, A., Muter, P. , and Spence, I., "Multiple Work Stations", NSERC Strategic Equipment Grant, total of \$30,000, 1985.

Baecker, R.M. and Marcus, A., "Enhancing the Presentation of Computer Program Source Text", U.S. Defense Advanced Research Projects Agency contract, total of U.S. \$525,000, 1982-85.

PUBLICATIONS AND PATENTS

Career Publication Count	
Scholarly books (authored)	1
Scholarly books (edited)	3
Chapters in books	16
Papers in refereed journals	16
Papers in refereed conferences	67
Major invited contributions	5
Other conference abstracts/posters/contributions	30
Other publications	30

Books

A4. Baecker, R.M., Grudin, J., Buxton, W., and Greenberg, S. (1995). *Readings in Human Computer Interaction: Toward the Year 2000*, Morgan Kaufmann Publishers, 950 pp., including 190 pp. of original interpretive material.

A3. Baecker, R.M. (1993). *Readings in Groupware and Computer Supported Cooperative Work: Software to Facilitate Human-Human Collaboration*, Morgan Kaufmann Publishers, 882 pp., including 60 pp. of original interpretive material.

A2. Baecker, R.M. and Marcus, A. (1990). *Human Factors and Typography for More Readable Programs*, ACM Press, Addison-Wesley Publishing Company, 346 pp.

A1. Baecker, R.M. and Buxton, W. (1987). *Readings in Human Computer Interaction: A Multidisciplinary Approach*, Morgan Kaufmann Publishers, 738 pp., including 150 pp. of original interpretive material.

Articles in Books

B17. Birnholtz, J., Baecker, R.M., Laughton, S., Mak, C., Causey, R., Ranking, K., and Wolf, P. (2010, to appear). Building Bridges: Combining Webcasting and Videoconferencing in a Multi-campus University Course. In Magoulas, G.D. (Ed.), *E-Infrastructures and Technologies for Lifelong Learning: Next Generation Environments*, IGI Global.

B16. Massimi, M. and Baecker, R.M. (2008). An Empirical Study of Seniors' Perceptions of Mobile Phones as Memory Aids, In Mihailidis, A., Boger, J., Kautz, H., and Normie, L. (Eds.), *Technology and Aging*, IOS Press, 59-66.

B15. Baecker, R.M. (2008). Man-Computer Symbiosis. In Erickson, T. and McDonald, D. (Eds.), *HCI Remixed*, MIT Press, 19-22.

- B14.** Cohene, T., Baecker, R.M., Marziali, E., and Mindy, S. (2007). Memories of a Life: A Design Case Study for Alzheimer's Disease. In Lazar, J. (Ed.), *Universal Usability*, John Wiley & Sons, 357-387.
- B13.** Wu, M., Baecker, R.M., and Richards, B. (2007). Designing a Cognitive Aid for and with People who have Anterograde Amnesia. In Lazar, J. (Ed.), *Universal Usability*, John Wiley & Sons, 317-356.
- B12.** Baecker, R.M., Fono, D., and Wolf, P. (2007). Towards a Video Collaboratory. In Goldman, R., Pea, R., Barron, B., and Derry, S. (Eds.), *Video Research in the Learning Sciences*, Laurence Erlbaum, 461-78.
- B11.** Zijdemans, A., Moore, G., Baecker, R.M., and Keating, D.P. (2006). ePresence Interactive Media and Webforum 2001: An Accidental Case Study on the Use of Webcasting as a VLE for Early Child Development. In Weiss, J., Nolan, J., and Trifonas, P. (Eds.), *International Handbook of Virtual Learning Environments*, Kluwer, 1395-1428.
- B10.** Moore, G. and Baecker, R.M. (2006). The Knowledge Media Design Institute: An Adventure in Interdisciplinarity. In Stephan, P.F. (Ed.), *Knowledge Media Design — Theorie, Methodik, Praxis*, Oldenbourg Verlag, 409-420.
- B9.** Baecker, R.M. and Posner, I. (1999). Children as Digital Motion Picture Authors. In Druin, A. (Ed.), *The Design of Children's Technology*, Morgan Kaufmann, 169-200.
- B8.** Baecker, R.M. (1998). The Early History of Software Visualization. In Stasko, J., Domingue, J., Brown, M., and Price, B. (Eds.), *Software Visualization: Programming as a Multimedia Experience*. MIT Press, 29-34.
- B7.** Baecker, R.M. (1998). *Sorting Out Sorting: A Case Study of Software Visualization for Teaching Computer Science*. In Stasko, J., Domingue, J., Brown, M., and Price, B. (Eds.), *Software Visualization: Programming as a Multimedia Experience*. MIT Press, 369-381.
- B6.** Baecker, R.M. and Marcus, A. (1998). Printing and Publishing C Programs. In Stasko, J., Domingue, J., Brown, M., and Price, B. (Eds.), *Software Visualization: Programming as a Multimedia Experience*. MIT Press, 45-61.
- B5.** Price, B., Baecker, R.M., and Small, I. (1998). An Introduction to Software Visualization. In Stasko, J., Domingue, J., Brown, M., and Price, B. (Eds.), *Software Visualization: Programming as a Multimedia Experience*. MIT Press, 3-27.
- B4.** Posner, I.R., Mitchell, A., and Baecker, R.M. (1996). Learning to Write Together. Appears in *Computer Supported Cooperative Writing* (R. Rada, Editor), Academic Press, 161-185.
- B3.** Baecker, R.M. and Small, I. S. (1990). Animation at the Interface, appears in *The Art of Human-Computer Interface Design* (B. Laurel, Editor), Addison-Wesley, 251-267.
- B2.** Baecker, R.M. (1980). Human-Computer Interactive Systems: A State-of-the-art Review, *Proceedings Second International Conference on the Processing of Visible Language*, Sept. 1979, appears in *Processing of Visible Language 2* (Paul A. Kolers, Merald E. Wrolstad, and Herman Bouma, Editors), Plenum Press, New York, 423-443.
- B1.** Baecker, R.M. (1974). GENESYS -- Interactive Computer-Mediated Animation, appears in *Computer Animation* (John Halas, Editor), Hastings House, New York, 97-115.

Patents and Patent Applications

- P3.** Smith, E.J.M. and Baecker, R.M., System and Method for Publishing, Updating, Navigating, and Searching Documents Containing Digital Video Data, U.S. Patent Application filed Dec. 2001, abandoned in 2005.
- P2.** Baecker, R.M. and Small, I.S., Content-Based Depiction of Computer Icons, U.S. Patent Number 5,479,602, Dec. 26, 1995.
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Invited and Non-Refereed Publications

- F6.** Rankin, K. and Baecker, R.M. (2007). ePresence Interactive Media: Evolution of an Open Source Strategy. The Open Source Business Resource, Talent First Network, <http://www.osbr.ca/ojs/index.php/osbr/issue/view/36>, October 2007.
- F5.** Baecker, R.M. and Rankin, K. (2005). Open Source Webcasting and Media Archiving Software for E-learning, ACM eLearn Magazine, <http://elearnmag.org>, posted 12 October 2005.
- F4.** Baecker, R.M., New Paradigms for Computing in the 90's, *Proceedings Graphics Interface '91*, Calgary, Alberta, June 1991, 224-229.
- F3.** Baecker, R.M., A Vision of Education in User-centered System and Interface Design, *SIGCHI Bulletin* 20(3), January 1989.
- F2.** Baecker, R.M., From the Animated Student to the Animated Computer to the Animated Film to the Animated Student..., *Proceedings Purdue 1971 Conference on Applications of Computers to Electrical Engineering Education*, April, 1971, 106-113.
- F1.** Baecker, R.M., Current Issues in Interactive Computer-Mediated Animation, *Proceedings 1970 UAIDE Annual Meeting*, October 1970, 273-288.

Published Films And Videotapes

- G4.** Baecker, R.M., Glass, G., Mitchell, A., and Posner, I.R. (1994). SASSE: The Collaborative Editor, 8 minute refereed video tape presented at the 1994 ACM Conference on Human Factors in Computing Systems, May 1994, also published in the *SIGGRAPH Video Review 97*.
- G3.** Baecker, R.M., *The Dynamic Image*, 60 minute colour sound film, Dynamic Graphics Project, University of Toronto, 1987. (Distributed by Morgan Kaufmann, Publishers.)

G2. Baecker, R.M., with the assistance of Dave Sherman, *Sorting out Sorting*, 30 minute colour sound film, Dynamic Graphics Project, University of Toronto, 1981. (Excerpted and “reprinted” in *SIGGRAPH Video Review* 7, 1983.) (Distributed by Morgan Kaufmann, Publishers.)

G1. Baecker, R.M., Tilbrook, D., and Tuori, M., *NEWSWHOLE -- An Interactive Newspaper Pagination System*, 10 minutes, Dynamic Graphics Project, University of Toronto, 1976, refereed and presented at Siggraph 79 (“Reprinted” in *SIGGRAPH Video Review* 1, 1980).

Theses, Technical Reports, and Unpublished Papers and Talks

H8. McGrenere, J., Baecker, R., and Booth, K. Learning to Use Complex Technology: The Importance of User Interface Design. Technical Report CSRG-403, Dept. of Computer Science, Univ. of Toronto, 1999.

H7. Baecker, R.M. The Web of Knowledge Media Design (1997). Unpublished speech given 23 January 1997, http://kmdi.utoronto.ca/rmb/kmdi_talk.pdf.

H6. Hewett, T., Baecker, R.M., Card, S., Carey, T., Gasen, J., Mantei, M., Perlman, G., Strong, G., and Verplank, W., ACM SIGCHI Curricula for Human-Computer Interaction, Report of the ACM Special Interest Group on Computer-Human Interaction Curriculum Development Group, 1992.

H5. Baecker, R.M., Marcus, A., Arent, M., Longarini, J., Macintosh, A., and Tims, T., *Enhancing the Presentation of Computer Program Source Text*, Final Report of the Program Visualization Project to DARPA, Human Computing Resources Corp. and Aaron Marcus and Assoc., 6 volumes, 1985.

H4. Baecker, R.M., Interactive Computer-Mediated Animation, Ph.D. Thesis, M.I.T. Department of Electrical Engineering, April 1969. Reprinted as M.I.T. *Project MAC TR-61*. Also available as AD 690 887 from the Clearinghouse for Federal Scientific and Technical Information.

H3. Baecker, R.M., Planar Representations of Complex Graphs, *M.I.T. Lincoln Laboratory Technical Note 1967-1*, Lexington, Mass., 1967.

H2. Baecker, R.M., Computer Simulation of Mobility Aids (for the Blind) -- A Feasibility Study, M.S. Thesis, M.I.T. Department of Electrical Engineering, August 1964. Reprinted in the *Research Bulletin of the American Foundation for the Blind*.

H1. Baecker, R.M., Human Discrimination of Auditory Duration, B.S., Physics, M.I.T., June 1963.

Published Abstracts, Summaries And Notes

J9. Baecker, R.M., Designing Technology to Aid Cognition, *Proceedings ACM Assets 2008*, 1-2.

J8. Baecker, R.M., Forty Years of Human-Computer Interaction and Knowledge Media Design: Twelve Challenges to Meet in Fewer than the Next Forty Years, Abstract only, *Proceedings Graphics Interface 2005*, Victoria, B.C., May 2005

J7. Baecker, R.M., Research Issues in Program Visualization, Contribution to Panel on “Multi-dimensional Interfaces for Software Design,” *Proceedings Interact '90*, Aug. 1990, 1064-1065.

J6. Baecker, R.M., Miller, D., and Reeves, W., A Prototype Laboratory Instrument for Motion Analysis, *Proc. 7th Canadian Man-Computer Communications Conference*, June 1981.

J5. Baecker, R.M. and Sherman, D., A Computer Animated Explanation of Internal Sorting Methods, *Proceedings 7th Canadian Man-Computer Communications Conference*, June 1981.

J4. Baecker, R.M., Reeves, W., Covvey, H.D., Miller, D., and Galloway, D., Interactive Computer-Aided Analysis of Cardiac Motion Sequences, *Proceedings Workshop on Computer Analysis of Time-Varying Imagery*, Univ. of Pennsylvania, IEEE Computer Society, April 1979.

J3. Baecker, R.M., Towards the Construction of Useful Interactive Graphics Systems, *IEEE/ACM Conf. on Computer Graphics, Pattern Recognition and Data Structure*, Los Angeles, May 1975.

J2. Baecker, R.M. and Guerin, M., A System for Computer Animated Film Production in a Batch Processing Environment, *Second Annual ACM Computer Science Conference*, Feb. 1974, 29.

J1. Baecker, R.M., The Use of LOGO in a ‘Computers and Society’ Course, *Proceedings of the 1972 ACM Annual Conference*, Aug. 1972, 321.

Other Films And Videotapes Produced

- K4.** Baecker, R.M., Hill, G., and Tuori, M., *Computer-Animated Simulation of Taxi Dispatching Strategies*, 10 minute sound film, Dynamic Graphics Project, University of Toronto, 1976.
- K3.** Baecker, R.M. (Producer), *Computer-Animated Transit Models*, 10 minute black-and-white silent film, Dynamic Graphics Project, University of Toronto, 1975.
- K2.** Baecker, R.M. (Producer), *Program Animation Sampler*, 20 minute black-and-white silent film, Dynamic Graphics Project, University of Toronto, 1974.
- K1.** Baecker, R.M., Smith, L., and Martin, E., *GENESYS -- An Interactive Computer-Mediated Animation System*, 17 minute colour sound film, M.I.T. Lincoln Laboratory, 1970.

Articles And Interviews

- L7.** Interview with Ron Baecker, Mike Massimi, Masashi Crete-Nishihata, and Deb Ptak, Digital Technology Eyed in Fight against Alzheimer's, The Globe and Mail Update, <http://www.theglobeandmail.com/news/technology/digital-technology-eyed-brin-fight-against-alzheimers/article1321599/>, 13 October 2009
- L6.** Conversation with Ron Baecker and Michelle Levesque on Open Source, University of Toronto Radio Program entitled Education Ourselves, 5 May 2004.
- L5.** Interview with Ron Baecker on Rewriting the Rules of ... Writing Rules, CanadaComputes.com, 26 Jan. 2001, <http://www.canadacomputes.com/v3/story/1,1017,5455,00.html?tag=81&sb=121>
- L4.** Conversation with Ron Baecker, The Video Manual, Univ. of Toronto Radio: The Innovators, 18 Jan. 2001.
- L3.** In Conversation with Ron Baecker, *Computing Canada*, Vol. 10, No. 26, Dec. 27, 1984, 11-12.
- L2.** Baecker, R.M., Interactive Computer Graphics: Ready for the Big Move in the 1980s, *Canadian Datasystems*, Vol. 12, No. 9, Sept. 1980, 41-47.
- L1.** Baecker, R.M., Computer Animation: An Aid in Visualizing Complex Processes, *Canadian Datasystems*, Vol. 5, No. 3, March 1973, 30-32.

TRAINING OF HIGHLY QUALIFIED PERSONS (HQP's)

My students are or have been professors at the University of Toronto, the University of British Columbia, the University of Alberta, the Ontario Institute of Technology, Nipissing University, the Open University (U.K.), Hong Kong University, the National University of Singapore, Georgia Institute of Technology, and several community colleges. Others are or have been researchers or professional staff at IBM Canada, IBM U.S., Oracle Corp., Microsoft Research, Microsoft, Google, Sun Microsystems, University of Toronto, McMaster University, Xerox, Nynex, Intel, Nortel, SRI International, Pixar/Disney, Alias Research, ATI, Electronic Arts, Matrox, McGraw-Hill, T-Mobile, Amazon, Intuit, McKinsey Corp., Mark Logic, Silk Road Technology, Caseware international, Artez Interactive, Altamont Computers, Nectarine Group, Sapient, and ISS (Singapore).

Career Student Numbers		
	In progress	Completed
Undergraduate RAs	2	80 (est.)
M.Sc. and M.A.Sc.	5	41
Ph.D.	2	4
Postdoctoral fellows	0	2

Postdoctoral Fellows Supervised or Co-supervised

- Moffatt, Karyn, Collaborative Games for Grandparents and Grandchildren, 2010-2011
- Sundarajan, Binod, Social Networking Technologies for Wireless Services, 2007-8
- Birnholtz, Jeremy, Collaboration Technologies for Computer-Supported Cooperative Work, 2005-7

Theses Supervised or Co-supervised

Currently supervising:

- Wu, Michael, Ph.D. Memory Aids as Collaboration Technology, 2004-
Massimi, Michael, Ph.D., Thanatosensitively Designed Technologies for Bereavement Support, 2007-
Pandeliev, Velian, M.Sc., A System for Online Studies of Cognitive Reserve Interventions, 2009-
Poorshahid, Golnoosh, M.Sc., Context-aware Mobile Language Aids, 2009-
Shim, Nick, M.Sc., A Gaming Environment for Seniors that Encourages Social Interaction, 2008-
Tonon, Kevin, M.Sc., Method for the Semi-automatic Generation of Board Game Controllers, 2008-
Peterson, Miller, M.Sc., A Study of Media for Lectures Recordings, December 2009
Fenwick, Kent, M.Sc., Design of a Context-aware Name Reminder System, September 2009
Munteanu, Cosmin, Ph.D., Useful Transcriptions of Webcast Lectures, March 2009 (co-supervisor)
Massimi, Michael, M.Sc., Participatory Design of Mobile Phone Software for Seniors, January 2007
Fono, David, M.Sc., Structuring and Supporting Persistent Chat Conversations, M.Sc., October 2006
Tohidi, Maryam, Two New Techniques for User-Centred Interaction Design: Multiple Prototyping and User Sketching, M.Sc., January 2006 (co-supervisor)
Shick, Russ, A Study of Student Conversation in Text and Audio During Webcast Lectures, M.Sc., July 2005
Hoss, Jonathan, Open Source Technology Transfer Strategies: An Analysis of Open Source Business Models Used to Incubate and Commercialize University Software Projects, B.A.Sc., April 2005
Noble, Meredith, Needs Analysis and Preliminary Prototyping for a Context-aware Name Recollection Tool, B.A.Sc., April 2005
Cohene, Tira, The Design of Interactive Life Story Multimedia for an Individual and Family Affected by Alzheimer's Disease, M.Sc., April 2005
Strickland, Krista, A Study of Multimedia Lecture Archives for Mobile and Desktop Computers, M.Sc., Jan. 2005
Wu, Michael, The Participatory Design of an Orientation Aid for People with Amnesia, M.Sc., July 2004
McGrenere, Joanna, The Design and Evaluation of Multiple Interfaces: A Solution for Complex Software, Ph.D., February 2002 (co-supervisor)
Jovicic, Sasha, Implications for the Design of Email Management Software, M.Sc., June 2000
Long, Byron, Shaping Social Space from Information Space, M.Sc., Oct. 1999
Yiu, Kelvin, Time-based Management & Visualization of Personal Electronic Information, M.A.Sc., May 1997
Abrams, David, Human Factors of Personal Web Information Spaces, M.Sc., Jan. 1997
Mitchell, Alex, Communication and Shared Understanding in Collaborative Writing, M.Sc., Jan. 1996.
Silver, Nancy, Time-based Visualizations of Electronic Mail, M.Sc., Jan. 1996.
Rosenthal, Alan J., Computer Support for Authoring Motion Pictures, M.Sc., Oct. 1995.
DiGiano, Christopher, Visualizing Program Behaviour Using Non-speech Audio, M.Sc., Oct. 1992.
Nastos, Dimitrios, A Structured Environment for Collaborative Writing, M.Sc., Oct. 1992.
Wang, Lisa X., Time Line Displays in Video Analysis, B. A.Sc., April 1992.
Posner, Ilona R., A Study of Collaborative Writing, M.Sc., April 1991.
Harrison, Beverly L., The Annotation and Analysis of Video Documents, M.A.Sc., April 1991.
Price, Blaine A., A Framework for the Automatic Animation of Concurrent Programs, M.Sc., Dec. 1990.
Papper, Michael, Using High-Level Constraints to Aid Space Planning Applications in CAD, M.Sc., July 1990.
Lin, Monte M., Real Time Corporation: The Struggle to Become Number One, B.A.Sc., April 1990.

Mintz, Martin, Netron: Survival in the CASE Marketplace, B.A.Sc., April 1990.

Small, Ian S., Program Visualization: Static Typographic Visualization in an Interactive Environment, M.Sc., Feb. 1989.

Buchanan, John W., LOGOmotion: A Visually Enhanced Programming Environment, M.Sc., Sept. 1988.

Small, Ian S., Program Visualization: Enhancing the Readability of COBOL Source Code, B.A.Sc., April 1986.

Green, Mark W., The Design of Graphical User Interfaces, Ph.D., April 1985 (co-supervisor).

Leskowicz, Irene C., An Interactive Display System for Multi-Channel Signals in Three-Dimensional Objects: Applications to Electrocardiology, M.A.Sc., Dec. 1980.

Miller, David H., A Two Dimensional Video Display System, M.A.Sc., Oct. 1980.

Reeves, William T., Quantitative Representations of Complex Dynamic Shape for Motion Analysis, Ph.D., Oct. 1980 (co-supervisor).

Leon Lastra, Gerardo, Scan Conversion and Sampling Algorithms for Two-Dimensional Computer Graphics, M.Sc., Dec. 1979.

Galloway, David, The Modelling of Dynamic Digital Video Display Systems, M.Sc., Oct. 1979.

Green, Mark, A Graphical Input Programming System, M.Sc., Jan. 1979.

Kaden, Neil, Understanding SMALLTALK, M.Sc., Oct. 1978.

Crossey, Sheila, An Interactive Graphical Source Language Debugging System, M.Sc., Oct. 1977.

Tuori, Martin I., Tools and Techniques for Computer-Aided Animation, M.Sc., April 1977.

Fono, Ilan, An Interactive Digital Logic Simulator, M.A.Sc., March 1977.

Tilbrook, David, A Newspaper Pagination System, M.Sc., Oct. 1976.

Reeves, William T., A Device-Independent, General Purpose Graphics System in a Minicomputer Time-Sharing Environment, M.Sc., Jan. 1976.

Duff, Thomas D.S., Simulation and Animation, M.Sc., Jan. 1976.

Yarwood, Edward, Toward Program Illustration, M.Sc., Nov. 1974.

Horsley, Thomas, SIMULOGO: A Student Simulation Language, M.Sc., Oct. 1974.

Heifetz, Eleanor, A Display Technique for Trees, M.Sc., Aug. 1974.

de Boer, J.M., A System for the Animation of Micro-PL/1 Programs, M.Sc., April 1974.

Chan, Kit-Mei, A System for Animating Mini-LOGO Programs, M.Sc., April 1974.

Guerin, Marjorie, A System for Computer Animated Film Production ..., M.Sc., Oct. 1973.

Recent Thesis Committee Memberships

Currently on the committee of Ph.D. student Daniel Vogel.

Grossman, T., Interaction with Volumetric Displays, July 2008.

Wigdor, D., The Design of Table-Centric Interactive Spaces, April 2008.

Ramos, G., Pressure-Sensitive Pen Interactions, Ph.D., Jan. 2008.

Bezerianos, A., Designs for Single User, Up-front Interaction with Wall-sized Displays, Ph.D., Sept. 2007.

McGuffin, M., An Investigation of Issues and Techniques in Highly Interactive Computational Visualization, Ph.D., April 2007.

Kilgore, R., Visualizing Voice Locations: Amplifying the Effects of Spatial Audio with Simple Displays, D.A.Sc., September 2006.

Coahran, M., Computer-Assisted Bargello Quilt Designs, M.Sc., September 2005.

Vogel, D., Interactive Public Ambient Displays, M.Sc., January 2005.

Gwizda, J., Cognitive Abilities, Interfaces, and Tasks: Effects on Prospective Information Handling in Email, D.A.Sc., June 2004.

Wigdor, D., Chording and Tilting for Rapid, Unambiguous Text Entry to Mobile Phones, M.Sc., Jan. 2004.

Rubick, J., The Design and Evaluation of a Two-handed Drawing Program,. M.Sc., Oct. 1999.

Friedlander, N., Evaluating User Performance in Nonvisual Bullseye Menus, M.Sc., Oct. 1997.

Gujar, A., The Audio Video Server Attendant: Increasing Access and Control of Media Spaces, M.Sc., Oct. 1996.

Kay, R., The Acquisition of Computer Knowledge: A Formative Analysis, Ph.D. at OISE, Dec.1995.

Woodruff, E., Investigating Collaborative Maieutics, Ph.D. at OISE, May 1995.

Kurtenbach, G., The Design and Evaluation of Marking Menus, Ph.D., April 1993.

Halpern-Hamu, C., Direct Manipulation of Robots by the Physically Disabled, Ph.D., Nov. 1992.

Lee, A., Investigations into History Tools for User Support, Ph.D., March 1992.

Mawby, K., Designing Collaborative Writing Tools, M.Sc., October 1991.

Naiman, A., The Use of Grey Scale for Character Display, Ph.D., December 1990.

Recent Fourth Year Research Project Supervisions

Levy, Alex, Solving Place Detection and Vocabulary Generation Challenges for a Location-Aware AAC Device, December 2009

Crete-Nishihata, Masashi, Lifelogging over the Lifecourse, May 2009

Chan, Ian, ConnectMe: A System to Help People Living in Isolation, May 2009

Dufau, Bastien, ePresence Market Analysis and Testing Strategies, Aug. 2007

Causey, Rhys, Awareness and Interaction in Webcasting Systems, Aug. 2007

Causey, Rhys, Awareness, Voice Conversations, and Interactivity in Webcasting, Dec. 2006

Chen, Sean, Improving Language & Literacy Online: Collaborative Web-based Gaming for Seniors, Apr. 2006

Kaiser, T., Multimedia Help: A Review of the Literature, Dec, 2000.

Straker, A., Web Accessibility: Creativity and Usability, Sept. 2000.

Ortigas, R., Adding Rhyme and Reason to Multimedia Instruction, May 2000.

Rosen, D., A Survey of Computer Support Programs, May 2000.

Matthews, W., Exploring the Media Rich Advertisement, December 1999.

Straker, A., Word Prediction Programs: Evaluating their Effectiveness, Dec. 1999 (with F. Shein).

Bosanac, A., Search Engine Options for a Time-based Email Management System, May 1999.

Mazalek, A., Media Composition, May 1999.

Rosen, D., A Strategic Analysis of Software Opportunities, May 1999.

Mazalek, A., Timeline Views in Digital Movie-Making Applications. Sept. 1998.

Sheryer, P., Accessibility Validation and Integration,. May 1998 (with G. Moore).

Lustgarten, A., Software Visualization of a Logo Interpreter, October 1996.

DeRege, E., The Virtual Communities Project: Exploring the Building of a Virtual Community within the HCI Community, December 1995.

Jevans, I., The Virtual Communities Project: Exploring the Building of a Virtual Community within the Logo Community, December 1995.

Venkatacharya, P., Visualization and Collaboration in the Authoring of Motion Pictures, May 1995.
Bot, D., MAD About Youth: Integrating MAD into the Secondary School Environment, April 1995.
Bot, D., Using Sight and Sound to Animate Program Behaviour, December 1994.
Bellman, T., A Study of Software Auralization, April 1994.
Long, B., A Study of Time-based Display and Management of Electronic Mail, April 1994.

Other current and recent supervisions of HQPs

Ing, Garry, research staff, Computer Gaming Interfaces for Seniors, 2009-
Levy, Alexander, undergrad, Context-aware Cell Phone Software for Anomic Aphasia, 2009-
Sahney, Aakash, undergrad, Computer Gaming Communications Software, 2009-
Ptak, Deborah, research staff, SenseCam Media for Alzheimer's disease, 2008-
Crete-Nishihata, Masashi, research staff, Multimedia Technologies for Alzheimer's disease, 2006-
Shihpar, Thariq, undergrad, Computer Gaming Software, 2009-9
Leidgens, Janusz, visiting M.Sc. student, Automatic Face Recognition Software, 2009-9
Fady Akladios, Fady, undergrad, Remote Administration of Cognitive Assessment Software, 2007-9
Smith, Karen, doctoral student, Qualitative Analysis of Multimedia Biography Production and Viewing, 2006-8
Wolf, Peter, research staff, ePresence Interactive Media, 2000-8
Smith, Eric, research staff, ePresence Interactive Media, 2003-8
Xhabija, Dritan, undergrad, ePresence Interactive Media, 2007-8
Vaughan, James, undergrad, ePresence Interactive Media, 2005-8
Reilly, Brendan, undergrad, ePresence Interactive Media, 2006-7
Wu, Lei, undergrad, Tools for Collaboration on Mobile Phones, 2006-7
Mak, Clarissa, undergrad, Collaboration Technology fieldwork, 2006-7
Yeung, Martin, undergraduate, Multimedia Biography Production for Alzheimer's disease, 2005-7
Chatland, Sarah, master's student, Multimedia Biography Production for Alzheimer's disease, 2005-7
Ramdeen, Kristin, undergraduate, Multimedia Biography Production for Alzheimer's disease, 2005-7
Mindy, Simona, undergraduate, Multimedia Biography Production for Alzheimer's disease, 2004-5

TEACHING AND UNIVERSITY ADMINISTRATION

Significant Teaching Contributions and Innovations

(Most significant accomplishments indicated by **).

Together with others, initiating the development of a knowledge media design collaborative graduate degree program, sponsored by the Knowledge Media Design Institute, 2002.

Creating the University of Toronto annual Computational Media undergraduate design competition, and obtaining industrial support for it, 1997-1999, 2004

(**) Founding of the Knowledge Media Design Institute, 1995

(**) Writing and editing, in two cases together with co-authors, the most respected annotated readings collections in the fields of human-computer interaction and computer-supported cooperative work.
(*Publications A1, A3, A4*)

Revitalizing the Department of Computer Science's Colloquium lecture series, 1990

Member, Computer Science Ph.D. Breadth Committee, 1990-1991
Organizer, Lecture Series on Computer Supported Cooperative Work, February 1991
Organizer and exhibit curator, The Dynamic Image, Pioneering Computer Graphics at the University of Toronto: A Twenty Year Retrospective, Koffler Student Centre, U of T, May 1987
Organizer, Graphics and Interaction Seminar, 1985-1990

PROFESSIONAL ACTIVITIES

Member

Association for Computing Machinery (ACM)
ACM Special Interest Group on Computers and Human Interaction (SIGCHI)
Canadian Human Computer Communications Society (CHCCS)

Invited Short Course or Tutorial Presenter or Co-Presenter

Strategies for Open Source Development, Adoption, & Deployment, EDUCAUSE, Orlando, Oct. 2005
High-Technology Innovation & Entrepreneurship: Principles and Pitfalls, ACM SIGCHI, April 2004
High-Technology Innovation & Entrepreneurship: Principles and Pitfalls, HCI Int'l., June 2003
High-Technology Innovation & Entrepreneurship: Principles and Pitfalls, ACM SIGCHI, April 2003
Starting a Successful Software Company, CITO, Toronto, June 2002
Frontiers of User Support, ACM SIGCHI, Minneapolis, April 2002
Starting and Running a Successful Software Company, Alberta Research Council, Calgary, June 1997
Managing Software Companies Successfully, UCLA Engineering Extension Program, L.A., Aug. 1996
Starting and Running a Successful Software Company, ITRC, Toronto, June 1996
Starting and Running a Successful Software Company, ITRC, Ottawa, May 1996
Starting and Running a Successful Software Company, ITRC, Toronto, Sept. 1994
Computer Supported Cooperative Work for Medicine, Telemedicine Canada, Sept. 1994
Operating a Successful Software Company, Fundacion Chile, August 1993
The Business of Software, 19th Annual Latin-American Computer Congress, August 1993
Operating a Successful Software Company, UBC Fac. of Commerce Executive Programs, May 1993
Video Enhanced Computer Supported Cooperative Work, Graphics Interface 92
A Multi-Discip. Approach to Human-Computer Interaction: IBM Can. Develop. Lab, May-June 88
Human Computer Interaction: Selected Theories, Technologies, and Techniques, SIGCHI 88
Human Computer Interaction: Selected Theories, Technologies, and Techniques, SIGGRAPH 87
Information Technology: A Tool for Progressive Management, U of T Mgmt. Executive Training 87
Human Computer Interaction: Theories, Technologies, Techniques, and Tools, SIGGRAPH 86
Human Computer Interaction: Theories, Technologies, Techniques, and Tools, Graphics Interface 86
Human Computer Interaction: Theories, Techniques, and Tools, SIGCHI 86
Interactive Technologies, SIGCHI 86
User Interface Design Techniques, Graphics Interface 85
Techniques, Technologies, and Tools, SIGCHI 85 Conference
User Interface Design, Graphics Interface 84
User Interface Design, SIGCHI 83 Conference on Human Factors in Computing Systems
Introduction to Computer Graphics, SIGGRAPH 82
User Interface Design, Graphics Interface 82
Raster Graphics, Seventh CMCSS Conference (1981)
Getting to Know Computers, HCR Course Programs (1979-80)
Raster Graphics, Sixth CMCSS Conference (1979)
Introduction to Computer Graphics, Fifth CMCSS Conference (1977)
Introduction to Computer Graphics, 1977 Canadian Digital Equipment User's Society

Lecturer (mostly invited, some peer reviewed)

2010 March 3, Overland Club Computer Group, Toronto
2009 December 4, Toronto Rehabilitation Institute Communications Team Research Meeting
2009 December 4, Ryerson University 50+ Computing Club, Toronto

2009 October 2, Psychiatry Rounds, Baycrest
2009 June 18, Neuroscience Rounds, Sunnybrook Health Sciences Centre, Toronto
2009 April 3, Cognitive Neuroscience Seminar, Columbia Univ. College of Physicians and Surgeons, New York
2009 March 12, KMDlat13 Invited Lecture, Toronto
2009 March 5, Microsoft Research Invited Lecture, Redmond WA.
2009 March 4, Univ. of Washington Human-Computer Interaction and Design (DUB) Invited Lecture, Seattle, WA.
2009 March 2, British Columbia Network on Aging Research (BCNAR) Invited Lecture, Vancouver, B.C.
2009 February 9, Center on Research and Education for Aging and Technology (CREATE) Invited Lecture, University of Miami School of Medicine
2008 October 14, Dalhousie University Department of Computer Science Invited Lecture, Halifax, Canada
2008 October 13, ACM ASSETS Conference on Computers and Accessibility Keynote, Halifax, Canada
2008 June 23, Open University Department of Computer Science Invited Lecture, Milton Keynes, U.K.
2008 June 17, Bloorview Research Institute Seminar Series, Toronto
2008 May 30, DGPis40 Scientific Workshop and Reunion, Toronto
2008 May 13, Video Gaming at University of Toronto: Technical, Social, and Legal Dimensions
2008 May 8, Computer Science and Artificial Intelligence (CSAIL) HCI Seminar, M.I.T., Cambridge Mass.
2008 May 7, Institute for Innovative Computing, Harvard University, Cambridge Mass.
2008 May 2, Health Care Technology and Place Research Retreat, Toronto
2008 Apr. 16, Workshop on Network Services, Communication, and Media, University of Toronto
2008 Mar. 5, Ontario College of Art and Design President's Lecture Series, Toronto
2008 Mar. 3, Baycrest Rotman Research Institute Grand Rounds, Toronto
2008 Mar. 2, University of Toronto Interdisciplinary Society of the Mind
2007 Dec. 18, Toronto Chapter of the ACM Special Interest Group on Human-Computer Interaction
2007 Dec. 17, Toronto Rehabilitation Institute Communications Research Team Seminar
2007 Oct. 15, Alzheimer's Assoc. Everyday Technologies for Alzheimer's Care Research Meeting, Chicago
2007 Oct. 12, Microsoft Research Workshop on Intelligent Systems for Assisted Cognition, Univ. of Rochester
2007 Oct. 3, Ebbinghaus Empire Lecture Series, Dept. of Psychology, Univ. of Toronto
2007 Sept. 21, Baycrest Grand Rounds, Toronto
2007 July 19, Keio University, Japan
2007 July 18, Human Interface Society, Tokyo Japan
2007 May 7, Oracle Corporation
2007 May 4, Stanford University Seminar on People, Computers, and Design
2007 April 26, University of Southern California Distance Education Network
2007 Mar. 22, Sunnybrook Health Sciences Centre Neuroscience Rounds (Toronto)
2007 Mar. 13, Queen's University Department of Computer Science Distinguished Lecture
2007 Mar. 6, Univ. of Waterloo Center for Health Informatics Research Invited Lecture
2007 Mar. 5, Univ. of Waterloo Center for Health Informatics Research Invited Lecture
2007 Feb. 28, Toronto Chapter of the ACM Special Interest Group on Human-Computer Interaction
2006 Oct. 27, Alzheimer's Assoc. Everyday Technologies for Alzheimer's Care Research Meeting (Chicago)
2006 Sept. 5, Visible Languages / Human-Centred Computing Keynote Lecture (Brighton U.K.)
2006 June 15, Society for Teaching and Learning in Higher Education Conference (Toronto)
2006 May 23, Columbia University Dept. of Computer Science Distinguished Lecture (NYCity)
2006 May 18, Columbia University Dept. of Biomedical Informatics invited Lecture (NYCity)
2006 April 5, Usability N.J., PhiCHI, NJ ASIS&T, and Rutgers University Lecture (New Brunswick NJ)
2006 Feb. 9, Columbia University College of Physicians & Surgeons Neuropsychology Seminar (NYCity)
2005 Dec. 8, Sakai Educational Partners Meeting (Austin TX)
2005 Nov. 4, Baycrest Centre for Geriatric Care Neuropsychology Rounds (Toronto)
2005 Oct. 20, Educause Meeting (Orlando FL)
2005 Oct. 17, Baycrest Kunin-Lunenfeld Applied Research Unit (KLARU) 5th Annual Res'ch Day (Toronto)
2005 June 13, ORION Ontario R&E Summit (Toronto)
2005 May 17, Streaming Media East Panel Presentation (NYCity)
2005 May 10, Graphics Interface Achievement Award Lecture
2005 April 20, Baycrest Kunin-Lunenfeld Applied Research Unit (KLARU) Rounds
2005 April 8, Intel Corporation Invited Lecture (Portland OR)
2005 April 6, ACM SIGCHI Panel, Early Work in Human-Computer Interaction at Lincoln Labs (Portland OR)
2005 March 9, University of Paris South Invited Talk (Paris)
2005 March 7, AMI Technology Transfer Workshop (Brussels)
2004 December 3, NET North (Toronto)

2004 June 25, TIDSE Conference Keynote (Darmstadt, Germany)
2004 May 19, Baycrest Centre for Geriatric Care Behavioural Neurology Rounds
2003 Research Centre for Academic Technology Lunchtime Seminar Series
2003 Bell University Laboratories National Conference
2003 Centre for Global eHealth Innovation Seminar
2003 Toronto Chapter of the ACM Special Interest Group on Human-Computer Interaction
2002 University of Toronto Psychology Department Ebbinghaus Empire Seminar
2002 IBM CASCON eLearning Workshop Keynote Address
2002 University of Toronto Computing Insights
2002 IBM Centre for Advanced Visual Studies Colloquium
2002 Slice of Life Conference on Medical Multimedia Keynote Address
2002 Baycrest Kunin-Lunenfeld Applied Research Unit (KLARU) Rounds
2001 Waterloo Centre for Learning and Teaching Through Technology Seminar
2001 National Research Council Colloquium
2001 Ottawa Chapter of the ACM Special Interest Group on Human-Computer Interaction
2001 Vancouver Chapter of the ACM Special Interest Group on Human-Computer Interaction
2001 University of Toronto Department of Computer Science Colloquium
2000 Bell University Laboratories Lecture Series
2000 Toronto Chapter of the Society for Technical Communication
2000 Toronto Chapter of the ACM Special Interest Group on Human-Computer Interaction
1999 Association of Internet Marketing and Sales Professionals
1999 Freedom Forum Conference on High-Technology Trends in Journalism Education
1998 Educational Computing Organization of Ontario Annual Meeting (2 talks)
1997 Knowledge Media Design Institute International Public Lecture Series
1996 First Annual Meeting of the Telelearning Research Network
1996 Open University (U.K.) Knowledge Media Institute Maven of the Month for April
1996 InterActive'96 Multimedia Conference
1994-5 UBC CICS Computer Science Distinguished Lecture Series
1994 Toronto Chapter of the ACM Special Interest Group on Human-Computer Interaction
1993 19th Annual Latin-American Computer Congress
1993 MIT Media Lab Colloquium
1992 Georgia Tech Graphics, Visualization, and Usability Centre Distinguished Lecture Series
1992 Apple External Research Open House
1991 MacWorld Expo - Toronto
1991 Prior Data Sciences - ITRC Seminar on Applied Human-Computer Interaction
1991 Graphics Interface Conference - Calgary, Alberta
1988 Montreal Chapter of the Canadian Information Processing Society
1988 Ontario Chapter of the Human Factors Association of Canada
1988 University of Toronto Dept. of Electrical Engineering Annual Distinguished Lecture
1986 MIT Media Lab Forum
1985 CIPS Canadian Computer Conference
1985 Video Culture Symposium
1985 IEEE Computer Society Meeting
1985 UNIX-QUEBEC Meeting
1984 Canadian Advanced Technology Association Venture Capital Conference
1983 Association of Canadian Venture Capital Companies Annual Meeting
1982 Council of Industrial Designers Annual Meeting
1982 Forum of the Festival International de Television de Monte Carlo
1981 CIPS Technical Lecture Series
1981 Computer Culture Exposition
1979 Festival of Festivals Trade Forum
1979 MicroAge Microcomputer Exposition
1979 Computer Culture Exposition
1977 Canadian Computer Conference
1976 National Computer Conference
1975 3rd International Animated Film Festival and Computer Animation Conference
1974 2nd International Animated Film Festival and Computer Animation Conference
1972 USA-International Animated Film Festival

1972 ACM National Conference
1972 SJCC
1971 American Film Institute, Washington, D.C.
1971 Spring Joint Computer Conference (SJCC)
1968 IEEE Conference
1968 New York Chapter of Experiments in Art and Technology

Lectures (* indicates recent) at Catholic University, Case Western Reserve Univ., Georgia Tech (*), Harvard Univ., Johns Hopkins Univ., M.I.T. Lincoln Laboratory, M.I.T. Media Laboratory (*), M.I.T. Project MAC, M.I.T. Sloan School of Management (*), McGill Univ., New York Univ., Ontario Institute for Studies in Education (OISE) (*), Ontario College of Art and Design (*), Queens Univ. (*), Rochester Institute of Technology, Simon Fraser Univ., Stanford Univ., Univ. of Alberta, Univ. of British Columbia Dept. of Computer Science (*) and Faculty of Commerce (*), Univ. of Toronto (*), Univ. of Waterloo (*), Univ. of California at Berkeley, Univ. of Chicago, Univ. of Chile (*), Univ. of Connecticut, Univ. of Maryland, Univ. of Pennsylvania (*), Univ. of South Florida, Univ. of Rochester, Univ. of Utah, Univ. of Washington (*), York Univ., the Open Univ. (*), the Univ. of Dundee (*), Univ. of Paris South (*) and Univ. of Trento (Italy) (*).

Also lectures at Apple Computer (*), AT&T Bell Laboratories (*), Bolt Beranek & Newman Co. (*), Computer Image Corp., Digital Equipment Corp. Research Laboratory (*), IBM TJ Watson Research Centers at Hawthorne (*) and at Yorktown Heights, Intel Research Laboratories (*) Lotus Development Corp. (*), Microsoft Research Redmond (*), Microsoft Research Cambridge (U.K.) (*), SMART Technologies (*), Tektronix Research Lab (*), U.S. National Institutes of Health, and the Xerox Palo Alto Research Center.

Invited Participant and Lecturer

2009 CHI Panel on “What Can Interaction Design Learn from Food Design?”
2008 First SenseCam Research Collaborators Meeting
2007 First SenseCam Research Collaborators Meeting
2002 IBM CASCON Panel on HCI Research in Canada
2001 Comdex Canada Panel on The Future of Mobile Devices
2001 IEEE Int. Symposium on Requirements Engineering Panel on Human-Centred Design
2000 Comdex Canada Panel on Critical Issues for the Future of Information Technology
1998 ACM SIGCHI Workshop on Human-Centred Design and Learner-Centred Design
1997 ACM CSCL Panel on CSCL: Where Do We Go From Here?
1995 IBM CASCON Panel on Issues in Computer Science Education
1995 ACM CSCL Panel on Computer Supported Cooperative Work (CSCW) and Learning (CSCL)
1995 ACM SIGCHI Panel on the Apple Design Competition
1994 ACM SIGCHI Workshop on Interaction History
1994 ACM SIGCHI Workshop on Software Visualization
1990 IFIP Interact Conference Panel on Multi-Dimensional Interfaces for Software Design
1984 Usenix Conference on UNIX and Computer Graphics
1979 Second International Conference on the Processing of Visible Language
1979 IFIP SEILLAC-II Workshop on the Methodology of Interaction
1979 U. Indiana School of Journalism Workshop on New Dimensions in Photojournalism
1976 Graphic Arts Technical Foundation Pre-Press Technology Conference
1976 Pittsburgh Workshop on User-Oriented Design of Interactive Graphic Systems
1976 Princeton Workshop on Graphics in Transportation Planning
1973 Boeing Seattle Research Center Workshop on Computer Graphics

Session Organizer and/or Session Chairman

2009 GI and NECTAR Panels on NECTAR Research Achievements
2008 CHI Panel on Media Spaces
2006 CHI Workshop on Designing Technology for People with Cognitive Impairments
1998 AERA Panel on Collaborative Learning with Multimedia
CSCL 97, 95
Comdex Canada 96
SIGCHI 89, 95

Graphics Interface 82, 85
SIGGRAPH 81, 86
1981 IEEE Conference and Exposition
Seventh CMCCS Conference (1981)
1970-2 Users of Automated Information Display Equipment Annual and Regional Meetings

Conference Chairman

Conference Chairman, DGPis40, 2008
Conference Chairman, Open Source and Free Software: Concepts, Controversies, Solutions, 2004
Conference Chairman, The Internet: Beyond the Year 2000, 1996
Conference Co-Chairman, CSCW '92
Conference General Co-Chairman, SIGCHI + Graphics Interface (CHI+GI'87)(combined conference)
Panels Chairman, SIGGRAPH 83
Tutorials Chairman, Graphics Interface 82
Conference General Co-Chairman, Graphics Interface 82
Conference General Chairman, Usenix Summer 79

Editorial Boards and Review Committees

International Scientific Board, World Conference of the International Society for Gerontechnology. 2010
WWW8 Program Committee Track Co-Chair, 1999
Computer Supported Cooperative Learning (CSCL'97) Program Committee, 1997
WebNet'97 Program Committee, 1997
ACM SIGCHI CHI'94 Associate Papers Chair, 1994
IEEE Computer Graphics and Applications, 1987-1992

Other Professional Activities

External Reviewer, Review Panel for the Knowledge Media Institute, The Open University, 1999.
Member, Advisory Council, Canadian Film Centre Medialynx Habitat, 1997-present
Member, Advisory Board, Toronto Local Chapter of ACM SIGCHI, 1994-present
Board Member, CulTech Collaborative Research Centre, 1993-1996
Chairman, Research Advisory Board, CulTech Collaborative Research Centre, 1994-1995
Board Member, McLuhan Program in Culture and Technology, 1990-1994
Member, ACM SIGCHI Curriculum Development Group, 1988-1991
Chair, ACM SIGCHI Officer Elections Nominating Committee, 1988
Member, ACM SIGCHI Conference Planning Committee, 1987-1989

Reviewer

Communications of the ACM, ACM Transactions on Graphics, ACM Transactions on Human-Computer Interaction, ACM Multimedia Systems Journal, ACM SIGCHI Conference, ACM SIGGRAPH Conference, ACM SIGCHI-SIGGRAPH User Interface Software Technology Conference, ACEE EdMedia Conference, ACEE WebNet Conference, IEEE Computer, IEEE Computer Graphics and Applications, Human-Computer Interaction, Hawaii International Conference on the Systems Sciences, Canadian Social Sciences and Humanities Research Council, Canadian Natural Sciences and Engineering Research Council, U.S. National Science Foundation, and U.S. Alzheimer's Association.

Consultant/Advisor

Aaron Marcus and Associates, Atex Systems, Baycrest Hospital, Behavioural Team, Bolt Beranek and Newman Company, Computer Corporation of America, DeLorme Mapping's law firm, Holt Software Associates, Incontext Corporation, Interaxis Visual Systems, Klarquist Sparkman LLP, Logicon-Intercomp, Platform Computing Corporation, Simon/Ross + Associates Inc., St. Lawrence Seaway, Techne Knowledge Systems, U.S. National Institutes of Health, Ventures West Technologies, and Weil Gotshal & Manges LLP.

Specific accomplishments include:

Research on software patent and litigation matters.

In-depth consulting to a number of software startups.

Evaluations of possible venture capital investments in computer technology companies.

Expert witness testimony on issues relating to software industry, legal, and ethical issues.

An evaluation of the user interface and functionality of a 3D computer animation system.

Advice on the proposed acquisition of a computerized patient record system.

Human factors and graphics expertise for a new traffic control system for the Welland Canal.

Functional specs & product develop. plans for electronic pagination systems for graphic arts suppliers.

A feasibility study of technical document creation in the early days of electronic publishing.