

Curriculum Vitae

Ronald Michael Baecker

30 April 2023

Ron Baecker is an internationally-known author, speaker, and consultant.

He is Emeritus Professor of Computer Science, co-founder and Emeritus Director of the <u>Dynamic Graphics Project</u>, and Founder and Emeritus Director of both the <u>Knowledge Media Design Institute</u> (KMDI) and the <u>Technologies for Aging</u> <u>Gracefully</u> lab (TAGlab) at the University of Toronto. He has been named one of the 60 Pioneers of Computer Graphics, has been elected to the CHI (Computers and Human Interaction) Academy, and has been named an ACM Fellow and a Canadian Digital Media Pioneer. He received the CHI Social Impact Award at CHI2020, is the organizer of the virtual community <u>computers-society.org</u>, and was recently appointed an ACM Distinguished Speaker.

He is the author of 8 books, including most recently <u>Computers and Society: Modern Perspectives</u> (OUP, 2019), <u>The</u> <u>COVID-19 Solutions Guide: Health, Wealth, Technology, and the Human Spirit</u> (2020), <u>Digital Dreams Have Become</u> <u>Nightmares: What We Must Do</u> (2021), and <u>Ethical Tech Startup Guide</u> (Springer Nature, 2023). He is Founding Editor of the Synthesis Lectures on Assistive, Rehabilitative, and Health-preserving Technologies (Morgan & Claypool). He also has started 5 software companies and has taught principles of high-tech entrepreneurship for 35 years.

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PERSONAL DATA

Current Position:	Emeritus Professor of Computer Science Emeritus Bell Chair in Human-Computer Interaction Founder and Director Emeritus, Technologies for Aging Gracefully lab (TAGlab) University of Toronto Adjunct Professor of Computer Science
	Columbia University
Contact Information:	701-401 Queens Quay West Toronto, Ontario M5V 2Y2 Canada Phone: (647) 986-3364
	E-mail: ronbaecker@gmail.com
Citizenship and residency:	U.S. citizen, Canadian citizen

EDUCATION

Ph.D., Computer Science, Department of Electrical Engineering, M.I.T., June 1969.

Mathematics study 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

Adjunct Professor of Computer Science, Columbia University, fall 2019, fall 2020, fall 2022, fall 2023

Emeritus Professor of Computer Science, University of Toronto, 2012-

CEO of famli.net Communications Inc., 2014-2016

Professor of Computer Science (cross-appointed to Electrical and Computer Engineering), University of Toronto, 1989-2012.

Director, Technologies for Aging Gracefully Laboratory (TAGlab), University of Toronto, 2009-2018

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

Adjunct Professor in the Faculty of Design, OCAD University, January 2012-2016.

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

Affiliate Scientist with the Kunin-Lunenfeld Applied Research Unit of Baycrest, December 2004-2016.

Chairman of the Board, Captual Technologies Inc., 2008-2011.

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

ACM Distinguished Speaker, 1 March 2022 - 28 February 2025

Social Impact Award from the ACM Special Interest Group on Computers and Human Interaction (SIGCHI), 2020

Lifetime Achievement Award from the Canadian Association of Computer Science/Association d'informatique Canadianne, the national organization of Canadian Computer Science Departments/Schools/Faculties, May 2015

Given the 3rd Canadian Digital Media Pioneer Award, GRAND Network of Centres of Excellence, May 2013.

Elected as an ACM Fellow, November 2011.

Together with Alex Levy, Aakash Sahney, and Kevin Tonon, second place recipient of the 2011 University of Toronto Inventor of the Year Award in the Information and Computer Technology, Social Sciences and Humanities category, January 2011.

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 nonprofit foundation" distributing open source software, a Canada-wide research network, a campus-wide research institute, and two departmental research laboratories. 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 two other software companies.

Significant Entrepreneurial and Management Contributions

(Most significant accomplishments indicated by **).

(**) I created a project to develop aids for socially isolated and lonely seniors to keep them connected to family and friends, invented a technology solution, and spun it out to start-up, famli.net Communications Inc., 2010-2016.

(**) I created a project to develop context-aware mobile communications apps to aid speaking by adults with communication disorders such as caused by strokes, or children with learning and communication challenges such as autism spectrum disorder, and then assisted in spinning out MyVoice Inc. to bring a product to market. TAGlab incubated the start-up under my mentorship, Feb. 2011 - Mar. 2012.

(**) I conceived of, founded, and became the first Director of the Technologies for Aging Gracefully laboratory (TAGlab), a world-class laboratory dedicated towards research for the journey through life, 2009-present. Further details appear below under Significant Research Contributions.

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 instrumental in spinning out a company called Captual Technologies Inc. to develop and market ePresence solutions worldwide, 2008-2011, and served as founding Chairman of the Board until we sold Captual to the Canadian courseware management solutions firm Desire2Learn early in 2011.

(**) 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 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

Social implications of computing, especially the issues of trust, responsibility, and justice Human-computer interaction and user interface design Technologies for aging gracefully, including communication and cognitive prostheses 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 The history of computing

Significant Research Contributions (Most significant accomplishments underlined).

<u>Interactive computer animation</u>. 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.

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 also developed, together with colleagues, a broad concept of uses of animation at the interface, and then guided the realization and testing of one specific method to aid human-computer interaction, the animated icon, 1988-90. (*Publications B3, D22, P1, P2*)

<u>Software visualization (SV)</u>. 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.

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 1990s and through most of the first decade of the 2000s, I developed, together with students, colleagues and staff, two innovative collaborative multimedia technologies. 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 worked on the use of highly interactive webcasting with structured rich media archives as the ePresence Interactive Media environment (see http://epresence.tv/); for collaborative learning. [B11-12, 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 [B17, 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 also 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*)

<u>Technologies for aging gracefully</u>. My current research programme focuses on the design of technologies for aging gracefully [B18], including electronic memory aids and other cognitive prostheses [C17]. This has concluded important work on the use of participatory design with individuals with severe cognitive impairments such as anterograde amnesia [B12, D52, D49, E18, B16, B13], research on memory aids as collaboration technology [DF71, D67], the development of a method for creating multimedia biographies for individuals with Alzheimer's disease and

their families [B14, C17, C15, E33, E27, E21, E15, E12, B14], the testing of the value of such biographies [C16, C15, D61, E33, E26, E20], work on the human factors of cell phones [B16, 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, E35, E31, E18, J9].

More recently, it has included the development of online social gaming environments for seniors [D70]; online brain fitness environments [E39, E38, E36]; mobile phone software to help individuals with communication challenges to speak [E45, E40, E32]; e-book software to help people with visual or motor impairments to read [E41]; digital communicating picture frame technology to help connect individuals who are isolated and lonely to family and friends [D73, E43, E42]; and the thanatosensitive design of web portals to support individuals who are grieving [D72, D69].

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, 1996present. (*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

R. M. Baecker and 48 others. Aging gracefully across environments using technology to support wellness, engagement, and long life (AGE-WELL). Networks of Centres of Excellence (NCE). Nominated PI: Mihailidis, Alex. PI: Sixsmith, Andrew. \$36,605,194, 2015-20.

Baecker, R.M. and 2 others. Promoting Social Connectedness through New and Innovative Communication Platforms, AGE-WELL NCE Inc., \$600,000 for Baecker over the period 2015-20.

Baecker, R.M. and 3 others. Promoting Social Connectedness through Collaborating on Digital Storytelling and Knowledge Creation and Sharing, AGE-WELL NCE Inc., \$90,000 for Baecker over the period 2015-17.

Baecker, R.M., The User-centred Design and Field Testing of a Communications Appliance Intended to Reduce Seniors' Social Isolation, OCE TPS + Connect Canada Awards, \$39,999, 2013-14

Baecker, R.M., sub-grant from SSHRC Grant entitled Engaged Scholarship: Evaluation of Knowledge Mobilization for Older Adults in the Community, \$135,000 over 4 years, 2013-17.

Baecker, R.M., Strategic Partnership Agreement, Revera Health Services Inc., \$50,000 per year, 2012-14.

Baecker, R.M., Google Research Award, Tablet Computers as Windows on the World of People and Books, U.S. \$50,000, 2011-13.

Baecker, R.M., Connaught Innovation Award, University of Toronto, \$75,000, 2011.

Baecker, R.M., Assistive Technology for Cognition and Communication, NSERC Discovery Grant, \$34,000 per year, 2010-2015.

Baecker, R.M., Google Research Award, Context-Aware Mobile Communication Aids, U.S. \$50,000, 2010-11.

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 in cash and in-kind contributions from Bell Canada, Google, and MyVoice Inc.), 2008-2012.

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, \$95,00 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)	5	
Scholarly books (authored and edited)	3	
Chapters in books	21	
Papers in refereed journals	25	
Papers in refereed conferences	77	
Major invited contributions	10	
Other conference abstracts/posters/contributions	63	
Other publications	40	

Books

A8. Baecker, R.M. (2023). Ethical Tech Startup Guide. Springer Nature.

A7. Baecker, R.M. (2021). Digital Dreams Have Become Nightmares: What We Must Do, ronbaecker.com.

A6. Baecker, R.M., Feldman, G., Langer, J., and Stein, J. (2020). The COVID-19 Solutions Guide: Health, Wealth, Technology, and the Human Spirit, *<u>ronbaecker.com</u>*.

A5. Baecker, R.M. (2019). Computers and Society: Modern Perspectives. Oxford University Press.

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

B21. Franz, Rachel, Rachel, Bárbara Barbosa Neves, Ron Baecker, and others (2018). Why and How Think-Alouds with Frail Older Adults Fail: Recommendations from a Study and Expert Interviews. In Sayago, Sergi, *Perspectives on Human-Computer Interaction Research with Older People*. Human-Computer Interaction Series. Springer.

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D8. Buxton, W., Fedorkow, G., Reeves, W., Smith, K.C., Baecker, R.M., Ciamaga, G., and Mezei, L., An Overview of the Structured Sound Synthesis Project, *Proceedings Third International Conference on Computer Music*, November, 1978.

D7. Tsotsos, J., Baecker, R.M., Mylopoulos, J., Reeves, W., Covvey, H.D., and Wigle, E.D., An Interactive Knowledge-Based Approach to Ventricular Image Analysis, *Proceedings International Conference on Computers in Cardiology*, Rotterdam, Sept. 29-Oct. 1, 1977.

D6. Baecker, R.M., Interactive Graphics as a Vehicle for the Enhancement of Human Creativity, *Proceedings Fifth NRC Man-Computer Communications Conference*, May 26-27, 1977, 93-101.

D5. Baecker, R.M., A Computer Animation Facility for Research and Educational Filmmaking: Design and Application, *Proceedings Fourth NRC Man-Computer Communications Conf.*, May 26-27, 1975, 19.1-19.11.

D4. Baecker, R.M., Two Systems which Produce Animated Representations of the Execution of Computer Programs, *SIGCSE Bulletin*, Vol. 7, No. 1, February, 1975, 158-167.

D3. Baecker, R.M., Towards Animating Computer Programs: A First Progress Report, *Proceedings Third NRC Man-Computer Communications Conference*, May 30-31, 1973, 4.1-4.10.

D2. Baecker, R.M., Picture-Driven Animation, *Proceedings 1969 Spring Joint Computer Conference*, May 1969, 273-288 (Reprinted in H. Freeman (Editor), *Tutorial and Selected Readings in Interactive Computer Graphics*, IEEE Computer Society, 1980, 332-347).

D1. Baecker, R.M., Experiments in On-Line Graphical Debugging: The Interrogation of Complex Data Structures, *Prof. First Hawaii International Conference on the System Sciences*, Jan, 1968, 128-129. (Proceedings contain only a summary of the paper.)

Recent Refereed Conference Short Papers, Posters, Workshops, Talks, and Demonstrations

E63. Neves, B. B., Beermann, C., Judges, R., Nassar, N. & Baecker, R. (2017). Learning to use digital technologies in later life: affordances and constraints, The European Sociological Association, 29 Aug-1 Sept 2017 Athens, Greece.

E62. Neves, B. B., Beermann, C., Judges, R., Nassar, N. & Baecker, R. (2016). Hello from the other side: perspective on learning to use digital technologies in later life, The Australian Sociological Association, 30 Nov-1 Dec. 2016, Melbourne, Australia.

E61. Neves, B. B., Beermann, C., Judges, R., Nassar, N. & Baecker, R. (2016). Can Digital Technology Enhance Social Connectedness Amongst Institutionalized Older Adults? Computer Science Meets Sociology for an Action Research Project, International Sociological Association Forum, July, Vienna, Australia.

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E59. Neves, B. B., Beermann, C., Judges, R., & Baecker, R. (2015). Technologies to reduce social isolation and loneliness amongst institutionalized older adults? An action research approach. Presented at the annual meeting of The Australian Sociology Association, 23-26 November, Cairns, Australia.

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E57. Neves, B.B., Baecker, R.,M. & Beermann, C. (2015). Technology adoption among frail older adults: Family relations in context, accepted for presentation at the "Aging Families, Changing Families: An International Conference", International Sociological Association, June 3, Syracuse, U.S.A.

E56. Dang, Y. & Baecker, R. (2014). Peripheral Interaction in Two Metaphor-based Communication Tools. Workshop position paper presented at "Peripheral Interaction: Shaping the Research and Design Space," *Proc. CHI* '14.

E55. Tsourounis, S., Demmans Epp, C., & Baecker, R.M. (2014). VocabNomad: Exploiting Gamification in a Mobile Vocabulary Learning Tool. Presented at 31st Annual CALICO Conference. Athens, OH, USA.

E54. Attarwala, A., Munteanu, C., & Baecker, R.M., & (2013). An Accessible, Large-print, Listening & Talkng e-book to Support Families Reading Together. *Proceedings Mobile HCI*, ACM, 440-443.

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E52. Baecker, R. & Sellen, K. (*2013*). Design for a diversity of Physical, Cognitive, Emotional, and Spatial Family Challenges. Workshop on Exploring the Diversity of Families: Designing Technologies for the Contemporary Family Life. In *Proc. CHI '13*.

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E49. Demmans Epp, C., Djordjevic, J., Wu, S., Moffatt, K., & Baecker, R. M. (2012). Towards Providing Just-in-Time Vocabulary Support for Assistive and Augmentative Communication. In *ACM International Conference on Intelligent User Interfaces (IUI)* (pp. 33–36). Presented at the Intelligent User Interfaces (IUI), Lisbon, Portugal: ACM. doi:10.1145/2166966.2166973.

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E47. Demmans Epp, C., Campigotto, R., Levy, A., and Baecker, R.M. (2011). MarcoPolo: Context-Sensitive Mobile Communication Support, *Proc. FICCDAT 2011*.

E46. Benjamin, A., David, J., Baecker, R.M., Gromala, D., Birnholtz, J., Furlan, A., and Boscart, V. (2011). Understanding and Reducing Isolation due to Chronic Pain, *Proc. FICCDAT 2011*.

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E39. Pandeliev, V. and Baecker, R.M. (2010). A Framework for the Evaluation of Mental Fitness Games, *Proc.* 6th *Annual Games for Health Conference.*

E38. Tonon, K. and Baecker, R.M. (2010). GameSoup: A Two-Stage Game Development Environment, *Proc. Future Play* 2010.

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E22. Baecker, R.M., Rankin, K., and Wolf, P. (2006). Interactive Webcasting + Audioconferencing + Media Archiving for Medical eLearning, *Proc. MedNet 2006*, October 2006.

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E19. Massimi, M. and Baecker, R.M. (2006). Participatory Design Process with Older Users, *Proc. Ubicomp 2006 Workshop on Future Networked Interactive Media Systems and Services for the New-Senior Communities*, September 2006.

E18. Baecker, R. (2006). Designing Electronic Memory Aids: A Research Framework, Workshop on Designing for People with Cognitive Impairments, *Proc. ACM CHI 2006*, Montreal, P.Q.

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E13. Dufour, C., Toms. E.G., Bartlett, J., Ferenbok, J., and Baecker, R.M. Exploring User Interaction with Digital Videos (2004). *Proc. Graphics Interface 2004*, London, May 2004.

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E11. Moore, G., Baecker, R.M., Zjidemans, A., and Spero, L., The Four Faces of ePresence, *Association of Internet Researchers Annual Meeting*, Toronto, 16 October 2003.

E10. Baecker, R.M., Highly Interactive Webcasting with Structured Archives, *Proceedings of CSCW2002*, Conference Supplement, 175-176.

E9. Baecker, R.M., Electronic Memory Prostheses. International Conference on Technology and Aging, Toronto, September 2001.

E8. Jovicic, S. and Baecker, R..M. Time-based Visualization and Management of Email. Workshop on History-Keeping in Computer Applications, University of Maryland, December 1999.

E7. Baecker, R.M., Posner, I., Jevans, I., Homer, B., Cohen, A., and Poplar, S., A Study of Children Learning to Create Motion Pictures. American Educational Research Association Annual Meeting, Chicago, March 1997.

E6. Baecker, R.M., Movie Authoring and Design for Telelearning. First Annual Meeting of the Telelearning Research Network, Montreal, November 1996.

E5. Abrams, D. and Baecker, R.M., Human Factors of a Personal Web Information Space. Conference on Designing for the Web: Empirical Studies, Microsoft, October 1996.

E4. Cohen, A., Friedlander, N., Baecker, R., and Rosenthal, A. MAD: A Movie Authoring and Design System — Making Classroom Process Visible. *Proceedings of ICLS 96 International Conference on the Learning Sciences*, July 1996.

E3. Friedlander, N., Baecker, R.M., Rosenthal, A., Smith, E., and Posner, I., MAD: A Movie Authoring and Design System, *Proceedings of CHI '96*, Vancouver, April 1996.

E2. Baecker, R.M., What Should Be Taught in a University "Computer Literacy" Course?, *Society and the Future of Computing '95*, Durango, CO., June 1995.

E1. DiGiano, C.J., Baecker, R.M., and Owen, R.N., LogoMedia: A Sound-Enhanced Programming Environ-ment for Monitoring Programming Behaviour, *Proceedings of InterCHI '93*, Amsterdam, May 1993, 301-302.

Invited and Non-Refereed Publications

F10. Baecker, R.M. (2022). Digital Dreams Have Become Nightmares: UX for Ethical Technology Use, *Interactions*, March-April 2022.

F9. Baecker, R.M. (2022). A Call to Action, CACM, March 2022, 23-25.

F8. Baecker, R.M., Moffatt, K., and Massimi, M. (2012). Technologies for Aging Gracefully, *Interactions*, May-June 2012.

F7. Baecker, R.M. (2008). Themes in the Early History of HCI — Some Unanswered Questions. *Interactions*, March-April 2008, 22-27.

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

L12. Numerous radio interviews in 2020 and 2021 about my books.

L11. Interview with Ron Baecker, first aired Jan. 26, 2015, CBC.

L10. Interview with Ron Baecker and Barbara Neves, first aired Dec. 26, 2014, CBC, <u>https://soundcloud.com/jesse-hirsh/sets/nextage-with-jesse-hirsh/s-RgIRD</u>

L9. Interview with Ron Baecker, Can Computer Games Improve Brain Fitness, http://youngretired.ca/Fitness/Brain_Fitness/RonBaeckerGames.html, posted 8 July 2011

L8. Interview with Ron Baecker, Life History Videos as a Tool for Careghivers, http://youngretired.ca/history/LifeVideoTAGLab.html, posted 8 July 2011

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, <u>http://www.theglobeandmail.com/news/technology/digital-technology-eyed-brin-fight-against-alzheimers/article1321599/</u>, 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 (HQPs)

My students are or have been professors at the University of Toronto, the University of British Columbia, the University of Alberta, the Ontario University 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 the National Research Council, 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). Others have started or been instrumental in the growth of companies such as SideFX, Data Mirror, Inea, Viigo, and TokBox.

	Completed
Research Assistants	100+ (est.)
B.Sc., M.Sc. and M.A.Sc.	50+
Ph.D.	7
Postdoctoral fellows	4

Research Associates, Postdoctoral Fellows Supervised or Co-supervised Recently

Stern, Anita, Dr., User Studies of Seniors' Communication Technology, 2015-17
Neves, Barbara Bárbosa, Dr., Social Science Research on Technology and Aging, 2014-15
Sellen, Katharine, Technologies to Combat Isolation in Both Long-term and Home Care Settings, 2012-13
Moffatt, Karyn, Dr., Technology for Connections Between Remote Grandparents and Grandchildren, 2010-11
Sundarajan, Binod, Social Networking Technologies for Wireless Services, 2007-8
Birnholtz, Jeremy, Dr., Collaboration Technologies for Computer-Supported Cooperative Work, 2005-7

Theses Supervised or Co-supervised

Demmans Epp, Carrie, Ph.D., Mobile Devices for Second Language Support, 2010-2015

Mohad, Mazhar, M. Design Inclusive Design, An Integrated Communication System for a Special Needs Children Centre, OCADU, April 2014

David, Jessica, M.Sc., Designing Communications Tech. for Older Adults with Chronic Pain, April 2013

Khan, Uzma, M.Sc.A.C., Consumer access to personal health information for asthma self-management, April 2013.

Massimi, Michael, Ph.D., Thanatosensitively Designed Technologies for Bereavement Support, February 2012

Poorshahid, Golnoosh, M.Sc., A Study of AAC for People with Aphasia, January 2012

Medland, M., M.Sc.A.C., AAC Software Development to Aid Speech Communications, December 2011

Pandeliev, Velian, M.Sc., A Portal for the Evaluation of Serious Games, July 2011

Snelgrove, X., B.A.Sc., Design and Evaluation of an Accessible System for the Collaborative Reading of Digital Books, May 2011

Kaufman, Liam, B.Sc., OYSTER: Organize Your Studies Efficiently and Rapidly, May 2011

Shim, Nick, M.Sc., A Study of Social Interaction in Online Games for Seniors, Sept. 2010

Wu, Michael, Ph.D. Memory Aids as Collaboration Technology, June 2010

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

Webster, G., Multimedia Profiles as External Personalities to Support People with Dementia and their Carers, Univ. of Dundee, October 2011.

Vogel, D., Direct Pen Input and Hand Occlusion, March 2010.

Collins, C., Interactive Visualizations of Natural Language, December 2009.

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

Rachel Franz, WristRadio: A Wearable Communications Appliance for Seniors, Sept. 2014-April 2015 Hubert Hu, Improvements to the Tangra Online Experimentation System, Sept. 2014-Sept. 2015 Tsourounis, Stephen, Exploring Gamification in a Mobile Vocabulary Learning Tool, April 2014 Strong, Sarah, Take Me With You Competitor Analysis, August 2011 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 recent supervisions of HQPs

Laanemets, Clayo, research staff, InTouch Communications Appliance, June 2015-6. Nassar, Nadia, research staff, InTouch Communications Appliance, April 2015-6. Judges, Rebecca, research staff, InTouch Communications Appliance, April 2015-6. Uthayagumaran, Aaron, undergrad research assistant, InTouch Communications Appliance, April 2015-6. Rabishaw, Benjamin, undergrad research assistant, InTouch Communications Appliance, April 2015-6. Doughty, Sean, undergrad research assistant, InTouch Communications Appliance, April 2015-August 2015. Huang, Wilson, undergrad research assistant, InTouch Communications Appliance, April 2015-August 2015 Rachel Franz, undergrad research assistant, InTouch Communications Appliance, 2014-August 2015 Mags Ngo, undergrad research assistant, InTouch Communications Appliance, 2014-Sept. 2015 Sin, Jaisie, undergrad research assistant, Accessible Large-print Listening and Talking e-Book, 2014 Mansimov, Elman, undergrad research assistant, Accessible Large-print Listening and Talking e-Book, 2014 Stewart-Binks, Ian, undergrad research student, InTouch Communications Appliance, 2013-2014 Tsourounis, Steve, undergrad research student, InTouch Communications Appliance, 2012-2014 Arnold, Christopher, undergrad research student, Field Research on Communication Patterns and Needs of Senior Citizens, 2013-Beacock, Spencer, undergrad research student, Field Research on Communication Patterns and Needs of Senior Citizens, 2013-4 Chia, Anselina, undergrad research student, InTouch Communications Appliance, 2013 Shoukri, Fady, undergrad research assistant, Accessible Large-print Listening and Talking e-Book, 2013 Laidlow, Tristan, undergrad research assistant, Accessible Large-print Listening and Talking e-Book, 2012

Gridseth, Mona, undergrad research assistant, Accessible Large-print Listening and Talking e-Book, 2012

Pegeuro, Arturo, undergrad research assistant, Web Portal for Studies of the Effectiveness of Cognitive Fitness Games, 2012 Abdommaleki, Amir, undergrad research student, Mobile Aids for Second Language Communication, 2011-12 Cui, Naomi, undergrad research student, Mobile Aids for Second Language Communication, 2011-12 Campigotto, Rachelle, research staff, Field Studies of Context-aware Mobile Communication Aids, 2010-Easley, Kante, research staff, Web Portal for Studies of the Effectiveness of Cognitive Fitness Games, 2011-2012 Kaufman, Liam, research staff, Development and Testing of Accessible Large-print Listening and Talking e-Book, 2011-2012 Djordjevic, Justin, research staff, Mobile Aids for Second Language Communication, 2011-2013 Wu, Shimu, summer undergrad, Mobile Aids for Second Language Communication, 2011 Benjamin, Alison, research staff, Communication Needs and Patterns of Individuals in Chronic Pain, Long-Term Hospitalization, and Long-term Care, 2010-2012 Snelgrove, Xavier, summer undergrad, Digital Books for Reading By, To, & With the Visually Impaired, 2010 Elaine Macaranas, Elaine, summer research staff, Industrial Design of Electronic Picture Frames, 2010 Shihipar, Thariq, summer undergrad, Hardware and Software Design of Electronic Picture Frames, 2010 Sahney, Aakash, summer undergrad, Context-aware Mobile Phone Software, 2010-2011 (with Alex Levy) Kaufman, Liam, summer undergrad, Web Portal for Testing the Efficacy of Mental Fitness Games, 2010 Ing, Garry, research staff, Computer Gaming Interfaces for Seniors, other interaction design projects, 2009-Levy, Alexander, undergrad, then research staff, Context-aware Cell Phone Software for Word Recall, 2009-2011 Ptak, Deborah, research staff, SenseCam Media for AD, Take Me With You mobile video app, 2008-Crete-Nishihata, Masashi, research staff, Multimedia Technologies for Alzheimer's disease, 2006-2010 Shihipar, Thariq, undergrad, Computer Gaming Software, 2009 Leidgens, Janusz, visiting M.Sc. student, Automatic Face Recognition Software, 2009 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 HCI and CSCW. (*Publications A1, A3, A4*)

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

(**) Developing of the world's first undergraduate human-computer interaction specialization within computer science, 1990

(**) Developing original courses in interactive computer graphics, human-computer interaction, user interface and computational media and knowledge media design, computer-supported cooperative work, computer literacy, and software entrepreneurship, 1972-present

(** design of a new course)

University Courses Taught (* recent offering)

Computers and Society (*) (**) Assistive, Rehabilitative, and Health-Preserving Technologies for Older Persons (*) (**) Computer Supported Cooperative Work (**) Communication Skills for Computer Scientists (**) Fundamental Concepts in Knowledge Media Design (**) Software: Design, Creation, Use, and Impact (**) Design of Interactive Computational Media (**) Human-Computer Interaction (**) The Business of Software (*) (**) Knowledge Media Design: New Technologies for a Knowledge Society (**) **Computers and Society** Topics in Interactive Computing (**) **Computer Graphics and its Applications** Interactive Computer Graphics (**) Computer Animation (**) Picture Processing by Computer (**) Introduction to Computer Programming **Computer Applications** Programming Applications **Computer Organization Problem Oriented Languages and Interpreters** Fundamental Concepts and Computer Techniques for Symbol Manipulation (**) Computers and Society — Applications of Computers to Education (**)

Recent University Administrative Duties

Member, Social Science and Humanities Ethics Review Board, 2011-2012 Faculty Advisor, University of Toronto Web Startup Society, 2010-2011 Member, Department of Computer Science Undergraduate Curriculum Committee, 2009-2010 Interim Director, Knowledge Media Design Institute, 2008-9 Member, Department of Computer Science Graduate Curriculum Committee, 2008-2009 Chief Instigator and Organizer, DGPis40 Scientific Workshop and 40th Year Reunion, 2006-2008 Member, Social Science and Humanities Ethics Review Board, 2006-2008 Mentor, Health Care Technology and Place Graduate Training Program, 2005-present Member, Department of Computer Science Breadth Committee, 2004-present Principal Investigator, Network for Effective Collaboration Technologies through Advanced Research (NECTAR) NSERC Research Network, 2004-2009 Chief Scientist, Knowledge Media Design Institute, 1998-2009 Member, KMDI Executive Committee, 2000-present Member, Department of Computer Science Time to Completion Committee, 2005-2006 Member, Department of Computer Science Graduate Committee, 2002-2006 Member, KMDI Collaborative Program Committee, 2003-2005 Director, Knowledge Media Design Institute, 1996-1998 Member, Department of Computer Science Senior Promotions Committee, 1997-8 Organizer, Department of Computer Science Colloquium, 1990-1996 Member, Department of Computer Science Undergraduate Committee, 1994-1996 Member, Graduate Studies Review Comm., McLuhan Program in Culture and Technology, 1992-93 Member, Department of Computer Science Faculty Council, 1991-1993 Member, Department of Computer Science Graduate Committee, 1991-1992 Member, ITRC Software Systems and Graphics Area Committee, 1990-1992 Member, Tenure & Search Committees, Comp. Sci., Architecture, Education, Eng., and Mgmt., 1989-2013 Co-Director, Dynamic Graphics Project Laboratory, 1985-present 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

Designing for Seniors, HCI International 2015 Invited Short Course, Los Angeles, August 2015 Designing for Seniors, CHI 2014 Invited Short Course, Toronto, April 2014 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'I., 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, 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, only last 35 years shown)

2022 June 14, Deep Learning and AI Summer School, Thailand 2022 May 28, Government College University, Lahore, Pakistan 2022 May 13. TEDx UofT Salon 2022 April 8, UC Irvine School of Information and Computer Sciences 2021 November 16, MIT Club of New Mexico 2021 January 11, Tokyo Institute of Technology 2020 March 13, Mexican Technological University, Mexico City 2020 March 13, Mexican Technological University, Mexico City 2020 February 8, UNESCO MGIEP, Delhi India 2020 February 7, UNESCO MGIEP, Delhi India 2020 January 22, National University of Singapore 2020 January 21, National University of Singapore 2019 November 13. Columbia University 2019 September 20, University of Pennsylvania 2019 September 11. Columbia University 2019 June 5, University of Toronto 2019 May 15, University College London 2019 May 14, Oxford Internet Institute 2019 May 13, Open University 2016 March 23, HEQCO invited panel presentation, Toronto 2016 March 22, Rotman Research Institute Conference on Healthy Brains, invited presentation, Toronto 2016 March 14, Students Alzheimer's Alliance, invited presentation, Toronto 2016 February 2, Hackers Academy, invited presentation, Toronto 2015 December 3, AARP Dementia Care Forum, invited presentation, Washington D.C. 2015 November 21, Human Factors Interest Group, invited Keynote, Toronto

2015 November 9, Sanders Capital, invited presentation, New York City 2015 November 9, Cornell Tech HCI lecture series, invited presentation, New York City 2015 November 4, American Association of Retired Persons (AARP), invited presentation, Washington D.C. 2015 October 27, OACAO Conference on Aging Well, invited presentation, Mississauga, ON 2015 October 6, Health 2.0, invited presentation, San Jose, California 2015 September 28, Aging 2.0 Meeting, invited presentation, Toronto 2015 September 23, Science Literacy Panel, invited lecture, Toronto 2015 May 28, National Initiative for Care of the Elderly Knowledge Exchange, invited lecture, Toronto 2015 March 18, UofT Faculty of Applied Science and Engineering Hatchery, invited lecture, Toronto 2015 March 3, UofT Alumni Association, Invited Presentation, Toronto 2015 January 29, UofT Alumni Association Invited Presentation, Naples, FL. 2015 January 28, UofT Alumni Association Invited Presentation, Coral Gables, FL. 2014 November 27, Institute for Life Course and Aging, Univ, of Toronto, Invited Lecture, Toronto 2014 November 20, Gilbrea Center for Studies in Aging, McMaster University, Invited Lecture, Hamilton 2014 November 19, Senior College, Univ. of Toronto Invited Seminar 2014 October 31, University of Toronto Faculty of Social Work, Invited Lecture 2014 October 24, IEEE Games Entertainment and Media Keynote, Toronto 2014 February 25, AGE-WELL C2C Seminar Series, Toronto and Canada 2013 October 29, Canadian Home Care Association, Gatineau Quebec 2013 October 21, ACM ASSETS Conference on Computers and Accessibility Keynote, Bellevue WA 2013 October 18, Microsoft Research Invited Lecture 2013 October 15, UBC Dept. of Computer Science 2013 October 5, Extravagant Bodies Conference, Zagreb 2013 September 15, Revera IT Forum 2013 June 20, Ontario Association of Community Care Access Centers Annual Conference 2013 April 04, Geriatric Medicine Rounds, Baycrest 2012 September 12, Revera TAGlab Collaboration 2012 June 2, Stress Free Degree Lecture Series 2012 May 24, Inclusive Design Institute Launch, OCAD University 2012 May 2, GRAND Annual Conference 2012 March 1, Revera Innovation Workshop Keynote Address 2012 April 30, MaRS Business of Aging Summit 2012 February 8, Rotman Business School Business and Technology Conference Keynote Address 2011 November 12, Design Our Tomorrow conference 2011 November 4, American Association of Retired Persons Brain Fitness Breakfast Meeting 2011 November 4, Carnegie Mellon University Robotics Institute 2011 November 2, Brown University Computer Science Department 2011 October 19, Ontario College of Art and Design University 2011 September 28, Google Canada Laboratory 2011 September 27, University of Waterloo Institute of Computer Research 2011 May 19, Canadian Perspectives Lecture Series, University of Toronto Mississauga Seniors Alumni 2011 April 27, Canadian Perspectives Lecture Series, University of Toronto St. George Seniors Alumni 2011 March 22, University of Toronto Department of Computer Science Faculty Lecture Series 2010 October 22, Google Research 2010 October 21, IBM Research Almaden 2010 June 1, Silver Screens Arts Festival, Toronto 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, KMDIat13 Invited Lecture, Toronto

2009 March 5, Microsoft Research Invited Lecture, Redmund 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, Instititute 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, Communcation, 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 CICSR 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 Brown Univ. (*), Carnegie Mellon Univ. (*), Catholic Univ., 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 (*), Google Research U.S. (*), Google Canada (*), IBM TJ Watson Research Centers at Hawthorne (*) and at Yorktown Heights, Intel Research Laboratories (*) Lotus Development Corop. (*), Microsoft Research Redmund (*), 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

2015 Annual General Meeting, Older Adults Centres' Association of Ontario (OACAO) 2015 UofT Science and Engineering Engagement (S.E.E) Panel Discussion on Health Care and Aging 2009 CHI Panel on "What Can Interaction Design Learn from Food Design?" 2008 Second 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 Systems1976 Princeton Workshop on Graphics in Transportation Planning1973 Boeing Seattle Research Center Workshop on Computer Graphics

Session Organizer and/or Session Chairman

2010 HCTP Annual Interdisciplinary Workshop 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

GRAND Health and Digital Media Workshop, 2013 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 Co-Chairman, Graphics Interface 82 Conference General Chairman, Usenix Summer 79

Editorial Boards and Review Committees

Series Editor, Synthesis Lectures on Assistive, Rehabilitative, and Health-Preserving Technologies, Morgan and Claypool, Publishers, 2010-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 Transactions on Accessible Computing, ACM Multimedia Systems Journal, ACM SIGCHI Conference, ACM SIGGRAPH Conference, ACM SIGCHI-SIGGRAPH User Interface Software Technology Conference, 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, U.S. Alzheimer's Association, The Gerontologist, International Conference on Gerontechnology.

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, University of Colorado, U.S. National Institutes of Health, Ventures West Technologies, Weil Gotshal & Manges, LLP; Paul, Hastings, Janofsky & Walker, LLP; and Finnegan, Henderson, Farabow, Garrett, & Dunner, LLP

Specific accomplishments include:

Research and testimony on software patent and litigation matters. In-depth consulting to several digital technology start-ups. Chairman of the advisory board of an NSF research project on teaching ethics in robotics. 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.