

Curriculum Vitae

ALICE MERNER AGOGINO

Roscoe and Elizabeth Hughes Professor of [Mechanical Engineering](#)
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PI, [NEEDS \(National Engineering Education Digital-library System\)](#)
and [SMETE.ORG](#) educational digital libraries
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Education

B.S. (1975), Mechanical Engineering, University of New Mexico
M.S. (1978), Mechanical Engineering, University of California, Berkeley
Ph.D. (1984), Engineering-Economic Systems, Stanford University

Areas of Research

Intelligent learning systems; information retrieval and data mining; multiobjective and strategic product design; sustainable design; nonlinear optimization; probabilistic modeling; intelligent control and manufacturing; sensor validation, fusion and diagnostics; wireless sensor networks; multimedia and computer-aided design; design databases; design theory and methods; MEMS synthesis and computer-aided design; artificial intelligence and decision and expert systems; gender/ethnic equity in engineering & technology

Professional Employment

- Roscoe and Elizabeth Hughes Professor of Mechanical Engineering, University of California at Berkeley, 1998-2008
- Chair, [Faculty Academic Senate, Berkeley Division](#), 2005-2006; Vice Chair, 2004-2005
- Faculty Assistant to [Executive Vice Chancellor & Provost Paul Gray](#) (2000-2001) and Executive Vice Chancellor & Provost Carol Christ (1999-2000) in Educational Development and Technology, University of California at Berkeley
- Director, Instructional Technology Program, University of California at Berkeley, 1999-2001
- Associate Dean of Special Programs, College of Engineering, University of California at Berkeley, 1995-1999

- Professor of Mechanical Engineering, University of California at Berkeley, 1992-present
 - Associate Professor of Mechanical Engineering, University of California at Berkeley, 1988-92
 - Assistant Professor of Mechanical Engineering, University of California at Berkeley, 1984-1988
 - Agogino Engineering, Principal of engineering and management consulting firm, 1979-present
 - Director, Women-in-Engineering Program, University of Santa Clara, California, 1980-1981
 - Systems Analyst, SRI International, Menlo Park, California, 1980
 - Commercial Specialist, General Electric, San Jose, California, 1978-1979
 - Mechanical Engineer, General Electric, San Jose and Sunnyvale, California, 1975-1978
 - Project Engineer (Co-op), Dow Chemical, Freeport, Texas, 1972-1973
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Honors and Awards

- [Chancellor's Award for Advancing Institutional Excellence](#), 2006.
- Elected [Fellow](#) of the American Society of Mechanical Engineers, 2005
- [IEEE Robotics & Automation Society Best Paper Award](#) at the Symposium of Micro- and Nano-Mechatronics for Information-based Society (with R. Kamalian and Y. Zhang), 2005
- [ASME Xerox Best Paper Award](#), ASME Design Engineering Technical Conference in Salt Lake City (with Shuang Song), 2004
- [NSF Director's Award for Distinguished Teaching Scholars](#), 2004
- Fellow, Association for Women in Science (AWIS), 2003
- Elected to the European Academy of Sciences with the citation "*for outstanding and influential contributions to engineering science and fundamental developments in the field of expert systems applied to manufacturing problems,*" 2002
- First Runner-up for the Novel Smart Engineering System Design Award (with Ningning Zhou, Bo Zhu and Kris Pister) in 2001, ASME/IEEE
- IEEE Helen Plants Award for "Best Non-Traditional Session at Frontiers in Education" 1998
- Best Overall Paper Award, ASEE 1998 (with Ann McKenna)
- Roscoe and Elizabeth Hughes Chair of Mechanical Engineering (1998-2008)
- Best Paper Award (with Ann McKenna), ASEE/IEEE Frontiers in Engineering Education Conference, 1997
- John Wiley & Sons Premier Courseware Award (with D. Yu) for "Virtual Disk Drive Design Studio" CD ROM, 1997

- Elected to the [National Academy of Engineering](#) with citation "*for applications of artificial intelligence to manufacturing, and for reform efforts in engineering education*", 1997
 - Best Paper Award (with A. Dong), Artificial Intelligence in Design '96 Conference (Stanford, CA), 1996
 - Fellow, American Association for the Advancement of Science, 1994
 - Best Paper at the Conference on AI Applications (with Bob Paasch), 1992
 - Most Outstanding Alumnus, Dept. of Mechanical Engineering, University of New Mexico, 1992
 - Best Paper Award (with S. Bradley), ASME Design, Theory and Methods Conference, 1990-91
 - Young Manufacturing Engineer of the Year, 1987-88, Society of Manufacturing Engineers
 - Ralph R. Teetor Educator Award, Society of Automotive Engineers, 1987
 - Pi Tau Sigma Award for Excellence in Teaching, 1986
 - IBM Faculty Development Award, 1985-1986
 - National Science Foundation Presidential Young Investigator, 1985
 - Chancellor's Honorary Fellow in Mechanical Engineering at the UC Berkeley, 1977
 - Pi Tau Sigma Academic Honor Award, 1973
 - Honorary Membership: Tau Beta Pi, Phi Kappa Phi, Pi Tau Sigma
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Professional Activities

- Registered Professional Mechanical Engineer in California (1978-present)
- Member: AAAI, AAAS, ACM, ASEE, ASME, AWIS, IEEE, SWE
- Co-Chair, Mechanical Engineering Nominating Committee for the National Academy of Engineering (NAE), 2007-2010
- Chair, Mechanical Engineering Peer Committee for the National Academy of Engineering (NAE), 2005-06; Vice Chair, 2004-05 (Member, Feb. 1, 2003-January 31, 2006)
- Member, [Board of Directors, Center for Education](#), ASME (2004-06)
- Member, National Academies [Board on Science Education](#) (BOSE, 2005-2007)
- Member, Women in Academic Science Engineering Committee of the National Academies [Committee on Science, Engineering, and Public Policy](#) (COSEPUP; 2005-2006)
- Member, [Manufacturing Engineering Laboratory](#) of the [National Institute of Standards & Technology](#) (NIST; 2004-2005)
- President, Association of Academic Women, University of California at Berkeley, 2002-2004.

- Associate Editor, *Artificial Intelligence in Engineering. Design, Analysis and Manufacturing*, (AIEDAM), Academic Press, Limited, Harcourt Brace Javanovich, Publishers
- Editorial Board, *Research in Engineering Design*, Springer-Verlag
- Editorial Board, *Concurrent Engineering: Research and Applications* (CERA), Academic Press, Limited, Harcourt Brace Javanovich, Publishers
- Editorial Review Board, *Journal of Engineering Education*, ASEE
- Chair of the AAAS (American Association for the Advancement of Science) section on Engineering (Chair 2001-2002, Retiring Chair 2002-2003)
- Member, MIT Corporation Visiting Committee in Mechanical Engineering (Presidential Nominee, 1999/2003)
- Member of the [CMU Institute for Complex Engineered Systems \(ICES\) Advisory board](#). (Appointed by the President of CMU)
- Member of the Radcliffe Institute for Advanced Study. (Nominated by Dean of Engineering, Harvard University)
- Member of the Jet Propulsion Lab Advisory Board, 2002-2008
- Member, AAAS Committee on Opportunities in Science (1997-2003)
- Member, National Academy of Engineering (NAE), Committee on Engineering Education (1999-2002)
- Member, National Academy of Engineering (NAE), Bernard M. Gordon Prize for Innovation in Engineering and Technology Education (Gordon Prize) Committee, (2001-2002).
- Member, Advisory Board for the National Digital Library for Technological Literacy project, ITEA (2001-2002).
- International Co-Chair, 9th ISPE International Conference on Concurrent Engineering: Research and Applications (CE2002), Cranfield University, United Kingdom.
- Member, Executive Committee, [Digital Media Innovation Initiative](#), University of California System (2000-2002).
- Member, ASEE Women and Minorities Task Force (2001/2002)
- Academic Advisory Board, 13th International conference on Engineering Design: Unifying Engineering Design -- Building a Partnership Between Research and Industry, 21-25 August 2001, Glasgow, Scotland.
- Co-Chair, NAE Planning Committee on Engineering Education for the Year 2020 (1999-2000)
- Member, NAE Committee on Technology Literacy Standards (1997-2000)
- Elected as Member-at-Large of the AAAS section on Engineering (1996-2000)
- Member, National Academy of Engineering, Academic Advisory Board (1998-99)

- Member, Addison Wesley Longman Higher Education Advisory Board, (1997-99)
 - NSF SMETE-LIB (Science, Mathematics, Engineering, Technology Digital Library) Study Steering Committee (1997-98)
 - Member, Guidance Committee, "Removing Barriers to Collaborative Research" project of the Government-University-Industry Roundtable of the National Research Council (1997-98)
 - Member, ASEE, Wickenden Award Committee (1997-98)
 - Member, Program Committee, ASME Design for Manufacture Conference (1997).
 - NSF Advisory Committee for Engineering, Engineering Directorate, (1991-96, Chair 1996-97)
 - Member, Faculty Advisory Committee, Boeing, Inc. (1996-98)
 - Chair, NSF Proposal Review Advisory Team (1996-97)
 - ASEE Fred Merryfield Design Award Committee (1993-96)
 - Elected as Member of the Electorate Nominating Committee of the AAAS section on Engineering (1994-96); Chair (1995).
 - Participated in "Forum on Science in the National Interest: World Leadership in Basic Science, Mathematics and Engineering," Executive Office of the President, Office of Science and Technology Policy, Jan. 31-Feb. 1, 1994.
 - Proposal reviewer for National Science Foundation (NSF), UC Microelectronics Innovation and Computer Research Opportunities (MICRO), Electric Power Research Institute (EPRI), Australian Science Fund, Canadian National Science and Engineering Research Council, and Swedish Council of Higher Education
 - Reviewer for: *ASME Transactions*, *Journal of Optimization Theory and Applications*, *IEEE Transactions*, *IEEE Computer*, *AI in Engineering, Design, Analysis and Manufacturing*, *Research in Engineering Design*, *Journal of Intelligent Computing*, *ASEE Journal of Engineering Education*, *Engineering with Computers*, and *Advances in Engineering Software*, and numerous technical conferences
 - Organizing committee member on a number of technical conferences and workshops
 - Invited to provide testimony to Congress with talk titled: "Integrating Design and Manufacturing Education within Broader Societal Goals," Testimony to the House of Representatives, Committee on Science, Space, and Technology, May 12, 1992
 - Invited to speak before the President's Council of Advisors on Science and Technology with talk titled: "Integrating Science and Technology Education and Research," University of California at Berkeley, July 15, 1992
 - Invited speaker or chair of numerous panels at technical conferences
 - Director (1983-1984) and Chair (1981-1982), ASME Santa Clara Valley Section
 - Vice President, Society of Women Engineers, San Francisco Bay Area Section (1979-1980)
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Major Administrative Roles

- **Chair (2005-06)/ Vice Chair (2004-05)**, [Berkeley Division, Academic Senate](#) (100% administrative appointment as Chair; 50% as Vice Chair).

The Chair of the Division presides at meetings of the Division and the Divisional Council. Serves, *ex officio*, as a member of the Assembly of the Academic Senate and on the [Systemwide Academic Council](#), and as Chair of the Divisional Committee on Assembly Representation. Refers matters to the officers or agencies of the Division and of the Administration, as appropriate. Chair of the Systemwide Academic Council Working Group on the [California Teach Initiative](#). Meets regularly with the Chancellor and Executive Vice Chancellor and Provost. At UC Berkeley, joins the Council of Deans and other executive committee meetings, as appropriate. Supervises staff of the Berkeley Division of the Academic Senate. Sits, without vote, in deliberations of any committee of the Division. Berkeley Division Senate Committees are: [Academic Freedom](#) (ACFR), [Academic Planning & Resource Allocation](#) (CAPRA), [Admissions, Enrollment & Preparatory Education](#) (AEPE), [American Cultures Breadth Requirement](#) (AM CULT), [Assembly Representation](#) (AREP), [Budget & Interdepartmental Relations](#) (BIR), [Committee on Committees](#) (COMS), [Computing & Communications](#) (COMP), [Courses of Instruction](#) (COCI), [Divisional Council](#) (DIVCO), [Educational Policy](#) (CEP), [Faculty Awards](#) (FA), [Faculty Rep to the ASUC](#) (FREP), [Faculty Research Lecture](#) (FRL), [Graduate Council](#) (GC), [International Education](#) (IE), [Library](#) (LIBR), [Memorial Resolutions](#) (CMR), [Ombudsperson for Faculty](#) (OMB), [Panel of Counselors](#) (POC), [Privilege & Tenure](#) (P&T), [Prizes](#) (PRIZ), [Protection of Human Subjects](#) (CPHS), [Research](#) (COR), [Rules and Elections](#) (R&E), [Student Diversity and Academic Development](#) (SDAD), [Status of Women & Ethnic Minorities](#) (SWEM), [Student Affairs](#) (STA), [Teaching](#) (COT), [Undergraduate Scholarship & Honors](#) (CUSH), [University-Emeriti Relations](#) (UER), [University Extension](#) (UEXT), [Faculty Welfare](#) (FWEL). Operating budget was approximately \$3.9M.

- **Co-Chair [Steering Committee](#)** (2006), Working Group (2005), [Berkeley Diversity Research Initiative](#). The initial priority of the BDRI is to strengthen the campus's research agenda on racial and ethnic diversity. Specifically, we wish to support research that will have a large impact on the ways in which multi-ethnic and multi-racial communities-at the local, state, national and international levels-can flourish as inclusive societies. Eventually, the initiative may encompass other research issues related to diversity. Formed in Spring 2006, the BDRI Steering Committee is charged with guiding the faculty FTE process, speaker series and developing a sustainable organizational structure.
- **Co-Chair [University Athletics Board](#)**, University of California at Berkeley (2005-6). The board has been charged with advising the Chancellor on all matters of policy related to Intercollegiate Athletics, with particular reference to the academic and personal well-being of student athletes and the accountability of the Athletic Department to the educational values and goals of the Berkeley Campus.) The board reports to the [Chancellor](#), University of California at Berkeley.
- **Chair, [SESAME \(Studies in Engineering, Science and Mathematics Education\) Graduate Group](#)**, 2003-04. Chair of the Graduate Group in Science and Mathematics Education (SESAME) chairs the SESAME Executive Committee with responsibilities for graduate admissions, awarding of fellowships, monitoring student progress, curriculum offerings, preliminary and qualifying exams. SESAME offers a graduate program leading to a doctoral degree in science, mathematics, or engineering education. The program is designed to produce graduates who have advanced expertise in a scientific discipline as well as in educational theory and research methodologies. It produces scholars who can communicate well with scientists and engineers as well as with educational researchers and practitioners. The program includes studies that connect human development, cognitive science, and educational technology with the learning of science, mathematics, and engineering.

- **President**, Association of Academic Women (AAW) at UC Berkeley, 2001-03. Campus organization that amplifies the voice of women faculty and academic associates.
- **Faculty Assistant** to [Executive Vice Chancellor & Provost](#), Educational Development and Technology (100% administrative appointment; 1999-2001).

Provided support to EVC&P Paul Gray in instructional technology, undergraduate education, WASC accreditation, and K-12 Outreach. Responsible for coordinating these activities with Chancellor's Cabinet, Council of Deans, Vice Chancellors' Academic Council, Academic Senate, Associate Vice Chancellor of Information Services & Technology and University Librarian. Co-Chair the [E-Berkeley Implementation Task Force](#) (1999/01), working with the Administrative and Student Services Computing Subcommittee (ASSCS), the Instructional Technology Subcommittee (IT) and the Information Technology Architecture Task Force (ITATF), to ensure as broad a range of representation as possible as they address policy concerns, guide the development of key projects, and maximize collaboration and resource sharing across the campus concerning enterprise-wide integration of internet services and technologies. Developed the CyberCentral virtual center (<http://cybercentral.berkeley.edu>) to assist faculty find resources for teaching, learning and educational technology. CyberCentral is organized around key areas of: pedagogy, course web sites, multimedia, classroom technology, intellectual property, recognition awards, grants, training, seminars, and evaluation. Created the Federation of Educational Technology Leaders to coordinate the following units: Berkeley Language Center, Center for Studies in Higher Education, GSI Teaching and Resource Center, Instructional Technology Program, IS&T Microcomputer Facilities, Office of Educational Development, Office of Media Services, Media Resource Center, Multimedia Research Center, Residence Hall Computing, School of Information Management and Systems, and the Teaching Library. Working with the Federation, CCCPB-IT Committee, CUE (Commission on Undergraduate Education), and Academic Senate, developed proposal for a Center for Teaching, Learning and Technology to improve teaching effectiveness and student learning and to promote innovations in the creative and effective use of both new and traditional educational methods, tools, and technologies.

- **Director**, [Instructional Technology Program](#) (1999-2001).

Managed personnel, budget and programmatic needs of the Instructional Technology Program. ITP offers seminars, training workshops, consulting, and web-based courseware development services to faculty and their graduate student assistants. ITP provides the online information, training workshops, consulting services, computer resources, and software tools instructors need to establish their course newsgroups, e-mail lists, and web sites. ITP helps faculty create course web accounts and also supports faculty use of online course management tools such as WebCT and CourseInfo.

- **Chair**, [Instructional Technology Committee of the Campus Computing and Communication Policy Board \(CCCPB-IT\)](#) (1997/01), Co-Chair (1993/97).

The CCCPB established the Instructional Technology Committee in September 1994 to provide guidance on instructional technology policy. The CCCPB-IT developed and implemented a four-tier architecture for course websites (1998-2000). Developed [Information Literacy Expectations for Effective Use of Instructional Technology](#) (1997-98). In coordination with the Divisional Council of the U.C. Berkeley Academic Senate, the CCCPB-IT conducted a [survey of faculty needs](#) regarding instructional technology in the spring of 1998. Initiated CyberSemester '97, a theme semester built around computation and the Internet in 1996/97. CCCPB-IT reports include:

- [Improving Instructional Technology at the University of California at Berkeley: Components of a New Initiative](#), Report to the University of California Office of the President, Oct. 18, 1996.

- [Steps Toward Becoming a Technologically Wise University](#), Strategic Planning for Technology's Use In Instruction at the University of California, Berkeley Aug. 25, 1996.
- [Instructional Technology at the University of California at Berkeley](#), Final Report of a Panel Chartered by the Academic Planning Board, April 27, 1994.
- **Associate Dean**, Instructional Technology/ Distance Learning, College of Engineering (1996/99; 25% administrative appointment)

Managed personnel, budget and programmatic needs of instructional technology and distance learning in the College of Engineering. Responsible for management of the BITS and Cal VIEW programs. The Berkeley Instructional Technology Studio (BITS) provides support for faculty in the College of Engineering. The Televised Instruction Program at the University of California at Berkeley - known as Cal VIEW - Video Instruction for the Engineering World - supports Berkeley's activity as a member school in the National Technological University, NTU, which is a consortium of 51 universities and colleges. UC Berkeley participates as a member school of NTU by videotaping select engineering courses each semester and sending copies of those videotapes to Ft. Collins, Colorado for NTU to offer over a satellite broadcast system. Operating budget approximately \$400K per year.

- **Associate Dean**, College of Engineering, Special Programs (1995/99; 25% administrative appointment).

Managed personnel, budget and programmatic needs of the College's Center for Underrepresented Engineering Students (CUES). CUES is the umbrella for MESA (Mathematics, Engineering, Science, Achievement Program), MEP (Multicultural Engineering Program), JMEP (Julia Morgan Engineering Program), GrAD (Graduate Academic Diversity) Program, and SUPERB (Summer Undergraduate Program of Engineering Research at Berkeley). Work with student organizations, submit and manage research proposals, and represent the College on affirmative action issues. Serve as faculty representative for the Coalition for Diversity and Excellence in Math, Science and Engineering. Operating budget \$1-2M per year, plus extracurricular grants.

- **Director**, Synthesis Coalition, an NSF Coalition for Undergraduate Engineering Education Coalition, 1994/97.

Managed personnel, budget and programmatic needs of the Synthesis Coalition. Responsible for coordinating strategic planning and implementation efforts with over 200 faculty and administrators in the eight institutions of Synthesis: California Polytechnic State University at San Luis Obispo, Cornell, Hampton, Iowa State, Southern, Stanford, and Tuskegee Universities, and the University of California at Berkeley. Synthesis Coalition members were well-represented among the nation's leading institutions: three of the schools were in the top 10% of institutions in number of bachelor's degrees granted; three were in the top 10% for degrees granted to women; five for degrees granted to African-Americans; and four for degrees granted to Chicano/Hispanics. Synthesis produced computer-based instructional material that integrates the diverse analytic, design, experimental and intuitive skills that are required by a practicing engineer. Synthesis developed and continues to manage the National Engineering Education Delivery System (NEEDS). Operating budget approximately \$2M per year with matching funds from industry.

- **Director**, Curriculum Reform, Synthesis Coalition (1990-94).

Responsible for coordinating strategic planning, budgeting, fund raising and implementation of Synthesis undergraduate curricular reform efforts. Synthesis developed new curricular and pedagogical models that emphasized multidisciplinary content, teamwork and communication,

hands-on and laboratory experiences, open-ended problem formulation and solving, and examples of "best practices" from industry. The two major interdisciplinary theme areas were: (1) Mechatronics and (2) Architecture/Engineering/Construction. K-12 linkages were built on Synthesis information infrastructures and curricular modules. Synthesis was funded for \$15M during its first five years from the National Science Foundation and raised approximately \$10M from industry.

University Service

- **Academic Senate**

- Member, Committee on Rules and Elections, 2007-08
- Chair, [Berkeley Division, Academic Senate](#), 2005-06; Vice Chair, 2004-05
- Co-Chair (with Vice Provost Christina Maslach), University Athletics Board, 2005-06
- Co-Chair (with Executive Dean George Breslauer), Diversity Research Initiative Working Group, 2005-06
- Member, Senior Advisory Group on Diversity & Inclusion (SAGDI) , Fall 2005
- Co-Chair (with Vice Provost Catherine Koshland), Professional Degree Fee Working Group, 2004-05
- Member, Southeast Quadrant Working Group, 2004-06
- Mentor, Regents' and Chancellor's Scholarship awardee, Academic Senate Committee on Undergraduate Scholarships and Honors (CUSH)
- Member, Committee on the Status of Women and Ethnic Minorities (SWEM), 2003-2004
- Interviewer, Regents' and Chancellor's Scholarship applicants for the Academic Senate Committee on Undergraduate Scholarships and Honors (CUSH)
- Co-Chair (with Associate Vice Chancellor of IS&T, Jack McCredie), Academic Planning Board (APB) Task Force on Instructional Technology (1993/95)
- UCB Academic Senate, Chair (1993/95), Computing and Communications Committee (Member, 1991/93)

- **Administrative Committees, UC Office of the President**

- Chair, Science and Mathematics Initiative Working Group, Academic Council (2005/2006); Member, Steering Committee, Science and Math Initiative, Office of the President; (2004/05).
- Member, [Academic Council](#) (2005/2006), [Academic Assembly](#) (2005/2006); UC Office of the President.
- Member, University-wide Advisory Committee to the Sloan-funded initiative "Developing a family Friendly Package for Ladder-Rank Faculty at the University of California" (2004-2006). This project led to a number of policy changes, including the 2006 [Revised](#)

[Academic Personnel Policies Related to Work and Family](#). Also see: UC's [Family Friendly Policies for Faculty and Other Academic Appointees](#).

- Academic Planning Board, Office of the President, under Provost Jud King (2000/2001).
 - Advisory Committee, NEXUS project, under Vice President Karl Pister. (1999/2000).
 - Served on UCOP steering committee for the *All University Conference on Teaching and Learning Technologies and the Future of the University* (1996/97). Gave one presentation and coordinated a three-way broadcast over Internet between Chancellor Tien on the UCB campus, President Wang of Tsingua University in Beijing, China and the participants of the All-University conference at UCLA.
 - Member, CINITAP (Committee on Intercampus Networking and Information Technology for Academic Purposes, 1994-97)
- **Administrative Committees, University Level**
- Chair, SESAME (Studies in Engineering, Science and Mathematics Education) Graduate Group (Member since 1999), 2003-04
 - Member, Chancellor's Task Force on Outreach Activities, 2004
 - Co-Chair, (with Assoc. Vice Chancellor James Hyatt), [E-Business Implementation Task Force](#) (2000)
 - Member, [Chancellor's Task Force on the Recruitment and Retention of Women and Underrepresented Minority Faculty](#).
 - Chair, [Instructional Technology Committee of the Campus Computing and Communication Policy Board](#) (1997/2000), Co-Chair (1993/97)
 - Member, Chancellor's Commission on Undergraduate Education (CUE), (1998/2000)
 - Member, Chancellor's Advisory Policy Committee on Outreach (CAPCO), (1998/2000)
 - Member, Faculty Advisory Committee on the Interactive University project, Chaired by TVC&P Carol Christ (1997/2003)
 - Member, Service-Learning Faculty Policy Committee (1998-2005)
 - Member, Advisory Board, Chaired by Ralph Hexter, Berkeley Language Center (1999/2001)
 - Member, Advisory Board, Chaired by Nick Jewell, Geographical Information Sciences Center (1999/2000)
 - Co-Chair, Chancellor's Committee on the Status of Women (2000/2001)
 - Member, Advisory Committee for the Berkeley Multimedia Research Center (1997/99)
 - Member, Lawrence Hall of Science Advisory Committee (1997/99)
 - Member, Committee on Microcomputing under Vice-Chancellor Hardyck (1988/89)

- Served on ad hoc review committees for tenure and promotion cases
- **Administrative Committees, College of Engineering**
 - Member, Ad hoc Committee for SUPERB (Summer Undergraduate Program of Engineering Research at Berkeley), (1997/01)
 - Member, Ad hoc Committee for Affirmative Action, (1997/99)
 - Member, Ad hoc Interdisciplinary Committee for Management of Technology, (1994/2005)
 - Member, Ad hoc Committee for Instructional Technology and Televised Instruction, (1988/99)
 - Member, Ad hoc Committee on Student Relations (1988-91)
 - Member, Ad hoc Committee for Robotics and Manufacturing (1990-91)
 - Member, Ad hoc Committee on Knowledge Engineering in the Undergraduate Curriculum (1987-88)
 - Bioengineering Graduate Group (1990-91)
 - Served on five faculty search committees
- **Administrative Committees, Department of Mechanical Engineering**
 - Member, Drake Scholarships, (Fall 2006)
 - Member, Preliminary Exams, (Fall 2006)
 - Chair, Committee on Seminars, (2002/04)
 - Chair, Committee on Industrial & Alumni Relations- MEIA, (2002/05)
 - Chair, Committee on Awards, (2002/05)
 - Committee on Curriculum Review/Undergraduate Study, (2002/04)
 - Committee on Graduate Study, (1998/99; 2002/04)
 - Committee on Preliminary Exams, (1998/99)
 - Committee on Internet Publications, (1997/98)
 - Committee on Graduate Council Program Review, (1997/98)
 - Committee on Faculty Affirmative Action (1987/95); Chair (1994-95)
 - Member, Committee on Computers and Computation (1988-89)
 - Chair, Ad hoc Committee on the Design Program (1988-89)
 - Drake Scholarship Committee (1987/91)

- Committee on Undergraduate Advising (1987/91)
- **Women Minorities Recruitment/Retention**
 - Co-Chair (with Executive Dean George Breslauer), [Diversity Research Initiative](#) Working Group, 2005-06. Co-Chair [BDRI Steering Committee](#) (Spring, Summer 2006). "Academic leadership welcomes research proposals from all disciplines to advance this crucial institutional effort. "Last week a working group led by Professors Alice Agogino and George Breslauer . . . began to craft procedural recommendations for the research initiative, setting the stage for what is hoped will be a prompt call for proposed topics of study, followed by the first new hires, possibly as early as this fall. The campus might decide to apply research expertise to health disparities, educational opportunity and achievement, the impact of the criminal-justice system on diverse communities, or political participation and citizenship - to name just a few examples. But work proposed by experts in many other, less-obvious fields - from life sciences to engineering to art practice - will also be welcomed into the research initiative's "big tent." Mechanical engineering's Agogino, for example, would like to see the campus undertake research on bridging the digital divide." [The Berkeleyan, May 4, 2005.](#)
 - Co-Instructor of [Berkeley's Research in Diversity and Inclusion: A Multi-disciplinary Survey Seminar](#), Spring 2006, with Evelyn Nakano Glenn, Director of the [Center for Race and Gender](#).
 - [National Center for Women in Information Technology \(NCWIT\)](#). PI, UC Berkeley hub (2004-present)
 - Berkeley PI for the NSF-funded [National Center for Women in Information Technology \(NCWIT\)](#). Developed digital library for NCWIT (2004-present)
 - Serve on the Women in Academic Science Engineering Committee of the National Academies [Committee on Science, Engineering, and Public Policy](#) (COSEPUP; 2005-2006). The committee was chaired by Donna Shalala, President of the University of Miami. The charge was to develop a report on maximizing the potential of women in academic science and engineering, including findings and recommendations for recruiting, hiring, promoting, and retaining women scientists and engineers. The committee focused on academe but also examined other research sectors for examples of effective practices. The report provided specific action points for the following groups: faculty, department chairs and deans, academic leaders, funding organizations, and government officials. The study was rolled out in two phases. Phase One was an NIH-sponsored convocation (open to the public), held in 2005, that reviewed current research on gender issues in science and engineering, including a discussion of the nature-nurture debate on cognitive development, as well as implicit bias and faculty diversity research. A workshop proceedings was published shortly following the event. The final report - [Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering](#) - received national attention and considerable [press coverage](#).
 - Developed diversity theme pages for the NEEDS (National Engineering Education Digital-library System): [Celebrating African American Engineers](#) and [Gender Equity](#).
 - Developed a new course module called "Community-Based Design" in E10 (Introduction to Engineering Design and Analysis) that was designed to attract underrepresented engineering students as well as students interested in the positive impact that technology can have on society. Students in this module go through a human-centered design process in which they co-participate with target community members to develop technological solutions to critical socio-technical problems. During the Spring 2005 semester the focus

was on reducing toxins and toxic substances for low income rural agricultural workers in California. Students had the opportunity to present the results of their work at an international conference on design. This module benefitted from collaboration with the Engineers for a Sustainable World, Anita Borg Institute for Women and Technology, the California College of Arts and the P & G industry sponsor. Website:

http://best.me.berkeley.edu/%7Eaagogino/e10_agogino.htm

- Developed a new course (with Prof. Jennifer Mankof in Computer Science) called "Designing Technology for Girls and Women" that was co-listed with Womens Studies with a grant from the Anita Borg Institute of Women and Technology. Website: <http://best.me.berkeley.edu/%7Eaagogino/e39d/index.html>
- Co-PI on successful proposal submitted to NSF titled "The Berkeley Edge: Advancing Minorities through the Ph.D. and Beyond," for \$2,500,000 over five years. (1999/2005)
- Served on the American Association for the Advancement of Science (AAAS) Committee for Opportunities in Science, a committee meeting twice a year to promote science and engineering careers to women, underrepresented minorities and persons with disabilities. (1997-2003)
- PI for Engineering Information Fund "Interactive Theater" grant to sensitive faculty to gender/racial issues in our teaching and learning climate. (1998-2000)
- Co-authored (with Prof. James Casey) a successful NSF grant to fund 9 bioengineering students each year for 5 years in SUPERB (Summer Undergraduate Program of Engineering Research at Berkeley). The proposal was targeted to underrepresented engineering students. The Summer of 1999 was the first year of the grant.
- Supported initiative with the National Academy of Engineering and the American Society of Engineering Education to conduct a retention study of women and minority faculty in Engineering Colleges.
- Keynote speaker at the UC Berkeley student chapter of the Society of Women Engineers' Evening with Industry dinner, Nov. 19, 1999, Berkeley, CA. Title: "Teaching, Learning and Libraries on Internet Time."
- Participated on the faculty panel and the engineering break-out sessions for targeted minority recruitment receptions: 1998-99.
- Coordinated the "Engineering Woman to Women" session at Cal Day '99.
- Completed an analysis of SAT scores and graduating GPA for students in our Minority Engineering Program (now called "Multicultural Engineering Program) and presented results: "Post-Proposition 209: Admissions, Outreach and Student Services for Underrepresented Engineering Students", Engineering Advisory Board meeting, May 19, 1998. Also presented at the Berkeley Engineering Fund, Board of Directors, June 3, 1998.
- Invited speaker for NACME (National Action Council for Minorities in Engineering). "The Synthesis Coalition's Assessment Strategy", NACME Forum '97: Crisis and Commitment – Engineering Strikes Back, Seattle, WA., Oct. 3, 1997.
- Keynote speaker at the Third Annual California McNair Scholars Symposium, Aug. 10-12, 1995. The McNair Scholars program encourages underrepresented minorities and first-generation college students to participate in undergraduate research and prepare for graduate education.

- Keynote speaker at the Society of Women Engineers' Evening with Industry program, Nov. 17, 1995.
- **Service to Elementary and/or Secondary Educational Institutions**
 - Chair, Systemwide Academic Council Working Group on the [California Teach Initiative. \(2005/06\)](#)
 - Member, Science and Math Initiative, Office of the President;. (2004/05).
 - PI, [Engineering Pathway](#), a portal to high-quality teaching and learning resources in applied science and math, engineering, computer science/information technology and engineering technology, for use by K-12 and university educators and students. You are entering the engineering "wing" of the National Science Digital Library (NSDL); \$2.9M, NSF.
 - PI, ["Ubiquitous Digital Library Infrastructure to Support Mobile Learning"](#), UC Discovery Grants (with industry co-sponsors HP and Ricoh International)
 - PI on subcontract with the Exploratorium on the NSF grant ["Exploratorium Online: Exhibit-based Science Learning and Teaching Digital Library"](#).
 - Served on the Golden Apple Fellowship Selection Committee (2000). This is a collaboration between UC Berkeley, the San Francisco Unified School District and the San Francisco Education Fund. (1999-2000)
 - Served as the UC Berkeley Liaison for the UC Nexus Advisory Committee (1999-2000). UC Nexus is a statewide University of California initiative carried out by the UC Office of the President to explore the effective uses of computer and Internet technologies for K-12 education by building on and extending curriculum development and student assessment, and distance learning tools and strategies.
 - Served on the National Academy of Engineering's study of K-12 Technology Literacy Standards. (1997-2000)
 - Completed an Interactive University Project titled: "Interactive MESA". The IU MESA Day Competition was held on April 4, 1998 and written up in the *Engineering News*: <http://www.coe.berkeley.edu/cues/news/mesaday98.html>.
 - Initiated the process through CAPCO (Chancellor's Advisory Policy Committee on Outreach) and helped write a campus proposal to Siemens to sponsor the Western Region Siemens-Westinghouse Science and Technology Competition at approximately \$100,000. The Berkeley funds were used to bring in targeted underrepresented students to the Berkeley campus and interact with the Siemens-Westinghouse Science and Technology Competition. The award was submitted by Vice Chancellor Genaro Padilla and was administered by the Coalition for Excellence and Diversity in Mathematics, Science and Engineering Education. The Pacific Region competition was held on Nov. 5&6, 1999 and was viewed as quite a success with approximately 200 local students and advisors attending. All of the Siemens-Westinghouse competitors from California said that they would apply to UC Berkeley. Caroline Kane, Chair of the Coalition, took the lead in organizing the activities. Prof. Roger Falcone, Chair of Physics, was the lead judge for the competition. Agogino served as the judge representing Engineering.
 - Primary author and PI on proposal submitted to NSF titled "GK-12: NSF Graduate Teaching Fellows in K-12 Education" for \$1,463,856. In this proposal, Graduate Teaching Fellows would work in K-12 partnerships aimed at (a) creating curriculum materials that

increase scientific and mathematical understanding, (b) enabling schools to use technology to promote fluency for all students, (c) developing effective professional development activities aligned with curriculum improvement, and (d) providing role models and mentors for students. Proposal was not awarded but new K-12 partnerships were established. (1999)

- Presented invited talk titled "Multimedia and Internet Enabling New Modes of Learning in K-14" at the UCB Colloquium on Using the Internet for Instruction and Outreach, January 14, 1997. http://www1.needs.org/~agogino/IU/IU.presentation_ToC.html
- Provided workshops and hands-on exercises for the K-12 programs of the Santa Clara Valley Section of the Society of Women Engineers (SWE). Served as judge to the K-12 "Junior Solar Sprint Challenge," with the Society of Women Engineers and the Lawrence Hall of Science, May 25, 1996.
- Served as: (1) member, Lawrence Hall of Science Advisory Council; (2) member, Faculty Advisory Committee for the Interactive University Project; (3) member, Chancellor's Advisory Policy Committee on Outreach (CAPCO), (4) member, Service Learning Advisory Committee, and (5) member, Executive Committee of Graduate Group in Studies in Engineering, Science and Mathematics Education (SESAME).
- Supervised PhD students in the SESAME (Studies in Engineering, Science, Mathematics Education) program, with a focus on K-12.
- Participated in a number of K-12 projects through the MESA (Mathematics * Engineering * Science Education) program.

• **Public Relations Service**

- Gave numerous talks on recent National Academy reports:
 - [Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering](#)
 - [Educating the Engineer of 2020: Adapting Engineering Education to the New Century](#)
 - [The Engineer of 2020: Visions of Engineering in the New Century](#)
 - Gave presentation to Chancellor Berdahl and distinguished visitors from Saudi Arabia, Nov. 30, 1998. "Educational Technology and Distance Learning at UC Berkeley. URL: <http://www.needs.org/engineering/info/presentations/ucb-etdl-1298/index.html>
 - Invited talk "Instructional Technology and Distance Learning at Cal," at Cal Parents' Weekend, Sept. 27, 1997.
 - Invited talk titled "Music and Mechanics: Instructional Technology on Display" at the UC Alumni Legislative Conference, Sacramento, California, April 15, 1997.
 - Invited talk at the Chancellor's Forum, "Multimedia & Internet: Enabling New Modes of Education," Feb. 2, 1996 – talk U-21.
 - Invited presentation to the UC Regents, "Multimedia Case Studies to Teach Engineering Design/ Digital Library of Engineering Courseware," Oct. 19, 1995 – talk U-18. UCOP.
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Personal

- **Birth date:** December 1, 1952
 - **Place of Birth:** Albuquerque, New Mexico
 - **Family:** Married with two children
 - **Hobbies:** Guitar, gardening, hiking, exploring
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Appendices

1. [Publications](#)
2. [Grant Support \(1994-2007\)](#)
3. [Teaching Record \(1994-2007\)](#)
4. [MS Theses/Projects Supervised](#)
5. [Ph.D. Dissertations Supervised](#)
6. [Other Ph.D. Dissertations \(2nd or 3rd Reader\)](#)
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8. [Berkeley Expert Systems Technology Research Lab](#)
<http://best.me.berkeley.edu/>