Roger B. Blumberg

Synopsis of Curriculum Vitae, 2009

Dept. of Computer Science
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Current Work:

Department of Computer Science, Brown University. I have been a member of the Department since 1998, teaching The Educational Software Seminar (CS092) as well as the First-Year Seminar, Computers and Human Values (CS009). Currently I am working on a Computers and Society textbook, based on undergraduate courses I've taught at Brown and The Rhode Island School of Design.

Mendele Education LLC, Providence RI (http://www.mendele.com/edu/). I am the President and the Director of Evaluation at Mendele Education, a company specializing in the evaluation of educational technology programs, educational computing programs, and professional development activities for teachers and administrators. Current evaluation projects include the NSF-sponsored TeachScheme/ReachJava program (Adelphi University), the CPATH/ACES program (Brown University).

The Rhode Island Council for the Humanities (RICH). I am in my second term as Board Chair of RICH. I Chair the Executive and Evaluation committees as well, and serve on Grants Committee. The Council has recently refocused its efforts on granting and re-granting in support of humanities projects and programs throughout Rhode Island.

Past Experience: Teaching & Technology

2000-2008: As an adjunct lecturer, in the Department of History, Philosophy and Social Science, at The Rhode Island School of Design, I've taught "Science and Society in 20th Century America" (S571), a history and sociology of science course focusing on the Manhattan Project and the Human Genome Project; and "Technology and Contemporary Life", a course in the philosophy of technology. My most recent course, and the basis of a current textbook project, is "Computing and Its Consequences".

2002 - 2006: Computers and Human Values (CS009), This course was one of the inaugural First-Year Seminars at Brown, and presents current topics and issues in computer science and information technology in the context of questions that have characterized the liberal arts (and sciences) for centuries.

1998 - 2006: The Educational Software Seminar (CS092/ED089). This unique course teams groups of undergraduates with local teachers in local classrooms, in the design, create and implement classroom software based on the teachers' proposals/specifications.

1998 - 1999: **Senior Technology Specialist, The Education Alliance at Brown**, Brown University. At the Alliance I work on several educational technology projects, including Brown's participation in the Northeast Technology in Education Consortium (NetTech) and the evaluation of the "Take Off!" program, sponsored by NASA and carried out by the Massachusetts Corporation for Educational Telecommunications (MCET).

1996 - 1997 : **Senior Hypermedia Researcher, Scholarly Technology Group**, Computing and Information Services, Brown University. At STG, my research concerned the analysis and identification of promising and best practices in educational hypermedia, particularly in secondary school and undergraduate classrooms, and the development of electronic, distributed curricula. Educational technology project details are available at the STG web site: http://www.stg.brown.edu/

1993 - 1998: **Visiting Scholar at the Institute for Brain and Neural Systems**, Department of Physics, Brown University. I am involved in an ongoing research program, directed by Dr. Leon N Cooper, concerning the nature and role of synaptic plasticity in learning and memory. My research concerns the computer simulation and mathematical analysis of both supervised and unsupervised learning algorithms.

1984-1992: **Associate in Science, Columbia College, Columbia University**. I taught and directed “Theory and Practice of Science” (Science C1001-2). The two-semester course combined units in applied mathematics, atomic physics, and molecular genetics, taught collaboratively by faculty from several departments, and used original science papers as the basis for study. The course received funding from Exxon, the Mellon Foundation, the Abe Wouk Foundation, and Columbia University, and was recognized as a model in undergraduate science education by a number of national organizations, including the AAAS (Project 2061), and the AAC.

1987-1992: **Visiting Faculty, Eugene Lang College, The New School for Social Research**. I designed and taught several courses in the "Science, Technology and Power" concentration, including: "Infinite Sets and Series", "The Evolution of Probability", "Mathematical Models and Molecular Genetics", "Models and Methods of/for the Mind-Brain" (with Dr. Larry Amsel), "Biological Evolution from Lamarck to Nei", and "Mathematical Models and the Discovery of Nuclear Fission".

1986-1989: **Humanities Instructor, Columbia College, Columbia University**. I taught the course "Methods of Critical Analysis" (MOCA), a one- semester introduction to the Humanities "core" curriculum, designed for selected First-Year undergraduates.

1984-1988: **Mathematics Instructor, The Higher Education Opportunity Program (HEOP) at Columbia College, Columbia University.** I designed and taught a five-week intensive course called "Introduction to Science Theory". The course was designed specifically for academically disadvantaged students who had been admitted to the College.

1987-2001: **Summer Program for High School Students, Division of Special Programs, Columbia University**. Each summer I taught a four-week intensive course called "Foundations of Mathematics", covering a variety of topics in discrete mathematics, to approximately 85 high school students in four sections. See http://www.cs.brown.edu/~rbb/summermath/

1990-1992: **The Columbia Science Honors Program, Department of Physics, Columbia University** (a mathematics and science program for advanced high school students). I designed and taught a course in discrete mathematics in this Saturday morning program.

1984-86: **Teacher of English, Theodore Roosevelt Evening School, Bronx, New York**. I taught twelfth-year English.

1983-85: **Teacher of English, John F. Kennedy High School, Bronx, New York.** I taught English 10 and 11. I did my student-teaching at Kennedy, in the fall of 1982.

Education:

1979-1983: **Columbia College, Columbia University**. B.A. in English and Comparative Literature.

1981-1983: **Barnard Education Program, Barnard College, Columbia University**. Certified and licensed teacher of high school English, in New York State. (Licensed in Day High School English, in the City of New York, in 1984.)

Selected Publications:

"Teaching, Information and Restraint", *The Teaching Exchange* (Brown University), Vol. 8, Number 1, January 2003.

"Resources, Constraints and the CMS", *The Teaching Exchange* (Brown University), Vol. 7, Number 1, September 2002.

"To Use or Not to Use?: Is That the Question?", *The Teaching Exchange* (Brown University), Vol. 6, Number 1, January 2002.

"Lessons from Consumerism: A Note for Faculty Thinking About Technology,", *The Teaching Exchange* (Brown University), Vol. 3, No. 3, January 2000.

"Collaborating for Courseware," with David Niguidula and Andries van Dam, *Technos*, Spring 1999, Vol. 8, No. 1, pp. 13-15.

"Electronic Documentation and the Scholarship of Teaching: Lessons from CS092", *The Teaching Exchange* (Brown University), vol 3, num. 1, September, 1998.

"The Uniqueness of CS92." *conduit!*, **8** 1:4-6, Spring 1999 (Department of Computer Science, Brown University).

"Questions and Traditions in Educational Hypermedia," *For Your Electronic Information (FYEI): The Information Services Newsletter of The City University of New York*, (NY: CUNY/CIS Documentation), Spring 1997. Author's electronic version at http://www.stg.brown.edu/~rog/talks/fyei97.html.

"Hypermedia, Teaching and Technology," *Louisiana Educational Technology Review* vol. 5, #2 (Spring 1997). p. 10, and http://etrc33.usl.edu/etrc/libr/reviews/Spring97/pg-10-11.html#3.

MendelWeb, 6th edition (http://www.mendelweb.org/, 97.1).

"Ex Libris: Glimpsing the Future of Education by Navigating the Web"*The Sciences*. September/October 1995 **35** 5: 16-19. This article was reprinted in the *Journal of College Science Teaching*, **XXV**, 3:184-187, and is also available with my comments at MendelWeb (http://www.mendelweb.org/MWsciences.final.html)

"Penal Decision: A Mathematical Model," in Richard Mowery Andrews, *The System of Criminal Justice, Volume 1: Law, Magistracy and Crime in Old Regime Paris, 1735-1789*, (Cambridge University Press, 1994), pp. 505-514.

"MendelWeb: An electronic science/math/history resource for the WWW," *Second International WWW Conference '94: Advance Proceedings*, **1**, pp. 449-458 (http://www.ncsa.uiuc.edu/SDG/IT94/Proceedings/Educ/blumberg.mendelweb/MendelWeb94.blumberg.html)

"Museums, Public Lands and Billboards: Toward a philosophy of the World Wide Web," *Second International WWW Conference '94: Advance Proceedings*, **1**, pp. 449-458.
(http://www.ncsa.uiuc.edu/SDG/IT94/Proceedings/Overviews/blumberg.museums/WebPhil94.Blumberg.html)

"Wave Particle Images: Some Questions Concerning Representational Dissatisfaction", in *Begetting Images*, ed. Mary Campbell and Mark Rollins (Peter Lang, 1989), pp. 11-26.

Other Bibliography:

"Technology, Teaching and Learning in Higher Education: A Dialogue", with Tom Dean. *conduit!*, **9** 1: 1-7, Spring 2000 (Department of Computer Science, Brown University).

"Asynchronous Learning Networks at Brown University: Phase One Evaluation of the Chemistry 21 Project". Institute for Elementary and Secondary Education,

Department of Education, Brown University. May 1999. The URL for the PDF version of this report is available by request.

with David Reville. NetTech Website Review. STG Technical Report 1997: no. 2. (http://www.stg.brown.edu/pub/NetTechWeb.tr97.2.html)

with Santiago Barona and Richard Goerwitz. The New Hampshire Data Collection Project. STG Technical Report 1997: no. 3. (http://www.stg.brown.edu/pub/NHData.tr97.3.html)

Hypermedia, Teaching and Technology, 2nd edition (http://www.stg.brown.edu/edu/HTT96/, 96.2).

with H. Goldstein, J.L. Gross, and R.E. Pollack. ***The Scientific Experience,*** 2 vol., (unpublished manuscript). A textbook for the course "Theory and Practice of Science."

"The Popular Origins of Darwin's *Origin of Species*". Prepared for the faculty of the Columbia College core-curriculum course, "Contemporary Civilization". Presented at the Heyman Center for the Humanities, Columbia University, March 1995.

"The Voice of Science From Bacon to Frye". An essay prepared for the faculty of the Columbia College course "Contemporary Civilization." Presented at the Heyman Center for the Humanities, Columbia University, November 1994.

"What Darwinism Is," and **"Robert Chambers and Darwinism"**. Essays prepared for the faculty of the Columbia College core-curriculum course, "Contemporary Civilization." Presented at the Heyman Center for the Humanities, Columbia University, March 1993 and 1994.

"The Oldenburg Revolution, ". A paper presented in two parts, to the faculty of the course Contemporary Civilization (C1001-1002), at Columbia University, on the subject of the 17th century English science. Part 1 was presented in 1989 and part 2 in 1990. Heyman Center for the Humanities, Columbia University.

"Reading Barbara McClintock: Thoughts about the Grammars of Science". Using Zellig Harris' analyses of scientific "sub-languages", this 1989 paper discussed some linguistic aspects of the problems of the reception of McClintock's work between 1940 and 1970. Presented to the Society of Fellows, as part of the "Cultures in Conflict" symposium, Heyman Center for the Humanities, Columbia University.

"Theory and Practice of Science: Science as General Education" A talk given at the 1988 Nash Symposium, Department of Chemistry, Harvard University.

Other Activities:

2008 - present: Curator of the Caliper Studio website, http://www.jcalipens.com, which collects and exhibits the pens of the artist Joe Cali.

2006 -- present: Board Member, The Rhode Island Council for the Humanities (RICH). I have been a member of the Board since 2006.

2006 – present: Board Member, **The Ocean State Montessori School**, East Providence RI. I have served on the Board of my daughter's school since 2006 and was President during the 2007-2008 school year.

2001 - 2006: Member of the Editoral Board of ***Computers and the Humanities***, the official journal of the Association for Computers and the Humanities, published by Kluwer Academic Publishers. and currently edited by Nancy Ide and Elli Mylonas. I review manuscripts in the areas of educational computing, and the history of computer science.

2001-2002: Consultant to the **Murdock Technology Initiative**, Association of Independent Colleges of Washington. I designed and lead a series of workshops about Teaching and Technology, for members of the Education Department faculties at Seattle University, Pacific Lutheran University, Seattle Pacific University, and the University of Puget Sound.

1996 - 1998: Member of the Executive Committee and Planning Board of **NetTech**, a consortium of universities and educational research institutions, including Brown University, providing technology assistance to school districts and state education departments throughout the Northeastern United States. NetTech was funded by the U.S. Department of Education's OERI division.

World Wide Dubliners, an annotated and collaborative hypertext version of James Joyce's *Dubliners*, co-authored with Professor Wallace Gray of Columbia University. This project was abandoned upon the death of Professor Gray in 2002.