

CHARLES BABBAGE INSTITUTE

CENTER FOR THE HISTORY OF INFORMATION TECHNOLOGY

NEWSLETTER

Vol. 32 No. 2

Fall 2010

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UNIVERSITY OF MINNESOTA

Missing Women: Book #1

We are pleased to announce the publication of *Gender Codes: Why Women Are Leaving Computing*, edited by CBI's director Tom Misa and appearing from Wiley/IEEE Computer Society Press. The book presents the first rigorous historical treatment of gender in the history of computing as well as an unprecedented international perspective, with chapters addressing five countries as well as additional comparative perspectives. The volume began with a CBI workshop in May 2008 that assembled the core contributors. As the volume took shape, we selected nearly 60 photographic images—from the Control Data, Burroughs, and other CBI collections—to illustrate it. The book presents a model for scholars addressing an important professional problem. Already *Gender Codes* has attracted unusual attention, with at least 15 copies circulating inside the National Science Foundation.

In the mid-1960s, when the computing profession was taking shape, it was soundly dominated by men with around 10 percent of undergraduate degrees in computing awarded to women. A remarkable success in attracting women to the field occurred during the next two decades, so that by the mid-1980s women collected 37 percent of all U.S. undergraduate degrees in computing and formed 38 percent of the white-collar computing workforce. That so many women became programmers and systems analysts was a signal of success for the profession and for the women's movement. Then, something odd happened.

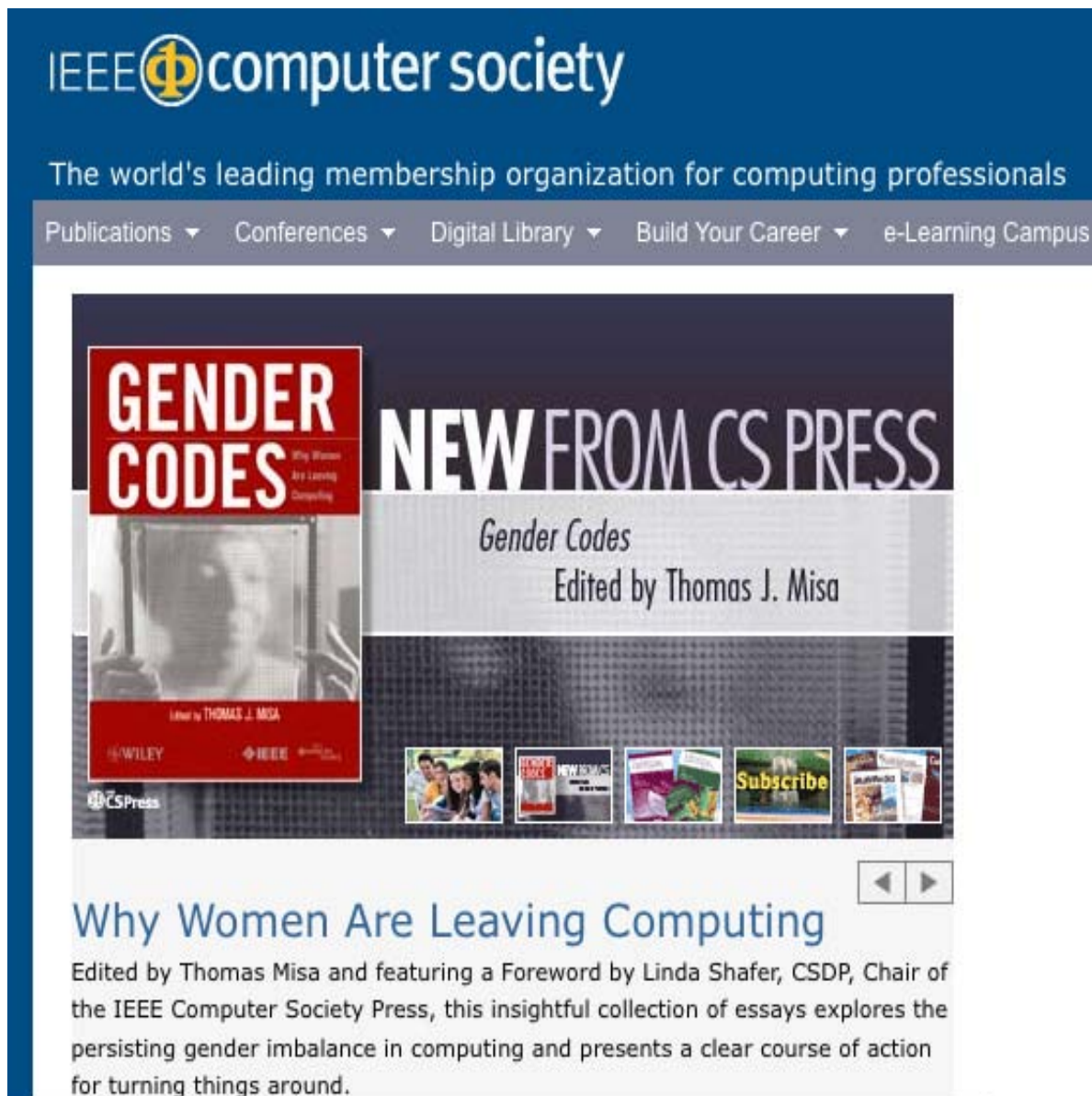
Women, for whatever reason, started “leaving” undergraduate computer science programs in the late 1980s and the worrisome trend has continued ever since. (Across these decades, women slowly gained increasing numbers of master's and doctoral degrees in computing, roughly paralleling the other physical science and engineering fields.) The latest figures from the CRA-Taulbee survey place the proportion of women in undergraduate computing programs in North America at 11 percent, nearly where it was fifty years earlier. Undergraduate computer-science programs, which on average enrolled 400 students twenty years ago, are now enrolling just over 200 students per program. Women's absence contributes to this decline. One might hope this is only an academic problem, limited to undergraduate computer science, but the proportion of women in the white-collar computing workforce has also dropped since the mid-1980s, by around ten percentage points. Many countries in Europe and some countries in Asia report similar trends. Here is a professional problem that has history at its core.

In seeking historical insight, we drew on our scholarly networks. Not surprisingly, CBI-Tomash fellows, already at the forefront of the computer history field, were also prominent among the scholars seeking to understand and address this pressing issue. Of the book's 13 chapters, fully five of them are written by former Tomash fellows and another three chapters are contributed by CBI's director Tom Misa or CBI's associate director Jeff Yost. Of the Tomash fellows, Marie Hicks and Corinna Schlombs each contributed chapters drawing from their recently completed dissertations, involving computing in Britain and Germany, respectively. Janet Abbate contributed a chapter based on her forthcoming book that profiles women pioneers in computing in the United

States and United Kingdom. Nathan Ensmenger, in his chapter “Making Programming Masculine,” drew on material from his *The Computer Boys Take Over: Computers, Programmers, and the Politics of Technical Expertise*, just published from MIT Press. For his chapter, Tom Haigh examined professionalization in data processing as well as workforce statistics.

Attentive readers of *IEEE Annals of the History of Computing* may have noticed a prominent rear-cover advertisement for the book in this summer’s (July-September) issue. It was also featured on the IEEE Computer Society website [see image]. You can also find the book in Amazon.com and other book outlets. But we have a special deal for you. For all CBI Friends who join or renew their membership at the \$250 level or higher, we will be pleased to send you a complimentary copy. (And see the offer accompanying book #2 as well!)

Thomas J. Misa



The image is a screenshot of a website banner for the IEEE Computer Society. At the top, the IEEE logo (a yellow circle with a white Greek letter phi) is followed by the text "IEEE computer society" in white on a dark blue background. Below this, a light blue bar contains the text "The world's leading membership organization for computing professionals". A navigation bar below that lists "Publications", "Conferences", "Digital Library", "Build Your Career", and "e-Learning Campus" with downward-pointing chevrons. The main content area features a large banner for the book "Gender Codes: Why Women Are Leaving Computing" edited by Thomas J. Misa. The banner includes the book cover on the left, which has a red top section with the title "GENDER CODES" and a black bottom section with a photo of a woman. To the right of the cover, the text "NEW FROM CS PRESS" is displayed in large white letters, followed by "Gender Codes" and "Edited by Thomas J. Misa" in a smaller font. Below the main text, there are several small thumbnail images of other books and a "Subscribe" button. At the bottom of the banner, there are left and right navigation arrows. Below the banner, the text "Why Women Are Leaving Computing" is written in a large blue font, followed by a paragraph of text: "Edited by Thomas Misa and featuring a Foreword by Linda Shafer, CSDP, Chair of the IEEE Computer Society Press, this insightful collection of essays explores the persisting gender imbalance in computing and presents a clear course of action for turning things around."

Director's Desk

As the contents of this newsletter amply testify, this has been a busy and satisfying time at CBI. In the past couple months, we launched two major books, opened a permanent museum-grade exhibit, sent CBI associate director Jeff Yost halfway around the world to report late-breaking research findings (at the IFIP World Congress), and continued at the forefront of collections development and access in computer history.

Our smaller successes, too, help sustain CBI's leadership in computing history. This August saw the publication in the flagship journal of the Association for Computing Machinery, *Communications of the ACM* (with circulation of 97,000) of CBI's interview with programming pioneer Edsger Dijkstra. We knew that computing professionals love to read about the notable people that shaped the field, and that the Dijkstra interview was chock full of memorable stories and pithy quotes. We were surprised all the same when the interview pushed aside a hot controversy over whether "P" = "NP" and was the #1 download from *CACM* for most all of August. You can read the *CACM* piece at cacm.acm.org/magazines/2010/8/96632-an-interview-with-edsger-w-dijkstra/fulltext or consult the original on the CBI oral history database. Oral history downloads continue at the remarkable pace of one a minute, around the clock, week in and week out. As mentioned in my previous Director's Desk, there are now more than 250 Wikipedia topics, often featuring CBI oral history interviewees, at the center of this activity.

In mid-September I had the pleasure of speaking to a select group of university regents and upper administrators at Eastcliff, the University of Minnesota President's house. The occasion was the university's awarding D. James Guzy an Outstanding Achievement Award for "unusual distinction" in his profession and public service. It turns out that Jim Guzy goes back to the 1960s with Seymour Cray and Bob Noyce. Among his notable achievements, including being an early investor in Intel, has been an abiding interest in Cray and his supercomputing ventures. Guzy was an enthusiastic backer of Cray's last start-up company, SRC Computing, formed just a few months before Cray was fatally injured in an automobile accident in 1996. In my remarks, I gave the audience a compressed slice of "Minnesota's Hidden History in Computing," see www.cbi.umn.edu/resources/MHHC/.

Please let me know if you have an audience in need of a "stiff dose" of computer history. We'd love to oblige!

Thomas J. Misa

BLOG@CACM # 08.08.2010



Remembering Internet Dogs

from *BLOG@CACM*
An iconic cartoon by Peter Steiner, which appeared in *The New*

Yorker in 1993, captured the nature of the nascent Internet. It shows a dog seated at a computer, remarking to a second dog on the ...

[VIEW MORE BLOG@CACM](#)

top 5 articles

- ▶ An Interview With Edsger W. Dijkstra
- ▶ You're Doing it Wrong
- ▶ The Singularity System
- ▶ Memory Models: A Case for Rethinking Parallel Languages and Hardware
- ▶ Hypercriticality

A Minnesota Story: Book #2

CBI director Tom Misa teamed up with former CBI director Bob Seidel to research, write, and publish a commemorative history of the University of Minnesota's College of Science and Engineering, known as the Institute of Technology until a name change this July. This research effort also involved two graduate students and a recent graduate of the Program in the History of Science, Technology and Medicine, Maggie Hofius, Nathan Crowe, and Ron Frazzini. The book was commissioned by Dean Steven Crouch, who formally unveiled it at an evening banquet on October 19th, 2010, held to celebrate the college's 75th anniversary, with the festivities attended by 350 friends and supporters.

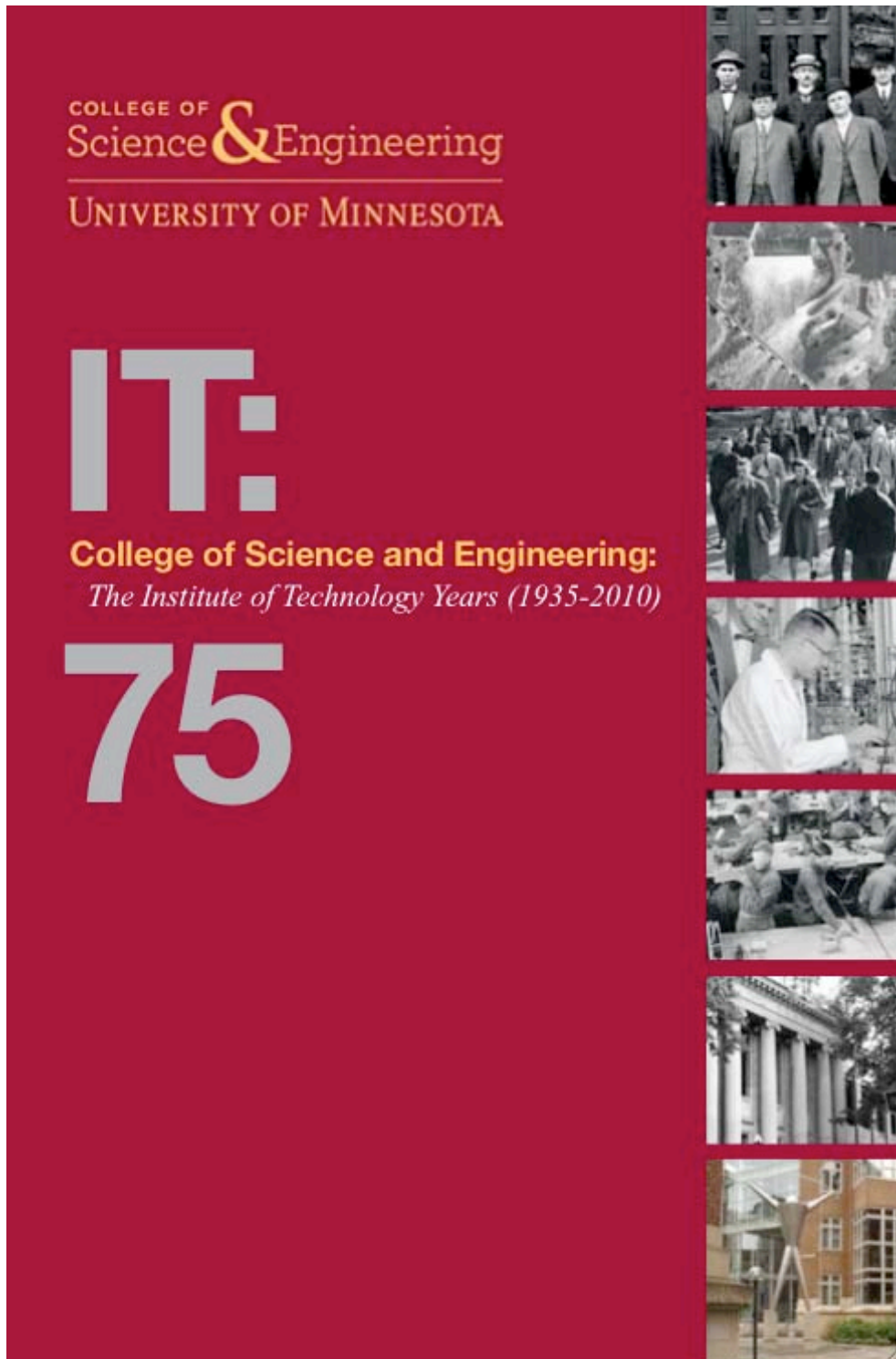
The 200-page book explores the history of the college, beginning with the founding of the University of Minnesota itself in 1851. Early chapters recount the origins of the "Institute of Technology," created in 1935, in the pioneering schools of mining, engineering and chemistry as well as the university's early relations with local and regional industries. During the 1950s and early 1960s, the college assembled the science and mathematics departments which, along with the established engineering and later computer-science departments, gave the Institute of Technology an unprecedented breadth of scientific and engineering talent. Later chapters examine the rise of the engineering sciences, the role of college researchers during World War II and the Cold War, and the recent shift to problem-oriented centers that have rounded out the college's activities. The volume is profusely illustrated with over 120 archival images of students, researchers, faculty, laboratories and local industrial sites, as well as images and cartoons from *Technolog*.

Computing topics naturally have a prominent place in this history. Electrical engineer W.G. "Jerry" Shepherd brought the first computer to campus in 1949, an analog computer made by the Reeves Instrument Company. Among the electrical engineering department's notable graduates were numerous engineers who worked for Engineering Research Associates and/or helped found Control Data, including Erwin Tomash (class of 1943), Seymour Cray (1949 and 1951), Tom Kamp (1949), Jim Thornton (1950) and Bob Kisch (1950). By the mid-1960s Cray, along with Frank Mullaney and Bill Keye (both class of 1943), were on the Control Data Corporation's Board of Directors.

Computer science took form at the university in the wake of an irresistible offer from Sperry Univac, which had heard rumors of the university's interest in purchasing an IBM Model 650. To forestall this plan, Univac offered the university 400 hours of free computer time—provided that it hire a faculty member to develop courses that "viewed [computers] as objects of intrinsic interest." In 1955 Marvin Stein was successfully recruited from Convair in California, where he had been working with an ERA-Univac 1103 (we think that Erwin Tomash, working on the installation of the Convair machine, quite likely talked up the computing scene in the Twin Cities). Stein, in the mathematics department, ran the university computing center as well as developed courses that led to the forming of the Department of Computer Science in 1970. The Army High Performance Computing Research Center and the University of Minnesota Supercomputing Institute are treated in later chapters.

Copies of the book, in affordable hard cover and paperback versions, are available through the publisher, Lulu.com. We suggest, however, that you obtain a copy instead by joining or renewing your membership to the CBI Friends. If you do so before 31 December 2010, we will be pleased to mail you a gratis copy.

Thomas J. Misa



Minnesota's Supercomputer

IBM's Pat Carey emailed me, some time ago, with an unusual offer. Would the Charles Babbage Institute have any interest in an original development "rack" of BlueGene/L, the famous supercomputer? IBM-Rochester was looking for a home for this historic artifact, and he had thought of us. I pondered the question . . . let's see, world's fastest supercomputer (2004-8) . . . an untold Minnesota computing history story . . . an authentic artifact, and, as it turned out, a stunning work of industrial design. "Yes, of course" was my enthusiastic answer, and fortunately "yes, let's do it" was the verdict of David Lilja, department head of electrical and computer engineering. An earlier *CBI Newsletter* article described some of the logistic challenges to taking possession of this 1800-pound slice of history (Spring 2008 v30 n1). At CBI we have state-of-the-art climate controlled archival storage at our fingertips, but we do not have the proper resources for large bulky computing artifacts.

With David's support, we began planning a permanent museum-grade exhibit in the EECS building, now known as Keller Hall. The ECE and CS departments were developing a wall exhibit highlighting the two departments' storied histories, and he generously proposed folding our Blue Gene exhibit into this larger effort. To get background on the Minnesota story, Arvid Nelsen and I went down to Rochester and did a two-hour interview with Steve Lewis and Curt Mathiowetz, the project managers for IBM's Blue Gene engineering and development effort. In time, Frank Ingram came up and assembled our Blue Gene, describing the "hot-swappable" power supplies and mounting the sleek black cowling.



EECS students inspect Blue Gene exhibit (October 2010).

The Blue Gene project took on a life and momentum of its own. In May 2009 it was the centerpiece for “Minnesota’s Supercomputer: IBM’s Blue Gene” in our year-long lecture series on Minnesota’s Hidden History in Computing. Then, on October 7, 2009, President Barack Obama bestowed on IBM’s Blue Gene the notable National Medal of

Technology and Innovation. Meanwhile we worked on the museum-style panel text and images. Telling an epic story in such a compressed space taxed our creativity. We settled on a plan to make the visually stunning artifact the showpiece of the exhibit, with an internally-lighted window to permit viewing of the inside circuit boards, cooling fans, wiring, and networking gear. Three panels—with the titles “Supercomputing slows down?” “Minnesota story,” and “Impact on science and technology”—are now installed in Keller Hall. The CBI–ECE Blue Gene exhibit was publicly unveiled at the ECE department’s October 8th Open House.

Click below to view high-resolution panel images in PDF format.

<p>Supercomputing slows down?</p>	<p>Minnesota story</p>	<p>Impact on science and technology</p>

Thomas J. Misa

SHOT 2010

CBI director Tom Misa and associate director Jeff Yost attended (and chaired and commented at sessions at) the Society for the History of Technology (SHOT) annual meeting, Thursday, September 30th to Sunday, October 3rd in Tacoma, Washington. The event included a number of papers on the history of computing at regular SHOT sessions, in addition to the full-day SHOT Special Interest Group in Computers, Information and Society (SIGCIS) side conference, “Materiality and Immateriality in the History of Computing.”

On Friday afternoon, SIGCIS held its Annual Lunch, where the group’s chair Tom Haigh gave a short report on the SIG, first time participants introduced themselves, and the attendees bid on books at the auction (the annual book auction, along with member donations, raises funds to help graduate students travel to present at future SHOT conferences and SHOT SIGCIS meetings). Misa, who served on the SIGCIS Computer History Museum book prize committee, presented the 2010 award to Atsushi Akera for his insightful book: *Calculating a Natural World: Scientists, Engineers, and Computers During the Rise of U.S. Cold War Research* (MIT Press, 2007).

History of computing was especially well represented at SHOT sessions on Friday and Saturday, which ranged from the cultural, social, and economic history of computer networking to “dreams and realities” of a check-less, cash-less society. In all, there were more than fifteen papers presented at regular SHOT sessions on the history of computing.

On Sunday, following short opening remarks from Thomas Haigh to launch the SIGCIS meeting, Paul Edwards gave a highly engaging and thoughtful keynote address, “Friction: Rethinking Speed, Power, and Possibility in the History of Information Infrastructures.” The remainder of the day consisted of panel and roundtable discussions on computer history and science fiction, and teaching courses on computers and society, as well as a dissertation session, and a couple works-in-progress sessions.

The following computer/software history papers were presented at the SHOT Conference. Sue Thomas, “Shaping the Landscapes of Cyberspace: West Coast Metaphors.” J. Carles Maixé-Altés, “Diverging Paths to a Networked World: Computerizing Spanish and British Savings Banks, 1965-90.” Ksenia Tatarchenko, “‘Not Lost in Translation’: How English Became the Common Language of Computer Science (1960-74).” Paul Edwards, an “Author Meets Critics” session on his new book, *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*. Emily Goodmann, “‘Information?’: Telephone Books, Information Operators and the Computational Telephone.” Jonathan Hall, “From ‘Free Software’ to ‘Open Source’: Standardization of a Technical Term in Pursuit of New Markets.” David Stearns, “Conflicting Dreams of a Cashless Society: VISA’s Entrée and Expectations of Electronic Funds Transfer.” Ian Martin, “‘Too Far Ahead of its Time’: Britain, Burroughs and Real-time Banking in the 1960s.” Olga Pantelidou, “Automating Check Processing: How ERMA Altered Bank of America’s Network Typology and Branch Architecture, 1955-66.” Nick Muntean, “The Ideology of Consumer Electronics.” Matthew Schandler, “Recycling Innovation: Nintendo’s Conservative Approach to Research and Development.” Elizabeth Lenaghan, “Kindling Consumption: How Amazon’s E-reader Marketing Refashions Readers.” Andrew Mamo, “Affect and Automation: Middle-Class Engagements with Mid-Century American Technology.” Louise Karlskov Skyggebjerg, “‘It’s Another Landscape of Communication’: New Technologies in Use in the Office.” Colrain Zuppo, “Organizations as Consumers of Human Capital Via Technology: Evolution of the Boundaryless Workplace.”

The papers and panelists of the SIGCIS 2010 Workshop, “Materiality & Immateriality in the History of Computing,” were as follows. Paul Edwards, “Friction: Rethinking Speed, Power, and Possibility in the History of Information Infrastructures” (keynote). “Roundtable: Computers, Information and Society in the Classroom” (Panel: Andrew Russell, Nathan Ensmenger, and Rebecca Slayton). “Examining the Interaction of Speculative Literature and Computing: Toward a Research Agenda” (Panel: Janet Abbate, Eric Swedin, and Thomas Haigh). “Dissertations in Progress” (Panel: Ksenia Tatarchenko, Dave Goodwin, Hansen Hsu, and Kevin Walsh). Christopher McDonald, “The PLATO Computer-Based Education System: Teacher’s Tool or Teacher?” Tristan Thielmann, “Car Navigation Systems – A History of Associative Clusters.” Jean-François Blanchette, “A Material History of Bits.” Petrina Foti, “Museums and the Material Culture of Video Games.” Jeffery Stein, “IT History Society Archival Database.” Mai Sugimoto, “Making Computers Logical: Edmund Berkeley’s Promotion of Logical

Machines.” Gustav Sjöblom, “Technological System or Military-Industrial-Complex – the Diffusion of Numerically Controlled Machine Tools in Sweden, 1950–1970.” Sharon Irish, “Meta Filter: Coming to Agreement with Interactive Computer Technology.” David Brock and Christophe Lécuyer, “The Material History of Digital Electronics: The Development of Silicon Manufacturing Technology at Fairchild Semiconductor.” Marie Hicks, “‘The World Looks to Britain’: Technology Transfer, Heterogeneous Engineering, and British Computing Companies’ Attempt to Capture the Indian Market, 1955-1965.” Scott M. Campbell, “‘WAT’ Forever: Computing Education at the University of Waterloo.” Ian Martin, “Materiality, Modernity and Space: The British Banks and Their Computer Centres, 1961–1963.”

Jeffrey R. Yost

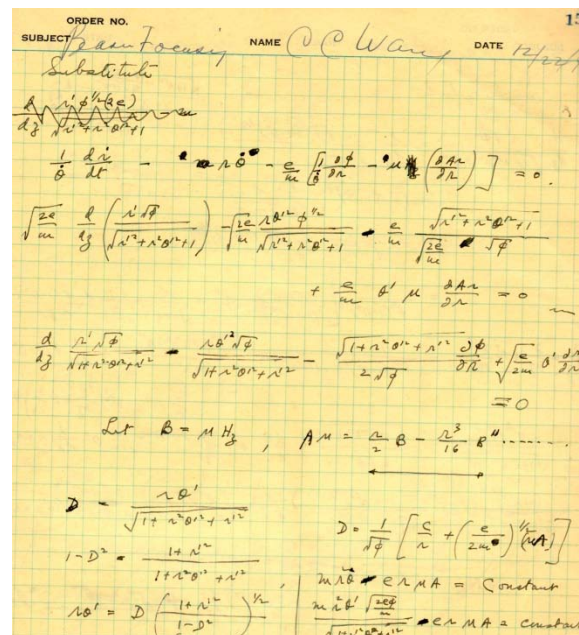
News from the Archives

It has been a busy half year in the CBI archives. I am working hard with our outstanding student assistants, Danielle Storm and Molly Behrens, to continue to make new collections available, to support researchers, and to reach out to the University of Minnesota and the broader history of information technology communities. Since the spring, researchers have come to CBI from such far-flung locales as Virginia, New Jersey, North Carolina, Georgia, and New York, as well as from right here on campus. I am looking forward to continuing to explore ways to connect with the community and pique scholarly and public interest in our fantastic collections.

New Collections Acquired and Processed

Two recent donations to CBI expand upon our already extensive holdings in the history of ACM. We have received the David Wise Papers, documenting Wise’s work within ACM and, specifically, SIGPLAN, and the Robert Ashenhurst Papers, exploring his time as editor of *Communications of the ACM*. We have also recently received a collection from Albert Eisele, former assistant to William Norris, which fills in some information on Norris’s career during and after his time with Control Data Corporation.

Since May, we have processed several significant collections. The [Kenneth R. Geiser Papers](#) (CBI 181) help to document computing at General Electric and have already been used by researchers. This summer and fall, we completed the processing of a large collection of Sperry Research Center Engineering Log Books,



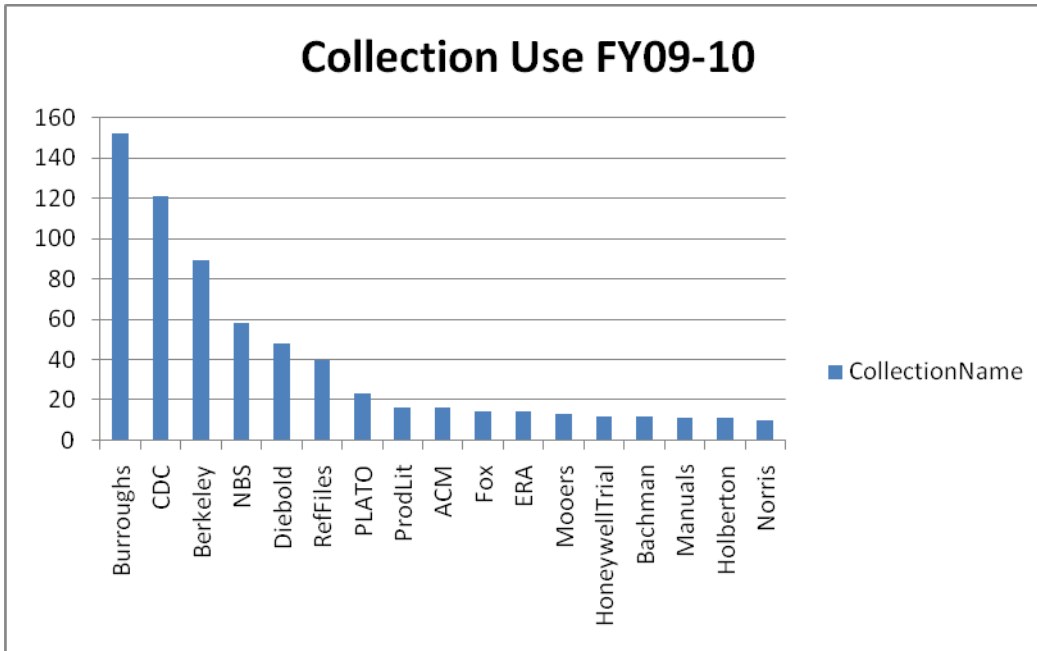
donated by Lockheed Martin's VIP Club. The importance of this collection is in its documentation of the day-to-day processes of computer system development. We have also recently completed processing a collection of Bolt, Beranek, and Newman correspondence (1974-1989), containing early email correspondence and including information about the development of ARPANET. Finding aids for both of these collections will be available soon.



Finally, we are very pleased to announce that processing of the Carl Machover Papers (CBI 206) has been completed and that the collection should be open for research before the end of the calendar year. The collection, containing Machover's correspondence, job files, and research materials, is well over 200 cubic feet in size and will be one of the premier resources for the history of computer graphics.

Collection Stats from Fiscal Year 2009-2010

Over the past fiscal year (July 2009 to June 2010), we had nearly 1000 individual items used by researchers, including archives boxes, books and serials, audio-visual materials, and more. Our most frequently used collection was the [Burroughs Corporation Records](#) (with 152 uses of individual boxes), followed by the [Control Data Corporation Records](#) (121), and the [Edmund Berkeley Papers](#) (89).



Overall, 83 different collections were used during course of the year, which speaks to the wide variety of topics covered by CBI collections that are of interest to researchers. We had a total of 169 different researchers use the collections, including both those visiting CBI and those who requested materials via email, phone, or chat.

I recently returned from a Midwest Archives Conference symposium on user studies, where I learned about some useful additional ways to explore our researchers' needs, and I hope to apply some of these ideas to my work here in the upcoming year.

Stephanie Crowe

IFIP World Computer Congress 2010

In mid-September, CBI associate director Jeffrey Yost presented a paper on the history of the U.S. Air Force's Advanced Logistics System (ALS) at the "History of Computing" conference of the IFIP World Congress in Brisbane, Australia. ALS, a \$250 million failed project in the early 1970s, was designed to provide an unparalleled real-time logistical IT system for the Air Force, an organization managing more assets than the four largest corporations in the U.S. combined at the time.

Peer-review of full papers occurred prior to the conference and accepted papers were published in the proceedings volume edited by the conference organizer, Victoria University's Arthur Tatnall—*History of Computing: Learning from the Past* (Springer, 2010).

Digital Equipment Corporation (DEC) retired executive, and the longest serving employee at DEC Australia, Max Burnet, kicked things off with a keynote on the history of Australian Computing. Burnet, known as "Museum Max" around DEC, has collected DEC computers for many years and is an organizing force in fostering history of computing museum exhibits throughout Australia.

Overall, the conference's papers explored historical topics/themes in computing and software in many countries, including Great Britain, the United States, Norway, Hungary, Japan, Australia, and Russia. The presenters included academic historians and computer scientists, industry executives, computer pioneers, and museum professionals.

Yost also participated in the IFIP History of Computing Working Group 9.7 business meeting, where the group discussed plans for future conferences and publication opportunities, as well as methods and practice with conducting oral histories and collecting and preserving archival materials and artifacts.

In addition to "History of Computing," IFIP had 16 other conferences—within the broad themes Deliver IT, Learn IT, Govern IT, Play IT, Sustain IT, Treat IT, and Trust IT—and Computer Congress-wide plenary keynote talks by Nicolas Carr, S. V. Raghavan, Penny Sanderson, Richard Stallman, John Suffolk, and Graeme Wood. In all, there were more than 400 presenters, and delegates from more than 50 countries representing academia, industry, professional organizations, and government.

The "History of Computing" conference talks, in order of presentation, were as follows. Max Burnet, "The History of Australian Computing." John Deane, "Connections in the History of Australian Computing." David Demant, "Why the Real Thing is Essential for Telling Our Stories." Nadia Ambrosetti, "Wonder, Sorcery, and Technology: Contribute to the History of Medieval Robotics." Roger Johnson, "Andrew Booth—Britain's Other 'Fourth Man.'" Drude Berntsen, Knut Elgsaas and Håvard Hegna, "The Many Dimensions of Kristen Nygaard, Creator of Object-Oriented Programming and the Scandinavian School of System Development." Eiiti Wada, "Projects and Activities of the IPSJ Computer History Committee." David Anderson, "Contested Histories: De-

mythologising the Early History of Modern British Computing.” Győző Kovacs, “We Constructed 50 Years Ago the First Hungarian Tube Computer, the M-3: Short Stories from the History of the First Hungarian Computers (1950-1960).” Vladimir Kitov and Valery Shilov, “Anatoly Kitov—Pioneer of Russian Informatics.” Jeffrey Yost, “Materiel Command and the Materiality of Commands: An Historical Examination of the U.S. Air Force, Control Data Corporation, and the Advanced Logistics System.” Arthur Tatnall and Ralph Leonard, “Purpose-Built Educational Computers in the 1980s: the Australian Experience.” John Murnane, “And They Were Thinking? Basic, Logo, Personality and Pedagogy.” Arthur Tatnall and Bill Davey, “The Life and Growth of Year 12 Computing in Victoria: An Ecological Model.” Denise Leahy and Dudley Dolan, “History of the European Computer Driving Licence.” Stasys Lukaitis, “A Brief History of the Pick Environment in Australia.” Bill Davey and Kevin Parker, “Turning Points in Computer Education.” Allan Olley, “Existence Precedes Essence—Meaning of the Stored-Program Concept.” David Goodwin and Roger Johnson, “Recession, S-curves and Digital Equipment Corporation.” Matthew Warren and Shona Leitch, “ETHICS: The Past, Present and Future of Socio-Technical Systems Design.” Andrew Fluck, “Lessons From Discarded Computer Architectures.” Audra Lukaitis, Bill Davey and Stasys Lukaitis, “A Birth of Information Systems.” Barbara Ainsworth, Judy Sheard and Chris Avram, “The Monash University Museum of Computing History: Ten Years On.”

Jeffrey R. Yost

***Annals* Editorial Board Meets in Los Alamitos**

IEEE Annals of the History of Computing editor-in-chief Jeffrey Yost held his annual editorial board meeting at the publications office of the IEEE Computer Society (CS) on October 16, 2010.

Yost presented an annual report detailing standard metrics as well as progress toward reaching stated goals for percentage of scholarly articles, heightened selectivity, and publishing in targeted areas. While the long-term historic average for *Annals* has been roughly 40 percent scholarly articles and 60 percent pioneer accounts, Yost sought to take advantage of the growing number of scholars working in the history of computing to reverse this mix (to 60 percent scholarly articles and 40 percent pioneer accounts). Over each of the past three years this goal has been reached/exceeded (66 percent, 62 percent, and 68 percent in 2008, 2009, and 2010 respectively), and the publications queue is over 80 percent scholarly articles. Based on the queue, and the April-June special issue, the journal’s four year average (through 2011—Yost’s two terms as editor-in-chief) will be 69 percent scholarship.

The *Annals* editorial board has achieved this while reducing the acceptance rate from a historical average of about two-thirds to a rate approaching one-half—thus significantly boosting the selectivity of the journal. *Annals* has also published heavily in targeted areas such as the international history of computing—half of all articles of the past three years have been focused on non-U.S. topics. The board has also been successful in publishing substantially in other targeted areas, including the social history of computing, the policy history of computing, and the cultural/intellectual history of computing.

The journal has also published a number of important pioneer accounts, including an issue devoted to the influential and understudied German TR 440 system. The four articles in this issue were written by pioneering engineers for Telefunken AEG on the TR 440 project.

The second half of the meeting was devoted to a planning session to identify important topics and themes, special issue possibilities, and authors to target in recruiting. The intention with this session (and online follow-up efforts) is to create a document useful to Yost's successor. Yost's second and (given term limits) final term ends in December 2011. The IEEE Computer Society is currently launching the search committee to fill this position.

The night before the meeting, the board had its annual dinner at a restaurant in downtown Seal Beach, where they were unexpectedly treated to the performance of an Irish pipe band.

Recent Publications

Anderson, David. "Contested Histories: De-mythologising the Early History of Modern British Computing." In Arthur Tatnall, ed. *History of Computing: Learning From the Past*. (Springer, 2010): 58-67.

Atkinson, Paul. "The Curious Case of the Kitchen Computer: Products and Non-Products in Design History." *Journal of Design History* 23:2 (June 2010): 163-179.

Aylen, Jonathan. "Promoting the Prosaic: The Case for Process-Control Computers" (Think Piece). *IEEE Annals of the History of Computing* 32:3 (July-September 2010): 95-96.

Care, Charles. *Technology for Modeling: Electrical Analogies, Engineering Practice, and the Development of Analogue Computing*. (Springer, 2010).

Ceruzzi, Paul. "'Ready or Not, Computers Are Coming to the People': Inventing the PC." *OAH Magazine of History* 24:3 (July 2010): 25-28.

Cloudt, Myriam et al. "Interfirm R&D Networks in the Global Software Industry: An Overview of Major Trends and Patterns." *Business History* 52:1 (February 2010): 120-149.

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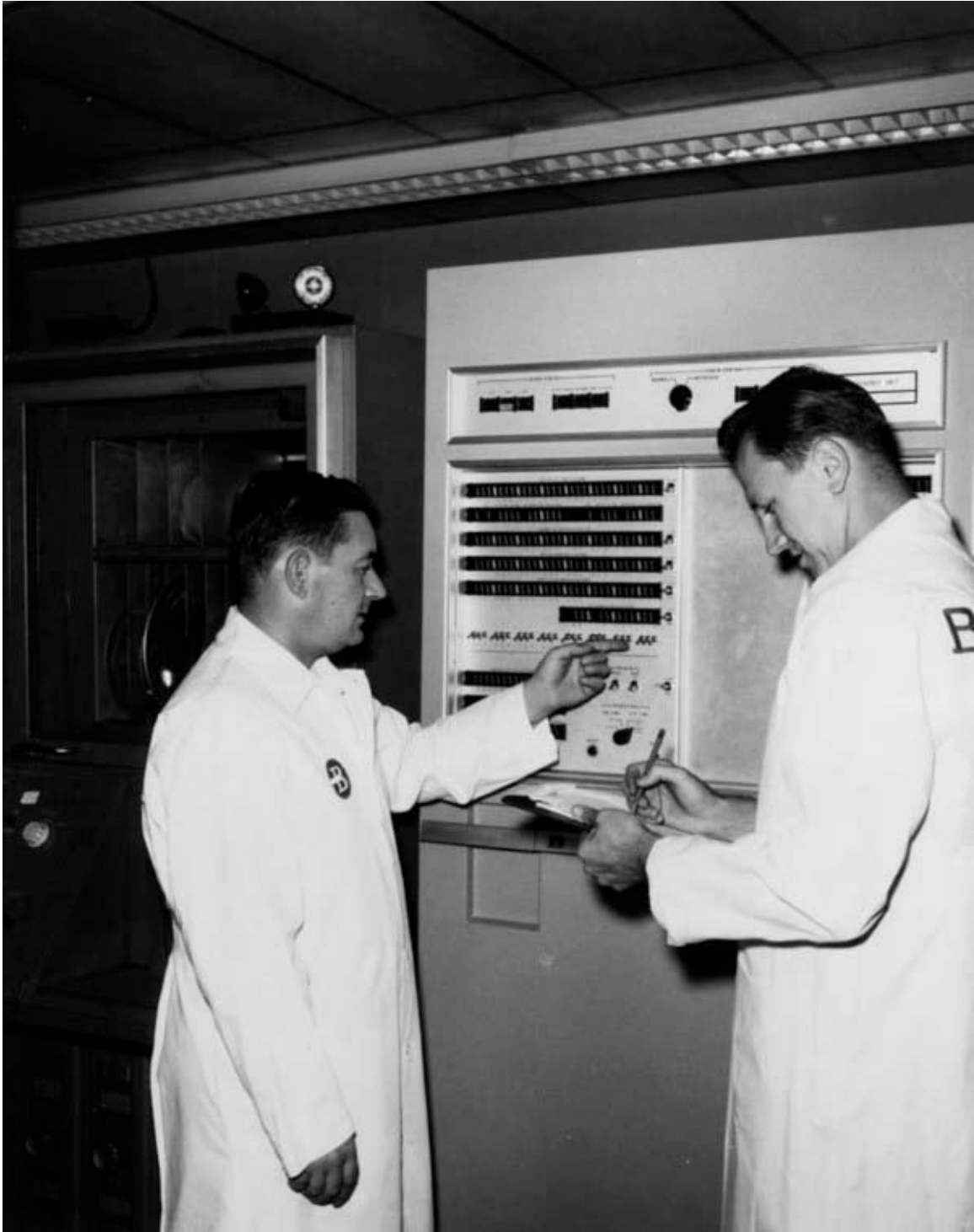
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Featured Photos

Burroughs Corporation's involvement with NASA and the U.S. space flight program during the 1960s included the development of a ground-based guidance computer used in Projects Mercury and Gemini. In the first image, a Burroughs employee is working with the "electronic packages" that contain the guidance information for an ATLAS target vehicle on a Gemini mission.



The second image includes Burroughs's Data Exchange Unit, which, according to the company, functioned "as a central electronic distributor for communication between the ground-based guidance computer, the...spacecraft, the Titan launch vehicle, and NASA and Air Force facilities" during a Gemini mission.



For more information about Burroughs Corporation's involvement in space flight programs, see the following series within the records:

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Stephanie Crowe