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Stuart I. Feldman

ACM's Annual Report

I'm a long-time member (40 years!) of ACM. As such, I've come to expect great things from this organization, having witnessed over these many years how expertly the

Association's leadership, volunteers, and staff have worked to advance and inspire the discipline of computer science through its array of publications, conferences, educational initiatives, and professional development services. The ACM offerings have grown with the scope and importance of the computing field. But I would be hard-pressed to recall in my four decades a time as eventful and exceptional in these causes (and *more*) as recorded by ACM in FY08.

In a 12-month period, the Association saw both professional and student memberships reach an all-time high; a completely revitalized flagship magazine launch to rave reviews; our international initiatives result in a new ACM China office and a multiyear plan for raising the Association's visibility in India; and ACM's Digital Library provide offerings that have never been more plentiful nor its features more user-friendly.

The report that follows will detail these accomplishments, as well as many others, that have occurred in an extraordinary short timeframe. Perhaps the best indicator of the success of these efforts is reflected in the membership statistics. By the end of the fiscal year, ACM membership stood at a record 89,000. Indeed, professional memberships saw the largest year-over-year net increase in over 20 years. Moreover, student membership reached a milestone at 22,500. At a time when IT industries, global economies, and research funding operate in fits and starts, it is clear that computing professionals (present and future) find enduring value in what

it means to be an ACM member.

Moreover, major corporations continue to support ACM's keen ability in recognizing technical excellence by sponsoring or greatly increasing the cash value of a number of the Association's prestigious awards. Of particular note this year was the first-ever ACM-Infosys Foundation Award in Computing Sciences, recognizing contributions by young scientists and system developers to a contemporary innovation.

As there are achievements to laud, there are as many challenges to be met. ACM must continue its global outreach, fostering critical international relationships and bringing ACM products and services to new and different computing audiences. And as a growing number of students question the future of a computing career, ACM remains committed to understanding and addressing the deep issues related to the image of computing and the health of the discipline and profession. ACM is partnering with several organizations, building task forces, and creating initiatives to raise awareness and promote the possibilities offered by the field.

As we look to the future, our opportunities have never been greater and, with the ongoing support of our dedicated volunteers, members, and industry partnerships, we will realize them. As this year has taught us, ACM is capable of surprising even those of us who thought we had seen it all.

It was an honor to serve as your president.

Stuart I. Feldman, ACM PRESIDENT

ACM's Annual Report for FY08

ACM, the Association for Computing Machinery, is an international scientific and educational organization dedicated to advancing the arts, sciences, and applications of information technology.

Publications

The centerpiece of the ACM Publications portfolio is the ACM Digital Library and its associated *Guide to Computing Literature*. At the end of FY08 there were more than two million pages of full-text articles in the DL, and more than 1,196,000 bibliographic citations in the *Guide*. Indeed, nearly 18,000 articles were loaded in the DL this year, and more than 86,000 citations were added to the *Guide*. Moreover, in April ACM introduced several major features to the DL Library, including detailed Author Profile pages as well as citation and usage statistics that provide a snapshot of an individual author's contributions to computing, and some measure of their influence in advancing the field.

After months of extensive planning and preparation, the newly revitalized *Communications of the ACM* debuted at the end of FY08. ACM's flagship now boasts a stellar international editorial board charged with identifying and shepherding its editorial content; committed to bringing to the table each month the latest news, practical

applications, industry trends, cutting-edge research; thought-provoking commentary of the highest quality and professional value. Along with a classic and clean redesign, the magazine now hosts six editorial sections (News, Viewpoints, Practice, Contributed Articles, Review Articles, and Research Highlights) along with a new Web component to debut shortly.

Three new periodicals debuted this year: *Transactions on Reconfigurable Technology and Systems*; *Transactions on Accessible Computing*; and *Journal on Computing and Cultural Heritage*. In addition, the ACM Publications Board approved the proposal for an *ACM Transactions on Computational Theory*.

Education

The ACM Education Board finished a prolific year filled with projects and initiatives designed to reverse declining enrollments in computing disciplines and increase ACM's visibility within the worldwide educational community. The Board continues to analyze the dynamics of the enrollment downturn and find creative ways to foster a positive image of computing among young people, working closely with the Computer Science Teachers Association (CSTA) in supporting K-12 computing efforts. They also took major steps in updating

the computing curricula guidelines in computer science, information systems, and information technology as well as established a master's-level initiative to evaluate the effectiveness of the degree on a global scale.

The CSTA took on several projects over the past year to promote and support the teaching of computer science and other computing disciplines at the K-12 level. The group, along with SIGCSE, organized a "Roadshow" aimed at helping colleges and universities improve their K-12 outreach efforts. Several other CSTA-led workshops and symposia focused on curriculum and leadership initiatives for educators throughout the U.S. The group also spirits international efforts, this year working with Pacific Rim educators as well as the Israeli Teachers Association.

The NSF awarded a grant to WGBH (the Boston-based PBS station), as lead investigator, and ACM, as co-principal investigator, to reshape the image of computing. The \$850,000 two-year project will study the images and perceptions of computing held by high school students, particularly Latina girls and African American boys. The goal is to develop and rigorously test messages that would be effective in shifting negative perceptions and create strategies through these messages

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2007 ACM Award

Recipients

A.M. TURING AWARD

Edmund M. Clarke, E. Allen Emerson, Joseph Sifakis

ACM-INFOSYS FOUNDATION AWARD IN THE COMPUTING SCIENCES

Daphne Koller

ACM/AAAI ALLEN NEWELL AWARD

Leonidas J. Guibas

GRACE MURRAY HOPPER AWARD

Vern Paxson

ACM-IEEE CS ECKERT-MAUCHLY AWARD

Mateo Valero
Karl V. Karlstrom

OUTSTANDING EDUCATOR AWARD

Randy Pausch

EUGENE L. LAWLER AWARD FOR HUMANITARIAN CONTRIBUTIONS WITHIN COMPUTER SCIENCE AND INFORMATICS

Randolph Y. Wang

OUTSTANDING CONTRIBUTION TO ACM AWARD

Robert A. Walker

DISTINGUISHED SERVICE AWARD

David A. Patterson

PARIS KANELLAKIS THEORY AND PRACTICE AWARD

Bruno Buchberger

SIAM/ACM PRIZE IN COMPUTATIONAL SCIENCE AND ENGINEERING AWARD

Chi-Wang Shu

SOFTWARE SYSTEM AWARD

David Harel, Hagi Lachover, Amnon Naamad, Amir Pnueli, Michal Politi, Rivi Sherman, Mark Trakhtenbrot, Aron Trauring

ACM PRESIDENTIAL AWARD

Stephen R. Bourne, Patricia M. Ryan, Barbara G. Ryder, Moshe Y. Vardi

DOCTORAL DISSERTATION AWARD

Sergey Yekhanin

HONORABLE MENTION

Vincent Conitzer, Yan Liu

that will eventually build a potential national campaign to draw interest and young students into the field.

Professional Development

The Professions Board transformed the *Queue* Web site (queue@acm.org), moving the publication from a print delivery model to an online magazine. With “digital *Queue*” as its foundation, the Board oversaw the specifications and implementation of the first phase of the Web site for practitioners both within and outside ACM complete with capabilities designed to encourage community input and collaboration. The *Queue* Editorial Board also joined the efforts to revitalize *Communications* this year by overseeing the monthly Practice section of the magazine and providing articles of great interest to today's practitioners.

ACM relaunched the Career & Job Center last fall, greatly expanding its scope of job opportunities in the computing industry. In partnership with Job Target, the site now offers exclusive career-building features, including access to hundreds of corporate job postings, résumé posting, an advanced Job Alert system, and live career advice available to assist in job-seeking preparations.

ACM further expanded its Online Books and Courses site (<http://pd.acm.org/>); a highly popular resource among the membership for its valuable materials designed to polish technical and professional skills. Over 9,000 members have taken advantage of the 2,200 Skillsoft online technology and business courses now available as well as the 1,100 free online e-books from Safari and Books24X7. This resource is offered to professional members as well as graduate students.

The partnership between SIGACCESS and the National Alliance for Access to Computing Careers (Access-Computing) continues to flourish. The goal of this combined effort is to increase the representation of people with disabilities in a wide range of computing careers, including CS, IT, and computer engineering.

Public Policy

The U.S. Public Policy Committee of ACM (USACM) had an extraordinary year in raising the visibility and in-

Major inroads were made this year to expand ACM's internationalization initiative. Paramount in this movement was the opening of an ACM office in China.

fluence of ACM with respect to U.S. public policy, meeting with policy-making groups, including Congress, the Federal Trade Commission, and the Election Assistance Commission. In the last fiscal year, members have cautioned Congress against filtering technologies to deal with copyright infringement; issued statements on the REAL ID rules; Web accessibility, and met with policymakers to promote e-voting standards. USACM also works closely with the Computing Research Association on issues that impact the computing field.

The new ACM Education Policy Committee (ACM EPC), established to educate policymakers about the role of computer science in the K-12 system, held its first meeting this year to focus its priorities. The committee has already engaged the National Science Foundation to improve research opportunities in CS education at the grade-school level. In addition, EPC has initiated discussions with leaders of the National Council of Teachers of Mathematics and has successfully partnered with Achieve.org—a high-profile education organization led by U.S. governors and corporate leaders—to include a CS course in its Advanced Diploma Project.

The ACM Committee on Computers and Public Policy continues to represent ACM interests with respect to a variety of internationally relevant issues pertaining to computers and public policy. In the last year, members of the committee have partici-

pated in panels and workshops examining e-voting technologies, election integrity, cyber security, and system trustworthiness.

ACM's commitment to the issue of women in computing was apparent this year with the decision to elevate the ACM-W Committee to ACM-W Council (AWC). The AWC will be a part of all leadership discussions within ACM and is chartered to increase the awareness of, and interest in, the issue of gender diversity across all ACM activities.

Students

The 32nd Annual International Collegiate Programming Contest World Finals proved a global media magnet. From 6,700 teams representing 1,821 universities in 83 countries competing at 213 sites from September to December, 100 teams advanced to the World Finals last April in Banff, Alberta, Canada. Of the top 10 teams at the 2008 ICPC, four were from Russian universities and three teams represented universities in North America. The top spot went to St. Petersburg University of Information Technology, Mechanics and Optics (Russia).

The ACM Student Research Competition, sponsored by Microsoft Research, continues to offer a unique forum for undergraduate and graduate students to present original research at well-known ACM-sponsored and co-sponsored conferences before a panel of judges and attendees. This year's winners hailed from Purdue University, Colorado State, University of Tennessee, City College of New York, IIT Bombay, and the University of Waterloo.

ACM's Committee on Women in Computing initiated a program to provide support for undergraduate and graduate women students in computer science programs who are interested in attending research conferences. Up to 12 scholarships will be awarded annually; and high school students will also be considered for conference support.

SIGCOMM instituted a “Rising Star” award, recognizing a young researcher (no older than 35) who has made outstanding research contributions to the field of communications networks during the early part of his or her career.

Conferences

SIGGRAPH attracted almost 25,000 artists, researchers, gaming experts, filmmakers, and developers representing 79 countries to its annual conference. The San Diego-based meeting also drew 230 companies to its exhibition hall, an increase of 12% over the previous year.

SIGMM reported a record number of attendees to its annual ACM Multimedia Conference held in Augsburg, Germany. The meeting also attracted a record number of paper submissions (up 43% from 2006) and offered a greater variety of content tracks than ever before.

SIGMOBILE experimented with co-locating its annual conference on mobile computing and networking with its annual symposium on mobile ad hoc networking and computing. Attendees reacted so favorably to the experiment, the SIG is planning try it again in 2010.

Local Activities

The Membership Services Board chartered 47 new chapters in FY08, six of which were international professional chapters. Of the 40 new student chapters, 20 were internationally based.

The ACM History Committee continues to foster collection, preservation, and interpretation of ACM's history and its role in the development of computing and information technology. An additional six oral histories with ACM luminaries were completed this year. More progress was also made on the committee's Web site (<http://history.acm.org>) with the goal of assembling a critical mass of source historical material that will enable historians to analyze and organize a rich history of ACM.

International

Major inroads were made this year to expand ACM's internationalization initiative. Paramount in this movement was the opening of an ACM office in China in December 2007. The office, hosted by Tsinghua University, supports several functions including maintaining the ACM China Web site and actively promoting ACM membership within the Chinese academic community. Indeed, over 300 members joined ACM through the China office in its first six months of operation.

Balance Sheet: June 30, 2008 (in Thousands)

ASSETS

Cash and cash equivalents	\$20,783
Investments	49,045
Accounts receivable and other current assets	6,344
Deferred conference expenses and other assets	5,626
Fixed assets, net of accumulated depreciation & amortization	1,621

Total Assets **\$83,419**

LIABILITIES AND NET ASSETS

Liabilities:

Accounts payable, accrued expenses, and other liabilities	\$7,396
Unearned conference, membership, and subscription revenue	19,061

Total liabilities **\$26,457**

Net assets:

Unrestricted	51,343
Temporarily restricted	5,619

Total net assets **\$56,962**

Total liabilities and net assets **\$83,419**

Optional contributions fund – program expense	(\$000)
Education board accreditation	\$50
USACM Committee	20

Total expenses **\$70**

The ACM India Task Force met to address how the Association could best support the discipline and field of computing in India and in the process be more relevant to, and visible within, the Indian computing community. A number of key issues and potential directions surfaced from that meeting, including ACM's strengths in engaging India's CS education at the university level as well as the unique challenges of and potential opportunities for tapping into India's computing community.

A meeting with European com-

puting leaders last May helped ACM strengthen its ties with the region and better understand the key issues and initiatives within the European academic, research, and professional computing communities.

The Education Board continues to expand its global reach, particularly throughout Europe and Asia. The Board participated in activities associated with Informatics Europe as well as European accreditation efforts. Board members helped plan the recent Education Summit in China, and kept a close eye on the activities leading to

Statement of Activities: Year ended June 30, 2208 (in Thousands)

REVENUE	Unrestricted Net Assets	Temporarily Restricted Net Assets	Total
Membership dues	\$8,873		\$8,873
Publications	15,148		15,148
Conferences and other meetings	25,277		25,277
Interests and dividends	2,365		2,365
Net (depreciation) of investments	(1,570)		(1,570)
Contributions and grants	3,046	\$1,084	4,130
Other revenue	391		391
Net assets released from restrictions	923	(923)	0
Total Assets	54,453	161	54,614
EXPENSES			
Program:			
Membership processing and services	\$868		\$868
Publications	11,274		11,274
Conferences and other meetings	22,124		22,124
Program support and other	7,313		7,313
Total	41,579		41,579
Supporting services:			
General administration	8,891		8,891
Marketing	1,436		1,436
Total expenses	51,906		51,906
Increase (decrease) in net assets	2,547	161	2,708
Net assets at the beginning of the year	48,796	5,458	54,254
Net assets at the end of the year	\$51,343*	\$5,619	\$56,962*

* Includes SIG Fund balance of \$28,142K

ence Teachers Association has built an impressive collection of podcasts for interviews done with key thinkers and educators in the CS community. The collection now counts 32 podcasts with more in production.

The Distinguished Speakers Program launched a new Web site (www.dsp.acm.org) providing a sounder look-and-feel and better functionality.

SIGIR is driving a project to preserve their historical documents, including books, journals, and conference papers important to the IR community. The project will capture valuable resources to the community that are deteriorating in paper form as well as extinct digital media.


SIGCOMM's Web site was revised and reorganized, adopting a content management system for easier and more consistent updates, better navigation, an events calendar, and news.

Recognition

The first ACM-Infosys Foundation Award in the Computing Sciences, recognizing young scientists whose innovations are having a dramatic impact on the computing field, debuted last summer, carrying a prize of \$150,000 endowed by the Infosys Foundation.

The ACM Fellows Program, established in 1993 to honor outstanding ACM members for their achievements in computer science and IT, inducted 38 new fellows in FY08, bringing the total count to 632.

ACM's advanced member grades were also announced. The Association recognized 171 Senior Members in FY08 who have at least 10 years of professional experience, five years of ACM professional membership, and have demonstrated performance and accomplishment that set them apart from their peers. ACM also recognized seven Distinguished Engineers and 13 Distinguished Scientists—all having the distinction of at least 15 years of professional experience and who have demonstrated significant accomplishments or made a significant impact on the computing field.

SIGMOD renamed its annual doctoral dissertation award this year in honor of Jim Gray, a revered member of the database community and a luminary in the computing field. 

the signing of the Seoul Accord, created to establish a system of substantial equivalency of educational programs in the computing and IT-related disciplines that will lead to enhanced mobility of professionals in the field.

ACM's Special Interest Groups continued their international initiatives in FY08, reflecting their pledge to expand their professional outreach. Among the SIGs making global connections in FY08 were: SIGCSE's 2008 Conference on Innovation and Technology in Computer Science Education held in Madrid; SAC 2008 held in Brazil; SIG-

GRAPH newly chartered professional chapters in Shanghai and Madrid; SIGMICRO held its annual Computing Frontiers conference in Ischia, Italy and its CASES conference in Salzburg, Austria; SIGSAC's Symposium on Information, Computer and Communications Security was held in Tokyo; and SIGWEB's hypertext conference in Manchester, England, and its information and knowledge management conference in Lisbon, Portugal.

Electronic Community

Over the past year, the Computer Sci-