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ACM’s Annual Report

It has truly been a banner year for ACM. We firmly established ACM hubs in Europe, India, and China after years of exhaustive efforts to expand the Association’s global reach. We moved ACM’s commitment to women in computing to a new level with further development of the ACM Women’s Council and the launch of ACM-W activities in India. And, (dare I say, not surprisingly), ACM membership ended the year at another all-time high.

Increasing ACM’s relevance and influence in the global computing community has been a top priority throughout my presidency. By sharing ACM’s array of valued resources and services with a borderless audience, and by discovering, welcoming, and nurturing talent from all corners of the computing arena, ACM can truly be distinguished as the world’s leading computing society. It was therefore a great honor to host the opening days of ACM Europe, ACM India, and ACM China. The global stage has indeed been set for ACM to flourish internationally as never before.

ACM continues to play a leadership role in improving the image and health of the computing discipline. This is particularly evident with the Association’s work in influencing change for women pursuing a career in computing. Through committees and initiatives such as ACM Women’s Council, The Coalition to Diversify Computing, and the Computer Science Teachers Association (CSTA), ACM is helping to build balance, diversity, and opportunity for all who may be interested in technology. It was particularly inspiring to see members of ACM-W on hand at the launching of ACM India earlier this year, encouraging their counterparts to join forces to improve working conditions for women in computing in India. The Association’s commitment to addressing the challenges faced by women in the field today is one that every member should applaud.

The fact that membership has continued to increase for eight consecutive years is testament to the ever-growing awareness of ACM's commitment to supporting the professional growth of its members. Indeed, by the end of FY10—spanning an acutely challenging year in global economies—the Association’s membership stood at an all-time high, thus cementing ACM’s position as the largest educational and scientific computing society in the world.

The following pages summarize some of the highlights of a busy year in the life of ACM. While much has been accomplished, there is still much to be done. In FY11, the Association will continue to grow initiatives in India, China, and Europe as well as identify other regions of the world where it is feasible for ACM to increase its level of activity. Improving the image and health of our discipline and field requires the concerted commitment of every ACM volunteer, board, chapter, committee, and member. It is through the support of devoted volunteers, members, and industry partners that ACM is able to make a real difference in the future of computing. It has been a pleasure to serve as your president during a time of such great promise.

Wendy Hall, ACM President
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 Publication portfolio is the ACM Digital Library. During the past year, 21,000 full-text articles were added to the DL, bringing total holdings to 281,000 articles. ACM’s Guide to Computing Literature is an integral part of the DL, providing an increasingly comprehensive index to the literature of computing. More than 230,000 works were added to the bibliographic database in FY10, bringing the total Guide coverage to over 1.52 million works.

Significant enhancements were made to the Digital Library and Guide this year, including a major reorganization of the core citation pages and to ACM bibliometrics. Along with content reformation, there is now greater ease of navigation and a greater selection of tools and resources.

ACM currently publishes 40 journals and Transactions, 10 magazines, and 23 newsletters. In addition, it provides primary online distribution for 10 periodicals through the Digital Library. During FY10, ACM added 364 conference and related workshop proceedings to the DL, including 45 in ACM’s International Conference Proceedings Series.

Two ACM magazines were relaunched during FY10. Crossroads, the ACM student magazine became XRDS, with a more expansive editorial scope and a more modern look to appeal to the student audience. ACM Inroads was transformed from the SIGCSE Bulletin newsletter to an ACM magazine with a wider variety of content for computer science educators.

Periodicals that were approved by the Publications Board and are now on the launching pad for FY11: ACM Transactions on Management Information Systems; ACM Transactions on Intelligent Systems and Technology; and ACM Transactions on Interactive Intelligent Systems.

Education
ACM continues to work with multiple organizations on important issues related to the image of computing and the health of the discipline and profession. In the second year of an NSF grant to develop a more relevant image for computing, ACM worked in tandem with WGBH-Boston in the creation of a new messaging campaign called “Dot Diva.” The campaign, which rolled out in the U.S. last month, is focused on ways to engage young girls with the potential of computing.

ACM and the Association for Information Systems (AIS) jointly developed new curriculum guidelines for undergraduate degree programs in information systems that for the first time include both core and elective courses suited to specific career tracks. Released in May, IS 2010 is aimed at educating graduates who are prepared to enter the work force equipped with IS-specific as well as foundational knowledge and skills. The report describes the seven core courses that must be covered in every IS program and the curriculum can be adapted for schools of business, public administration, and information science or informatics.

ACM’s Computer Science Teachers Association (CSTA) continues to support and promote the teaching of computer science at the K–12 level as well as providing opportunities and resources for teachers and students to improve their understanding of computing disciplines. CSTA’s mission is to ensure computer science emerges as a viable discipline in high schools and middle schools; it is a key partner in ACM’s effort to see real computer science count at the high school level.

Professional Development
The Professional Development Committee spearheaded the development of a new product for practitioners and managers this year called Tech Packs. These integrated learning packages were created to provide a resource for emerging areas of computing designed around an annotated bibliography of resources selected from ACM’s Digital Library, ACM’s online book and course offerings, and non-ACM resources created by experts’ recommendations on current computing topics. A Tech Pack comprises a set of fundamentally important articles on a subject with new material to provide a context and perspective on the theme. The goal is that communities might be built around Tech Packs with members commenting on selected resources and suggesting new ones.

The Professions Board Case Study program took off this year, with the first of several planned studies available online and in print. The program was designed to take an in-depth look at a company or product or technology from its inception to future plans by interviewing some of the key players involved. The inaugural case study was posted on the ACM Queue site and published in Communications of the ACM. The article was quickly slash-dotted, and drew over 50,000 unique visits to the Queue site by the end of the fiscal year.

Traffic to the Queue Web site (http://queue.acm.org/) more than doubled this year over last. By the end of FY10, the site delivered nearly a million page views to nearly half a million readers.

Public Policy
Members of the U.S. Public Policy Council of ACM (USACM) had an active year interacting with policymakers in areas of e-voting, privacy, and security, as well as testifying before Congressional committees and helping develop principles for increasing the usability of government information online. Among the issues tackled this year, USACM joined a task force for the Future of American Innovation urging more funding for basic research and STEM education. Members also expressed concerns with the Cybersecurity Act of 2009, provided constructive comments on a draft of the Internet Privacy bill, and issued a response to e-voting legislation and Internet voting as it relates to military
and overseas voters.

The ACM Committee on Computers and Public Policy aids the Association with respect to a variety of internationally relevant issues pertaining to computers and public policy. The online ACM Forum on Risks to the Public in Computer and Related Systems and the “Inside Risks” column published in Communications of the ACM reflect CCPP’s long-standing dedication to policy issues on a global scale.

ACM played an active role in the National Center for Women and Information Technology (NCWIT) this year, particularly with regard to the K–12 Alliance—a coalition of educational organizations interested in helping young girls develop an interest in computer science and information technology.

The ACM Education Policy Committee (ACM EPC), established to educate policymakers about the appropriate role of computer science in the K–12 system, made major progress in bringing computer science into STEM discussions at all levels of government. Through the work of EPC, computer science is now explicitly recognized in key federal legislation as well as Department of Education regulations and initiatives. Indeed, EPC successfully led an effort that resulted in the U.S. House of Representatives declaring the week of December 7th as National Computer Science Education Week. ACM took a leadership role in steering the first CSEDWeek (held Dec. 6–12, 2009); a role the organization reprised for the second CSEDWeek held last month.

**Students**

ACM’s renowned International Collegiate Programming Contest (ICPC), sponsored by IBM, drew 22,000 contestants representing 1,931 universities from 82 countries. The finals were held in Harbin, China, where 103 teams competed. The top four teams won gold medals as well as employment or internship offers from IBM.

Last January, ACM Queue’s Web site offered an online programming competition based on the ICPC. The inaugural Queue ICPC Challenge—open to all Queue readers (not just students)—was a huge success.

The ACM Student Research Competition (SRC), sponsored by Microsoft Research, provides a unique forum for undergraduate and graduate students to present their original research at well-known ACM-sponsored and co-sponsored conferences before a panel of judges and attendees. This venue draws an increasing number of students each year as it affords an exceptional opportunity for students to showcase their work and develop their skills as researchers.

ACM continues to cultivate its partnerships with leading technology companies, including Microsoft and Computer Associates, to offer valuable tools specifically for ACM student members. Available under the Student Academic Initiative is the Microsoft Developer Academic Alliance now offering student members free and unlimited access to over 100 software packages and the CA Academic Initiative including access to complimentary CA software.

ACM-W’s Scholarship program, which offers stipends to select students to attend research conferences worldwide, was given an extra financial boost this year with new funding from the Bangalore-based global IT services corporation Wipro and Sun Microsystems (prior to the Oracle takeover). The increased funding will allow ACM-W to offer students larger scholarships as well as enable participation by women in both international and local events.

**International**

ACM Europe and ACM India were launched in FY10. Both organizations operate with councils established around three subcommittees: chapters; conferences; and members, awards, and volunteer leaders with the goal of increasing the presence of and generating interest in these popular ACM services.

The number of ACM Fellows, Distinguished, and Senior members from Europe has increased as has the number of ACM chapters throughout Europe.

Moreover, Microsoft Research Europe provided $50,000 to enhance the ACM Distinguished Speakers Program with a goal of delivering more high-quality, ACM-branded lectures.

**ACM Council**

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**SGB COUNCIL REPRESENTATIVES**
Joseph A. Konstan, Robert A. Walker, Jack Davidson

2009 ACM Award Recipients

**A.M. TURING AWARD**
Charles P. Thacker

**ACM-INFOYS FOUNDATION AWARD IN THE COMPUTING SCIENCES**
Eric Brewer

**ACM/AAAI ALLEN NEWELL AWARD**
Michael I. Jordan

**THE 2009–2010 ACM-W ATHENA LECTURER AWARD**
Mary Jane Irwin

**GRACE MURRAY HOPPER AWARD**
Tim Roughgarden

**ACM-IEEE CS 2010 ECKERT-MAUCHLY AWARD**
William J. Dally

**KARL V. KARLSTROM OUTSTANDING EDUCATOR AWARD**
Matthias Felleisen

**OUTSTANDING CONTRIBUTION TO ACM AWARD**
Moshe Y. Vardi

**DISTINGUISHED SERVICE AWARD**
Edward Lazowska

**PARIS KANELLAKIS THEORY AND PRACTICE AWARD**
Mihir Bellare and Phillip Rogaway

**SOFTWARE SYSTEM AWARD**
VMware Workstation 1.0, Mendel Rosenblum, Edouard Bugnion, Scott Devine, Jeremy Sugerman, Edward Wang

**EUGENE L. LAWLER AWARD AND INFORMICS**
Gregory D. Abowd

**ACM-IEEE KEN KENNEDY AWARD**
Francine Berman

**DOCTORAL DISSERTATION AWARD**
Craig Gentry

**ACM PRESIDENTIAL AWARD**
Mathai Joseph, Elaine J. Weyuker

**HONORABLE MENTION**
Hayaal S. Guj, Andre Platzer, Keith Noah Snavely
in Europe.

Through the efforts of ACM India, launched last January in Bangalore, the number of chapters in India has more than doubled over the last 12 months and professional membership is up over 50%.

ACM-W hosted a “Women in Computing” event at the ACM India festivities to encourage India’s women in computing to network and organize to form a community that works toward improving working and learning environments for all women in computing in India.

A new ACM China Council was officially launched in Beijing in June. Established to recognize and support ACM members and activities in China, the new council comprises a cross section of the computer science and information technology community committed to increasing the visibility and relevance of ACM in China. The group is also exploring several cooperative efforts with the China Computer Federation (CCF).

The Publications Board is playing a significant role in ACM’s China Initiative. The Board approved three specific steps aimed at improving the exposure of Western audiences to Chinese research and to further improve ties between ACM and the CCF by including Chinese translations of articles from Communications of the ACM in the Digital Library; hosting two CCF journals in the Digital Library; and developing a co-branded ACM/CCF journal.

The first two SIGSPATIAL chapters in China and Australia were chartered this year.

Electronic Community

Communications of the ACM (http://cacm.acm.org/) Web site garnered the top award for Best New Web site by Media Business. The magazine’s special report on “Ten Great Media Web Sites” recognized Communications’ powerful search and browse functionality, deep integration with ACM’s sizable archive of computing literature, and clean, fresh look.

ACM launched a new Multimedia Center last fall that offers members free access to select videos from various areas of interest in computing as well as from some of the organization’s most popular activities and events. The Multimedia homepage (http://myacm.acm.org/dashboard.cfm?svc=mmc) features a collection of 10 videos at all times, with a new video replacing an existing one each week.

ACM is now providing its institutional library customers advanced electronic archiving services to preserve their valuable electronic resources. These services, provided by Portico and CLOCKSS, address the scholarly community’s critical need for long-term solutions that assure reliable, secure, deliverable access to their digital collection of scholarly work. ACM is offering these services to protect the vast online collection of resources in its Digital Library used by over one million computing professionals worldwide.

ACM-W unveiled a new Web site this year that offers myriad ways to celebrate, inform, and support women in computing. The redesigned site (http://women.acm.org/) has many new features, including “Women of Distinction,” highlighting women leaders; international activities of ACM-W Ambassadors and Regional Councils; and ways to get involved in attracting more young women to the computing profession.

It was a year that saw ACM—as well as most of its SIGs—establish a pres-
ence on such popular social networks as Facebook, Twitter, and LinkedIn. SIGUCCS established an online community using Ning’s social networking services and linked its portal to its new Web site (http://www.siguccs.org) as well as initiated a series of Webinars to continue on a quarterly basis. SIGSIM’s Modeling and Simulation Knowledge Repository (http://www.acm-sigsim-mskr.org) has proven an innovative program for supplying services to the SIGSIM technical community. And SIGMOBILE sponsored programs in the mobile computing research community such as a Community Resource for Archiving Wireless Data at Dartmouth (CRAW-DAD). This wireless network, created to bridge the gap between research and real-world use of wireless networks, has rapidly become one of the most critical wireless network data resources for the global research community.

**Conferences**

SIGGRAPH 2009 welcomed 11,000 artists, research scientists, gaming experts, and filmmakers from 69 countries to New Orleans. Exhibits at SIGGRAPH experienced the largest percentage of international participation in more than 10 years, with a total of 140 industry organizations represented. In addition, over 965 speakers participated in the conference. SIGGRAPH Asia 2009 attracted over 6,500 visitors from more than 50 countries across Asia and globally to Yokohama, Japan where over 500 artists, academics, and industry experts shared their work.

ACM’s SIG Governing Board agreed to sponsor select conferences that come to ACM without a technical tie to one its SIGs. In FY10, SGB approved sponsorship for two conferences: The ACM International Conference on Bioinformatics and Computational Biology and the First ACM International Health Informatics Symposium.

Attendance for ASSETS 09, sponsored by SIGACCESS, exceeded all projections, drawing a record number of participants to its technical program that addressed key issues such as cognitive accessibility, wayfinding, virtual environments, and accessibility obstacles for the hearing impaired.

SIGOP’s flagship ACM Symposium on Operating Systems Principles enjoyed record-breaking attendance; the SIG also jointly sponsored (with SIGMOD) the first annual ACM Symposium on Cloud Computing.

KDD 2009 maintained SIGKDD’s position as the leading conference on data mining and knowledge discovery, with a record number of submissions.

**Recognition**

The ACM Fellows Program, established in 1993 to honor outstanding ACM members for their achievements in computer science and information technology, inducted 47 new fellows in FY10, bringing the total number of ACM Fellows to 722.

ACM also recognized 84 Distinguished Members for their individual contributions to both the practical and theoretical aspects of computing and information technology. In addition, 150 Senior Members were recognized for demonstrated performances that set them apart from their peers.

There were 104 new ACM chapters chartered in last year. Of the 28 new professional chapters, 26 of them were internationally based; of the 76 new student chapters, 41 of them were based internationally.