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Wendy Hall

ACM's Annual Report

It's been an exhilarating first year as President of ACM. As a longtime member of this Association, I've come to count on an amazing and far-reaching assembly of committed volunteers and staff to

ensure the Association's goals are met and pledges kept. But to have a front-row seat to the whirlwind of activities and initiatives that make up a year in the life of ACM is a remarkable and, at times, daunting experience.

At the close of FY09, ACM stood as the largest educational and scientific computer society in the world. After seven consecutive years of steady growth, ACM ended the fiscal year with membership at an all-time high. It is a monumental testament to the value of an ACM membership that the Association continues to thrive in size, in scope, and in global reach at a time when the world struggles with widespread economic uncertainty.

Initiatives to broaden and share ACM's rich array of professional resources and services with a far greater global audience were a top priority this year, and the results of these efforts have been most rewarding. It was my honor to preside over the launch of ACM Europe in October, thus establishing a strong ACM presence throughout Europe and a base to support ACM's European members and activities. As you read this, we are preparing to launch ACM India in January to offer similar support and strengthen ACM's visibility in a country rich in high-tech opportunities. Both these initiatives were the result of exhaustive efforts of devoted ACM volunteers and executive staff working with industry and academic leaders in Europe and India to determine how best to serve current members and to attract new ones to the organization. Next up: China.

ACM is also committed to addressing the multifaceted issues related to the image of computing and the health of the discipline and profession. It is a challenge that has been embraced across the ACM spectrum—from its Education Board, Public Policy committee, ACM-W Council, and Computer Science Teachers Association, to NSF-funded initiatives involving ACM partnerships with other scientific organizations, and its many Special Interest Groups working to raise awareness and promote the possibilities offered by the computing field.

The following report gives you but a glimpse of some of the major highlights of ACM's FY09, none of which would have been possible without the influential efforts of so many dedicated and generous volunteers worldwide. The Association is also grateful for the ongoing endorsements from major corporations who value ACM's ability to recognize technical excellence by sponsoring or supporting a number of ACM's prestigious awards and student competitions.

As we look forward to another fruitful year, the challenges may appear great, but the opportunities are even more so. As always, I will count on the ACM to triumph.

Wendy Hall, ACM PRESIDENT

ACM's Annual Report for FY09

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

This year marked the 10th anniversary of ACM's Digital Library—the centerpiece of the ACM Publications portfolio. By year-end, the DL offered over 240,000 full-text articles and there were over 1.25 million citations covered by the *Guide to Computing Literature*. Indeed, some 22,000 articles were added to the DL this year alone, and more than 128,000 works were added to *Guide*.

ACM's pledge to continually upgrade the offerings and features available in the DL resulted in several significant enhancements in FY09. Working closely with the search applications company Endeca, ACM introduced a new DL platform this year that added more powerful search capability, allowing users to not only explore existing data but to discover information that goes beyond simple query results. This search technology employs a new class of database designed for exploring information, not just managing search transactions. Among the

new search enhancements are guided navigation; discovered terms drawn from ACM's subject classifications and keywords; refinements by author, publication, conference, and other criteria; and the ability to view related material in ACM journals, magazines, SIGs, and conferences.

The ACM Publications Board initiated two programs this year to further its strategic goal of making ACM the preferred publisher in computing. The Board formulated a plan to relaunch ACM's *International Conference Proceedings Series* as a high-quality alternative to *Lecture Notes in Computer Science* and it has begun development of a set of statistical quality measures to assist in ongoing assessment of its expanding journals program.

ACM currently publishes 78 periodicals, including six journals, 31 *Transactions*, eight magazines, and 23 newsletters. Two new periodicals appeared this year: *Transactions on Computational Theory and Journal of Information and Data Quality*. In addition, the Publications Board approved proposals for two new publications: *ACM Transactions on Management Information Systems* and *ACM Transactions on Intelligent Systems and Technology*.

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. One of the Association's most ambitious undertakings this year was its partnership with the WGBH Educational Foundation (a Boston-based PBS station) on a project entitled "New Image of Computing." With funding from the National Science Foundation, the goal of this joint effort is to reshape the image of computing among high school students, with special efforts to reach Latina females and African-American males. The project will produce a wide-ranging national outreach and communications plan to spread the word about the rewards and benefits of a life in computing. A pilot project will also be launched to develop a comprehensive evaluation of the project findings, and create a plan for implementation on a national level.

ACM also worked with the Computing Research Association (CRA) and National Center for Women and Information Technology (NCWIT) to improve the profile of CS education efforts as part of the federal government's Networking and Information

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2008 ACM Award Recipients

A.M. TURING AWARD
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ACM-INFOSYS FOUNDATION AWARD IN THE COMPUTING SCIENCES
Jon Kleinberg

ACM/AAAI ALLEN NEWELL AWARD
Barbara Grosz and Joseph Y. Halpern

THE 2009-2010 ACM-W ATHENA LECTURER AWARD
Susan Eggers

GRACE MURRAY HOPPER AWARD
Dawson Engler

ACM-IEEE CS ECKERT-MAUCHLY AWARD
Joel Emer

KARL V. KARLSTROM OUTSTANDING EDUCATOR AWARD
John Hopcroft

OUTSTANDING CONTRIBUTION TO ACM AWARD
Wayne Graves and Bernard Rous

DISTINGUISHED SERVICE AWARD
Telle Whitney

PARIS KANELAKIS THEORY AND PRACTICE AWARD
Corinna Cortes and Vladimir Vapnik

SOFTWARE SYSTEM AWARD
Gamma Parallel Database System, David J. DeWitt, Robert Gerber, Shahram Ghandeharizadeh, Goetz Graefe, Michael L. Heytens, Hui-I Hsiao, Murali Krishna, Jeffrey F. Naughton, Donovan A. Schneider, Anoop Sharma

SIAM-ACM AWARD IN COMPUTATIONAL SCIENCE AND ENGINEERING
Cleve Moler

ACM GORDON BELL PRIZES PEAK PERFORMANCE CATEGORY:
Multi-teraflops Simulations of Disorder Effects on the Transition Temperature of the High Tc Superconducting Cuprates. From the Oak Ridge National Laboratory (ORNL): Thomas C. Schulthess, Gonzalo Alvarez, Michael S. Summers, Don E. Maxwell, Markus Eisenbach, Jeremy S. Meredith, Thomas A. Maier, Paul Kent, Eduardo D'Azevedo, From Cray, Inc.: John M. Levesque, Jeffrey M. Larkin

SPECIAL CATEGORY IN ALGORITHM INNOVATION:
Linearly Scaling 3D Fragment Method for Large-Scale Electronic Structure Calculations: From Berkeley Labs: Lin-Wang Wang, Byounghak Lee, Hongzhang Shan, Zhengji Zhao, Juan Meza, Erich Strohmaier, David Bailey

DOCTORAL DISSERTATION AWARD
Constantinos Daskalakis

HONORABLE MENTION
Derek Hoiem, Sachin Katti

Technology Research and Development (NITRD) program. NITRD spans several government agencies to coordinate investments in IT R&D. ACM, CRA, and NCWIT sent a joint letter to Congress earlier this year, making specific recommendations on how the NITRD Act of 2009 can be improved and how to expand and better utilize existing education efforts within the NITRD program.

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. With support from the National Science Foundation, the Education Board brought together several U.S.-based professional societies and organizations concerned with the current challenges in computing education. The goal of "The Future of Computing Education Summit" was to come to a shared vision of the problems facing those in computing education and how those problems might be addressed.

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 provides opportunities and resources for teachers and students to improve their understanding of computing disciplines. CSTA recently published *A Model Curriculum for K-12 Computer Science* to prepare young people to excel in computer science.

SIGITE completed a revised draft of the four-year IT model curriculum with the guidance and support of ACM's Education Council. The model is now being used as the basis for a two-year model curriculum.

Professional Development

A new *Queue* Web site (<http://queue.acm.org/>) was launched this year reflecting a significant effort by both the *Queue* Board and the ACM Professions Board to design an appealing and effective space for ACM practitioners. The site hosts editorial content from *Queue* as well as case studies and CTO Roundtable discussions from the Professions Board. The Board created this site as an important virtual community for high-powered practitioners.

ACM recently launched a new online course program (<http://pd.acm.org/>)

through Element K that includes more than 2,500 online courses on a wide range of computing and business topics in multiple languages, 1,000 unique vLab exercises, an e-Reference Library, as well as a downloadable player that allows members to access assessments and self-study courses offline. The ACM Online Course Program is open to ACM professional and student members.

The Distinguished Speakers Program (DSP), ACM's primary outreach effort for student and professional chapters, continues to add new speakers to its roster. At year-end, 74 speakers from academia and industry were part of the program, speaking on a variety of topics from artificial intelligence and computer graphics, to emerging technologies and mobile computing. The speaker roster doubled in size last year and continues to flourish. Of the 40 speaking engagements that took place this year, 12 were hosted by international chapters.

Thousands of job seekers visited the Job Fair at SIGGRAPH Asia 2008, where 20 studios from around the globe, including Pixar, Lucasfilms, Animal Logic, and more, were recruiting talent.

Public Policy

The U.S. Public Policy Committee of ACM (USACM) made significant changes to its structure and its approach to developing policy positions. By the end of the fiscal year, USACM had six established subcommittees—voting; security and privacy; computing and the law; intellectual property; accessibility; and digital government—to provide specialized focus on particular issues to government leaders and policymakers. The committee works to educate legislators and the public about issues that will foster innovations in computing in ways that benefit society. Indeed, USACM members testified numerous times before congressional committees and helped develop principles on increasing the usability of government information online.

The ACM Education Policy Committee (ACM EPC), established to educate legislators about the role of computer science in K-12 education, made significant progress engaging policymakers and ensuring computer science at the K-12 level is explicitly considered in STEM (Science, Technology, Engineering, and Mathematics) Education

Coalition discussions. Members of EPC and ACM staff also held several meetings with Congressional and Administration representatives to emphasize the critical role of CS education; introduced a bipartisan resolution to designate a National Computer Science Education Week; and convinced a group of governors and business interests (Achieve.org) to include Advanced Placement CS as a mathematics credit in its national framework.

Students

ACM's renowned International Collegiate Programming Contest, sponsored by IBM, drew 7,109 student teams representing 1,838 universities from 88 countries this year. The World Finals included 100 teams from around the world and was hosted by KTH, the Royal Institute of Technology in Stockholm. The 2009 ICPC World Finals Ceremony took place in the prestigious Stockholm Concert Hall, where Nobel Prizes are presented annually; students from St. Petersburg State University of IT, Mechanics and Optics took top honors.

The ACM Student Research Competition (SRC), sponsored by Microsoft Research, continues to provide 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. A select group of ACM conferences hosts two rounds of competition with winners from these meets advancing to the Grand Finals, where they are evaluated by a different panel of judges via the Web. Winners are invited to the annual ACM Awards Banquet where they receive formal recognition for their work.

ACM has developed partnerships with several leading technology companies, including Microsoft, Sun Microsystems, and Computer Associates, to offer valuable tools specifically for ACM student members. At no additional cost, student members can now access free software and courseware, offering a unique opportunity to access top resources, while also becoming part of the larger computing community.

SIGCOMM added its support to the scholarship program initiated by ACM-W Council offering financial aid to undergraduate and graduate

women students in computer science programs who are interested in attending research conferences. SIGCOMM will cover full costs of travel, lodging, and registration for any recipient of an ACM-W scholarship who chooses to attend a SIGCOMM-sponsored or in-cooperation conference or workshop.

Local Activities

There were 58 new chapters chartered in FY09. Of the 11 new professional chapters, eight were internationally based; of the 47 new student chapters, 20 were international.

The Association introduced a new Special Interest Group in '09 to focus on the acquisition, management, and processing of spatially related information. SIGSPATIAL (<http://www.sigspatial.org/>) provides a forum for researchers, engineers, and practitioners designed to encourage research in handling spatial information, participation in standardization activities including terminology, evaluation, and methodology, and interdisciplinary education.

International

ACM's international initiatives resulted in the establishment of new Councils in India and Europe that promise to strengthen the Association's ties with these global technology hubs and better understand the key issues and initiatives within their academic, research, and professional computing communities.

ACM Europe is lead by the ACM Europe Council, comprised of 15 distinguished European computer scientists from both academia and industry who have pledged to help build an ACM presence that would focus on bringing high-quality technical activities, conferences, and services to ACM members and computing professionals throughout the continent.

In India, a similar effort to enhance ACM's efforts in the region came to fruition with the creation of **ACM India**, a non-profit learned society led by the ACM India Council comprised of 19 of the country's industry and academic leaders who plan to foster technical activities and better serve members, conferences, and chapters in the region. ACM India hopes to influence public discourse and political decision-making and to draw more of its burgeon-

Balance Sheet: June 30, 2009 (in Thousands)

ASSETS

Cash and cash equivalents	\$22,502
Investments	47,696
Accounts receivable and other current assets	4,065
Deferred conference expenses and other assets	6,656
Fixed assets, net of accumulated depreciation and amortization	1,123

Total Assets **\$82,042**

LIABILITIES AND NET ASSETS

Liabilities:	
Accounts payable, accrued expenses, and other liabilities	\$7,461
Unearned conference, membership, and subscription revenue	21,354

Total liabilities **\$28,815**

Net assets:	
Unrestricted	47,412
Temporarily restricted	5,815

Total net assets **53,227**

Total liabilities and net assets **\$82,042**

Optional contributions fund – program expense	(\$000)
Education board accreditation	\$80
USACM Committee	20

Total expenses **\$100**

ing IT population into the ACM fold.

ACM's Education Board extended its international activities to include planning the Informatics Education Europe Conference in Venice; keeping a close eye on accreditation developments within Europe; and monitoring activities leading to the signing of the Seoul Accord, which helped develop criteria for the mutual recognition internationally of accreditation activity.

Electronic Community

ACM launched a new Web site for its flagship publication *Communications of the ACM* (<http://cacm.acm.org/>). The site features a wide range of high-quality and topical News, Opinion,

Research, and Practitioner-oriented content from the magazine, as well as original and user-generated content exclusive to the site. Among the site's numerous features is the ability to access the complete *Communications'* archive spanning more than 50 years of in-depth coverage of the computing profession, as well as the ability to search content from across the entire ACM Digital Library and other sources around the Web. In addition, the site contains extensive blog content that presents a completely new forum for a growing community of the world's leading industry and academic experts on a range of topics within computing. The site is updated daily and is acces-

Statement of Activities: Year ended June 30, 2009 (in Thousands)

REVENUE	Unrestricted	Temporarily Restricted	Total
Membership dues	\$9,178		\$9,178
Publications	15,873		15,873
Conferences and other meetings	23,253		23,253
Interests and dividends	1,844		1,844
Net (depreciation) of investments	(5,613)		(5,613)
Contributions and grants	3,120	\$874	3,994
Other revenue	341		341
Net assets released from restrictions	678	(678)	0
Total Assets	48,674	196	48,870
EXPENSES			
Program:			
Membership processing and services	\$958		\$958
Publications	11,327		11,327
Conferences and other meetings	21,783		21,783
Program support and other	8,299		8,299
Total	42,367		42,367
Supporting services:			
General administration	8,764		8,764
Marketing	1,474		1,474
Total expenses	52,605		52,605
Increase (decrease) in net assets	(3,931)	196	(3,735)
Net assets at the beginning of the year	51,343	5,619	56,962
Net assets at the end of the year	\$47,412*	\$5,815	\$53,227*

* Includes SIG Fund balance of \$28,867K

sible by both the general public and *Communications* subscribers.

The Association joined the social media movement with the creation of an ACM page on Facebook (<http://www.facebook.com/pages/ACM-Association-for-Computing-Machinery/17927643151?v=wall&viewas=1755757376>). "Fans" are able to keep up with the latest ACM developments with Facebook's popular sections: Wall; Info; Events; Photos; Boxes; Discussions.

Two sites on ACM's Web site were created expressly for new Professional and Student members. Both sites are divided into four sections and each section describes in detail all the information needed to get

started as a new member of ACM. The site will continue to evolve as more benefits or newsworthy items arise.

SIGGRAPH's social networking site—Digital Arts Community (arts.siggraph.org)—now features the work of over 800 artists. The site passed the 300-member mark in June and has proven a vital site for artists to converse with fellow artist members.

SIGSIM created a Modeling and Simulation Knowledge Repository to provide valuable content to its members, including hyperlinks to 17 different areas of modeling and simulation.

KDD-09 featured a novel conference social networking and scheduling platform that provided conference

attendees with many useful abilities, including managing conference schedules, commenting on papers, and conversing with fellow attendees.

Conferences

SIGMOD, SIGKDD, SIGIR, and SIGWeb co-sponsored the first ACM International Conference on Web Search and Data Mining (WSDM)—a hugely successful event that spotlighted the interdisciplinary nature of Web search and data mining.

SIGGRAPH 2008 attracted almost 28,500 artists, researchers, gaming experts, filmmakers, and developers representing 87 countries to its annual conference. The Los Angeles-based meeting also drew 230 international companies to its exhibition hall, an increase over the previous year.

Both Supercomputing (SC08) and Multimedia 2008 conferences posted a record number of attendees. The Vancouver-based Multimedia meeting drew sponsors from a variety of companies and organizations, including Google, Yahoo!, Microsoft, FXPal, RICOH, Telefonica, and Nokia. And SC08, marking its 20th anniversary, set an all-time exhibitors record with 337 companies and organizations filling out every exhibit hall in Austin Convention Center.

Recognition

The ACM Fellows Program, established in 1993 to honor outstanding ACM members for their achievements in computer science and IT, inducted 44 new fellows in FY09, bringing the total count to 675.

ACM also named 37 Distinguished Members in recognition of their individual contributions to both the practical and theoretical aspects of computing and information technology. In addition, 605 Senior Members were recognized for their demonstrated performance that sets them apart from their peers.

The ACM-IEEE CS Ken Kennedy Award, established in FY09 to recognize contributions to programmability and productivity in computing as well as community service or mentoring contributions, honors the late Ken Kennedy, the founder of Rice University's CS program and one of the foremost experts on high-performance computing. 