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ACM's Annual Report

FY11 was a defining year for ACM as the largest educational and scientific computing society in the world. Many of the initiatives we have set forth over the last few years

have taken root and we now see tangible evidence of their success.

It was a year that solidified ACM's global reach with established hubs in Europe, India, and China finishing their first year of operation with significant growth in membership, chapters, and conferences. Indeed, ACM membership reached another all-time high for the ninth consecutive year and much of that growth can be traced to the success of ACM's international initiatives.

It was also a year that marked great strides in ACM's commitment to improving the image and health of the computing discipline. Computer Science Education Week proved a sizeable success in promoting the importance of computer science education to a mass audience. ACM-W launched a presence (and conference) in India encouraging women from the region to explore the limitless opportunities of a career in computer science. ACM's Educational Policy Committee and Computer Science Teachers Association issued a landmark report on the vital need for the U.S. to create a strong K-12 computer science education program. And the Dot Diva campaign—the NSF-funded grant to ACM and WGBH-Boston to develop a new image for computing—launched a dynamic new Web site advocating computer science as a desirable career path.

And it was a year that introduced major enhancements to the “crown jewel” of Association—the ACM Digital Library—that now boasts in-

creased functionality, sophisticated improvements to the citation pages, and new browser capabilities.

I am particularly pleased to report that it was a year ACM and the IEEE-Computer Society began to explore myriad ways the two organizations might work together to capitalize on the healthy competition that has served our profession well over the decades (see my ACM President's Letter on page 8). And I look forward this year to further examining new ways for the Association to utilize social networking to add value to the membership community.

The following pages summarize some of the highlights of a truly eventful year in the life of ACM. As always, we are indebted to our devoted volunteers, members, and industry partnerships for constantly propelling us to do better.

Alain Chesnais, ACM PRESIDENT

ACM's Annual Report for FY11

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 ACM Publications is the ACM Digital Library (DL) serving as the primary distribution mechanism for all the Association's publications as well as host to another 12 periodicals and a set of conference proceedings. The DL, now available at 2,650 institutions in 64 countries, boasts an estimated 1.5 million users worldwide. The result of this wide availability led to more than 16 million full-text downloads during FY11.

ACM is committed to increasing the scope of material available via the DL. Last year, over 31,000 full-text articles were added, bringing total DL holdings to 307,000 articles. ACM's *Guide to Computing Literature* is also integrated within the DL. More than 207,000 works were added to the bibliographic database in 2011, bringing the total *Guide* coverage to more than 1.67 million works.

A major reorganization and enhancement of the citation pages in the DL took place this year. Conference proceeding metadata has been enhanced, and there is a new browse capability that creates a view of conference events and summarized views across the entire archive of publications for a particular event.

As of year-end FY11 ACM is the publisher of 78 periodicals, including 40 journals and transactions, eight magazines, and 30 newsletters. During FY11, ACM added 504 conference and related workshop proceedings to its portfolio.

Two new journals were launched last year: *Transactions on Intelligent Systems and Technology* and *Transactions on Management Information Systems*. The ACM Publications Board also approved a new journal: *Transactions on Economics and Computation* to debut in FY12.

SIGAPP resumed publishing *Applied Computing Review* (ACR) in an electronic version only. The publication, which focuses on current trends in the field,

contains invited papers from world-renowned researchers and selected papers presented by prominent researchers attending the SIG's Symposium on Applied Computing.

Education

Running on Empty: The Failure to Teach K-12 Computer Science in the Digital Age, a report released by ACM's Education Policy Committee (EPC) and Computer Science Teachers Association (CSTA), found that approximately two-thirds of the U.S. have few computer science education standards for secondary school education. In addition, most states treat high school computer science courses as simply an elective and not part of a student's core education. This landmark report addressed the vital need to build a strong K-12 computer science education program in schools throughout the U.S. that today largely does not exist.

CSTA is a key partner in ACM's efforts to see real computer science count at the high school level. In FY11, CSTA membership hit an all-time high of 10,000. In addition, CSTA completed work on a major revision to the ACM/CSTA K-12 Model Curriculum.

A new coalition—Computing in the Core (CinC)—was established to engage the federal government to ensure computer science is included in STEM discussions as a distinct discipline. The coalition comprises ACM, CSTA, National Center for Women & Information Technology, ABI, Computing Research Association, Microsoft, Google, and SAS. Through its efforts a major piece of legislation—the Computer Science Education Act—was introduced in the U.S. House of Representatives that would provide federal funding to states to develop learning standards and teacher certification standards for computer science as well as offer funding to states to implement these plans.

The ACM-led CinC once again inspired the U.S. House of Representatives to declare the week of December 5-11, 2010 National Computer Science Education Week. Armed with an enhanced Web site, a larger set of supporters, and

a new model of engagement, the second CSEdWeek succeeded in reaching a vast audience, providing information and activities for students, educators, parents, and corporations advocating computer science education.

ACM and the National Science Foundation (NSF) released a report last April detailing the findings from a joint Strategic Summit on Computing Education Challenges at Community Colleges. The meeting was designed to determine why community colleges are not able to apply successfully for federal funding for computing programs. The recommendations reported in *Digitally Enhancing America's Community Colleges* are designed to spur new grant proposals, inventive initiatives, and dynamic partnership activities to infuse innovation into community college computing courses and programs.

ACM's Education Board and ACM India are joining forces to spearhead a vital initiative to determine how best to improve the quality of undergraduate computing education in India. This cooperative effort also includes key educators in India and is designed to support and strengthen computing education throughout the country.

Professional Development

Two new products for practitioners and managers were introduced in recent months: Tech Packs and Learning Paths were designed to provide a significant learning resource for emerging areas of computing not directly covered by an ACM SIG, conference, or publication. A Tech Pack comprises a set of fundamentally important articles on a particular topic that provide a context and comprehensive perspective on the subject. The first two Tech Packs focused on cloud computing and parallel computing; with 'Packs' on mobility, software as a service, security, and gaming in the works. Learning Paths aim to provide practical educational training tools focused on mastering essential programming languages and technologies. They were conceived as practical entry points into various technologies for software

developers, engineers, architects, and technical managers. The first ACM Learning Path covers Ruby. LPs slated for FY12 include Python and Java.

ACM Queue, the online practitioner's magazine spirited by the Professions Board, continues to grow a loyal following. The Web site received over one million page views and almost 500,000 readers in FY11, up from the previous year.

ACM's Committee on Professional Ethics (COPE) works to nurture an ethical stance by practitioners and those who employ practitioners. In the last year, COPE completed translations of the ACM Code of Ethics into major European languages as well as Arabic, with Hindi almost complete.

SIGUCCS' series of professional development Webinars continued last year with five new online offerings. The topic of staff management is particularly popular among the community and has been a major focus of these new Webinars.

Public Policy

ACM's U.S. Public Policy Council (USACM) educates policymakers in many areas of potential legislation, including bills on Internet monitoring, patent reform, e-voting, privacy and security, and mandatory breach notification. Last year USACM filed comments on numerous regulatory and legislative proposals. In addition, members testified before subcommittees of the U.S. House of Representatives as well as held several meetings with policymakers and staff from the White House, regulatory agencies, and Capitol Hill on a variety of technology- and privacy-related issues.

ACM's Committee on Computers and Public Policy assists ACM in a variety of internationally relevant issues pertaining to computers and public policy and helps make the Association more visible worldwide. Most notably, CCCP's ACM Forum on Risks to the Public in Computers and Related Systems has successfully achieved its intended goal to share and discuss the potential and serious computer-related risks with a global audience.

ACM's commitment to raising the visibility and addressing the issues of women in computing moved to the international arena in FY11, with more

direct links between ACM-W and the new regional councils in India and Europe. The result was a significant ACM-W effort in India last year where several ACM chapters have now been formed and a major ACM-W conference was held in conjunction with Amrita University.

Students

The 35th Annual ACM International Collegiate Programming Contest (ICPC) took place in Orlando, FL, with 105 teams competing in the final round. Earlier rounds of the competition included nearly 25,000 contestants representing 2,070 universities from 88 countries. Financial and systems support for ACM-ICPC is provided by IBM. The top four teams won gold medals as well as employment or internship offers from IBM.

The ACM Student Research Competition (SRC), sponsored by Microsoft Research, continues to offer 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 year's SRC saw graduate and undergraduate winners compete against more than 50 participants in contests held at 13 ACM conferences. Their research covered a range of computing innovations that have applications for high-performance computer systems designs, image retrieval systems for astrophysicists, improvements in massively parallel graphics processors, biochips, and assistive technologies for speech-impaired people. SRC Grand Finals winners were recognized at ACM's Awards Banquet in San Jose, CA, last June.

ACM's *XRDS*, the student magazine formerly known as *Crossroads*, was relaunched at the beginning of FY11 with a new look and feel to the quarterly print edition and a contemporary new Web site (<http://xrds.acm.org/>) that provides information and opportunities aimed directly to students, including internships, fellowships, grants, and job postings.

At the SIGDA CADathlon, student teams competed in a set of design automation-related programming problems. Modeled after ICPC, the contest attracted over 20 teams.

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ACM-IEEE CS KEN KENNEDY AWARD

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HONORABLE MENTION

Benjamin Snyder

Internationalization

FY11 marked the first full year of operation for ACM Europe and ACM India. Both councils were devoted to creating initiatives to further growth in chapters, membership, conferences, and other high-quality ACM activities. By year-end, both councils realized significant advances in all areas. In Europe, the number of professional conferences increased 75%, the number of chapters increased by 19%, and the number of European members increased by 2.3%. In India, the number of members increased 18% and chapters and conferences also saw significant jumps.

ACM China was launched in June 2010. Since that time, the number of members in China increased from slightly over 1,700 at the end of FY10 to almost 12,390 by FY11. Moreover, the number of conferences and chapters increased dramatically during its first year of operation.

Over 500 women attended the First Grace Hopper Conference in India in December 2010. This landmark event, in partnership with the Anita Borg Institute for Women and Technology, was held in Bangalore and featured leaders from industrial, academic, and government communities. Special sessions focused on the role of women in today's technology fields in India, including computer science, IT and research, and engineering.

ACM's Education Board continues to work toward reversing declining enrollments in computing disciplines worldwide. The Board's efforts have made serious inroads with their collaborative work with ACM Europe and ACM India to raise awareness of the professional opportunities afforded with a degree in computer science. The Board also creates initiatives to help foster a positive image of computing among young people.

One of the Association's major membership initiatives during FY11 involved increasing ACM's visibility in South America. The Association reached out to members of the Brazilian Computer Society (SBC) offering a six-month complimentary electronic-only ACM membership. Over 1,000 SBC members eagerly took advantage of this offer and ACM is now beginning the conversion process

Balance Sheet: June 30, 2011 (in Thousands)

ASSETS

Cash and cash equivalents	\$30,273
Investments	59,734
Accounts receivable and other assets	8,195
Deferred conference expenses	5,330
Fixed assets, net of accumulated depreciation and amortization	992
Total Assets	\$104,524

LIABILITIES AND NET ASSETS

Liabilities:	
Accounts payable, accrued expenses, and other liabilities	\$11,628
Unearned conference, membership, and subscription revenue	23,536
Total liabilities	\$35,164

Net assets:	
Unrestricted	63,158
Temporarily restricted	6,202
Total net assets	69,360

Total liabilities and net assets	\$104,524
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Education Board accreditation	\$95
USACM Committee	20
Total expenses	\$115

to turn these trial members into full members.

Electronic Community

A new ACM Learning Center, with more user-friendly navigation, went live in early FY11. The customizable center is flexible in accommodating current and future educational and professional development tools and resources. The Learning Center's new "virtual campus" offers books from Safari Books Online and Books 24x7 as well as thousands of courses, virtual labs, and Brainbench exams from Element K for Professional and Student Members. Podcasts, videos, and other resources enhance the lifelong learning experience ACM strives to provide. The Association also built strategic partnerships with major academic institutions to bring exclusive discounts on courses and programs to ACM members, including courses from Stevens Institute of Technology and NYU-ePoly. ACM's new Tech Packs are also part of the Center; offering a wealth of

articles from the ACM DL and conference proceedings that cover a particular subject from all angles.

In the third and final year of the NSF grant to WGBH-Boston and ACM to develop an image for computing, the Dot Diva initiative unveiled a new Web site (<http://www.dotdiva.org/>) designed to expand its efforts in encouraging high school and college-aged girls to explore the vast potential for career and creative opportunities in the computer science field. The initiative was designed to build a positive image for high school girls, and to attract young women as part of a broad-based work force equipped with skills that are fundamental to ensuring future U.S. economic competitiveness and prosperity. The new site features stories, blogs, videos and resources designed to attract girls into the computing field at a critical time in their lives. These resources are tailored to appeal to girls as well as educators, computer science professionals, and parents.

Statement of Activities: Year ended June 30, 2011 (in Thousands)

REVENUE	Unrestricted	Temporarily Restricted	Total
Membership dues	\$8,938		\$8,938
Publications	18,275		18,275
Conferences and other meetings	26,117		26,117
Interests and dividends	1,650		1,650
Net appreciation of investments	5,791		5,791
Contributions and grants	3,634	\$1,351	4,985
Other revenue	232		232
Net assets released from restrictions	870	(870)	0
Total Revenue	65,507	481	65,988
EXPENSES			
Program:			
Membership processing and services	\$1,045		\$1,045
Publications	11,750		11,750
Conferences and other meetings	23,651		23,651
Program support and other	7,724		7,724
Total	44,170		44,170
Supporting services:			
General administration	9,569		9,569
Marketing	939		939
Total	10,508		10,508
Total expenses	54,678		54,678
Increase (decrease) in net assets	10,829	481	11,310
Net assets at the beginning of the year	52,329	5,721	58,050
Net assets at the end of the year	\$63,158*	\$6,202	\$69,360*

* Includes SIG Fund balance of \$30,814K

USACM transitioned to a new Web site with enhanced organization and presentation of information as well as established Twitter and Facebook pages for additional avenues for public policy communication.

The ACM History Committee commissioned a world-class Web site for the Turing Award that will include biographies and lectures from many of the past winners. Plans call for the site to be completed in time for ACM's Celebration of Turing's 100th birthday in June 2012.

The Computer Science Teacher's Association runs a comprehensive Web site for K-12 computing education that provides a wealth of resources and information, including teaching strategies, lesson plans, and curricu-

lum materials. This year, CSTA added podcasts, videos, and curriculum links to the site. Traffic statistics indicate this site to be of vital use for CS educators.

Many ACM SIGs introduced new and/or improved Web sites making significant use of social media to reach out to members. SIGITE unveiled a new site (<http://sigite.org>) that integrates the SIG's entry into social media including Twitter, Facebook, LinkedIn, and a blog. SIGMOBILE maintains an extensive Web site (<http://www.sigmobile.org>) that contains archived copies of most of the SIG's conference Web sites, including all previous years of MobiCom, MobiHoc, and MobiSys.

Conferences

The Grace Hopper Celebration, the world's largest gathering of women in computing, reported record-breaking attendance in Atlanta, GA. The annual event, designed to bring together the research and career interests of women in computing and highlight their accomplishments across industry, academia, and government, drew 2,147 attendees from 29 countries, including 940 undergraduate and graduate students.

The third annual SIGGRAPH Asia conference once again captured a wide spectrum of digital innovations. Over 7,600 professionals from 45 countries attended the conference and exhibition in Seoul, South Korea.

The first ACM International Conference on Bioinformatics and Computational Biology (ACM-BCB 2010) took place in Niagara Falls, NY. The successful event included workshops on protein interaction data, biological network analysis, gene networks, and immune informatics.

KDD-2010 attracted a record number of attendees, bested only by KDD-2000.

Recognition

There were 100 new chapters chartered in FY11. Of the 25 new professional chapters, 23 were internationally based; of the 75 new student chapters, 34 were international.

The ACM Fellows Program recognized 41 members for their contributions to computing and computer science in FY11. The new inductees brought the total number of ACM Fellows to 726.

ACM also named 47 of its members as Distinguished Members in recognition of their individual contributions to practical and theoretical aspects of computing that drive innovation and sustain economic competitiveness. Nearly 40% of the 2010 honorees are from non-North American countries, including France, Germany, Italy, China, Taiwan, Singapore, Australia, India, and South Africa.

The Distinguished Speakers Committee (DSP) expanded its reach in FY11; not only did lectures increase by 37%, many were held worldwide, including India, China, Pakistan, Taiwan, Israel, France, Germany, and the United Arab Emirates. 