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ACM's Annual Report

FY12 was an outstanding year for ACM. Membership reached an all-time high for the 10th consecutive year. We witnessed our global hubs in Europe, India, and China

take root and flourish. And we elevated ACM's overriding commitment to educating future generations about the wonders of computer science to a new level by joining forces with other associations, corporations, and scientific societies dedicated to the same cause.

The fiscal year culminated in a landmark event honoring the life and legacy of Alan Turing on what would have been his 100th birthday. ACM's Turing Centenary Celebration drew more than 1,000 participants, including over 30 ACM A.M. Turing Award laureates and a host of other world-renowned computer scientists and technology pioneers for a historic celebration of computer science and Turing's wide-ranging contributions to the field.

For me, the event served as an extraordinary way to close my ACM presidency. During my two years of service, I was honored to be part of some key initiatives and projects that will hopefully continue to propel ACM as the world's largest and most prestigious scientific and computing society. I was

thrilled to see membership exceed the 100,000 mark this year. Even in these economically tenuous times, ACM realized a 7.7% increase in membership over last year. Much of this growth is attributable to our international initiatives, principally China.

I am particularly proud of ACM's leadership role in Computing in the Core, a nonpartisan advocacy coalition striving to promote computer science education as a core academic subject in K-12 education. The success of this initiative is key to giving young people the college- and career-readiness, knowledge, and skills necessary in a technology-focused society.

It is a remarkable time to be part of the computing arena. Thanks to our legion of devoted volunteers, supportive industry sponsors, and steadfast members, ACM is able to make a real difference in setting the course for educating and encouraging generations to come. It was my great pleasure to serve as your president.

Alain Chesnais, ACM PRESIDENT

Highlights of ACM Activities: July 1, 2011–June 30, 2012

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 scientific periodicals and a set of conference proceedings from external organizations. The DL, now available at 2,650 institutions in 64 countries, boasts an estimated 1.5 million users worldwide. The result of this widespread availability led to more than 15 million full-text downloads in FY12.

ACM is committed to continually increasing the scope of material available via the DL. Last year, over 26,000 full-text articles were added, bringing total DL holdings to 350,000 articles. ACM's *Guide to Computing Literature* is also integrated within the DL. More than 285,000 works were added to the bibliographic database in FY12, bringing the total *Guide* coverage to more than two million works.

ACM is the publisher of 74 periodicals, including 40 journals and transactions, eight magazines, and 26 newsletters as of year-end FY12. During the year, ACM added 479 conference and related workshop proceedings to its portfolio.

In addition, a collection of 1,200 e-books was assimilated into the DL last year, available to all ACM members. Moreover, the ACM International Conference Proceedings Series (ICPS) published 150 new volumes, the most in any year since the program was launched.

Under the guidance and strategic planning of ACM's Publications Board, the ACM Author-Izer Service debuted in the Digital Library this year. This service enables authors to generate and post links on their

home page or institutional repository for visitors to download the definitive version of their articles at no charge.

Production began on two new journals: *Transactions on Interactive Intelligent Systems* and *Transactions on Economics and Computation*. The ACM Publications Board also approved a new journal—*Transactions on Spatial Algorithms and Systems*—to debut in FY13.

The ACM-W newsletter provides members an opportunity to share experiences, provoke discussion, and present research findings related to their mission. The newsletter was designed to appeal to anyone interested in promoting women in computing efforts at all stages of their career.

Education

ACM continues to lead the computer science education community through the work of the ACM Education Board, the ACM Education Council, ACM SIGCSE, Computer Science Teachers Association (CSTA), and ACM Education Policy committee.

ACM remains at the forefront of the Computing in the Core (CinC) advocacy coalition working to promote computer science as a distinct discipline in K–12 U.S. education. This year CinC engaged both the House and Senate committees responsible for reauthorization of the Elementary

and Secondary Education Act to advocate for computer science. Indeed, the coalition's membership has grown by more than 50% over the last year.

ACM launched a new initiative to address the grand challenges of expanding K–12 computer science education in the U.S. Google, Microsoft, ACM, CSTA, the National Center for Women and Information Technology, and the National Science Foundation are partnering to lay the groundwork for scaling AP computer science reform.

ACM's Education Board is directing the formation of an annual Taulbee-like survey for non-Ph.D.-granting institutions in computing.

The CSTA continues to thrive as a key component in ACM's efforts to see real computer science count at the high school level. CSTA membership reached an all-time high of 12,000 this year. In addition, CSTA has been an active and important partner in AP computer science reform.

Several SIGs hosted innovative educational programs and special projects throughout the year. SIG Bioinformatics organized a special program—Women in Bioinformatics—that was sponsored by the U.S. National Science Foundation. SIGCAS and the Committee on Professional Ethics (COPE) jointly ran a workshop on teaching computer ethics. And SIGCOMM maintains its education website (<http://education.sigcomm.org>) where members of the community can share education-related resources.

Professional Development

The Practitioners Board and Professional Development Committee directed many new products and initiatives designed for computing professionals and managers. ACM's Learning Center (<http://learning.acm.org>) offers products, services, videos, resources, webinars, and courses designed especially for prac-

ACM is committed to continually increasing the scope of material available via the Digital Library.

tioners. ACM's Learning Webinar series opened with a program on smart devices and cloud computing, followed by a webinar on cybersecurity. The first two webinars proved a huge success attracting almost 9,000 registrants collectively. More webinars are in the works for this thriving new project.

The Board also oversees the development of Tech Packs (<http://tech-pack.acm.org/>) and Learning Paths (<http://learning.acm.org/path/>).

There are currently five Tech Packs (with a sixth on the way) that are designed to provide a significant learning resource for emerging areas of computing not directly covered by an ACM SIG, conference, or publication. Learning Paths offer practical, hands-on educational training tools designed to help IT professionals extend their skill sets.

ACM Queue, the online magazine for professionals spirited by the Practitioners Board, again surpassed the million-pageview threshold, with over 1.2 million pages viewed over the last 12 months.

Public Policy

ACM's U.S. Public Policy Council (US-ACM) educates policymakers in many areas of potential legislation, including bills on Internet monitoring, patent reform, e-voting, privacy, and security. This year the committee explored new ways to contribute expertise to the development of policy connected to computing, offering comments on how the National Strategy for Trusted Identities in Cyberspace should be managed, on the proposed online verification system for the Social Security Administration, and on the U.S. Commerce Department's report on cybersecurity and innovation, among many other proposals.

The Committee on Computers and Public Policy assists ACM in a variety of globally relevant issues pertaining to computers and public policy. The efforts of this committee help make the association more visible worldwide. Most notably, CCP's highly respected *ACM Forum on Risks to the Public in Computers and Related Systems* designed to share and discuss the potential and serious computer-related risks with a global audience.

ACM Europe, ACM India, and ACM China saw significant increases in the number of chapters established in FY12.

Students

The 36th Annual ACM International Collegiate Programming Contest (ICPC) took place in Warsaw, Poland with 122 teams competing in the World Finals. Earlier rounds of the competition included nearly 30,000 contestants representing 2,200 universities from 85 countries. Financial and systems support for 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 213 participants in contests held at 15 ACM conferences.

ACM-W added seven new student chapters this year, bringing the total number to 37, with six being interactive chapters.

Internationalization

ACM Europe and ACM India finished their second full year of operation. Both saw significant increases in the number of chapters established during the last 12 months. Progress was made on two ACM-Europe/Informatics-Europe joint activities. And a third successful ACM India event was held last January attended by over 600 Indian computing students, faculty, and professionals.

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ACM China finished its first year with an increase in the number of conferences, chapters, and memberships established in the region.

ACM's commitment to women in computing was further strengthened with the relaunch of ACM-W activities in India.

Internationalization continues to be a major focus of SIGCSE, where members are working with Informatics Europe representatives to discuss the possibility of forming a new SIGCSE-like education conference in Europe.

Electronic Community

A website honoring ACM's A.M. Turing Award recipients launched in FY12. Curated by members of ACM's History Committee, the site (<http://amturing.acm.org/>) provides a robust collection of Turing laureates, including citations, bibliographic information, Turing lectures, résumés, and other works. The site also spotlights images and videos from ACM's recent Turing Centenary Celebration, a landmark event recognizing the computer science icon on the 100th anniversary of his birth.

Three ACM magazines debuted new websites this year. *ACM Inroads* (<http://inroads.acm.org/>), the quarterly magazine for computing educators, launched its first site last summer. *Computers in Entertainment* (<http://cie.acm.org/>) introduced a new interactive site incorporating video features and interviews, games, art, music, movies and research. *interactions*, the bimonthly magazine for professionals in CHI-related disciplines, launched a new site (<http://interactions.acm.org/>) last spring that quickly garnered a design award from Interactive Media.

By the end of the year, *Communications of the ACM* became accessible as an easy-to-use mobile application for iPhones, iPads, and Android devices. These new downloadable apps enable ACM's members to access the flagship magazine in a new way.

Many ACM SIGs introduced new and/or improved websites making significant use of social media outlets to reach out to members. SIGBED overhauled its website (<http://sigbed.blogspot.com/>), as did SIGDOC (<http://sigdoc.acm.org/>), SIGACCESS ([## Balance Sheet: June 30, 2012 \(in Thousands\)](http://www.sigac-</p>
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ASSETS

Cash and cash equivalents	\$30,438
Investments	62,741
Accounts receivable and other assets	6,506
Deferred conference expenses	8,381
Fixed assets, net of accumulated depreciation and amortization	1,220
Total Assets	\$109,286

LIABILITIES AND NET ASSETS

Liabilities:	
Accounts payable, accrued expenses, and other liabilities	\$10,934
Unearned conference, membership, and subscription revenue	23,527
Total liabilities	\$34,461
Net assets:	
Unrestricted	67,906
Temporarily restricted	6,919
Total net assets	74,825
Total liabilities and net assets	\$109,286

Optional Contributions Fund — Program Expense (\$000)	
Education Board accreditation	\$95
USACM Committee	18
Total expenses	\$113

cess.org/), and SIGBIOINFORMATICS (<http://sigbioinformatics.org/>).

SIGMOD established a new blog site (<http://wp.sigmod.org/>) to catch the pulse of its community on exciting and controversial topics and in its first seven months of operation, SIGHPC created a Web presence (<http://www.sighpc.org/>) that details the mission and goals of this new thriving SIG.

Conferences

FY12 closed with a milestone celebration of the 100th anniversary of Alan Turing's birth as well as of the past and future of computing. The ACM A.M. Turing Centenary Celebration

was a two-day event that drew over 1,000 attendees, including 32 of the 39 living ACM A.M. Turing Award laureates—the largest single gathering of Turing Award recipients in computing history. The landmark event recognized Turing's contribution to computer science as well as presented an array of panel discussions featuring the laureates and other industry leading lights.

SIGGRAPH 2011 welcomed 15,872 artists, research scientists, gaming experts and developers, filmmakers, students, and academics from 74 countries to Vancouver—breaking the city's previous conference attendance

Statement of Activities: Year ended June 30, 2012 (in Thousands)

REVENUE	Unrestricted	Temporarily Restricted	Total
Membership dues	\$8,636		\$8,636
Publications	19,249		19,249
Conferences and other meetings	24,686		24,686
Interests and dividends	1,767		1,767
Net appreciation of investments	(398)		(398)
Contributions and grants	3,672	\$2,027	5,699
Other revenue	222		222
Net assets released from restrictions	1,310	(1,310)	0
Total Revenue	59,144	717	59,861
EXPENSES			
Program:			
Membership processing and services	\$767		\$767
Publications	11,290		11,290
Conferences and other meetings	22,354		22,354
Program support and other	8,712		8,712
Total	43,123		43,123
Supporting services:			
General administration	10,135		10,135
Marketing	1,138		1,138
Total	11,273		11,273
Total expenses	54,396		54,396
Increase (decrease) in net assets	4,748	717	5,465
Net assets at the beginning of the year	63,158	6,202	69,360
Net assets at the end of the year	\$67,906*	\$6,919	\$74,825*

* Includes SIG Fund balance of \$33,028K

records. SIGGRAPH's exhibition hall drew 156 industry organizations from 17 countries, half of which were outside the U.S.

The fourth annual SIGGRAPH Asia conference once again captured a wide spectrum of digital innovations. Over 7,500 professionals from 53 countries attended the conference and exhibition in Hong Kong, where over 300 presentations and panel discussions generated deep insight into the future developments in the field.

KDD remains one of the leading conferences on data mining and knowledge discovery. KDD 2011 drew an all-time record 714 submissions.

Recognition

There were 94 new chapters chartered in FY12. Of the 17 new professional chapters, 12 were internationally based; of the 77 new student chapters, 35 were international.

The ACM Fellows Program recognized 46 members for their contributions to computing and computer science in FY12. The new inductees brought the number of ACM Fellows to over 700.

ACM also named 54 new Distinguished Members in FY12, of which there were four Distinguished Educators, one Distinguished Engineer, and 49 Distinguished Scientists, bringing the total number of Distinguished Members to 285.

2011 ACM Award Recipients

ACM A.M. TURING AWARD
Judea Pearl

ACM-INFOSYS FOUNDATION AWARD IN THE COMPUTING SCIENCES
Sanjeev Arora

ACM/AAAI ALLEN NEWELL AWARD
Stephanie Forrest

THE 2012-2013 ACM-W ATHENA LECTURER AWARD
Nancy A. Lynch

GRACE MURRAY HOPPER AWARD
Luis von Ahn

ACM-IEEE CS 2012 ECKERT-MAUCHLY AWARD
Algirdas Avizienis

KARL V. KARLSTROM OUTSTANDING EDUCATOR AWARD
Hal Abelson

OUTSTANDING CONTRIBUTION TO ACM AWARD
Calvin C. (Kelly) Gotlieb

DISTINGUISHED SERVICE AWARD
William A. Wulf

PARIS KANELLAKIS THEORY AND PRACTICE AWARD
Hanan Samet

SOFTWARE SYSTEM AWARD
Eclipse

Gregory Adams
John Duimovich
Erich Gamma
Kevin Haaland
Julian Jones
Philippe Mulet
Stephen Northover
Dave Thomson
John Weigand

ACM-IEEE CS KEN KENNEDY AWARD
Susan L. Graham

DOCTORAL DISSERTATION AWARD
Seth Cooper

HONORABLE MENTION
Aleksander Madry
David Steurer