



# Guiding ACM as Both a National and an International Society

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Association for  
Computing Machinery

*Advancing Computing as a Science & Profession*

# Outline

- A look at ACM today
- Key points in ACM history
- My history with ACM
- The move to being an international society
- Being international and engaging the national agenda in the US

# ACM Today

- Membership: 107,000 worldwide
- Core scholarly activities
  - 36 SIGs
  - 50+ journals and transaction
  - 80 periodicals in computing when SIG newsletters included
  - 150+ conferences/symposia each year
  - Sophisticated digital library
    - 35,000 individual subscriptions
    - 3,000 institutions have access
- Initiatives
  - Europe, India, China
  - Education policy in the US
  - Revitalizing Communications of the ACM



# ACM History

- 1947: Founded by the inventors of ENIAC
- 1954: Incorporated
- 1954: First publication: Journal of the ACM
- 1959: Communications of the ACM
- 1960's: Special Interest Groups (SIGs)
- 1970's: Reach beyond the research community to serve "data processing managers"
- 1980's: Growth in SIGs, conferences, publications, educational activities (e.g., accreditation – CSAB/ABET)
- 1990's: Electronic publishing and the Digital Library, initial efforts at being more international
- 2000's: Growth in the publications, conferences, service to practitioners, international activities



# My History with ACM

- Joined ACM in 1968 as a graduate student in computer science
- 1973 – 1982: Professor of computer science (University of Connecticut)
  - SIGPLAN Executive Committee (1977)
  - SIGPLAN Chairman (1981)
- 1982 – 1999: Research manager, Xerox PARC
  - ACM Council member at Large (1984)
  - SIG Governing Board Chair (1986)
  - Vice President (1988)
  - President (1990)
- 1999 – present: Executive Director and CEO of ACM
  - Responsible for ACM, but do not run the operations
  - Co-lead ACM with the elected volunteers



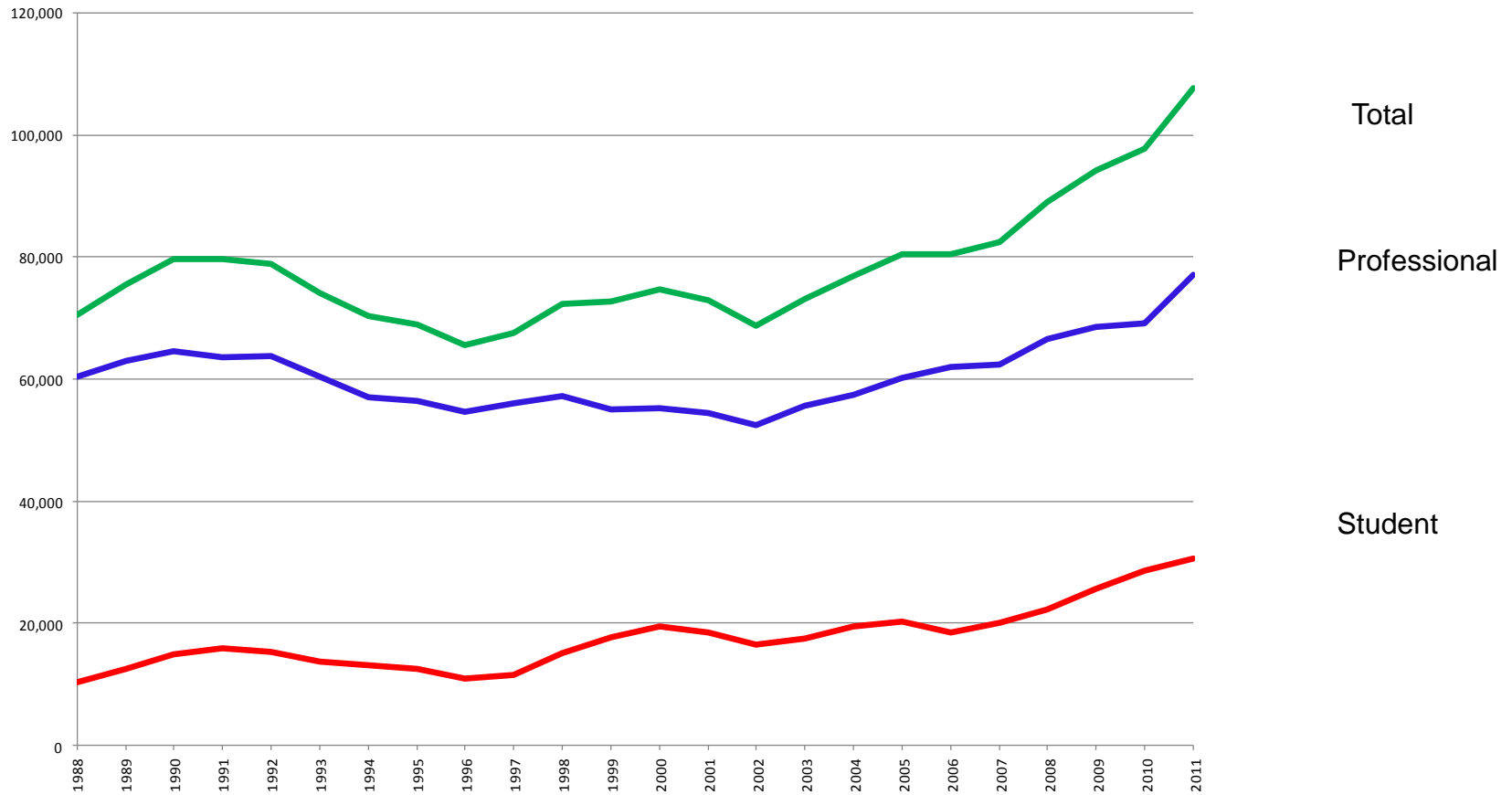
# ACM Goals, Priorities, Vision

- Compelling membership proposition
- Be the preferred publisher in computing
- Be international
- And yet, represent the computing community in the US

# ACM Goals, Priorities, Vision

- Compelling membership proposition
  - Goal: increase value proposition for being an ACM member
  - Approach: hold dues constant, increase services
  - Dues: \$99USD (~70 Euro) since 2003
  - New services
    - Electronic updates such as TechNews
    - 1,200 electronic books and references (Safari, Books 24X7)
    - 3,000 online courses
    - A new *Communications of the ACM*

# Membership



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# Membership

- Steadily increasing since 2003
- 70% professional; 30% students
- Geographic diversity
  - 57% US; 43% Non-US
  - 41% of ACM professional members are from outside the US
  - 49% of ACM student members are from outside the US
- ACM membership growth is largely from outside the US

# ACM Goals, Priorities, Vision

- Be the preferred publisher in computing
  - Strong value proposition for authors, editors, and the community
    - Reputation for high quality
    - Significant support for launching and sustaining a publication
    - Instant worldwide distribution through the ACM Digital Library
    - Leading-edge Digital Library
    - Liberal copyright policy with authors retaining significant rights
    - High quality conference proceedings series for non ACM events
  - We are publishing more than at any point in our history

# Be International

- Initial efforts ~1990
  - Encourage SIGs to hold conferences outside the US
  - European service center
  - Became an international society member of IFIP
- Since 2006 a much more serious and focused effort
  - Seek non-US computer scientists for all major volunteer positions
    - Elected positions (Council, SIG leadership)
    - Appointed positions (board chairs, conference committees, editorial boards)
  - Regional focus

# Be International

- Regional Councils
  - Bring together distinguished computer scientists who know the region and know ACM
  - Focus on
    - Raising awareness of existing ACM activities
    - Increase the number of high-quality ACM technical activities in the region
    - Decide whether to engage with national computing societies
      - Europe: yes for some
      - India: no
      - China: yes
    - In the long run ...
      - Contribute to advancing computing as a science and profession
      - Increase awareness of the role and value of ACM
      - Bring the members of the region more fully into ACM
  - Established in Europe, India, and China

# Be International – ACM Europe Council



- Chair: Fabrizio Gagliardi, Microsoft Research, Europe
- Members:
  - Ricardo A. Baeza-Yates, Yahoo! Research, Barcelona Spain
  - Michel Beaudouin-Lafon, Universite Paris-Sud, France
  - Mashhuda Glencross, Loughborough University, UK
  - Carlo Ghezzi, Politecnico di Milano, Italy
  - Wendy Hall, University of Southampton, UK
  - David Harper, EMEA University Relations, Google, Zurich, Switzerland
  - Paola Inverardi, University of L'Aquila, Italy
  - Matthias Kaiserswerth, IBM Research, Zurich, Switzerland
  - Gabriele Kotsis, Johannes Kepler University of Linz, Austria
  - Jan van Leeuwen, Utrecht University, Netherlands
  - Andrew McGettrick, University of Strathclyde, Scotland
  - Avi Mendelson, Microsoft Research, Israel
  - Bertrand Meyer, ETH Zurich, Switzerland
  - Burkhard Neidecker-Lutz, Research Division, SAP AG, Germany
  - Gerhard Schimpf, Chair, German ACM Chapter, Pforzheim, Germany
  - Marc Shapiro, INRIA and LIP6, France
  - Paul Spirakis, University of Patras and the Greek Computer Technologies Institute, Greece
  - Serdar Tasiran, Koc University, Istanbul, Turkey
  - Mateo Valero, Technical University of Catalonia, Spain
  - Alexander Wolf, Department of Computing, Imperial College London, UK



# Be International – ACM India Council



- Co-Chairs
  - Anand Deshpande, CEO Persistent Systems
  - P J Narayanan, IIIT Hyderabad
- Members
  - Sanjeev K Aggarwal, IIT Kanpur
  - M Balakrishnan, IIT Delhi
  - Vivek Balaraman, Haveli , India
  - Partha Pratim Chakrabarti, IIT Kharagpur
  - Subrahmanyam Goparaju, SET Labs, Infyosys
  - Pankaj Jalote, IIIT Delhi
  - Mathai Joseph, Tata Consultancy Services
  - Ananth Krishnan, Tata Consultancy Services
  - S Sadagopan, IIIT Bangalore
  - Prithwis Mukerjee, Praxis Business School, Calcutta
  - Madhavan Mukund, Chennai Mathematical Institute
  - Girija Narlikar, Bell Labs, Mumbai
  - Anandna Padmanabhan, Microsoft Research India
  - Srinivas Padmanabhuni, Infosys
  - Krithivasan Ramamritham, IIT Mumbai



# Be International – ACM China Council



- Chair

- Jiaguang Sun, Tsinghua University

- Members

- Binxing Fang, University of Posts and Telecom
- Jinpeng Huai, Beihang University
- Changjun Jiang, Tongji University
- Xiangke Liao, National University of Defense Technology
- Huimin Lin, Institute of Software, Chinese Academy of Sciences
- Yunhao Liu, Tsinghua University
- Jian Lv, Nanjing University
- Hong Mei, Peking University
- Vincent Shen, Hong Kong University of Science and Technology
- Maosong Sun, Tsinghua University
- Ninghui Sun, Institute of Computing, Chinese Academy of Sciences
- Feiyue Wang, Institute of Automation, Chinese Academy of Sciences
- Shan Wang, Renmin University of China
- Zhaohui Wu, Zhejiang University
- Renyi Xiao, NSF of China
- Andrew Yao, Tsinghua University
- Hongjiang Zhang, Microsoft ATC
- Yaoxue Zhang, Tsinghua University
- Nanning Zheng, Xi'an Jiaotong University



# ACM Europe

- Launched in 2009 at ECSS in Paris
- Focus to date
  - Raising awareness and generating nominations of ACM European members for
    - ACM Awards
    - ACM Fellow, Distinguished Educator/Scientist/Engineer, Senior Member
  - Suggesting ACM members in Europe for ACM award committees and editorial boards
  - Increasing the number of ACM chapters in Europe
  - Increasing the number of ACM conferences in Europe
  - Increasing the number of Europeans in the ACM Distinguished Speakers Program
  - Launching an ACM Europe Newsletter





# ACM Europe

- Current agenda
  - Workshop for ACM Europe chapter leaders
  - An ACM Europe Federated Computing Research Conference
    - Modeled after FCRC in the US
    - ACM ECRC – European Computing Research Congress
      - Co-locate research conferences/workshops/meetings
      - Add value with overarching session of general interest to European researchers
    - ACM ECRC `13 – Paris
      - CHI conference
      - Web Science conference
      - Hypertext conference
      - Euro-TM (European Network meeting on transactional memory)
      - GLSVLSI (SIGDA research workshop/conference)
      - HiPEAC (a research workshop)
      - MOBIHCI (SIGMOBILE conference)

# ACM Europe

- Current agenda (continued)
  - Increase collaboration with Informatics Europe
    - Seats on each organization's board
    - Create a significant European computing education conference
      - ACM Europe (through SIGCSE)
      - Informatics Europe
      - Grow the existing ITiCSE into something significant
    - Conduct a joint study of secondary (pre-college) computing education in Europe



# Be International

- Results to date
  - More members from outside the US
  - More conferences held outside the US
  - More Fellows from outside the US
  - More awards recipients outside the US
  - More articles in CACM focused outside the US



# Be International

- Results to date
  - The last ACM Council Meeting
    - Alain Chesnais
    - Wendy Hall
    - Barbara Ryder
    - Vicki Hansen
    - Alexander Wolf
    - Doug Terry
    - Scott Owen
    - Andrew Sears
    - Carlo Ghezzi
    - Mathai Joseph
    - Vint Cerf
    - Mary Lou Soffa
    - Anthony Joseph
    - Salil Vadhan
    - Ron Boisvert
    - Andrew McGettrick
    - PJ Narayanan'
    - Yunhao Liu
    - Elaine Weyuker
    - Gene Spafford

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Executive  
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# What about the US?



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# ACM and the US

- In our core activities – SIGs, conferences, publications, chapters – ACM is an international organization
- But there are significant issues in the US the computing community needs to engage
- ACM must, and does, play a major role in
  - Technology policy in the US
  - Education policy in the US
- ACM engages these areas through specific committees
  - USACM Council
  - ACM Education Policy Committee
- ACM has the most flexibility to represent the community





# ACM and the US

- USACM
  - Advises and educates Federal policy makers (mostly Congress) on technology issues
    - Research funding (with CRA)
    - Security and Privacy
    - Intellectual Property
    - Digital Government
    - Electronic Voting
    - Accessibility
  - Engage experts in
    - Developing statements
    - Issuing reports
    - Delivering Congressional testimony



# ACM and the US

- ACM Education Policy Committee
  - An effort to bring the computing community “to the table” in Federal and State conversations about STEM education
  - The goal: help policy makers realize that
    - Computing is a distinct discipline
    - Computing is not the “T” in STEM
    - Pre-college computing education is disappearing from the national landscape
    - Fundamental knowledge of computation is critical to an educated 21<sup>st</sup> Century workforce
    - Federal government, state governments, and the 15,000 school districts in the US all have roles to play

# ACM and the US

- ACM Education Policy Committee (continued)
  - Behind ACM's engagement of numerous tasks/initiatives
    - Computer Science Education Week
    - "Computing in the Core" advocacy coalition
      - Computer Science Education Act
      - Elementary and Secondary Education Act
    - The WGBH (Public Television) "Dot.Diva" effort to shift the image of computing for young girls
    - The "Running on Empty" report – a state by state analysis of the extent to which states have learning standards in computing
    - AP Computer Science reform
      - The development of the new CS Principles course
      - Getting 100+ universities to agree to offer college credit
      - Setting up the non-profit to anchor the needed public private partnership to scale the effort to 10,000 teachers and 10,000 high schools



# Summary

- ACM is increasingly international in its ...
  - Leadership
  - Membership
  - Core scholarly work
  - Presence and visibility
- ACM is increasingly relevant in key US discussions
  - Technology policy
  - Education policy
    - Seeing real computer science exist at the secondary (pre-college) level
    - Seeing real computer science count



Thank You

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