



# Professional Societies in Computing: An Anachronism or an Anchor?"

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Association for  
Computing Machinery

*Advancing Computing as a Science & Profession.*

# Perspective and Disclaimers

- Shaped by my ACM experiences

*volunteer leader since 1997*

- Excited by all that ACM volunteers do, and appreciative of the amazing HQ staff

*staff/member ratio incredibly low!*

- Worry: An organization conceived in the middle of the 20<sup>th</sup> century is ill structured for life in the 21<sup>st</sup> century

my goal as President was to *change the conversation around the ACM*



# An Exemplary Professional Society

- ACM: Oldest and largest international society of computing scientists, engineers, and students

*member-focused, volunteer-driven, staff-enabled*

- Mission: Empower individuals to...

*advance computing as a science and a profession*

- What did this mean in the 20<sup>th</sup> century?

*establish and nurture a technical profession and scholarly community through publications, conferences, and training*

proceedings, journals, chapters, SIGs, PD resources, ...



# A Broadly Diverse Society

- Over 100,000 members (2015)


United States – 42%

China – 18%

Europe – 14%

India – 7%

Other nations – 19%

- 70/30 professional/student
- 50/50 practitioner/researcher
- 20/80 female/male 



# Technical Stewardship

- Sponsor of computing's most prestigious professional meetings
- Curator and archivist of computing's most important literature

In 2015 alone...

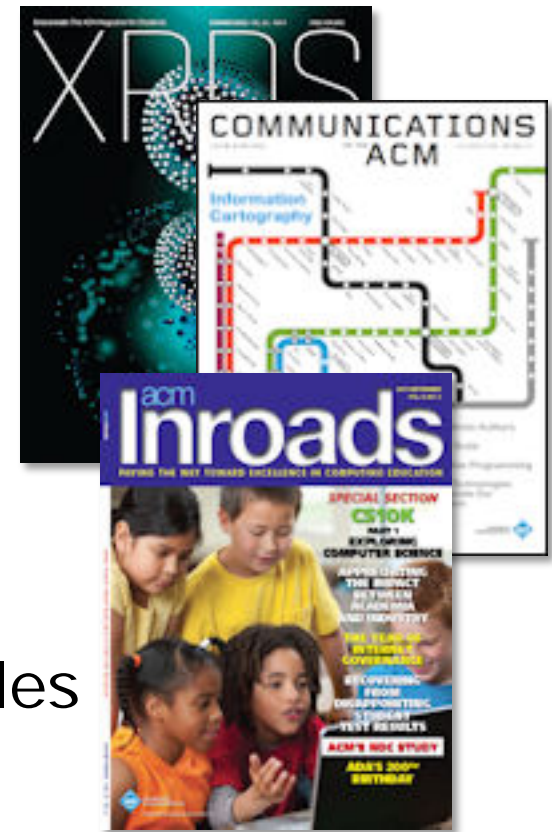
44 journals and transactions

8 magazines

32 newsletters

560 conference proceedings

24953 individual papers/articles



# ACM Digital Library

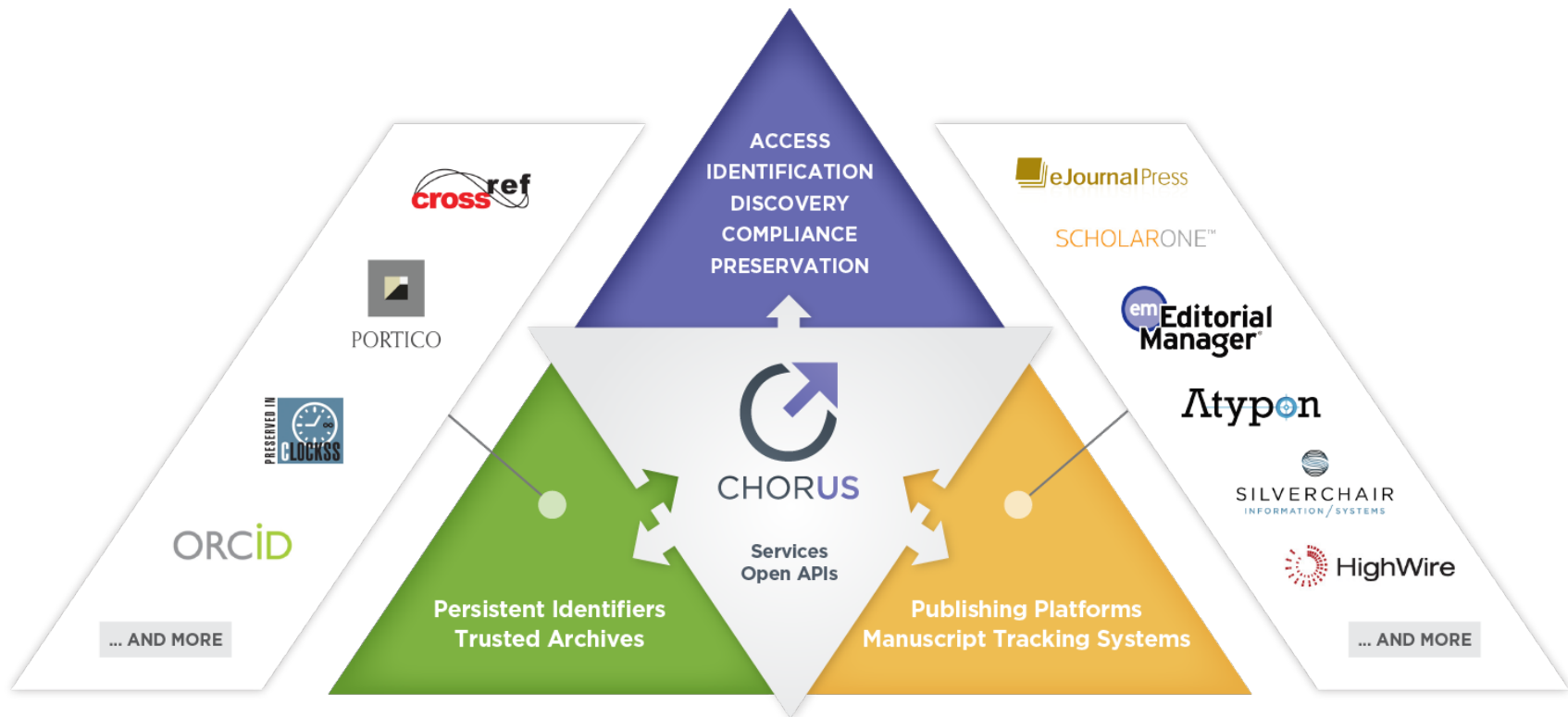
- 400K full-text ACM publications
- 2.5M bibliographic records
- 2.5M unique visitors  
30M page views  
2M full-text downloads/mon
- Features to explore and interact with content and metrics
- Fully supportive of open access

ORCID, CrossRef, FundRef, CHORUS, ...



# CHORUS: Charity-Dependent Alliance

*Responding to government mandates costs money...*



# Community Works

- Activities initiated and carried out by ACM volunteers for the betterment of the computing community and the public

*technical and scientific*

*educational*

*societal*

- Support for community works that is not readily available from anywhere else

*Why? Because they take money, staff, infrastructure, commitment, credibility, ...*



# ACM Europe

- Mission

give voice to ACM's members in Europe

tailor ACM activities to the European context

- EC-registered organization

- Elected leadership: ACM Europe Council

Dame Wendy Hall, Chair



# ACM Europe Council Activities

- Chapters

CECL: Council of European Chapter Leaders

- Education

CECE: Committee on European Computing Education

- Policy

EUACM

- Gender inclusion

ACM-W Europe



# Into the Future

- Membership at all-time high
- Finances sound
- Programs and visibility growing
- Interest and participation in computing is exploding around the world
- Computing is the new horizontal (cf. mathematics)



# Deep Challenges

- Revenue drives the engine
  - membership?  $\Rightarrow$  *net loss*
  - conferences?  $\Rightarrow$  *returned to SIGs*
  - community works?  $\Rightarrow$  *revenue negative*
  - publications?  $\Rightarrow$  *subsidize the enterprise*
- Open access and open data initiatives
  - OA: threat to revenue or an opportunity?  
*from content to services and from PDFs to artifacts*
  - OD: who, what, where, and how?  
*not just about science, but about our digital heritage*



# Deep Challenges

- Changing membership demographics
  - aging in developed countries
  - stagnating/shrinking in US and EU
  - growing in developing countries
- Changing context for professionalism
  - growth, ubiquity, and breadth of computing
  - new models of employment and career
  - generation "T": millennial values are transactional



# An Anachronism or an Anchor?

- Arguments to be made for both

- Anachronism

the *discipline* has been established

dues-based *membership* is unnecessary

*publishing* (PDF content distribution) is trivial

- Anchor

the need to *network* within the profession

*amplification*: advocacy, advice, and authority

*community works*: an infrastructure for good



*The only question: how?*



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