The Role of Learned Societies in the Digital Age

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ACM Past President
Dean of Physical and Applied Sciences
13 October 2010
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Initial comments

- I’m talking about societies that support individuals as members rather than societies that support institutions as members

- So I’m not addressing specifically issues around the organisation of societies such as ECSS, CRA, CPHC (UK)

- But some comments before I go on
  - Diversity
  - Departmental Evaluation – there be dragons! Cf. UK RAE/REF exercise and university league tables
Learned Societies

Where did it all begin?
Founding and early years

The Royal Society started as a group of approximately 12 scientists, known as the Invisible College, which met at a variety of locations, including the houses of their members and Gresham College. Members at particular times were John Wilkins, Jonathan Goddard, Robert Hooke, Christopher Wren, William Petty, and Robert Boyle. The group discussed the "new science", as promoted by Francis Bacon in his *New Atlantis*, from approximately 1645 onwards. It initially had no rules or methods, and the primary goals were to organise and view experiments and communicate their discoveries to each other. The group varied over time, eventually splitting into two distinct factions in 1638 due to travel distances; the London Society and the Oxford Society. The Oxford Society was more active owing to the fact that many members of the overall College lived there, and it was established as *The Philosophical Society of Oxford*, run under a set of rules still retained by the Bodleian Library.

The London group continued to meet at Gresham College, primarily after lectures hosted by Christopher Wren. The membership expanded at this time, growing to include Lord Brouncker and Timothy Clarke. It was forced to disband in 1668 during the English Protectorate following soldiers invading their rooms; after the English Restoration, they returned to meeting at Gresham College. It is widely held that these groups were the inspiration for the foundation of the Royal Society.

An alternate view of the founding, held at the time, was that it was due to the influence of French scientists and the Montmor Academy in 1657, reports of which were sent back to England by English scientists attending. This view was held by Jean-Baptiste du Hamel, Giovanni Domenico Cassini, Bernard le Bovier de Fontenelle and Melchisédech Thénard at the time, and has some grounding in that Henry Oldenburg, the Society's first Secretary, had attended the Montmor Academy meeting. Robert Hooke, however, disputed this, writing that:

[Cassini] makes, then, Mr Oldenburg to have been the instrument, who inspired the English with a desire to imitate the French, in having Philo... and that this was the occasion of founding the Royal Society; and making the French the first. I will not say, that Mr Oldenburg did rather inspire English, or, at least, did help them, and hinder us. But it's well known who were the principal men that began and promoted that design, both in that a long while before Mr Oldenburg came into England. And not only these Philosphic Meetings were before Mr Oldenburg came from Paris; I begun before he came hither, and those who then knew Mr Oldenburg, understood well enough how little he himself knew of philosophic matter.

On 28 November 1660, a group of scientists from and influenced by the Invisible College met at Gresham College and announced the formation of a "Col-Mathematical Experimental Learning", which would meet weekly to discuss science and run experiments. At the second meeting, Sir Robert Moray an of the gatherings, and a Royal Charter was signed on 15 July 1662 which created the "Royal Society of London", with Lord Brouncker serving as the first Charter was signed on 22 April 1663, with the King noted as the Founder and with the name of "The Royal Society of London for the Improvement of Nat was appointed as Curator of Experiments in November. This initial royal favour has continued, and since then every monarch has been the patron of the
About us

The Royal Society is a Fellowship of the world’s most eminent scientists and is the oldest scientific academy in continuous existence. We aim to expand the frontiers of knowledge by championing the development and use of science, mathematics, engineering and medicine for the benefit of humanity and the good of the planet.

Our priorities address the future of science in the UK and beyond. We aim to invest in future scientific leaders and in innovation; influence policymaking with the best scientific advice; invigorate science and mathematics education; increase access to the best science internationally; and inspire an interest in the joy, wonder and excitement of scientific discovery.

An engineering model of Ariel 1 hangs in the Society’s atrium. This was the first satellite launched as a result of international collaboration (© PSP Rare).

Our mission

To expand the frontiers of knowledge by championing the development and use of science, mathematics, engineering and medicine for the benefit of humanity and the good of the planet.

Our priorities

- Invest in future scientific leaders and in innovation;
- Influence policymaking with the best scientific advice;
- Invigorate science and mathematics education;
- Increase access to the best science internationally;
- Inspire an interest in the joy, wonder and excitement of scientific discovery.
The Society has three roles: it is the UK academy of science promoting the natural and applied sciences, a learned society, and a funding agency.

As the UK’s independent national academy, the Society represents the British scientific community within Britain and in relations with individuals and groups of scientists throughout the world.

As a learned society, the Society publishes seven peer-reviewed journals, including Philosophical Transactions of the Royal Society, the world’s oldest scientific title. Awards for outstanding achievement are made each year in the form of medals, prizes and prize lectureships. The Society also hosts various events including conferences, lectures and discussion meetings and houses one of the world’s most important collections of 17th and 18th century scientific journals and books in its library.

As a funding agency, the Society supports more than 450 post-doctoral fellowships and 17 professorships. We also provide grants for more than 3,000 scientists from the UK and abroad to undertake research and participate in visits, projects and conferences. Our funding schemes are designed to enhance the UK science base and foster collaboration between UK-based and overseas scientists.

The Society is governed by an elected Council of 21 Fellows, which is headed by the President.
Association of Computing Machinery

- Started in 1947
- The world’s largest educational and scientific computer society
ACM, the world’s largest educational and scientific computing society, delivers resources that advance computing and provides the computing field’s premier Digital Library and serves its members and the computing profession with and career resources.

Advancing Computing as a Science and a Profession

ACM has resources for everyone

With our leading Digital Library of computer science literature, world-class publications, online books and courses, professional and student member benefits, and institutional packages — ACM will enrich your professional, educational, and research life.

Announcements

Thursday, October 7, 2010
Service Notice - Full service has been restored to all of our sites, including online renewals.

ACM Transactions on Computation Theory (TOCT) Seeking Editor-in-Chief
Association of Computing Machinery

- Journals – through Publications Board
- Conferences – through SIGs
- Awards, particularly the Turing Award
- Fellowship, senior membership levels and distinguished services recognition
- Increasingly driven by issues around policy and professionalism
- ~100,000 members and rising
- But this is tiny compared to the numbers of people working in computing around the world
ACM Regional Initiatives

- Europe
- India
- China
  - deal with the Chinese Computer Society (CCS)
The ACM Europe Council is a new effort recently launched by ACM to recognize and support European members and activities.

About the ACM Europe Council
ACM has launched a new effort to recognize and support European ACM members and ACM activities in Europe. Significant, with more than 15,000 members, many ACM chapters, and a large number of ACM sponsored conferences, the European ACM community has been in existence for more than 50 years. The goal of this effort is to support ACM by improving the exchange of ideas, and by raising awareness with the public and with European decision makers in educational, and social issues related to computing.

The ACM Europe Council, a new organization within ACM, aims to increase the level and visibility of ACM activities, from high-quality ACM conferences in Europe, to expanding ACM chapters, to encouraging participation in all dimensions of ACM.
British Computer Society

- Started in 1957
- Re-launched in 2010 as
  - BCS The Chartered Institute for IT
The Chartered Institute for IT
Enabling the information society

About us

BCS, The Chartered Institute for IT, promotes wider social and economic progress through the advancement of information technology science and practice.

We serve over 70,000 members including practitioners, businesses, academics and students, in the UK and internationally.

Feature

Does IT make you happier?

A new global study from BCS has found that some of the world's poorest countries are amongst the happiest thanks to their access to and use of IT.
BCS Academy of Computing

- New learned society activity launched this year to bring together all the research and education initiatives run under the auspices of the BCS

- Supported by CPHC (Committee of Professors and Heads of Computing) and UKCRC (UK Computing Research Committee)

- Any member of the BCS who wants to become a member of the Academy does so for free. Non-members pay a nominal fee to become a member of the Academy
The BCS Academy of Computing now has its own website: http://academy.bcs.org

The BCS Academy of Computing is a Learned Society dedicated to advancing computing as an academic discipline. The Academy formally came into being on 8 October 2009 when its terms of reference were approved by the BCS Board of Trustees.
What has happened in this space of time

• The establishment of the Royal Society was driven by the invention of the printing press

• The evolution of learned societies today is driven by the invention of the Web

• This has changed forever the way we do research and the way we disseminate the results of our research
The Open Journal Project

"Bringing journals alive on the World Wide Web"

Fast facts

The Open Journal project is effectively closed.

Finding out about it: The work of the project was described at length in the final report and more succinctly in a paper in D-Lib Magazine, a starting points if you want to find out what the project did and what it achieved.

What happens next? The Open Citation Project, also funded by JISC, is extending the work pioneered by the Open Journal project to citation scale eprint archives, notably the LANL physics eprint archive. The scope and requirements of citation linking have grown significantly since the project began and new developers have emerged. The new project involves all those who are creating the latest and best in linking tools and services.

What was it? An R&D project

Funded by: Electronic Libraries (eLib) programme

Start date: May 1996 End date: funded phase: May 1998

R&D centres: Multimedia Research Group, Southampton University, and Electronic Publishing Research Group, Nottingham University

Other partners: Eleven publishers of primary and secondary journal information. Details

Mission statement: To build a framework for publishing applications enabling journals on the Web to be interlinked in ways which build on the qualities and identities of the journals, and which increases the readers' ability to follow, search and access the literature for themed study at the maximum available online resources.

Deliverables: Demonstrator Open Journals for evaluation and selected open access

eLib category: Electronic Journals

Keywords: electronic journals, digital libraries, hypertext linking

Aim

The aim of the Open Journal project was to provide a framework for publishing journals in a network environment, on the World Wide
Open Access and Institutional Repositories with EPrints

EPrints is the most flexible platform for building high quality, high value repositories, recognised as the easiest and fastest way to set up repositories of research literature, scientific data, student theses, project reports, multimedia artefacts, teaching materials, scholarly collections, digitised records, exhibitions and performances.

Within this site you will find information and resources to make open access a reality within your own institution: open source software and support, commercial hosting, training and development services and also open access advice and information.

4th June 2010: Briefing document on EPrints, CRIS and Research Impact

Training Latest: The next EPrints training course will be taking place on September 15th-16th. This course will have a particular focus on pragmatic skills for repository managers. Contact EPrints Services to register.

EPrints Repository Software

EPrints open source software is a flexible platform for building high quality, high value repositories. It is recognised as the easiest and fastest way to set up repositories of research outputs of literature, scientific data, theses and reports or multimedia artefacts from collections, exhibitions and performances.

- Archive Documents, Multimedia and Data
- Multi-Language Support

EPrints Services

The EPrints services team provides a fee-based advice and consultancy service that can deliver a range of solutions, from initial help and guidance through to a completely managed service for an institutional repository.

We have experience with deploying repositories at all scales, ranging from large, broad-based research universities to single-subject departments, and will take time to understand your particular needs.

Open Access to Research

We are creating the environment in which Open Access will become the norm for distributing research:

- ROAR tracks the growth of existing OA Archiving Policies
- ROARMAP tracks the growth of institutional archiving policies
- ROMEO tracks journal/publisher "green" policies
Welcome to ECS EPrints Repository

ECS was the first academic institution in the world to adopt a self-archiving mandate (2001). All the research output of members of the School is available and fully searchable in our online repository. This repository contains 11488 records. More about our EPrints Software and Open Access to Research.

Search

Return all matching records

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Recently added publications


2. Cai, Z., Tong, D., Freeman, C. and Rogers, E. (2011) Application of Newton-method Based ILC to 3D Stroke Rehabilitation, In: 18th IFAC World Congress, August 28 - September 2, Milano, Italy. (Submitted) Item not available online.

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  - For Consortia Administrators

ACM Transactions on Computation Theory (TOCT) Seeking Editor-in-Chief
Deadline for nominations is October 1. For more information please visit the Call for Nominations page.

ACM Transactions on Mathematical Software (TOMS) Seeking Editor-in-Chief
Deadline for nominations is October 31. For more information please visit the TOMS EIC search page.

Journal of Data and Information Quality Debuts
All articles in the first issue of jDIQ are freely available through December 2010.

Recently loaded issues and proceedings:
(available in the DL within the past 2 weeks)

Journal on Computing and Cultural Heritage (JOCCH)
Volume 3 Issue 2

ACM Transactions on Accessible Computing (TACCESS)
Volume 3 Issue 1
Why is it not a membership organisation
-Too expensive to set up?
-Why would people join?

Research
Education
Thought Leadership

www.webscience.org
New European initiatives

• Academia Europaea
  – Pan-European Academy of Science
  – Strong Informatics section currently chaired by Herman Maurer

• Do we need a new learned/professional society for computing/computer science/informatics in Europe that supports individual membership?
  – Need to think very carefully about its aims and purpose
  – Why would people join
  – Where would the investment come from

• Networks help us find our voice but can we have too many of them?