

# The Role of Learned Societies in the Digital Age

Professor Wendy Hall  
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?

W http://en.wikipedia.org/wiki/Royal\_Society#Founding\_and\_early\_years

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## 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.<sup>[2]</sup> It initially had no rules or methods, and the primary goals were to organise and view experiments and communicate their discoveries to each other.<sup>[3]</sup> 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 was established as *The Philosophical Society of Oxford*, run under a set of rules still retained by the [Bodleian Library](#).<sup>[4]</sup>

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](#).<sup>[5]</sup> It was forced to disband in 1658 during the [English Protectorate](#) following soldiers invading their rooms; after the [English Restoration](#), they returned to meeting at Gresham College.<sup>[6]</sup> It is widely held that these groups were the inspiration for the foundation of the Royal Society.<sup>[4]</sup>

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 Thévenot](#) at the time, and has some grounding in that [Henry Oldenburg](#), the Society's first Secretary, had attended the Montmor Academy meeting.<sup>[7]</sup> 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 Philosophic Meetings, 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 the English, or, at least, did help them, and hinder us. But 'tis well known who were the principal men that began and promoted that design, both in that that a long while before Mr Oldenburg came into England. And not only these Philosophic Meetings were before Mr Oldenburg came from Paris; but they were begun before he came hither; and those who then knew Mr Oldenburg, understood well enough how little he himself knew of philosophic matter.<sup>[8]</sup>

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 "College for the Improvement of Natural Philosophy, Mathematical Experimental Learning", which would meet weekly to discuss science and run experiments. At the second meeting, [Sir Robert Moray](#) announced the formation of the Royal Society, and a [Royal Charter](#) was signed on 15 July 1662 which created the "Royal Society of London", with [Lord Brouncker](#) serving as the first President. A second Charter was signed on 23 April 1663, with the King noted as the Founder and with the name of "The Royal Society of London for the Improvement of Natural Philosophy". [Christopher Wren](#) 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 Society.



John Evelyn  
Society



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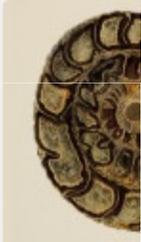
Our **priorities** address the future of science in the UK and beyond. We aim to invest in future scientific leaders and in innovation; influence policymaking with the best scientific advice; invigorate science and mathematics education; increase access to the best science internationally; and inspire 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)



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## 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

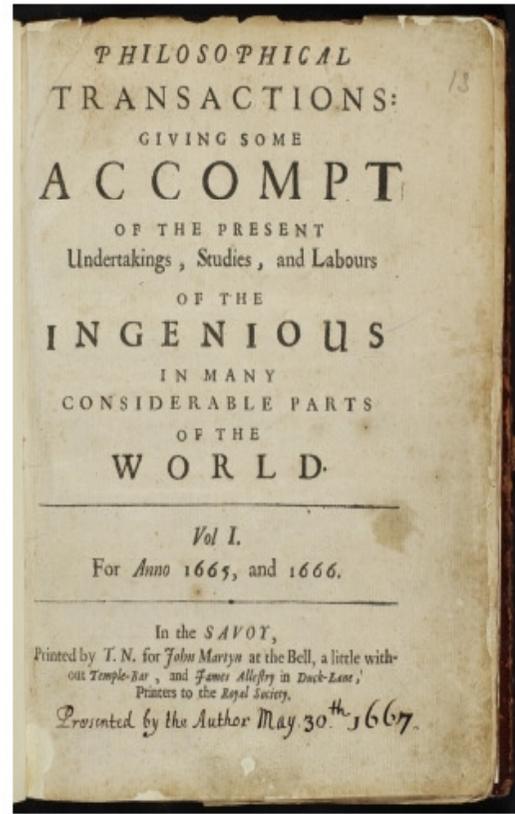
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As the UK's independent national academy, the Society represents the British scientific community within Britain and in relations with individuals and groups of scientists throughout the world.

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 17<sup>th</sup> and 18<sup>th</sup> century scientific journals and books in its library.

As a funding agency, the Society supports more than 460 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



The first issue of Philosophical Transactions was published in 1665. In 1886 it was divided into two

- inspire an interest in the joy, wonder and excitement of scientific discovery
- Increase access to the best science internationally

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- Started in 1947
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**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**

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**Why is K-12 Education Growing?**  
System Failure education standards launched



**ACM Issues State Education Report**  
Education Policy Commission Director Stephens Computer Science



**New ACM Member Campaign Launched**

# 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)

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## ACM Europe

**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. In itself, 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 on 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 in Europe. It comprises European computer scientists committed to fostering the visibility and relevance of ACM in Europe, European ACM activities, from high-quality ACM conferences in Europe, to expanding ACM chapters, to encouraging Europeans in all dimensions of ACM.

# British Computer Society

- Started in 1957
- Re-launched in 2010 as
  - BCS The Chartered Institute for IT

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**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



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BCS Academy of Computing

## BCS Academy of Computing

### BCS Academy of Computing

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.

### Document

[BCS Academy of Computing Roadmap \(PDF\)](#)

### Founding

[CPHC](#)

[UKCFE](#)

### Strategic

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# 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

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# 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](#), as 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 1995 **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 and 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

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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.

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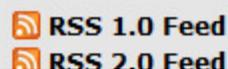
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3. Shadbolt, N. (2010) [From Data to Decisions: The Power of Information in the Age of the Web of Linked Data](#). In: *Royal Signals Institution Annual Seminar*, 19th October, 2010, HQS Wellington, London.



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- Quality through Qualification
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Why is it not a membership organisation

-Too expensive to set up?

-Why would people join?



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# 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?