

Editorial

The scientific journal: past and present

This year is the 350th anniversary of the beginnings of scientific publishing in England. The first issue of *Philosophical Transactions of the Royal Society*, a well-known and respected science journal to this day, appeared on March 6 of 1665 (two months later than the French *Journal des Sçavans*).



Heinrich (Henry) Oldenburg, the Society's first Joint Secretary and mastermind behind the *Philosophical Transactions*.

The journal was founded by Henry Oldenburg who, a native of a German Bremen theological family, came to England, and became the Secretary of the Royal Society (1662-1677), after extensive travels around scientific Europe. Although he was not a scientist himself, his education, diligence and talents (he spoke German, French, Latin, Italian and English) made him an ideal personality to make and keep vivid contacts with scientists in England, France, Holland, Germany and elsewhere. The beginning Enlightenment era saw an eruption of discoveries, disputes and criticisms

among scientists, and Oldenburg became the spirit of communication among them. He knew how to extract and summarize the information from their letters. He published abstracts, notes and comments on experiments and book reviews, in the newly established journal to which he was commissioned by the Royal Society. His enthusiasm led him to finance the 136 issues he published until his death in 1677, although the journal was licensed by the Royal Society.

Oldenburg and 350 years of the scientific journal were celebrated in a meeting at The Royal Society, held in March of this year at Carlton House Terrace, London. A prominent address in the heart of the buoyant city, yet a quiet and dignified house when one enters. It has been the residence of the Royal Society of London since November 1967, the fifth residence since 1660, when the Society came into existence.

At the conference, historians discussed topics such as The Early Phil Trans and the Republic of Letters, Form and Genre; or, what is a Scientific Journal? Editors, reviewers and disciplinary context, Images and knowledge in the

early Philosophical Transactions, Distribution of scientific journals, Constructing scientific communities, 18th century scientific authorship, Reform and reaction in the 19th and 20th centuries, Learned society journals in the 20th century, and Maths in Philosophical Transactions.

There were also two evening public events: The experience of scientific publishing, and The future of scientific publishing in which several experienced editors shared their views and answered questions from the floor. These two events addressed more current themes, such as the changing forms of peer review, possible loss of data due to e-publishing, quality of papers, history of collecting reprints and their value, and the order of authors (which should be agreed before writing begins). The training of young authors was also stressed and the role of editors in that process. I was honoured to represent EASE in this discussion, which also covered that perennial topic, the journal impact factor.

The conference was perfectly organized by the committee consisting of Aileen Fyfe, Julie McDougall-Waters and Noah Moxham from the University of St Andrews. The funding bodies of the conferences were the Arts and Humanities Research Council and the Royal Society. The Library and Events team and many others contributed to success of this most interesting scientific event, appreciated by all attendees.

There were over 90 participants coming from the UK, Ireland, France, Belgium, Italy, Germany, Poland, the Czech Republic, Denmark, Switzerland, the Netherlands, Canada, the US, China, Australia and Japan. It was good to see many young historians and witness their enthusiasm and knowledge.

The Royal Society also published special theme issues, *Philosophical Transactions A*, physical sciences papers, edited by David Garner, and *Philosophical Transactions B*, life sciences papers, edited by Linda Partridge. Both issues deal with scientific questions of early days viewed from today's perspective, all written by well-known scientists in the respective fields. One can find most interesting commentaries on works published by Newton (1672), Caroline Herschel (1787), Lister (1673), Faraday (1832), Joule (1850), Maxwell (1865), and others who made important contributions to science. Another 17 articles on personalities in biological sciences beginning with Leeuwenhoek (1677) "Concerning little animals" appeared in the series B.

Scientific publishing has been changing at an ever increasing pace. We should learn how to adapt peer review which will remain an important quality guarding tool, and look for more efficient ways of communication in science in the 21st century. We are not yet fully aware of the potential offered by the Web in this endeavour.