The Work of the Journal Publisher

The journal is the principal means by which researchers and scholars communicate. There are more than 15,000 active, peer-reviewed learned journals publishing about 1.2 million articles each year. About one million unique authors publish articles each year for a global audience of roughly 10-15 million readers located in about 10,000 institutions.

Learned publishing by means of the journal first began in the mid 17th century. Henry Oldenburg created the world's first scientific journal for the newly founded Royal Society of London (of which he was first Joint Secretary) in March 1665 to solve a number of problems faced by early scientists. Principal among these was the desire to establish precedence: the first authors of a phenomenon or result wanted their priority as discoverer to be publicly acknowledged and secured before they were prepared to share their results with their colleagues. Oldenburg realised that an independent periodical publication run by an independent third party that would faithfully record the name of a discoverer and the date he submitted his paper, as well as his description of his discovery, could resolve this dilemma for the pioneering scientists of his age. *Philosophical Transactions*, the journal Oldenburg set up for members of the Royal Society (but at his own financial risk and profit), did exactly this. In its monthly issues, it registered the name of the author and date that they sent their manuscripts to Oldenburg, as well as recording their discoveries, thereby securing the priority for first authors and encouraging them to share their results with others, safe in the knowledge that their 'rights' as 'first discoverers' were protected by so doing. *Philosophical Transactions* from its outset did not publish all the material it received; the Council of the Society reviewed the contributions Oldenburg received before approving a selection of them for publication. Albeit primitive, this is the first recorded instance of 'peer review'. It was quickly realised by Oldenburg's contemporaries that the accumulating monthly issues of the journal also represented a record of the transactions of science of archival value.

The four functions of Oldenburg's journal - registration, dissemination, peer review and archival record - are so fundamental to the way scientists behave and how science is carried out that all subsequent journals, even those published electronically in the 21st century, have conformed to Oldenburg's model. All modern journals carry out the same functions as Oldenburg's and all journal publishers are Oldenburg's heirs.

The journal article performs a unique role in scholarship. It is an on-the-record, validated public statement of the claims made by its authors, like a witness statement under oath in the court of scientific opinion. It occupies a central position in terms of the wider set of possible communication modes that a researcher may adopt (oral presentations at conferences, early draft versions of a paper [called a preprint], an evaluated review article of other research articles in a field, a scholarly monograph or textbook). It is the evaluated (peer-reviewed), public, formal and final nature of the published journal article that makes it so important to its authors, their individual standing and their career prospects.

The publisher is at the centre of the information chain in the traditional publishing industry, which contains a number of members:

The Author

The author selects the journal in which they would like to have their work published on the basis of Relevance, Reputation and Ranking in its field. The motivation for the authors to be seen in a particular journal was described at a meeting of the *British Computer Society Electronic Publishing Specialist Group* as being primarily to

"reach the eyes of their colleagues, to influence their minds and work, and thus to make an impact on knowledge (not just a contribution to it)."
However, this rather selfless description of the research endeavour overlooks a number of key issues as far as most authors are concerned. An additional pressure on the individual author is the use of their published work in the evaluation of their scholarship with reviews such as the Research Assessment Exercise\textsuperscript{2} affecting their careers (permanent positions or promotion) or future investment levels for their research. Such evaluation is often done on the basis of citations to the articles, the number of published articles and the reputation of the journals, and this pressure on academics has come to be known as \textit{Publish or Perish}. These pressures sit on top of other motivating factors that affect all authors whether they are in academia or industry: the desire to see their ideas being publicly credited to them and setting a permanent record of their work.

The Journal Editor
A leading expert in his/her field appointed and financially supported by the publisher, the journal editor judges the relevance of the articles submitted to the journal and refers them to equally expert colleagues for peer review (usually other researchers in the same field as the paper, called referees or reviewers). Peer review is a methodological check on the soundness of the arguments made by the author, the authorities cited in the research and the strength of originality of the conclusions. While it cannot generally determine whether the data presented in the article is correct or not, peer review undoubtedly improves the quality of most papers and is appreciated by authors. Reviewers can recommend acceptance of a paper for publication, its rejection, or its acceptance subject to specified revisions. The final decision is made by the journal editors on the advice of the reviewers. The review process alone can take from weeks to months, with a similar delay until publication after the article has been accepted, although electronic publishing has greatly reduced delays in this second stage. The role of an editor, and of an editorial board, can be summarised as follows:

\begin{quote}
\ldots to take main policy decisions on which manuscripts to publish so as to provide up-to-date thinking and 'cutting edge' research in a particular field or discipline. There was clearly much personal and professional satisfaction and prestige gained from association with an academic journal, though increased work pressures were seen as eroding benefits. Other areas \ldots included: how referees were chosen (mainly through personal and professional networks); criteria for assessment of manuscripts (clarity of exposition and writing, originality, and relevance to the field); feedback to authors (a copy of the referees' reports plus a covering letter from the editor); and use of 'blind' refereeing system (removal of authors' name).\textsuperscript{3}
\end{quote}

The Journal Publisher
"Journals publishing is not just about producing and marketing a product - it's also about serving a community and about helping develop a focus for a community. The community consists of readers, authors and academic editors - who are often the same people - and also involves others who contribute to the information chain, including librarians, subscription agents and other intermediaries."\textsuperscript{4}

Whether not-for-profit or commercial, the journal publisher manages the production, marketing (to potential subscribers and authors) and distribution, whether in print or electronically.

Identifying new, niche markets for the launch of new journals, or expansion of existing journals is a key role for the journals publisher. This entrepreneurial aspect seeks both to meet a demand from the academic community but also to generate a satisfactory return on investment. As well as being an entrepreneur, the journals publisher is also required to have the following skills:
The manufacturer – copy editing, typesetting, printing and binding the journals
The marketeer – attracting the papers (authors) and new subscribers
The distributor – publishers receive subscription monies in advance of any publication and must maintain a sophisticated subscription fulfilment system which guarantees that goods are delivered on time. They also maintain close working relationships with subscription agents and serials librarians, as well as the academic community.
An electronic hoster – electronic journals require many additional skill sets more commonly encountered with database vendors, website developers and computer systems more generally.

(A useful overview of the various departments and roles within a publishing company can be found at the ALPSP website: http://www.alpsp.org.uk/careers.htm)

In addition to print, sales and distribution and electronic hosting, publishers support the academic work of their journals in a variety of ways, providing guidance to the external, academic, journal editor and boards, funding offices, editorial meetings and editorial expenses, together with the investment in the journal's development into new markets or new media, such as the internet. The publisher also has to invest in the 'back-office' systems which keep the journal in business, such as peer-review databases, production tracking systems, customer service and subscription systems, warehousing and distribution.

Having entered the new century there are a number of issues facing journals publishers and serials librarians, many of which could not even have been imagined fifty years ago, and which are effecting greater changes in the industry than it has ever seen. University libraries have had to face decreasing support for libraries in their institutions in real terms (spending on libraries has fallen dramatically for UK Higher Education, while at the same time the size of the literature has been growing annually in terms of articles and of journal titles. With the advent of online journals the traditional sales model is also changing – no longer is it a 'one subscription-one printed journal' model, but negotiations on site-wide access, state-wide access and even country-wide access to the publisher's entire online collection. Such consortia deals are taking up increasing amounts of both publishers' and librarians' time but the benefits to libraries are consistent, reliable holdings and price increases being fixed at a certain level for a period of time. For publishers, the advantage in striking such a deal may be 'locking in' a certain level of sales from a particular organisation. The major beneficiary of these deals has been the journal user. More material is available to more users now than at any time in the history of scholarship.

1. "The Present Generation of Publishers is doomed" Learned Publishing Vol 8, No 4 pp249
2. Research Assessment Exercise: www.rae.ac.uk/

Beverley Acreman, January 2001
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