Two Large-scale Surveys of Electronic Publication in the United Kingdom

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Abstract
The Department of Information Science at Loughborough University has carried out several user studies on electronic journals in recent years, including the ELVYN and Cafe Jus projects. We now report on two large-scale surveys carried out in mid 1998 to early 1999, with which this department was associated. The first was conducted under contract to the UK government’s Department of Trade and Industry between April and December 1998, and involved a questionnaire survey to all UK-based publishing enterprises, to investigate their intentions and expectations about electronic publishing; over 1,000 responses were achieved. These results provide an authoritative picture of the British publishing industry’s views about the potential commercial prospects for electronic publishing. A subset survey looked specifically at the responses that came from scholarly journal publishers, and the results from this group are compared and contrasted with those from the overall group of publishers.

The second is a study by the (UK) Association of Learned and Professional Society Publishers, who conducted a large-scale survey of authors of papers in the scholarly journals published by the association’s member societies. This survey investigated the attitudes and opinions of learned journal authors towards electronic publishing; it was thought that the interests of authors might be quite different from those of publishers. Questionnaires were sent out by the individual societies to their own authors, and over 3000 responses were received. Although the journals are all UK-published, the authors surveyed came from all parts of the world. This paper compares and contrasts the results from publishers with those from authors, and considers them in the context of this department’s earlier results from users, and other recent studies.

Introduction
Much has been written in the last few years about the electronic publishing of scholarly information. Bailey’s (1999) bibliography lists these references and is regularly updated. The book edited by Peek and Newby (1996) covers developments up to 1995 very fully, and the forthcoming paper by McKnight and Price (1999) gives a reference list that brings matters further up to date. This paper will therefore not cover earlier developments.

Both the Department of Information Science and the Human Sciences and Advanced Technology Research Institute (HUSAT) at Loughborough University (LU) have had long involvement in research about scholarly electronic publishing. In particular, the ELVYN study (Rowland et al., 1995) and the Cafe Jus study (Woodward et al., 1998) both surveyed users of electronic journals, in 1994 and 1996 respectively, and Lubega (1999) carried out a further user study in
1998 as part of her M.Sc. research. HUSAT was involved in evaluation of the SuperJournal project, one of many projects funded by the UK Electronic Libraries (eLib) programme, and Dawson (1999) has presented some up-to-date user results from the SuperJournal project. At another UK university (Strathclyde University), Tomney and Burton (1998) studied users in 1996-97 and obtained a rather better response rate than was achieved in the Loughborough studies.

The UK government’s Department of Trade and Industry (DTI), as part of its mission to support British industries, in 1998 issued a contract for a large-scale study of publishers’ attitudes; this contract was won by the Department of Information Science at LU, and the everyday work of it was carried out by a Research Assistant in the Department, Claire Greenhalgh. The full results of the DTI survey have been published by Williams (1999) and covered the UK publishing industry in general, while Greenhalgh (1999) analysed the responses from scholarly journal publishers in particular for her M.A. dissertation research.

McKnight and Price (1999) carried out a study of the attitudes of authors towards electronic publishing in 1998. Also in 1998, the (UK) Association of Learned and Professional Society Publishers (ALPSP) commissioned a large-scale survey of authors in its member societies’ journals (Brown and Swan, 1999). The project was carried out by consultants, but members of the Department of Information Science of LU sat on the advisory committee for this project, and we have been given authority by ALPSP to disseminate the results of the study.

This paper represents the first international presentation of the results of the DTI study of over 1000 publishers and the ALPSP study of over 3000 authors, and puts them into the context provided by earlier work at Loughborough and elsewhere, especially those projects that have surveyed the views of users.

User studies

The various user studies cited have identified various difficulties that users encounter in seeking to obtain information from existing electronic journals. As one might expect, these difficulties have been growing smaller over the period of time covered by the studies, because publishers and librarians have learned from experience and have improved their services. However, even in 1998 the number of people – academic staff and students – regularly using electronic journals in UK universities still seemed disappointingly small. Lubega (1999) strove hard to find an adequate sample of users from all departments at LU in summer 1998 to provide her with dependable statistical results, but could not. Dawson (1999) reports that the Political Science cluster of electronic journals within SuperJournal received usage from 434 distinct individuals in just over a year (August 1997 to September 1998), but only 26% of these people returned to use the service a second time. Her study was carried out in the UK’s premier research institution for political science, the London School of Economics, and thus these numbers seem disappointingly small. At Strathclyde University in 1996-97, out of 147 academic staff across ten departments who were surveyed, 75 returned questionnaires but only 21 of these said they used electronic journals at all (Tomney and Burton, 1998). By faculty, electronic journal users varied from 44% of the sample in the business faculty (which includes Law, heavy users at Strathclyde) to 9% in the Arts faculty.

In the earlier studies undertaken at LU, ELVYN (Rowland et al., 1995) studied users in materials science across six UK universities, while Café Jus (Woodward et al., 1998) looked at users in a number of different academic disciplines at LU. Both projects found it difficult to find enough users to produce statistically meaningful results. It is difficult to reconcile these results with the large numbers of visits that some electronic journal websites record.
Among the reasons adduced for the low level of interest are: the lack of a “critical mass” of electronic journals in any given subject area; the absence of a single “one-stop shop” for the journals of all publishers from a uniform interface; the slow rate of downloading of material from the Internet, especially if pages include a lot of graphics, Java applets or other sophisticated content. A further drawback of electronic journals that may inhibit usage is discomfort of reading from a screen – all the studies show that users, having located a relevant electronic article, print it out anyway for reading and retention.

A number of respondents in each of these surveys also expressed doubts about the quality of the information in electronic journals. These doubts might have been understandable in the early 1990s when a relatively small number of electronic journals existed, and these were in many cases newly founded. It seems less clear why the view is still expressed in Tomney and Burton’s (1998) work – by the time of their study many of the journals concerned were in fact electronic versions of pre-existing printed journals. Tomney and Burton suggest that the doubts expressed may result from loose terminology – the name “electronic journal” having earlier been somewhat indiscriminately applied to newsletters and zines as well as scholarly publications. The fact remains that users, like authors, have some doubts about the intellectual quality of material published in electronic journals.

Author studies

Loughborough study
McKnight and Price (1999) obtained from experts in each field the names of 73 core journals of high repute spread across 23 subject fields, and from these chose a sample of 1000 UK-based authors (the journals themselves being international in origin). A further 40 authors who had published in electronic-only journals were added to give an overall sample of 1040 authors to who a questionnaire was sent. A response rate of 51.6% — 537 authors from 111 different institutions – was achieved. The respondents were divided into “Science” (58.3%), “Arts” (8.7%) and “Humanities” (33.0%); it is assumed that Engineering is classified under Science and social sciences under Humanities here. The median age of the respondents was 40-49, though the modal age was 30-39. Over half subscribed to e-mail discussion lists and three-quarters used the World Wide Web (WWW) as an information resource. Most thought that electronic journals are here to stay, though significantly fewer in the Arts area thought so than in the other two fields. But across all three fields, over 90% stressed the paramount importance of peer review, thus indicating the importance of the distinction between formal and informal communication on the WWW. Asked about reasons for publishing, where respondents could list several, 85% mentioned dissemination of information and only 50% career advancement.

The main conclusion of the study was that the acceptance of electronic journals among authors was “small but increasing”, with the majority refusing to consider submitting papers to them. The potential to include multimedia content in electronic articles would have been a plus point for electronic journals but for authors’ doubts about the adequacy of their skills to produce such content. A major negative point was the doubt about the permanence of electronic journals; authors did not want to publish in a medium that might simply vanish after a few years. Publishers were urged to consult authors closely when preparing their electronic publishing plans.

ALPSP study
While the Loughborough study of McKnight and Price looked at British authors in journals published in many countries, the ALPSP study (Brown and Swan, 1999) looked at authors from many countries who had published in UK-based journals. A total of 11,500 questionnaires
were despatched by the publishers – who were member societies of ALPSP – and at the time of writing of the current paper, 3028 (26.3%) had been returned but the available statistics were based on the first 1848 responses analysed. These data will be updated by the time of the conference in Ronneby.

Over 80% of the respondents were in the “Science” area by McKnight and Price’s definition, though the age profile here was very similar to theirs. On reasons for publishing, a different scale was used – respondents listing them in descending order of importance – but “communication with my peers” scored 39% of first choices while career advancement was in second place with 26% of the first choices. The most important factor in achieving these objectives was peer review (59% “very important”) closely followed by publication in high impact-factor journals (57%), retrievability (47%) and speed of publication (43%). The factors influencing choice of journal were perceived reputation of the journal (75% “very important”), impact factor of the journals (59%), international reach (57%), inclusion in abstracting and indexing services (53%), circulation (43%), subject coverage (35%), and speed of publication (33%). Its selling price was very unimportant, rating only 4% “very important” responses. However, 65% agreed with the proposition that “Scholarly publishing is changing its function from knowledge dissemination to the building of an author’s resume, CV or reputation”.

Favoured means of communicating information before its publication in a journal article were conference presentations (84%) or conference abstracts (68%), personal communication of drafts (58%) or by conversation (54%), preprints (30%) or electronic “preprints” (16%). Most respondents (57%) did not object to current copyright arrangements, but when asked about preferred systems for copyright, a small lead was taken by “copyright retained by author, full publishing rights granted to publisher” (40%) over “copyright transferred to publisher, personal redistribution rights retained by author” (38%). Current problems with publication produced a clear-cut answer, with 50% stating that publication delays are the key problem. There was 68% satisfaction with peer review as it operates at present. About half of the respondents felt that he number of papers they receive for refereeing is about right, but 14% said they get too many, while half said they thought payment for refereeing was unnecessary and 19% that payment will become necessary.

Of the respondents, 68% thought that scholarly publishing in more or less its present form should continue. Asked to predict what will actually happen, the largest group (51%) predicted that electronic publishing with peer review will grow, 44% that conventional publishing as now will continue to grow, 27% that electronic publishing without peer review will grow, and 26% that posting to electronic preprints databases will grow.

Publisher studies
Williams (1999) reported the complete results of the DTI study over UK publishers of all types while Greenhalgh (1999) looked at those responses that came from specifically scholarly journal publishers. A total of 2669 questionnaires were sent out to UK-based publishers of which 1056 (40%) were returned. Of these 187 scholarly journal publishers’ responses were identified, by their answers to two questions: one that asked what types of product they published (books, journals, magazines, etc.), and one that asked what customer area they were in (business, educational, scientific technical & medical [STM], academic, etc.). Those who answered yes to journals and yes to either academic or STM were included.

The companies are in the middle of a switch to electronic publishing. Two years ago 60% of them had no electronic products; now 35% have none; in two years time only 18% expect to
have none. For scholarly journals, these figures are lower (58%, 26% and 17%), reflecting the big push towards dual publishing of scholarly journals in the past two years. However, the proportions receiving no revenue from electronic products (overall 68%, 54%, 21%; scholarly 76%, 42%, 18%) were higher, reflecting the difficulties encountered in persuading customers to pay for electronic publications, though it is notable that the scholarly publishers expect to narrow this gap in the next two years. It is perhaps not surprising that paper-based products are still seen as the ones with the best future opportunities for growth, but Internet/Online publication is seen as almost as good an opportunity area, well ahead of CD-ROM, by both the general sample and the scholarly one. Of all publishers 83% had an Internet presence already, and of scholarly publishers this figure rose to 95%. Internet activity was profitable for 27% of the overall sample but for only 17% of the scholarly sample, and this figure was expected to rise to 49% and 40%, respectively, in two years’ time. Major reasons for having an Internet presence were publicity and reaching new customers; direct provision of actual information products online came in third place. Publishers felt that customers were willing to access their products electronically, and had both the equipment and the skills to do so, but they thought that customers are unwilling to pay a realistic price for them (38.7% of all publishers and 41.5% of scholarly publishers took this view, while 28.4% and 30.3%, respectively, took the converse view). Part of the reason for this complaint was the high cost of maintaining parallel print and electronic versions, but at the same time there was a feeling that electronic publication provides an opportunity to improve the product (for example, with multimedia content). Paradoxically there was no feeling that parallel electronic publication reduces the sales of the printed product. Nor did the possibility of non-commercial competition – from Ginsparg’s electronic preprint server, for example – seem to respondents to be a significant threat. There was a consensus that the electronic publishing industry needs the collection, by government or trade associations, of better market statistics.

On the mechanisms for delivery of electronic journals there, was a good deal of consensus. Of all publishers, 60% thought the Internet was too slow and 53% of scholarly publishers agreed. Almost 70% of publishers, and 69% of scholarly publishers, were worried about copyright infringement, while 60.5% of publishers and 62.5% of scholarly ones were concerned about unknown legal liabilities in the electronic publishing environment. There was much concern about staffing for electronic publishing: publishers felt that there are insufficient trained staff, training costs are too high, that skilled people cannot be recruited at reasonable wages, and that poaching of experienced staff by competitors is a problem. Scholarly publishers agreed with all these views, except for the one about poaching. There was a feeling that banks, venture capitalists, and even their own senior management do not understand the electronic publishing business adequately.

Conclusions
Authors’ main concern, as has always emerged from past surveys of academic author opinion, is with quality control, through peer review. There is recognition that the scholarly publishing system is now concerned at least as much with scholars’ career progression as with the dissemination of knowledge. This is reflected in the finding that the reputation and impact factor of the journal are major reasons for an author’s choice of publishing outlet. Despite this, speed of publication is also seen by authors as a major advantage of electronic over printed publication. The other often-mentioned advantage – the potential for multimedia content – is not seen as important by authors because they feel that they lack the skills to generate such content and believe that producing it would be expensive. Publishers, on the other hand, do see this prospect as a major advantage. There is general agreement that the speed of the Internet is inadequate to provide the quality of service that authors, publishers and users alike would wish to see.
There are some clear contradictions between the results of these surveys that may betoken problems ahead. Publishers seem positive about electronic publishing on the whole – certainly they have very clear intentions of expanding this area of their operations, and they do not envisage customer resistance. However, users seem only weakly enthusiastic about electronic journals at best, and authors too seem to be retaining their traditional conservatism. As McKnight and Price (1999) remark, “without authors the entire edifice collapses”. And even publishers themselves acknowledge that they are not yet making profits from their electronic products, into which, in many cases, they have put substantial investment. Indeed, none of these surveys have addressed the views of those who pay for the system – academic and scientific libraries in the main. Publishers feel that the non-commercial alternatives to their activities that have been widely canvassed are no threat, and, from the ALPSP survey, authors seem in general to agree that the current commercial system is likely to continue. (It needs to be remembered, though, that the ALPSP survey of authors was conducted by publishers, which may have imparted some unconscious bias to the questions.) Authors seem unconcerned about prices; publishers wish to charge “realistic — that is, high — prices, and are worried about customers’ willingness to pay them. At the same time, they are concerned that staff costs in the electronic era will be too high, because of skill shortages. High wages, customer resistance to high prices, and lukewarm enthusiasm from the scholars who are both authors and users do not seem to justify optimism. Greater consultation with authors (as recommended by McKnight and Price), and also with users and librarians, would seem to be a good strategy for scholarly journal publishers in the near future.

References

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