In recent years, publishers, librarians, and academics have seized the opportunities offered by the electronic publication of scholarly journals. But journals continue to be published, acquired, and used in printed form: we are still some way in the UK from a wholly electronic journal environment. Retaining both print and e-journal formats adds unnecessary costs throughout the supply chain from publisher to library to user. A study published by the Research Information Network (RIN) in 2008 showed that e-only provision could produce global savings in the costs of publishing, distribution, and access of £1bn, and savings to UK libraries of 6–12% of their total budgets.

The RIN thus led a consortium of bodies, including JISC, the Publishing Research Consortium (PRC) and RLUK (Research Libraries UK), to identify and examine the barriers to e-only provision, and to investigate what the various players within the scholarly communications system could do to encourage such a move.

**Context**

A 2008 survey found that 90% of all scholarly journals were available online, with higher rates in science, technology, and medical (STM) subjects, and slightly lower rates in arts, humanities, and social sciences (AHSS). Publishers have also begun to offer additional functionality with electronic articles, such as linked data sets, embedded video and audio, and tools which enable readers to link, annotate, and interrogate tables and other static images. Such functions cannot, of course, be added to print articles.

Academics and students find e-journals convenient and flexible as they provide them with easier access to a wide range of content when and where they want it, and as we have shown in other reports, usage across the higher education sector is growing at over 20% a year. In parallel with the changes from publishers, libraries have thus shifted too. By 2008 over 50% of serials available for users of RLUK libraries were e-only, with substantially higher figures in other parts of the sector. But that still left large numbers of titles available in print, or in print + e.

**Barriers**

In the light of the agreed benefits arising from e-journals, we sought first to identify the kinds of barriers that might be stopping moves to e-only. In discussions with experts and stakeholders, we identified twelve kinds of barriers, categorised under three main heads. We also asked librarians to attach a weighting to each barrier on a ten-point scale (1=unimportant or irrelevant; 10=very important or critical). The barriers and the average ratings are shown in Table 1.

<table>
<thead>
<tr>
<th>Business issues</th>
<th>Rating</th>
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<tr>
<td>publishers’ pricing policies</td>
<td>8.6</td>
</tr>
<tr>
<td>VAT</td>
<td>8.1</td>
</tr>
<tr>
<td>structure of NESLi2 and SMP deals</td>
<td>4.9</td>
</tr>
<tr>
<td>publishers’ resistance to open access</td>
<td>4.1</td>
</tr>
<tr>
<td>post-cancellation access</td>
<td>6.7</td>
</tr>
<tr>
<td>long-term preservation concerns</td>
<td>5.3</td>
</tr>
<tr>
<td>lack of online backruns</td>
<td>4.7</td>
</tr>
<tr>
<td>conservative scholarly cultures</td>
<td>4.7</td>
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<tr>
<td>continuing demands for print</td>
<td>4.1</td>
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<tr>
<td>conservative library cultures</td>
<td>4.2</td>
</tr>
<tr>
<td>persistence of print-only journals</td>
<td>3.1</td>
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<tr>
<td>Technical issues</td>
<td></td>
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<tr>
<td>clunky websites and platforms; appropriate copy problems, title transfer problems, etc</td>
<td>5.9</td>
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Table 1 Barriers identified to an e-only environment

**Business Issues**

Publishers’ pricing policies

As Table 2 shows, there is still great variety among publishers as to their pricing models and structures. Recent years have brought some increase, particularly among large publishers, in e-only pricing; and the ‘free online with print’ model is declining. But overall we found a fairly chaotic pricing landscape, characterised by continuing experimentation. Many of the pricing models are
VAT
The standard VAT rate has recently risen to 20% in the UK, and there is a long history of attempts to persuade the Government and the EU to give more favourable treatment to educational and research material in digital form. But we are unlikely to see any relief in the short term. Although some universities recover a proportion of the VAT they pay, the VAT burden on e-content as distinct from print clearly reduces the incentive for libraries to move to e-only. In order to remove the price disincentive, publishers would have to price e-only provision at least 16.6% cheaper than print or print+e. 3 But it is also important to note that various studies have suggested that the economic benefits of a shift to e-only across the UK higher education sector as a whole would outweigh the additional cost of VAT. 4 For individual institutions it may be difficult to identify the savings, and universities and colleges need help to identify the savings that would result from a move to e-only.

NESLi2 and SMP
Despite the relatively high weighting given by librarians to this issue, we found little evidence that the policies and deals negotiated by JISC Collections constitute a barrier. Rather, they constitute an enabler, and JISC Collections is investigating how it might adjust its strategies further to leverage its collective purchasing power for the benefit of UK academic libraries.

Open access
Some libraries rated publishers’ reluctance to engage with open access as a significant barrier, but it is not clear why. However welcome open access might be in its own right, it is essentially separate from and irrelevant to publishers’ policies in moving to e-only.

Library and user issues

Post-cancellation access
The right to continuing access to the volumes of a journal that a library has subscribed to is a standard condition of most large and medium-sized publishers’ licences; however, only 55% of small publishers provide such a right. Many appear not to recognise that post-cancellation access is simply an analogue of the print paradigm, where issues that have been paid for are still available to readers even if the library has cancelled the subscription. Some publishers also make continuing access problematic by levying an annual maintenance fee or by providing a copy on physical media, rather than online (which prevents libraries from providing a seamless service to their readers).

For many RLUK libraries, lack of continuing access would constitute an absolute barrier to subscribing online-only. For post-1992 institutions, it is of less concern: if a title is cancelled, why would back volumes be required?

Long-term preservation
Libraries have an understandable concern for the preservation of the scholarly record. There is currently a patchwork of provision for preserving ejournals. Publishers and libraries have reached agreements with a range of providers including the National Library of the Netherlands (Koninklijke Bibliotheek), Portico, CLOCKSS and the UK LOCKSS Alliance. Almost a third of publishers, however, say that they are taking responsibility themselves; and most small publishers have made no arrangements at all (some in the mistaken belief that their hosting providers are taking the responsibility).

Again, there are differing views among libraries, and it may be that concerns expressed in previous years are fading now that the providers mentioned above have a critical mass of journals committed to them.

Scholarly cultures and work patterns
Most believe that scholarly cultures have changed. In science, technology and medicine, work patterns are wholly based on online provision; and they are moving in that direction even in the humanities, albeit at a slower pace. Practitioners in some areas of professional practice remain wedded to print, and this may feed into vocational courses in areas such as nursing.
Persistence of print-only journals

Over 90% of scholarly journals are available online. But that leaves a significant proportion – particularly foreign-language journals and those, mainly in the humanities, published by small learned societies and university departments – still available only in print. Nevertheless, print journals are a diminishing feature of the landscape, and probably high on library cancellation lists.

Lack of online backruns

Some 95% of publishers make back volumes available online, although only 37% have retro-digitised volumes published before they introduced online versions in the 1990s. Backruns may be included as part of, or as an add-on to, a current subscription, or may be purchased outright. The JSTOR e-journals archive provides a much-used service of access to backruns, especially in the humanities. But while many RLUK libraries have invested heavily in backruns, many other libraries have not been able to follow suit. For those disciplines where regular access to older volumes is required, lack of online backruns may be a barrier to a fully-online environment; but even in that case, it does not prevent libraries cancelling current print volumes in favour of e-only subscriptions.

Continuing demand for print

The continuing demand for print arises from a number of causes, some substantive, others matters of preference. The former relate in particular to the quality of images rendered in print as distinct from on screen, and to the difficulties some publishers encounter in clearing image rights from third parties. The latter relate to both author and reader preferences for print in some disciplines, and to some editors’ preference for a coherent print volume as a stand-alone publication built around a topic or theme. From a publisher perspective, print may offer advantages in fulfilling society membership benefits and attracting personal subscriptions, and as a medium for display and classified advertising as well as special sales of reprints. Some of the advantages of print may decline, however, as the quality of digital printing improves, and its costs continue to fall.

Libraries wedded to print?

This is a belief of some publishers, but we found very little evidence to support it.

Technical issues

Libraries have to deal with a series of technical issues in managing ejournals, relating to access and authentication, especially for remote use, to transfers of titles from one publisher to another and to changes in publisher platforms, all of which can give rise to considerable workload in libraries. But they are generally regarded as an irritant – perhaps a replacement for the different irritants associated with print journals – rather than a significant barrier to moves to online provision.

Conclusions

Realising the full benefits that would accrue from e-only provision depends on actions by all the key players in the scholarly communications landscape. There are no magic bullets or grand designs; rather, a need for action from libraries and publishers to work together at local and national levels.

At national level, libraries should come together to develop a statement of their requirements on pricing models and other licence terms and conditions; and JISC Collections could, alongside its licence comparison tool, provide clear information about the different pricing models offered by publishers. Further work to help librarians identify the cost savings from e-only provision would be useful, along with seminars and briefing notes to promote the economic and other benefits of such a move.

Publishers should make sure that their pricing models do encourage moves to e-only; and those that use prior subscription expenditure on print as the basis for pricing their bundles should move to other models. They should also provide post-cancellation access online as a standard licence entitlement, and improve their compliance with standard technical processes, including compliance with the UKSG Transfer Code of Practice.

But libraries and publishers also need to work together to make pricing models less complex; to develop a clear UK strategy for long-term preservation of ejournals; to investigate further the reasons underlying the continuing demand for print; to help journals currently produced only in print to move online; and to continue lobbying for change in the VAT treatment of scholarly journals. Above all, they must work together to support librarians at local level who are seeking to address the concerns of academic staff about e-only provision. Effective advocacy at local and national levels is essential if we are to address those concerns and reap the benefits of moving e-only.
REFERENCES


3 If a journal has a print subscription price of £100, the e-only subscription price including VAT must not exceed £100. To offset the burden of VAT at 20% the price exclusive of VAT must be no higher than £100/1.2= £83.33.