The Scottish Higher Education Digital Library (SHEDL) has developed in recent years, having arisen within the context of higher education provision in Scotland. The compact size of Scotland, including a limited number of higher education institutions (HEIs), the existence of research pools, and a separate funding regime – plus the negotiating prowess of JISC Collections – has enabled successful negotiation with a number of publishers on the provision of all their journal content to all Scottish HEIs. The origins, development, operation and benefits of SHEDL are described. Some early evaluation, including evidence of increased usage, is outlined. Finally, future developments, including possible barriers to progress, are discussed.
An additional contextual factor is the separate funding body for tertiary education in Scotland, the Scottish Funding Council (SFC), which since 2005 has been responsible for both HE and further education (FE), allocating funds provided by the Scottish Government. The SFC collaborates with the other UK HE Funding Councils, and much research funding stems from the UK-wide Research Councils. However, the existence of the SFC encourages the development of Scotland-wide solutions to particular challenges.

In many ways, the small size of the Scottish HE sector is both a threat and an opportunity. While Scotland’s research output continues to operate at the highest international impact level, there are concerns that research teams may not be of sufficient size to maximize economies of scale and that research funding allocations may suffer. To counteract this fear, from 2003 onwards, the SFC has encouraged the establishment of ‘research pooling’ initiatives, bringing together researchers from a number of Scottish HEIs to form a critical mass in particular subject fields. The relevant SFC web page lists 13 current research pools. The initial establishment of research pools took no account of differences in information access between members in, for example, the large research-intensive universities and those in smaller institutions unable to provide such a wide range of information resources. This disparity has been a major driver in the establishment of SHEDL and the provision of a ‘level playing field’.

A final element setting the context for the establishment of SHEDL is the existence of similar consortia in similarly-sized countries in Europe such as Ireland and the Scandinavian nations. Members of SCURL felt that these consortia provided examples and opportunities for emulation, in improving access to information for research and learning purposes in a small country.

**Origins of SHEDL**

For a number of years in the mid 2000s, there were attempts to implement ‘Scotland-wide’ access to electronic information resources, taking account of the context previously outlined. The National Library of Scotland (NLS), a founding member of SCURL, was a key player in this initiative, under the banner of the Scottish Science Information Strategy Working Group (SSISWG). The ambition of this SCURL group was to provide access for all sectors, including HE, FE, schools, public libraries, the National Health Service (NHS), research institutions, and small and medium enterprises (SMEs). Although there were some productive discussions with publishers, this ambition faltered primarily because of problems in co-ordinating many different funding streams. (The NLS has since provided off-site access to some online resources to those who register with the Library and live in Scotland, but in general this does not cover research-level journal article content and may exclude those in tertiary education).

Following these efforts, SCURL decided to concentrate, initially at least, on provision for HE. The Principals of Glasgow and Edinburgh Universities could see the advantages of Scotland-wide HE access to journal content and jointly funded an Investigative Study looking to establish such provision. The study, which was published in September 2007, was carried out by John Cox Associates; it recommended the creation of SHEDL. In addition to examining the feasibility and rationale of SHEDL-type negotiations, John Cox interviewed all relevant stakeholders, not only from libraries and from the research pools but also senior university administrators and policymakers from Universities Scotland and the SFC. Cox concluded that savings were indeed possible and that improved access would be highly beneficial. This series of interviews, together with a launch event attended by many of these stakeholders, were crucial in raising the profile of SHEDL and building it up as an initiative that could indeed be implemented in practice.

**Structure and governance**

Before giving details of SHEDL implementation, it is worth considering some more general questions.

It was decided fairly early on in the process that it would not be sensible for negotiations with publishers to be carried on by individual library staff, and JISC Collections quickly emerged as the preferred negotiating partner for SCURL. JISC, the Joint Information Systems Committee, is funded by all the UK funding councils, and JISC Collections is the independent body that negotiates information resource agreements on behalf of UK HE and FE institutions. Although APUC, Advanced
Procurement for Universities and Colleges\(^1\), had recently been set up in Scotland to act as the prime procurement body, staff there recognized that this specialist area benefits from the expertise that JISC Collections has built up. In addition, university administrators were keen to leverage the funding provided to JISC Collections for this very purpose and so expected SHEDL to work within the JISC Collections framework.

JISC Collections themselves were enthusiastic about taking SHEDL forward, given the differences in business model from most other JISC licence agreements – SHEDL operates on a single-payment model for all (online) content for all institutions, whereas existing JISC Collections or NESLi2 agreements operate on an opt-in basis, and the ensuing uncertainty makes it more difficult to obtain the best terms possible. The extension of SHEDL-type agreements to a UK level is worthy of consideration, although the change of scale does lead to a different level of complexity.

SHEDL has always operated under the auspices of SCURL. There is a SHEDL Steering Group of nine members, mostly library directors, representing the different ‘interest groups’ among the HEIs, plus an NLS representative. This Group takes the strategic policy decisions, liaising closely with JISC Collections. In addition, a SHEDL Working Group, comprised of a representative from almost all of the individual HEIs, meets regularly, gathering information and data and consulting sites. This structure has been vital in gaining and maintaining widespread support for SHEDL from a very diverse range of constituencies and encouraging involvement and buy-in at both the director level and at the level of the serials manager.

**SHEDL implementation**

Phase 1 started in January 2009 with three publishers, selected by the Steering Group, which represent a range of disciplinary interests across all of the institutions and bring gains to all concerned: the American Chemical Society, Cambridge University Press and Springer. The initial agreements run from 2009 to 2011, with costs and price caps agreed at the start of the contract.

Phase 2 runs from 2010 to 2012. Following consultation across all SHEDL sites, there were 40 nominations for possible publishers and titles to target for this phase. Voting reduced this set to six targets and took into account advice from JISC Collections on which discussions might be most fruitful. Negotiations resulted in agreements with three publishers: Berg, Edinburgh University Press and Oxford University Press. An agreement was also made with Portico, which helps institutions start to address the issues around the preservation and archival access to resources.

Phase 3 will start from January 2011 and publisher negotiations are well under way, with seven targets from an initial list of 46 nominations. As funding pressures grow, negotiations, which are never easy, become more difficult, and negotiating this year will be particularly testing.

The base-line for each institutional contribution is expenditure within a particular year, and thus each institution verifies its subscription base and costs with the publisher before the start of the contract. There are some potential variations in title coverage year on year, depending on new or transferred titles within each collection, with each institution making its own choice about these variations. It is important to note that SHEDL institutions continue to fund their own subscriptions, there is no central support from the SFC, and each institution does not expect its costs to rise beyond the agreed price cap.

The agreements are for e-only content, but there is also the option to buy print at a deeply discounted rate. The agreements lead to reduced overheads for both the institution and the supplier, with the potential for further savings for early payment, and with a single payment made on behalf of SHEDL by JISC Collections. Decisions on print retention are taken locally, and those costs are not factored in to the SHEDL agreement. Details of the SHEDL agreements, and their coverage, are also passed on to the various link resolver services used across the consortium. Usage is monitored closely, both across the consortium and at the institutional level.

**Benefits**

Even at this early stage, it is possible to identify benefits to both the library and the publisher. At the institutional level it has been critical to have buy-in and support, not just from within the library, but from academic colleagues, to ensure that funding remains available for the lifetime of the contracts. The e-only agreements have helped a
number of institutions to extend e-only coverage and to drop print except where really required. The single payment is a further benefit, with efficiency gains for the library and the finance office, although it is the case that some institutions may still need to devolve costs to separate budgets. In 2009-10 it is possible to see early evidence of the proof of concept, that access to content is widened, there is parity of access across institutions, there is increase in usage, and there are efficiency gains, with reduced operational costs.

For the publishers too there are benefits, primarily in efficiency gains, with reduced overheads – they no longer need to deal with institutional variations or institutional subscription lists, and there is a single point of contact for administration and invoicing. Institutions continue to contact the publisher about any issues relating to access and authentication. The publisher will see that there is wider dissemination and usage of its content, with the prospect of increases in impact. The parity of access also means that licence compliance is better safe-guarded across the sector. The agreements also encourage the adoption of e-only subscriptions, further reducing overheads for each publisher. Where print is retained, separate subscriptions are handled by the subscription agent, not JISC Collections.

Most importantly, the user has access to more content, which is accessible at the point of need and at any time. The Phase 1 and Phase 2 agreements have delivered over 1,800 full text titles across a wide range of disciplines to all 19 Scottish HEIs. The evidence proves that the material is being used, with a 41% rise in full text downloads for the relevant publishers between 2008 and 2009 showing good usage of both subscribed and previously non-subscribed content.

Evaluation

The Research Information Network (RIN) has been sponsoring an early study, carried out by John Cox Associates, on the impact of SHEDL. At the time of writing, this study is as yet unpublished, but it does confirm the increase in usage of 41%, which is well above what might be considered a standard ‘trend’ increase of around 20% in e-journal usage year on year. The study also indicates from interviews that there is a widespread acceptance by users of the value of increased across-the-board access to journal literature. The study is due to be published in November 2010.

On a slightly different track, JISC Collections has also commissioned and published a study looking more broadly at the question of allocating payments in a SHEDL-type consortium. SHEDL payments are currently based on pre-existing expenditure levels, but it is not clear that this is sustainable. On the other hand, it is equally unclear as to how this model can be replaced under present circumstances, as any change leads to winners and, more importantly, losers. The JISC Collections report is also unable to recommend an ‘ideal’ allocation method but does not favour usage as a major element, preferring independent and openly available criteria such as JISC banding or other objective indications of size/income.

The future

Looking ahead, there are issues to consider as further agreements are planned – the new purchasing model has major impacts on other intermediaries and on consortial purchasing agreements. At the institutional level there are changes to workflows and changes in the way content is delivered and used, which may influence local decisions about the relegation of print collections to off-site stores. Monitoring already shows changes in the usage across and within institutions, and it remains critical that the electronic collections continue to be promoted and exploited and that institutions ensure that they are findable through improved resource discovery. The gradual increase in title coverage raises user expectations, and sustaining the new collections presents a challenge for the future. This comes at a time when every institution is fighting for budgets and facing hard choices about cuts for future years, not least where bundles, or ‘big deals’, ring-fence funds and influence choices for savings, thus having an impact on collection management decisions.

There are also pressures to extend the SHEDL concept to other formats: e-books (trial access to a set of e-books is under way at present), databases and back-files, and to other sectors (discussions are ongoing with the NLS, with FE, and with NHS Scotland). These are all valid extensions, while at the same time raising serious questions of feasibility and co-ordination.

As we enter a period of intense funding pressure on the UK public sector in general, and on
HE in particular, collaboration becomes ever more important to make the most effective and efficient use of available resources. At the same time, collaboration is ever more difficult as budgets shrink at the individual institution level. Shared services are heavily favoured by the Scottish Government and the SFC (as by the other funding councils), and the continuing development of SHEDL is likely to require support. SHEDL is proving very successful, and we look with great interest to see how it will continue to develop and adapt in the future.

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