Introduction

The Access to Research project is the result of a collaboration between scholarly publishers and public libraries, as envisaged in the recommendations of a working group chaired by Dame Janet Finch. The Finch Group was commissioned by the UK government to provide a means through which representatives of the HE sector, research funders, the research community, scholarly publishers, libraries and other interested parties can examine how most effectively to expand access to the quality-assured published outputs of research; and to propose a programme of action to that end.

A proposal to deliver free licensed access via public library terminals to a wide range of research journals, which became known as the public library initiative (PLI), was part of the 'balanced package' of recommendations to expand access to published research findings via both open access and licensed means. The Finch Report envisaged that the transition to open access publishing would take some time and that subscription-based journals would remain as a key channel for communicating research findings within a mixed economy.

The PLI aims to provide licensed access via library terminals to research findings published in scholarly journals, free at the point of use. Early implementation of the PLI offers a practical and immediate means of expanding access for the benefit of everyone – individuals, students, and businesses – whilst the other recommendations of the Finch Report, with their longer-term and far-reaching consequences for the ecology of research and communication, are progressively implemented via numerous open access initiatives. As such, Access to Research represents an important milestone on the road of expanding access towards the ultimate objective of full sustainable open access.

This paper does not attempt to analyse the evolution of open access (see Sykes for a
the support and enthusiasm for the initiative from both scholarly publishers and public librarians has resulted in an excellent level of co-operation, which in turn has eased the path to implementation.

The Publishers Licensing Society (PLS), at the request of publishers, has led and facilitated the development of the PLI up to the launch of the two-year national pilot, now known as Access to Research. PLS has worked with a steering group of publishers and librarians to oversee the progress of the project. The project has enjoyed the support of The Publishers Association (PA), the Association of Learned and Professional Society Publishers (ALPSP), and the Society of Chief Librarians (SCL). The information management specialist ProQuest has generously provided its Summon platform to enable access by library users.

In this article, we review the origins and early development of Access to Research, and summarize the progress made up to the end of the technical pilot in December 2013. Finally, we point towards the work being undertaken for the full two-year pilot in 2014 and 2015.

Background to the recommendation for free licensed access to journals in public libraries

The rationale behind Access to Research is explained as follows in the Finch Report:

Very few public libraries provide access to journals, and then only to a very small number – such as Nature or the British Medical Journal – in printed form. For most members of the public, the only way in which they can gain access to journals is through the walk-in service provided by some university libraries. During the course of our work, however, a proposal was developed to provide walk-in access to the majority of journals through the public library system.

(p. 51)

[The] proposal is that the major subscription-based publishers should license public libraries throughout the UK … to provide access to peer-reviewed journals and conference proceedings at no charge, for ‘walk-in’ users on library premises. … At a time when public libraries are under severe pressure such a move will help to strengthen their position in the communities they serve, and lead to increased usage and value. It would have an immediate effect in extending access to the great majority of journals for the benefit of everyone in the country. (p. 80)

It is proposed that this public library initiative should run for an initial period of two years, in order to gather and analyse data on demand and usage; and publishers hope to extend the service at the end of the two years if it has not led to any damaging loss of core revenues. The precise terms of what will be provided … have yet to be worked out. (p. 81)

The Access to Research pilot is taking place at an important moment in the historical development of public libraries, at a time of shrinking expenditure on public services, and as the role of public libraries in the digital era hangs in the balance. Access to Research potentially creates an important new role for the public library service and a need for public librarians to develop expertise in managing the challenges of discovering the outputs of research.

Developing a project to implement the Finch recommendations

The publishers serving on the Finch Working Group encouraged through their associations the establishment of a steering group to explore the implementation of the PLI while it was still under discussion prior to the final report. The steering group comprised representatives of publishers, public librarians, the British Library, and intermediaries including PLS. The steering group quickly identified that the key issues in making the initiative work were:

1. Securing engagement with public libraries throughout the UK. The membership of the SCL extends throughout England, Wales, and Northern Ireland. Scottish libraries have also agreed to engage with the
2. Developing a licence acceptable to both publishers and libraries. PLS convened a sub-group of six key publishers to develop the terms of a PLI licence thought to be acceptable to publishers at large. Where appropriate they applied terms that were already widely used within the industry. A draft of the licence was then shared with the librarians on the steering group and adjustments were made to accommodate policies and practices concerning access on library premises. The contracting parties were to be PLS on behalf of the opted-in publishers and the local authorities representing the libraries in their remit. (The text of the final terms and conditions for the user and the full licence can be viewed at http://www.accesstoresearch.org.uk.)

3. Obtaining publishers’ commitment to making their content available free of charge. The PA and ALPSP kept their members appraised of the development of the PLI throughout so publishers were ready and willing to participate when PLS invited them to opt-in their journals to the PLI licence, a process with which publishers are already familiar for the wider collective licensing handled on their behalf by PLS.

4. Specifying the technical requirements for the project. ProQuest came forward and generously offered to provide their Summon web-based discovery service for use in the project. Summon is already widely used in many university libraries and ProQuest was able to adapt Summon to the requirements of public libraries.

5. The need for training for library staff and end users. The development of a training programme and materials was led by one of the expert librarians on the steering group. Publishers were also invited to explain how to navigate their sites.

6. The need for a technical pilot before the two-year national pilot to ensure that all technical issues had been successfully addressed. The group agreed to enable a three-month technical pilot (see below).

7. Communications and marketing. The group started planning the communications but agreed that the service should not be publicized until completion of the technical pilot in case unexpected issues arose that could not be resolved easily.

8. Quantifying the costs and identifying a source of funding. The costs of drafting the licence and of providing training for librarians were identified as the main initial costs with communications and marketing costs following later. PLS undertook to meet any such costs to ensure that the PLI was not delayed on account of lack of resources.

The technical pilot (Autumn 2013)

From September to December 2013, the PLI steering group carried out a technical pilot involving ten local authorities covering more than 200 individual libraries. The PLI licence was signed by the local authorities listed in Table 1 and the technical pilot was run in selected libraries under their control, with the exception of Surrey and Kent where all libraries were included in the technical pilot.

The objectives for the technical pilot were:
- To give the software and databases a thorough testing by a broad range of users (library technical specialists, library service assistants, and general library users).
- To understand the training needs among library staff.
- To encourage more publishers to opt-in their journal content.
- To evaluate the technical process of adding content to the PLI database.
- To manage the different interests of publishers and local authority libraries: whilst libraries want software and access that is as

| Local authority name                    | No. of libraries participating |
|-----------------------------------------|-------------------------------|
| East Sussex County Council              | 6                             |
| West Sussex County Council              | 3                             |
| Surrey County Council                    | 51                            |
| Kent County Council                     | 100                           |
| Oxfordshire County Council              | 42                            |
| Newcastle City Council                  | 1                             |
| London Borough of Lewisham              | 7                             |
| Calderdale Council                      | 3                             |
| Royal Borough of Windsor & Maidenhead   | 14                            |
| Buckinghamshire County Council          | 3                             |
simple as possible for their users, it is critical for the publishers that there is only authorized access in accordance with the terms and conditions set out in the PLI licence.

- To begin to develop ways of quantifying usage.
- To begin to develop measures to assess the impact of the pilot for libraries and library users.
- To identify ways that the initiative may develop in the next phase.

An initial call by PLS to publishers to opt-in journal content for inclusion in the project was made in the summer of 2013. At the conclusion of the technical pilot, the publishers listed in Table 2 had submitted content.

The total number of journal titles included is currently close to 8,400. A number of smaller publishers also expressed an interest in participating. However, they lacked the automated web servers required to process access requests from Summon and so for the time being these publishers are not able to participate. It is hoped that this technical limitation can be resolved later.

A broad analysis of subject areas covered by the journal titles shows the categories listed in Table 3.

The software set-up developed for the technical pilot consists of:

- a web landing page accessible from library premises that runs on a PLS server. This introduces the service and clicks through to the terms and conditions of use (as set out in full in the licence between PLS and the local authority), so that use of the Access to Research search facility is deemed to be an acceptance of the licence terms;
- a web-based discovery engine which runs on ProQuest’s servers and is based on ProQuest’s Summon software, linked from a search box on the landing page;
- databases of journal articles, which are processed by Summon into searchable data;
- IP-controlled access to journal full text on the publishers’ websites;
- designated IP addresses for user terminals, submitted by each library service.

The main technical problem experienced was with IP-controlled access to journals. Initially we arranged that each library’s IP addresses would be registered with each publisher. However, libraries repeatedly reported access problems. The problem was as much managing the technology as a technology issue perse: it was difficult for PLS in London to act as a remote helper between 10 local authorities and 13 publishers, trying to diagnose whether the library was experiencing an IP-related access problem, or some other problem.

A proxy server solution was investigated and introduced. The proxy server is based at PLS and is under our control. It simplifies the access process significantly because publishers now need to provide access for only one IP address (that of the proxy server), while the IP registration with libraries can be handled entirely by PLS.

The main issue that disturbed users was the lack of a consistent format of journal content.
in some cases a direct link and in other cases two or three clicks. The expectations of our users are based on the simplicity and directness of Internet search engines (Google, Bing, Yahoo, etc.). The solution involves both doing what we can to improve how the software works, and a process of education of users – and librarians – about searching research information.

Another issue that we have experienced in managing the software and databases is the significant variation in access restrictions to different journal titles and for different publishers. Inevitably, publishers have imposed some limits on the ‘full-text’ content which the Access to Research project can access freely, mainly in the form of cut-off dates for access to older material. Typically, the project has been given access to published articles from 1997 or 1999 onwards. The publisher-set cut-off dates vary even between journals, and ensuring that these are correctly set in the databases, for thousands of journals, has been a challenge for which we are still seeking an efficient solution. (Of course, there is still access to the abstracts of articles before the cut-off dates – however, the decision was taken that the Access to Research system would be simpler to understand for the public if every search hit in Summon connects to a full-text article, rather than having a mixture of full text and abstracts.)

It is significant to note that all publishers have committed to making available the most current research articles, which enhances the value of what we can offer to users.

Findings so far and discussion

It is still very early days for the project, with only a few weeks’ experience of having a working system in place in the libraries. Nevertheless we can point to some achievements:

- a significant level of coverage of journal titles from major scholarly publishers;
- the software platform is workable – Summon has proved to be a reliable search and discovery engine, once the source databases and links to journal full text are properly configured;
- we are beginning to understand the patterns of usage for the service (based on feedback from librarians and usage statistics from the Summon webserver).

The overwhelming fact about public library users is that there is great diversity, of interests, of prior experiences and skills in information literacy and research, of educational backgrounds, and of attitudes towards learning. For example, consider the question of users’ interests in research journal content.

Some users have research expertise and are focused: they are seeking a small number of articles that they have already identified as being what they need. Libraries would normally deal with this request using the British Library document delivery service, which is slower and relatively expensive, so the new service brings an immediate benefit. Several libraries have already commented on the importance of this capability with Access to Research.

Another typical focused user is looking for medical research information related to a particular disease or type of medical treatment relevant to their own or a family member’s medical condition. But perhaps the most interesting area for investigation is users whose interests are not already focused. Some users may be just curious and want to search more broadly. Generally speaking, we should expect the general public to be quite unaware of what kind of information is actually published in academic journals, so users simply do not know what they could find out.

Journal articles do not work like books: usually it is not obvious what are the ‘reference points’ for any particular topic (unlike say an encyclopaedia or handbook). Most searches using a discovery engine such as Summon will generate a large number of links, even for a quite focused search query, typically of the order of 1,000–10,000 responses. Knowing how to deal with such complexity is critical. Library staff need to know how to guide library users to use the Summon tool in the way that is appropriate to their needs. We saw evidence that library staff sometimes lacked familiarity with the necessary search skills. We think, however, that with good guidance it does not take long to learn how to search better for what you want. But without this guidance, users can easily get frustrated and give up.

We produced an Introductory Guide for
Publishing as unique as you

As one of the world’s leading STM publishers and a globally trusted and recognised brand, BMJ can provide your publication with the bespoke service it deserves. BMJ places the needs of our partners at the centre of all we do, and as a society ourselves; we share the same values of our society partners.

Why choose BMJ?
By choosing to publish with BMJ, your publication will benefit from:

- A truly personalised service
- An individual editorial strategy tailored specifically for your publication
- Expert financial management and guidance
- Dedicated support from our in-house marketing and PR teams to maximise your title’s visibility
- Innovative technology solutions for healthcare publications

To learn more about our bespoke publishing services, contact:

Peter Ashman
Publishing Director
📞 +44 (0) 20 7383 6169
✉️ pashman@bmj.com

Joyce-Rachel John
US Publisher
📞 +1 917 612 5935
✉️ jrohian@bmj.com
Librarians, to explain the nature of searching in Summon, and to provide several detailed examples that librarians could use as a baseline for testing that their system was correctly configured. This guide was used by one local authority library manager as a source to create a webinar for his staff, which was later shared with all the libraries as a PowerPoint document. This was an important lesson for us: the webinar document proved to be engaging for librarians because it was based on a fellow librarian’s perceptions, interests, and style of language.

We have also realized the importance of regular communication with the librarians: to monitor what is going on; to deliver information about the project and training information in a way that librarians can take on board; and to promote the project and keep it fresh in their minds. We have produced a weekly electronic newsletter, which has been well received and which allows us to ask topical questions for feedback.

There is not yet a large amount of usage data from the technical pilot (about 700 unique website visits, and 3,000 individual searches) but two useful observations can be made. The first is an analysis of the topics of the searches. We did a categorization of 2,170 of the recorded search queries, using as topics the major headings of the Universal Decimal Classification, with a few items added. (Each search query was inspected by a human reader, who assigned the query to one topic in the topic list.) The results are shown in Table 4. Medicine, as we had observed, was the most common search category, and interestingly history was searched almost as often.

The second observation is to assess the ‘quality’ of searches made, and any pat-

| Topic classification                          | Frequency |
|----------------------------------------------|-----------|
| Medicine                                     | 313       |
| SYSTEM TEST [searches to test the website]  | 303       |
| History                                      | 300       |
| PERSONAL NAME (UNCLASSIFIED)                 | 173       |
| Libraries                                    | 83        |
| Public life. Social life. Life of The people | 76        |
| Psychology                                   | 62        |
| Education                                    | 57        |
| Literature                                   | 56        |
| Sociology                                    | 52        |
| Business and commerce                        | 49        |
| Law                                          | 46        |
| Biological Sciences                          | 45        |
| Customs, manners, usage in private life      | 42        |
| Zoology                                      | 41        |
| Engineering. Technology in General           | 35        |
| Arts                                         | 34        |
| Geography                                    | 30        |
| Physics                                      | 29        |
| Computer science                             | 25        |
| Management                                   | 22        |
| Archives. Public records                     | 20        |
| Sport                                        | 20        |
| Chemistry                                    | 15        |
| Higher education. Universities.              | 15        |
| Academic study                               | 15        |
| Religion                                     | 15        |
| Botany                                       | 14        |
| Earth Sciences                               | 13        |
| Linguistics                                  | 12        |
| Military Science                             | 12        |
| Photography                                  | 12        |
| Biochemistry. Biophysics                     | 11        |
| Cinema. Films (Motion Pictures)              | 11        |
| Meteorology. Climatology                     | 11        |
| Philosophy                                   | 11        |
| Genetics                                     | 10        |
| Agricultural Sciences                        | 8         |
| Applied Arts                                 | 8         |
| Architecture                                 | 8         |
| Mathematics                                  | 8         |
| Archaeology                                  | 7         |
| Anthropology                                 | 6         |
| Cookery                                      | 6         |
| Genealogy                                    | 6         |
| Publicity. Advertising. Public relations     | 6         |
| Heraldry                                     | 5         |
| Theatre                                      | 5         |
| Transport and Postal Services                | 5         |
| Newspapers. Journalism                       | 3         |
| Economics                                    | 2         |

Table 4. Classification of topics of searches made by users during the technical pilot of Access to Research
terns over time, since we tried to guide users towards more sophisticated searching. Two ways to measure this could be to look at the average number of words in search strings, where generally speaking a search with more words is more sophisticated—although there will be exceptions, single words can be sophisticated as well. Also we could look at the use of Boolean searches, using the terms AND, OR, NOT, and so on. As a first attempt, we calculated the mean number of words per search query in the first month of the pilot, which was 2.5, and in the last month, two months later, which was 4.0. This is a very crude analysis but does suggest a significant difference, which it will be useful to examine further in the national pilot.

As we gather more data about user searches, we can start to build a set of user guides for the different typical searches that users might want to undertake, and it may be possible to incorporate the most common search types into the website interface.

The national pilot (2014–2015)

As we submit this article, we have just launched the two-year national pilot (see http://www.accesstoreseach.org.uk). We have established very good relationships between publishers and librarians, which means that we can enter the pilot with a great deal of confidence. We have learned a lot from the technical pilot, about managing the software platform and improving its usability, and that process is going to continue for at least several months.

Our priorities for engagement with librarians and public library users are to develop a comprehensive understanding of users' interests and to provide targeted guidance so that different users can find out what they need to know. We also need to continue to support librarians through training and guidance, as they are the primary contact with the users. We are considering as well the kinds of data collection that we need to undertake to provide evidence for this work.

There is a difficult question that you may well be asking yourself having read this far, a question that we have also asked ourselves but still feel unable to answer at this point in the project: how should we expect users to make sense of the research information that they find if they do not have sufficient scientific or academic training? While it is not the responsibility of the Access to Research project to help users to understand primary research information, we do need to consider ways that we can aid that process through training and education. Clearly, if users do not understand what they are finding, then having access to research journals will be of limited meaning or use.

A major part of our data gathering and analysis will be concerned with understanding demand and usage in order to find out the level of interest in the Access to Research service, and the impact on the other distribution channels for publishers' subscription services. This will feed into publishers' decisions about whether to continue the Access to Research project after the two-year pilot, and how this can be funded and developed for the long term. We are also beginning to get expressions of interest from other countries and it will be interesting to see whether the Access to Research approach is adopted and developed internationally.

Acknowledgements

We are grateful to: all of the publishers and local authority library services who are participating in Access to Research; the members of the steering and licence development groups; and ProQuest for its technical support.

References

1. Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications. Report of the Working Group on Expanding Access to Published Research Findings, Chaired by Dame Janet Finch, June 2012.
2. Sykes, P 2013. Open access gets tough. Insights, 27(2): 109–114. http://dx.doi.org/10.1629/2048-7754.62
3. Suber, P. Open Access. Cambridge, MA, MIT Press, 2012. http://mitpress.mit.edu/books/open-access
4. Willinsky, J. The Access Principle: The Case for Open Access to Research and Scholarship. Cambridge, MA, MIT Press, 2009. http://mitpress.mit.edu/books/access-principle

Sarah Faulder and Shinwha Cha

Publishers Licensing Society
55–56 Russell Square
London WC10 4HP, UK
Email: S.Faulder@pls.org.uk; S.cha@pls.org
