

UK access to UK research

Technological changes are providing opportunities for easier access to publicly-funded research. While these opportunities for easier access have been growing, concerns have been expressed that current business models are preventing their realization. Even well-funded university libraries are unable to purchase all the books and journals required by researchers and learners. A survey conducted by JISC, CURL and SCOUNL looked at six situations of access in one UK university to the research papers and books written by researchers in another comparable UK university. The survey indicates that UK researchers and learners may not have access to around one-third of publications by researchers in other UK universities. The shortfall in access varies from university to university and relates to all types of content but particularly to books and journals from smaller publishers. Targeted additional funding and support for new access models are suggested to improve access for UK researchers to UK research.



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The access issue

Technological changes are providing opportunities for easier access to publicly-funded research, as most research papers and data are produced in electronic format in institutions with broad bandwidth network connectivity. While the opportunities for easier access have been growing, concerns have been expressed that current business models are preventing the realization of the opportunities provided by technological developments. Various claims have been made about the level of access to research publications. The motivation for the open access movement has been the wish to improve access to publicly-funded research, against a context of journal prices rising well above normal inflation and the cancellation of journal titles by libraries in many countries, including the wealthiest countries.

Publishers have responded to this situation by providing a wider range of content in 'big deals' negotiated by consortia of academic institutions, and – for some countries with a low GDP – providing free access to scientific, technical and medical (STM) journals through certain identified sites. Although the big deals have increased the volume of content from the major STM publishers available to users on licensed sites, they have

not (in the main) included titles from smaller publishers in humanities and social science fields as well as in STM. The effect has been to change the shape of library purchasing of journals to include more content from big publishers and less from smaller publishers. Statistics from library organizations¹ also indicate that library purchasing has been shifting away from monograph to journal purchasing as the cost of journals has increased. The danger in these trends is that the shape of future research and learning will be changed as the shape of library collections changes under the influence of the big deals. If future researchers and learners only have access to the journals in the big deals to which their university subscribes, and access to fewer monographs, how will this change the content listed in the literature review or the reading list which stimulates research and learning?

Related to this issue is the extent to which publicly-funded research undertaken in any country is available barrier-free to publicly-funded researchers and learners in the same country. The taxpayer might assume that taxes used to support research would guarantee access for all citizens – or at least all researchers and learners – to publications derived from that research. The

survey reported below was undertaken to answer the question: do researchers and learners in any UK university have barrier-free access to research publications from any other UK university?

The survey

Most UK universities maintain a list of publications by their academic staff, and these lists were used to check the availability of one university's research to researchers and students in another UK university. A message was sent on behalf of JISC, CURL and SCOUNL² to all UK university libraries inviting participation in a survey of access to research publications. The requirements for participation were that a library should be willing to check the publications list from another comparable UK university against the library's online catalogue and that a publications list in electronic format should be made available to the partner university for checking against that university's online catalogue. Comparability of institutions was defined both in terms of approximate size and also in terms of broad subject coverage, so that – for example – a large university with a medical school would have as a partner another large university with a medical school. Matching results from comparable universities enables the survey to provide a reliable overall picture of UK access to UK research.

Eleven university libraries expressed a willingness to take part in the survey and JISC agreed to provide a small sum of money to cover the direct cost of the checking process. Several libraries could not be matched with suitable partners and some who found partners experienced difficulties in obtaining a list of their university's research publications to share with the partner institution. The results from the survey therefore describe the

situation in six UK universities, checking the 2005 publications list from each university against the online library catalogue of a partner university.

It was recognized from the outset that the survey could not cover individual-to-individual availability, as when a researcher sends a personal copy of a journal article to a colleague in another university. This type of availability is limited and inconsistent, whereas availability through a library provides consistent access for a large number of users over a long period of time and is therefore more readily measurable. 'Availability' was understood to mean availability through the online catalogue to a copy of the work in paper or electronic format, described as 'direct availability' without the use of a third-party supplier such as a document supply service.

The results

Before the main survey commenced, a pilot survey of the research publications from only one university had shown an overall availability of 60% of those publications in the partner university. The pilot university is not included in the six in the current survey. The results from the six universities in the main survey revealed a slightly higher overall availability – 63% on average – than in the pilot, and the overall figure disguises substantial differences between different universities and between different types of publication. The highest overall availability was 91% in one large research university and the lowest 32% in a medium-sized university with a strong research community. The principal results from the survey are shown in Table 1.

The striking difference between the 91% availability and the 32% availability may be

	Overall availability of publications from partner university	Availability of journal articles by authors in partner university	Availability of books by authors in partner university
University A	58%	87%	33%
University B	81%	88%	17%
University C	53%	77%	18%
University D	32%	64%	5%
University E	91%	95%	48%
University F	60%	69%	26%

Note two universities checked their respective publications lists back to 2001

Table 1. Breakdown of availability in the six universities in the survey

explained in part by different funding levels. It is understandable that a large research university may be able to afford a higher level of library expenditure than a medium-sized university. Library funding levels are the most likely explanation for the sharp differences in the availability of journal articles, as larger universities are able to afford more journal packages from the big commercial publishers. Indeed it is likely that if the survey had been of the holdings of small and medium-sized universities matched against the research output from large universities, the availability percentage would have been even lower than when universities of equivalent size were matched. Other results from the survey appear independent of overall funding levels. For example, the results from both the '91%' university and the '32%' university reveal a far lower availability for *books* authored by researchers from the partner university than for *journal articles*. This is a feature of the results from all universities surveyed, indicating that whatever the level of the overall budget or the size of the institution, libraries are giving priority to journal acquisition over book purchase. Across all universities surveyed, *journal articles* written by UK researchers are more than three times more likely to be available to researchers from another comparable UK university than *books* written by authors from the same university. On average, 80% of journal articles were available but only 25% of books.

Three of the six universities were able to break down some of their results into certain subject categories, and again the significant factor is the journal/book division rather than the overall size or funding of the university. In proportional (rather than absolute) terms, the university with the *highest* overall availability percentage showed a similar low coverage of a social science area to the university with the *lowest* overall availability. It seems probable that this aspect of the results is linked to the low availability of books authored by researchers from another university, as books are understood to be more important than journals in social science disciplines.

The conclusions

Although the survey was on a small scale, the selection of comparable universities of varying sizes enables it to be representative of the UK

university sector as a whole. The picture that emerges is of one-third of university-generated research not being directly available to researchers in other universities. The survey results indicate that the shortfall in access is more serious in small and medium-sized universities, but that even the largest universities do not have ready access to all the publications from the universities in their peer group. Document supply and personal contact between researchers can only make up a small part of this shortfall in availability. The shortfall is greater in books than in journal articles, and the survey confirmed the relationship between high journal availability and low book availability. From other evidence the shortfall in book availability is linked to the high expenditure by libraries on journal purchase, reducing the funds available for book purchase. This situation has been exacerbated by the high cost of big deals for journal purchasing, which skew library budgets away from book purchasing. An e-mail message from one participant in the survey also pointed to the high level of library staff time needed to acquire relatively small numbers of books compared to the low level of library staff time needed to acquire a nationally-negotiated big deal. In terms of cost-benefit of staff time, large packages of journals look attractive, although consuming a high proportion of the acquisitions budget.

Possible ways to improve cross-university access

The availability of UK research to UK researchers could be improved by an overall increase in funding for access to books and journals *not* included in big deals from the major commercial publishers. Targeted 'access' funding could be used either for the purchase of content or for the funding of open access publication charges. Improving the current very low availability of books will benefit researchers in all disciplines and particularly so in humanities and social sciences. Although the resources available for the survey did not permit the collation of lists of individual titles, reports from the participating libraries indicate that the journal articles by UK researchers not immediately available to other UK researchers are those in journals outside the big deals, i.e. those published by society and other smaller publishers. The academic effect is that important research may

not be readily available to UK researchers because it is published in journals that libraries are not purchasing. This effect is accentuated by the purchase of the same packages of journals by many libraries. Identical content is available in many UK libraries while much content of value to researchers is not collected at all due to the concentration of purchasing upon the same packages of journals from the large publishers. Librarians have been pressing for increased funding for many years with mixed success, and the survey reported in this paper suggests that a case could be made for additional funding targeted at journals from small independent publishers and at monographs.

The survey illustrates the need for improvements to the way in which access to publicly-funded research is provided. For some types of content new access models may provide a more cost-effective method to make up the shortfall in access than additional funds for the purchase of content. In particular, access for researchers and students could be transformed if every UK university established a repository into which all members of staff deposited their publicly-funded work. More emphasis upon the deposit of publicly-funded research publications in university repositories could make the results of research directly available to researchers in other universities at lower cost. The structures to enable universities to implement this model are coming into place with the support of JISC. The importance of repositories in improving access can be illustrated by the reports from several participating libraries of low availability of conference papers authored by UK researchers. Repositories – often managed by library staff – have the potential to increase access

not only to journal articles which library budgets cannot afford but also to conference papers, software packages, datasets and other forms of research output which do not feature strongly amongst current library acquisitions.

References and notes

1. The SPARC Europe 'Create Change' brochure illustrates the divergence between journal expenditure and book expenditure in UK libraries: http://www.sparceurope.org/resources/SPARC_brochure.pdf
2. JISC (the Joint Information Systems Committee) www.jisc.ac.uk provides information services to UK universities and colleges. CURL (the Consortium of Research Libraries in the British Isles) www.curl.ac.uk represents the major UK and Irish research libraries, and SCONUL (the Society of College, National and University Libraries) has in membership all UK and Irish university and university college libraries.
3. See the library acquisition and expenditure data in the SPARC Europe 'Create Change' brochure at http://www.sparceurope.org/resources/SPARC_brochure.pdf

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