Libraries: do they have a future in academia – or only a past?

Based on a paper given at the UKSG seminar 'The radical library: taking up the challenge', London, 13 November 2003

The role of the library has been criticized in the past. Some doubt that the library will survive, at least in the physical form. Online access has hugely increased journal usage, helped by new pricing models, but there are still unnecessary overheads in the system. Publishers have invested in change and made radical cost savings. Will libraries also make cuts in overheads as they take on new responsibilities? Overall, the UK performs well in research and it could do better through publishers and librarians working together, and persuading faculty to understand the benefits of online-only.

ROBERT CAMPBELL
President
Blackwell Publishing Ltd

The control of knowledge

As a publisher dependent on the library market, I have to be careful about what I say. In any public debate librarians are seen as more worthy than publishers. To quote the poet Thomas Campbell: "Now Barabbas was a publisher." Thomas Campbell successfully proposed a toast to Napoleon at the height of the Napoleonic wars on the basis of Napoleon having just executed a publisher in Germany.

But the library has had its critics. Foucault saw it as a place where all knowledge is accumulated (culture's external memory), playing a part in the post-enlightenment attempt by those in the West to classify everything. Foucault's criticism was that, for librarians, classification became sufficient in itself, even condemning knowledge to a particular place where only experts could find it.[1] Said was also critical of the role of libraries in stereotyping rather than understanding; for example, by adding authority to the West's false perception of the East.[2]

Both, I am sure, would be delighted by the enabling power of Google, giving anyone in effect their own Alexandrian library. They would see the libraries' control over knowledge broken to the benefit of intellectual freedom and development.

As everything becomes digitized, the library building, if not the role, may become redundant.

As William Mitchell said: "It will not be possible to tell tourists where some Marx of the next millennium sat. All that is solid melts in air."[3] This certainly seems to be happening at GlaxoSmith-Kline, where 26 libraries are apparently being effectively replaced by two 'virtual libraries.'

As this is a meeting for serials librarians, we should look at recent studies on journal usage. The process of change is well documented.

The changing use of journals

A survey of three academic libraries in Europe has shown that, with the transition to the digital environment, certain services, activities and costs will increase whereas others will decrease. There was some variation between the three libraries, but all predicted a volume increase in 'full-text accesses' and a decrease in paper content being borrowed and viewed. There was an indication that there would be slightly fewer staff but those remaining would be better qualified[4] – a prediction that has also been made for company libraries.

In the United States there have been similar changes in service trends. Figure 1 shows ARL (Association of Research Libraries) data for 1991–2002. Some of the overall figures mask the
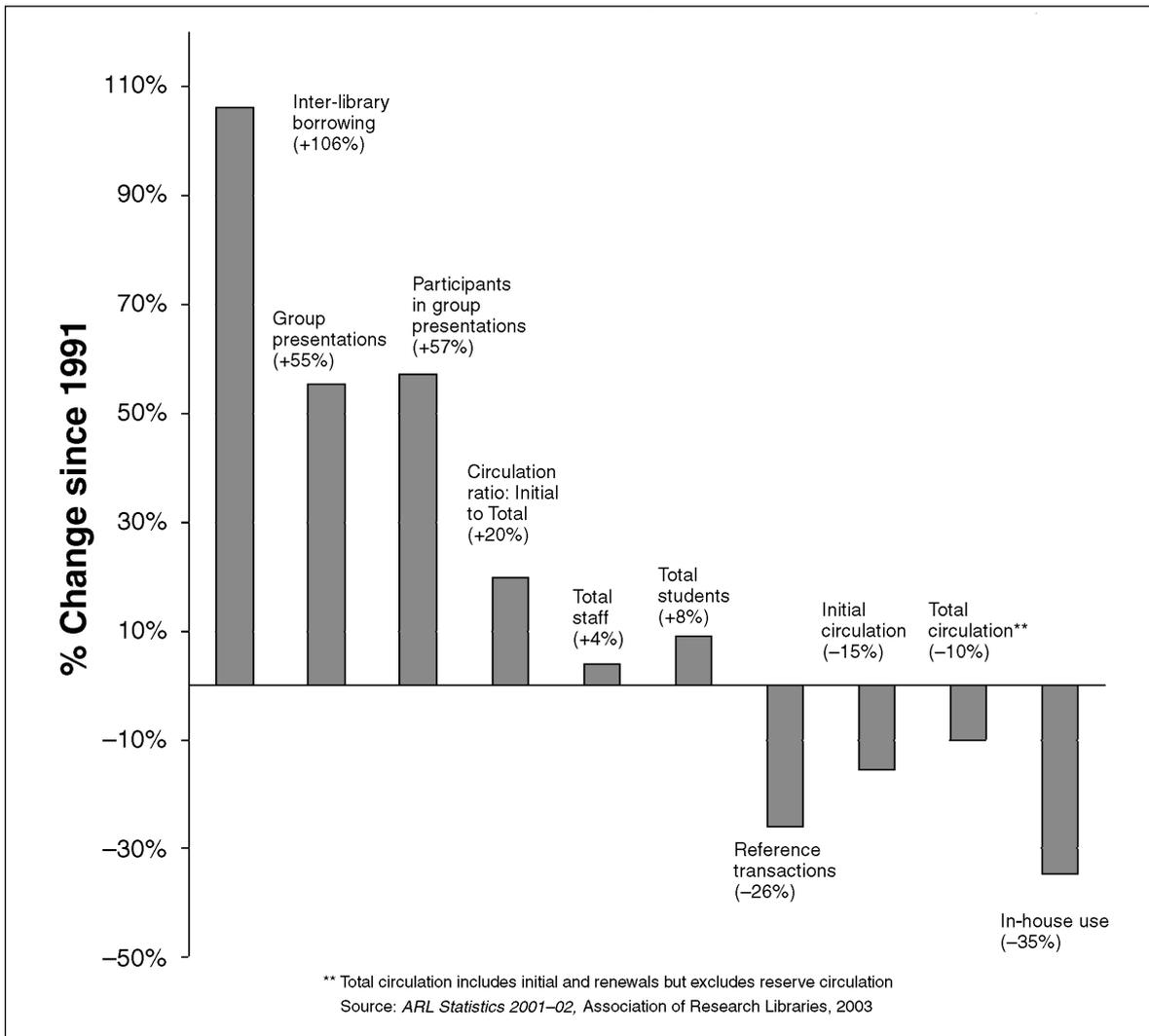
Figure 1. Service trends in ARL libraries, 1991–2002

true story. For example, although in-house usage dropped 35% from 1991–2002, it actually increased to a peak in 1996 and then started to fall. Likewise, reference transactions peaked in 1996 but declined by 11% from 2000–01, and by 7% from 2001–02.

ARL data has often been used to highlight the so-called journals crisis. In Figure 2 you will notice some interesting recent variation in the trends of a decade. 'Inter-library borrowing' and 'Inter-library lending' drop and 'serials purchased' surges up. This is of course a result of the 'big deals'. Greater accessibility has reduced the need for borrowing, which is a highly expensive process. The authors of the ARL report seem reluctant to accept the full impact of licensing deals with consortia and the resulting lower average cost per journal accessed.[5]

The impact of the big deal is clearer from UK data. According to SCONUL (Society of College,

National and University Libraries), the mean number of journal titles received by its member libraries in 1993/94 was 3,976; the nearest equivalent figure for 2001–02 is 6,489. It should be noted that in this period, college libraries have been admitted to SCONUL, which will have brought down the mean for 2001–02.

Carol Tenopir and others have been observing the usage of electronic journals in the United States and the benefits of wider access to the literature.[6] In the three universities studied, the average number of articles read by scientists increased from 150 in 1977 to 216 in 2000–03. Most of this reading is from library collections. Also, university scientists now read from a wider range of journals. In 1977 they read at least one article from 13 titles but now read from twice that number. King *et al.* offer various explanations, including more use of bibliographic
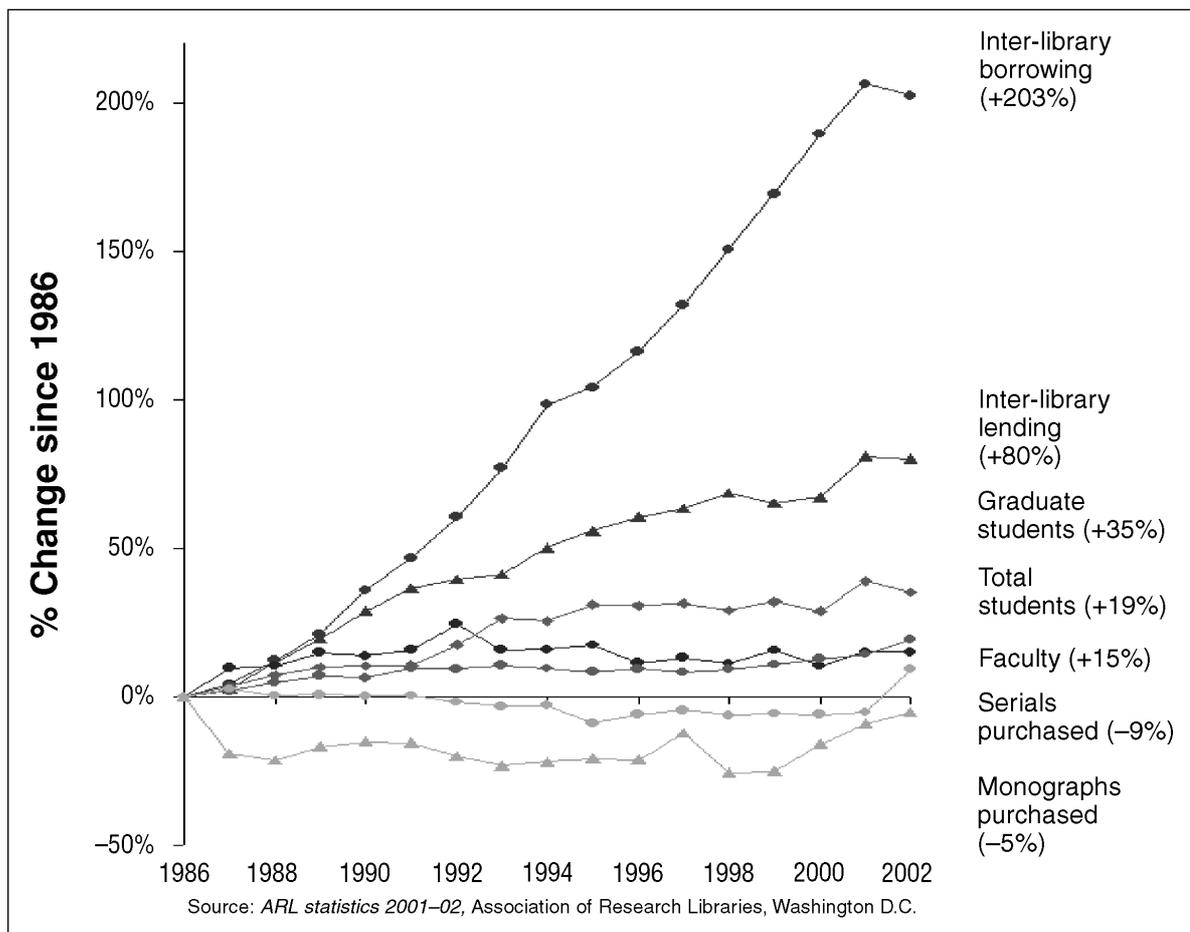
Figure 2. Supply and demand in ARL libraries, 1986–2002

databases, but conclude that the breadth of reading and corresponding increased use of library collections are also undoubtedly due to access to enlarged electronic library collections. Preliminary analysis indicated significant use of electronic titles not subscribed to previously in print.

King *et al.* suggest that another indicator of the usefulness of reading journals is that science faculty, whose work has been recognized through awards or special recognition in the past two years, tend to read more than others. For example, those whose work has been recognized averaged 258 readings per year while others averaged 203. They also make this final point: "Articles read from library collections tend to be of greater usefulness and value than articles obtained from other sources."

Will the serials librarian survive?

Journal publishers, by working with librarians to establish new pricing models based on online delivery of content, are achieving what Andrew Odlyzko predicted in 1999.[7] Most journals are now available online, which is the necessary first step in the change in the relationship between publisher and library.

Odlyzko's analysis focused on library costs. He pointed out that internal operating costs (overheads) are two to three times acquisition budgets. The scholarly journal issue is really a library cost crisis. Odlyzko agreed that unnecessary library costs are far greater than those of publishers, which creates an opportunity for the latter to exploit and thereby retain their position. If there is competition for resources between libraries and publishers it will be publishers that come out ahead. Odlyzko summarizes his case:

1. There are fewer publishers – making it easier to develop large-scale electronic databases.
2. Publishers are more used to competition.
3. Publishers control copyrights and thus digitization of old material.

4. The publishers' target is more interesting: librarians have at least twice as much funding as the publishers' revenues.

Point 3 relates to Odlyzko's suggestion that archiving by libraries is an unnecessary and huge expense. Once the publishers have digitized their backlist, much of the cost of archiving and inter-library lending will drop out.

Odlyzko accepts that, besides retaining their competence as information specialists, librarians are well positioned in two roles: negotiating electronic access licences and enforcing access restrictions. If, as Odlyzko predicts, bundling and discriminatory pricing[7] evolve from the current big deals, then these two roles become complex and key to the information chain.

Several years ago I wrote a short article with two colleagues, Ian Bannerman and Allen Stevens,[8] comparing journal pricing models to buying wine. Document delivery was buying by the glass, a subscription was by the bottle and a site licence was by the case. We likened self-publishing (now called open access) to home-made wine. We could take this analogy further and liken the library to the pub. Certainly, some students find it easier to study amongst others in a library, just as some prefer to drink in a bar. Obviously, the library has a role as a place to study, but like pubs the clientele seems to be diminishing every year. It is easier and less expensive to drink at home. Librarians know the reluctance of faculty to walk far to the library.

Perhaps libraries as buildings will become study centres with features of an Internet café. The role of the study centre manager might evolve to simply creating an attractive environment for students to study in. This might even be out-sourced. Two or three study centres on a campus might compete for students who would use the computers to access content acquired by the university, perhaps using specialist purchasing officers in the library or outsourcing this job to library consortium managers or agents such as Content Complete, who are acting for JISC.

The journal archiving and inter-library lending role could vanish. Much of the material would be available under licence, while older articles might be accessed from services such as JSTOR or those run by national libraries. The remaining articles not covered by these arrangements might be bought 'by the glass' directly from the publisher, and certainly at Blackwell Publishing we have seen a dramatic upswing in electronic document delivery.

Towards a more efficient system

The librarian would still be left with a huge and complex job, for example supporting distance learning and the e-university concept, integrating information systems and being responsible for running the institutional repository, making available the work of faculty over the Internet using OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting). The new model scholarship, creating a variety of web sites and other desktop digital objects on campus that fall short of 'published' but are worthy of access in the future, will become a major responsibility of the academic libraries.[9] We have great collections of authors' correspondence and papers. Who will ensure we have any record of the development of ideas by some Marx of the new millennium?

I have not mentioned open access as I was asked to consider libraries. To quote Alastair Dryburgh: "I have left the library out of the list of players for the 'author-pays model', as it is unclear what its role would be in an open access world."[10]

There has been criticism of publishers' pricing by librarians and I cannot resist the temptation to suggest 'physician heal thyself'. The business community is driven hard to perform better each year. Key Performance Indicators (KPIs) are part of our lives. We should like to see the library community publish measures of success/ efficiency that justify their funding. Traditional measures of success, such as volumes borrowed or number of people passing through the turn-stile, are becoming increasingly irrelevant. Some KPIs could be used with publishers to set common goals and measure our joint effectiveness in reaching these. Publishers have gone through radical change in the last five years with consolidation and outsourcing giving greater efficiency but with the loss of many jobs in Britain. Is the library community prepared to go through similar changes to achieve national targets?

I hope that I have shown that, through change, journal publishers have made their material much more widely accessible. If King *et al.* are right, we

Rank	Country	Citations 1993–2003
1	United States	29,859,748
2	England	5,582,027
3	Germany	5,249,948
4	Japan	4,570,289
5	France	3,782,555
6	Canada	3,190,200
7	Italy	2,294,754
8	The Netherlands	1,914,576
9	Switzerland	1,592,228
10	Australia	1,546,457

Table 1. Top ten most cited countries (1993–2003)
From: ISI Essential Science Indicators

could see Britain's whole scholarly communication system perform even better as a result. We are already doing well, as shown in Tables 1 and 2. If we take Robert May's analysis of citations per £m spent on research as a national KPI, we can conclude that we are outperforming the United States and Japan[11] with a score of 93.2 citations per £1 m spent on R&D.

The real resistance to change perhaps rests not in publishing or libraries but in faculty. Librarians have often commented to us that they would like to move to online-only but this is resisted by some of their faculty who prefer to use the printed edition. A recent survey by the Australian Department of Education, Science and Training[12] found that 60% of researchers interviewed asserted that electronic delivery had not changed the way they publish findings. Only 20% of all respondents felt that electronic publishing is challenging the dominance of print. Electronic publishing was often seen as second rate with

concerns revolving around difficulties in verifying the authenticity and accuracy of online materials. There was a surprising lack of understanding that the online version of a journal article has gone through the same peer review and quality controls as its print counterpart. Clearly, if publishers and libraries are to realize the benefits of online delivery via a digital library, then they need to take on an advocacy role together.

Conclusion

Librarians will continue as an important element of academia, but, as in publishing, they should forget their past, make some tough decisions and focus on the digital future and, in the UK, work with journal publishers to get Lord May's national KPI over 100.

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Country	Share of papers %	Share of citations %	Citations per £m spent on R&D
USA	34.6	49.0	60.0
UK	8.0	9.1	93.2
Japan	7.3	5.7	43.5
Germany	7.0	6.0	34.7
France	5.2	4.5	23.2
Canada	4.5	4.5	113.7
Italy	2.7	2.1	22.5
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■ **Robert Campbell**
President
Blackwell Publishing Ltd
9600 Garsington Road
Oxford OX4 2DQ, UK
Tel +44 (0)1865 476118
Fax +44 (0)1865 471118
E-mail:
Robert.Campbell@oxon.blackwellpublishing.com