

## „Just How Are We Going to Satisfy Our Research Customers”

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### INTRODUCTION

The challenge is how to provide our researchers with ready and unimpeded access to all types of research information, whether it is held on paper or electronically. This has been, of course, the role of research libraries for hundreds of years so why is it a particular challenge at the present time? May I suggest that the problems are acute because a number of factors are all occurring at the same time. Let me mention some of these.

### THE FACTORS DRIVING CHANGE

1. Governments now appreciate that „research and its development into commercial practice” are key factors in future national prosperity. This is a change from a decade ago and it means they are investing more heavily in:
  - Increasing the overall amount of research, especially in the new biology.
  - Stimulating industrial research and development by various tax breaks.
  - Stimulating scientists to develop their inventions into patents and spin out companies.
  - Investing in the infrastructure. It is especially here that we come into play because in my view libraries are as important a part of the infrastructure as a new synchrotron or molecular biology facilities.
2. There is continuing growth in the volume of research being published and this alone places libraries under strain. Even the largest libraries – say the British Library or Harvard – can no longer collect all research materials. The situation is worse if one analyses it in detail because in many respects

universities are small enterprises with all the advantages culturally and educationally but all the weaknesses when it comes to providing major infrastructure facilities like a library. Looking at a few statistics rather emphasises the point:

Harvard has 14 million volumes on its shelves, adds 300,000 annually, subscribes to 100,000 serials and spends \$70 million annually. A typical „big ten” school (e.g. Wisconsin) has 5 million volumes, adds 150,000 each year, subscribes to 40,000 periodicals and spends \$30 million annually. In the UK a strong civic university has 2 million volumes, adds 30,000 annually, subscribes to 10,000 serials and spends \$6 million each year. Even the great Bodleian Library at Oxford would only appear just in the top US university library statistics.

This drives home two points. Firstly, that at least in the UK our university libraries are small (bluntly, we may have too many universities if one looks at matters from the research viewpoint) and, secondly, they are not well funded. This shows up especially in their ability to purchase serials. World-class universities purchase at least 40,000 serials: in Britain only Cambridge and Oxford achieve this number, all the others including very serious research universities indeed rarely exceed 10,000. My conclusion is that in the absence of financial largesse from each university – say a tripling in the periodicals budget for a beginning – then alternative solutions have to be found if we are to match our cousins across the atlantic.

3. Inflation of periodicals has outstripped normal domestic inflation by a factor of three. Part of this has come from increased volumes being published but part of it has arisen because, frankly, journal publishing is a highly profitable business. Academics must publish their material and indeed their careers hang directly upon the quality and sometimes the quantity of their published work. The end result is a seller’s market! Libraries are invariably in the public sector and so have much less possibility of imposing market forces, upon their users (e.g. charging per visit). Government does not see this and so they apply inexorable downward pressure upon budgets of the parent organisations.
4. Finally, there is the Worldwide Web and IT! There is no doubt about the transforming nature of this technology and articles are being written about it daily. In our context the most significant changes may well relate to the fact that nowadays anyone can publish anything anywhere, and secondly that material can be accessed directly so bypassing the library completely. Either or both of these changes could alter the research library beyond all recognition and if commercial providers stepped into this market we could

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see many functions of the research library disappear. So far this has not happened and the sheer volume of new research material being added daily has precluded the development of a robust business model. However, deep trends are obvious and the research user will certainly go to the most convenient source of information: he or she has no especial loyalty to their university library!

### THE CENTRAL DESIRES OF THE RESEARCHER

One thing remains true, however, and it may prove to be the most important and durable of all: quality assurance of the research product. If one asks young faculty about the future they see an electronic world. They wish for journal content to be available at the desktop and they wish for far more sophisticated search engines to be available so that their particular research interest can be sifted accurately without throwing up 6,000 journal articles a week! These desires apply especially in the sciences and the emphasis is different in the humanities where „the jury is still out” on the future of the scholarly monograph and the degree to which it will migrate to the electronic only version. However, the humanities scholars seek something else from the electronic world. They wish to see substantial amounts of primary research material made available digitally so that undertaking the actual research via the web rather than by visiting libraries becomes a real possibility. Incidentally this approach to primary research may begin to apply in the sciences also where huge data sets are starting to be produced electronically in areas as diverse as weather forecasting, high energy particle physics, gene sequences and microarray sets of gene expressions information. Nevertheless their primary desire is for assurance about quality. That is good because society must never reach a point where the veracity of scholarly journal articles is diminished.

### THE BROAD SOLUTION

It is easy to define the issues but what are the solutions for us in the research library world? Here are my own feelings:

1. We cannot predict precisely how the commercial and scientific factors will play out but we should hold fast to our role of ensuring only high quality materials are stored in our libraries.

2. The model of the future we should try to ensure is encapsulated in the latest buzz word: hybrid library. In effect the library becomes a portal through which the researcher enters. They are then offered a range of products and powerful search engines which allow them to move between the products and decide what they need hopefully – at least for me – it will involve them in undertaking a trip to the library to sit and ponder a book but it is rather more likely to involve them accessing an electronic version of a journal article. Already at my old university around 50% of all the periodicals are being accessed electronically. Separately, they might access other electronic library materials held in different uni-versities and given the mark of respectability by being accessed through one's own library, or a national collection of materials assembled from across the world. They might also access backruns of journals which have been digitised: the JSTOR re-publisher model. Finally, and in my view critically, our researcher may wish to access the primary data sets held nationally or internationally. Our role as a research library is to serve this range of demands. It sounds difficult but honestly it is what most of you are doing already.
3. All across the world this model is being developed and refined as we speak but many of us think something at a „higher” level is also required since success will only come about if we integrate these functions together.

#### RESEARCH LIBRARY SUPPORT GROUP

Across the world we are watching collaborative developments emerge. They are developing for a host of reasons: because of extreme distances between libraries in centres of small population (e.g. Australia), because a nation is trying to leap over the stage of having multiple research libraries and goes for a nationwide solution (e.g. China), or because a particular region wishes to maximise its already powerful resources (e.g. The Midwest Consortium of the Big Ten universities plus Chicago).

Here in the UK we have spent some time in the last decade encouraging most strongly the working together of our university libraries. This started from a report eight years ago in which some of us in this room were involved and it led to increasing the visibility of the university's library (an important political point: libraries are embedded in larger institutions), the E-lib initiative, the creation of a national distributed electronic collection (DNER), the decision to fund certain libraries in order for them to maintain a free open door policy towards researchers from other universities, and to that all important feature, preparing the ground for further changes in this decade. So far

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these efforts have been viewed by the universities and by the libraries as successful and they have encouraged us to think about a possible next evolutionary step.

That step is to trigger much more significant and deeper working together between university research libraries which will, let me say, tread on some hallowed librarian's ground, and to do all this in partnership with the British Library and the two smaller national libraries in Aberystwyth and Edinburgh. Bringing together the national libraries with the university libraries is a significant step (and one for which we can thank Lynne Brindley who has crossed the floor from academe to the British library). The end result has been a decision to create what we are calling „the Research Libraries Support Group”. Guess who is to chair this beast! In addition it contains some of the usual suspects: Lynne herself, Reg Carr from the Bodleian and Michael Anderson from Edinburgh University. We are truly an „official” committee created by the four UK university funding councils along with the British Library. Our terms of reference and vision make it apparent what we have to do in practical terms:

1. We are charged with formulating a national strategy to ensure UK researchers have ready and unimpeded access to all types of research information, whether held on paper or electronically.
2. Put simply we should strive to develop a national model which results in the best collaborative research library arrangements possible, and to think of financial drivers which will cause this to happen.
3. This probably means developing the „hybrid library” concept so that it can apply across the country.
4. To address directly the long-term management and development of research collections through deep collaboration. This takes me back to my earlier point about the relatively small size of UK libraries in terms of serials and book purchases. We know that bottom-up collaborations will work but we suspect the pace of change is too slow.
5. To think about and develop further the „national electronic library” of which the DNER is a strong manifestation.
6. To seek a national strategy for digitising existing collections of primary research material.

7. To seek a national solution to the preservation of the so-called legacy collections.
8. To advise on where we find and develop the critical underpinning requirements which might range from catalogues to the search engines in the back office of our hybrid libraries.
9. Finally, not to rediscover the wheel and, therefore, to link our efforts with what is happening across the world with our friends and colleagues elsewhere.

In many respects it is slightly daunting to set it out in this fashion, especially as the funding councils would like a report in the spring of next year. However, it is very exciting and I am optimistic that whilst we shall doubtless fall short of perfection we may make another step change in the ways in which our libraries work together. What is more any solutions we find will have an applicability across the world and so we might make a contribution to the objective which is to serve our research users well so that they can advance our understanding of this remarkable universe and planet we live in.