Serving Science and Industry from a National Library

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I should like to consider the ways in which special needs in the scientific and industrial communities are met by national libraries. What services are needed? What are provided? How are they changing?

The traditional view of a national library's role is that it should maintain and preserve the national archive and provide a bibliographic record of the nation's literary output. Traditionally, it should provide reference access to the national archive and, possibly, play a central role in the country's document supply network. There are, of course, an infinite number of variations on these themes and individual national circumstances dictate individual solutions. I should like to consider the question by referring to the approach taken by the British Library.

WHAT SERVICES DOES THE BRITISH LIBRARY OFFER TO THE SCIENTIFIC AND INDUSTRIAL COMMUNITIES?

In its strategic plans, "Gateway to Knowledge", the British Library identifies as its primary objective: "to give ready access to our collections and to other significant collections and databases".

It fulfils this objective by providing a range of reference services via its Reading Rooms; remote document supply and information services based on its own collections and those of others; a publishing programme which complements the other services and a range of bibliographic services which support other libraries and the wider information community.

The British Library is unusual in organising itself into two divisions, one of which is specifically devoted to the provision of services to the scientific, industrial and business sectors. It is unique in allocating roughly equal resources to those divisions, with the balance being slightly in favour of science and technology: in the financial year 1989-90, funding for Science, Technology and Industry (ST&I) was £28.5 million while for Humanities & Social Science (H&SS) it was £27.6 million. Concentrating, initially, on acquisitions funding, 74% of the total acquisitions funding is allocated to the ST&I division, with a further 7% allocated specifically for the purchase of patent specifications. These resources go towards maintenance of the British Library's collection of patents, theses, conference proceedings, serials, monographs, reports and microfilms which make up the collections of the Document Supply Centre (DSC) and the Science Reference and Information Service (SRIS).

The DSC and SRIS collections are the basis of a range of reference, information and document supply services utilised by the scientific, industrial and business communities. For example, the Science Reading Rooms provided reference facilities for 146,000 visitors during 1989-90, while the SRIS and DSC combined to satisfy over 4 million requests by remote document supply. Approximately 70% of the demand on the SRIS reference and information services stems from the scientific and industrial sectors, while approximately 80% of the demand received by DSC is from those same sectors. An increasing proportion of the demand received by the DSC is from the industrial and commercial sectors, rising from 22% of total demand in 1977 to 32% of total demand in 1989 while demand from the academic sector fell from 46% to 36% during the same period.
The services which are predominantly used by the ST&I markets are also the same ones which demonstrate the most rapid growth. For example, the DSC premium services, which offer document delivery by fax or specialised reference listing services, have averaged 23% growth each year for the past five years, and the Patent Express Service offered by SRIS has shown an annual 11% growth over the same period. Information Services in the fields of patents, environmental issues, business and Japanese have grown by 35% between 1988-89 and 1989-90. Additionally, the British Library maintains a wide-ranging publishing programme which augments and complements its reference, information and document supply services. DSC, for example, publishes a number of titles which provide users with information about its own and other libraries holdings. It also produces translations of titles originally published in Russian over a range of subjects including polymer science, thermal engineering and organometallic chemistry. SRIS' publications tend more to be the direct result of the evaluation of information held by SRIS and to augment the information services that SRIS provides. Included in these are, for example, Science & Technology Policy, which reviews current writing in the development of UK science policy and British Knowledge Sources, which covers new book-releases, market research reports and forthcoming conferences.

The British Library also produces a bibliographic record of the national archive and of the UK's publishing output. Much of the use of the bibliographic services and products of the British Library is by intermediaries rather than direct end-users, but approximately 40% of the customers of the services of the British Library National Bibliographic Service (NBS) are from the industrial and special library sections.

WHAT WILL FUTURE PROVISION BE?

A recent study [1] has indicated that over 90% of researchers in UK universities and polytechnics consider that it is important to their research that they should have access to a well stocked local library. Local libraries, by which I mean university, departmental or industrial libraries, want to be able to satisfy the needs of their local client community, from their own collection, access to interlibrary loans, union catalogues and so on.

Over the past five decades, the explosive growth the size and cost of the literature, especially serials, together with a decreasing real value of library budgets, has meant that no library, local or national, is able to comprehensively collect to satisfy all of its customers requirements. It was partly this pressure which led to the formation of what is now the British Library's Document Supply Centre which has as its purpose the provision of quick and efficient access to material not held locally.

A report prepared in 1989 [2] indicated that researchers considered published materials the third most important source of information after discussions with colleagues and conferences. Taken together with the result to which I referred earlier, that researchers predominantly want to have access to a local collection, I think that, despite technological changes, we are unlikely to see a radical change in researchers' behaviour patterns over the next decade. What we shall see is a use of opportunities afforded by the advances in technology to overcome the problems associated with the tension between acquisitions and budgets and the growth in literature.

The British Library recently commissioned a study to identify the likely developments of the UK information system by the year 2000.[3] Broadly speaking the changes it forecast can be categorised in three ways:

* technical change
* infrastructural change
* cultural change
Technical change will be manifested in the ways in which words, pictures and sounds will be produced and stored. We will increasingly have to collect and maintain electronically produced and digitally stored material in many different formats. This will bring with it many challenges concerning the legal and operational aspects of non-book legal deposit and so on.

Leading on from the technical change is infrastructural change. The increasing use of digitisation and electronic media, together with improved telecommunication systems, will radically alter our concept of access to collections. Remote access will become much easier, particularly with the increased availability of online databases over networks such as JANET and NREN and improved electronic document delivery systems.

Linked to the technical and infrastructural change, there will be an eventual cultural change with an increase in growth in the demand for information. But this demand will develop to reflect the systems that are available, so that I see, eventually, each researcher having access to a workstation which allows access via networks to a range of integrated services, for example:

- alerting services (regular profiled updates as articles are published)
- interrogation facilities (access to databases, other library catalogues, company information)
- high definition viewing facilities
- document ordering facilities (from local and national collections)
- accounting facilities

WHAT WILL THE FUTURE BRITISH LIBRARY LOOK LIKE?

I should like to bring these thoughts together to develop a model of the future British Library.

By the year 2000, we shall be providing a full range of integrated services from two sites - St. Pancras and Boston Spa. A range of purpose-built Reading Rooms will directly service the needs of on-site readers and will be specifically aimed at either humanities scholars or scientific researchers.

Readers will have access to the British Library's collections by means of the OPAC, which will also allow access to other collections and catalogues. The British Library will act as the national focus for a range of cooperative networks such as the current Patent Information Network and the developing Business Information Network.

With improved telecommunications there will also be scope for the development of international information networks. By taking advantage of the advances in digitisation technology, readers will benefit from the rapid delivery of items to the Reading Room from wherever they are stored. Readers will also have access to a range of evaluative, value-added information services developed and maintained by British Library staff and based on the British Library's collections and those of other libraries. Turning to remote users, the increasing coverage of digitised material together with improved telecommunication will mean that there will be little disadvantage if one cannot visit a Reading Room. In general terms the remote user will have equal access to the British Library's collections and services as the direct reader (apart from consulting original manuscripts etc). Remote users will have access, either by means of a workstation on their desk or via their local library, to the
whole of the British Library's store of digitised information. The British Library will provide - either from its own resources, or more likely by cooperating with others - a range of tailored current awareness services providing researchers with details of what has been published, where it is and how they may obtain it. Remote users will also have access to bibliographic information provided by the British Library and to the expertise of British Library staff.

We will therefore have the means to significantly alter the way in which the national library and other libraries and information centres work together to the benefit of all.

REFERENCES

