# NATIONAL PLANNING OF NETWORKED SERVICES FOR LIBRARIES: THE UK EXPERIENCE

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The experience I want to discuss is that of higher education in the United Kingdom. It is generic to that sector, but as a byproduct medicine has benefitted as some of the examples I will cite should demonstrate. It is perhaps all too typical of the way in which all societies are organised that the planning is vertical by sector rather than horizontal by discipline. As a result we can only look with envy at the National Library of Medicine in the United States and hope that at some point more rational attitudes will prevail and the civil servants of the different ministries and the libraries of the professional bodies will adopt a more structured approach to planning. That said the success of centrally planned higher education in the United Kingdom is stunning with literally tens of thousands of staff and students enjoying the benefit of a planned range of services. There is clearly a mood to take advantage of the networks as a way of linking the various medical and health sectors together.

UK higher education has taken a number of bold steps to deliver network services through national planning. However, underlying these pragmatically organised services is a philosophical approach to information provision. Central to that philosophy are two key points: firstly, that services should be free at the point of use and that we have a duty to the nation to turn out graduates who are not only eager to use electronic services, but have been taught the skills to take the fullest advantage of this; and secondly that fair use exists in electronic information as it always has done with printed media.

#### **General Background**

The United Kingdom has had a long tradition of public libraries funded either by central or local taxation. Although there have always been public subscription libraries these have played a minor part in library development. The concept of libraries being free at the point of use, principally as an educational resource, is a powerful influence in public debate. Although charging has become common in recent years for such new services as the lending of music cassettes and videos, the core service is a cherished public good.

After many years of working with data we are also quite clear that the major costs of electronic services are the ownership rather than the acquisition costs. It is therefore in areas such as training, centralisation of datahandling, documentation and support that the greatest economies are to be made. We are clear that this is best done through a nationally planned strategy.

Of course a library cannot provide an open-ended commitment to provide an infinite amount of support. The concept of core and value added services has then begun to emerge. A basic minimum level of service is defined which will meet the needs of most people most of the time. This is the core service. For additional services - value added services an appropriate charge is then made. Thus, for example, to write down from a computer screen the information retrieved by a search might be seen as core, while to print out the result (which costs the library paper, ink etc.) may be charged for.

We also firmly believe that the state has a responsibility to provide or at least require others through regulation to provide the core infrastructure which enables everyone to have access to the facilities we provide. In that sense the Bangemann Report for the European Union was a great disappointment since it wishes to leave the development of networks entirely to the market. Since the market has no sense of social responsibility and is interested only in profit this approach may well disenfranchise all but the affluent members of the community. Already in Europe we can see a huge discrepancy in the quality and availability of networks. Instead of enfranchising less favoured regions we run the risk of reinforcing existing discrepancies if the Bangemann approach is adopted.

It is important to remember that increasing classes of information are available only in electronic formats. Satellite data, film, television and radio are obvious examples of this. But the range is growing; in advanced countries the census is available only in machine readable form; weather and crop data, medical and even archaeological data now exists only in electronic form.

The final consideration is the position of publishing and publishers. Many academics can perceive an emerging split between academic and mass market publishing. There is a growing change in the way research is conducted and the results transmitted. A multi-national electronically based future is emerging and while publishers act as though research exists to support publishing (while the opposite is true) it is not clear that they have a long term future in disseminating the results of scholarship.

# **UK Higher Education**

The JANET network and its services is funded centrally from the grant to Higher Education made by the government. The sum is tiny - some 30 million GBP - compared with the total education budget. However it is large enough to provide significantly greater benefit than we would gain from giving each university a few thousand more pounds. About 23 million GBP of the money is spent on the physical network, connecting every university and research institute and providing the international links to other countries. That leaves some 7 million GBP for the provision of services and for research and development. Links to both the United States and Europe are both relatively low speed and expensive to upgrade. This may be expressed starkly as giving us a choice to spend our money on content or bandwidth. We have then developed a two pronged strategy of increasing the capacity to cache data, of building mirror sites and as a corollary of protecting the data we create within the UK. Cache sites simply capture the international traffic and store it for a brief period. This assumes that the best guide to what will be used is what has been used. Data is kept for a few days and future requests simply look there first before using the international link. A mirror site takes a deliberately chosen piece of data and keeps a permanently updated copy in the country. Perhaps the best example of this is the Visible Human Project. These images are very large, but much in demand by medical and health science students. We are therefore discussing with the National Library of Medicine setting up a mirror service in the UK, simply to keep transatlantic traffic levels within bounds.

Protection of existing data is important. Computing media have gone through astonishing transformations in the last thirty years and unless there is a systematic attempt to "future-proof" research results they may effectively be lost. We have therefore set up centres to deal with this issue at least for research results. As part of this whole process we are also determined to ensure that we have an adequate national skills base. Dealing with very large datasets of all sorts will be a key skill in future and we are determined that the UK should not be reliant on others for those key skills.

## **UK Higher Education Networked Services**

Let me briefly describe these services, principally so that you can see how far beyond the traditional boundaries of the library they go. Note also that although centrally chosen and funded, the services are distributed across the country, not least to share traffic across the network. The first four services provide the infrastructure, support and training which underpins much of the activity.

#### AGOCG

The Advisory Group on Computer Graphics provides a single national focus for computer graphics, visualization and multimedia. Based at Loughborough it carries out software and hardware evaluations, runs workshops and seminars and assists sites in the introduction of key technologies. It offers a useful "technology watch" service.

## BUBL

The BUBL Information Service offers an Internet current awareness service, together with organised, user-friendly access to Internet resources and services with the combined gopher/WWW subject tree being a particular feature. It is organised from Strathclyde University.

## MAILBASE

Based at the University of Newcastle this organises the Listserv activity in the United Kingdom. Its brief is wider however and it also sets out to organise the communities which will operate listservers. It has had notable success in this field, not least with university administrators.

#### UKOLN

The Office for Library Networking which acts as a sort of strategic thinktank and research and development centre. It also acts as the UK Gopher National entry point.

There is also a substantial and growing range of dataservices.

#### BIDS

Based at the university of Bath this is the only substantial commercial service. It provides access to a range of bibliographic datasets, including the ISI citation indexes and Embase.

# DATALIB

This is a new centre at Edinburgh University which holds bibliographic data including BIOSIS Previews

## ESRC DATA ARCHIVE

The Archive is jointly funded by the ESRC (Economic and Social Research Council), the JISC (Joint Information Systems Committee) and the University of Essex. The oldest national centre, founded in 1967, its function is to acquire and preserve research data in the social sciences and humanities and to make them available for analysis and teaching. About 5000 datasets are held currently including much non-governmental and epidemiological data.

## HENSA

This is the shareware archive. It is in two parts with Unix numerical and statistical software offered from the University of Kent and pc software from Lancaster University. At Kent, Internet searches may also be performed using the archie server and Kent is becoming the national centre for cacheing.

#### NISS

This set of services is based at the University of Bath and concentrates on current information ranging from yellow pages to newspapers. It aims to promote an electronic information culture through providing access to useful collections of information. It also acts as a gateway to other services and resources and provides information through the NISS Bulletin Board.

## MIDAS

Based at Manchester University, this service is one of very large datasets, most notably the UK 1981 an 1991 Census, continuous government surveys such as the General Household Survey, macro-economic time series databanks and scientific datasets. There is a full range of support services for the data.

Work has just begun on defining a national image centre. Higher education produces thousands of images each year ranging from medical and dental through to art & design. We are concerned that these should be retained within and made available to the wider academic community. It is hoped that the plan for such an image service will emerge within about one year. Trial services are already posing issues to do with the confidentiality of patient records, since in at least one case an identifiable whole body image of a dermatological case has been hacked on to the network as a public file.

Negotiations are also under way for the creation of a national higher education OPAC linking the library catalogues of the collections of the major academic research libraries which form the CURL (Consortium of University Research Libraries) group. This will have some value for researchers, but the intention is to link it to new distributed document delivery services which will serve different parts of the country or different subject areas and ensure that maximum value is obtained from the investment that higher education makes in its library collections.

We have also taken the view that cataloguing the resources of the Internet is a flawed and unworkable dream. We prefer to take the view that we should guarantee access to a limited set of resources which are fully catalogued and abstracted and where we can provide documentation and training. A limited set of quality assured resources, reliably available and fully supported seems preferable to opening up what has been called "the howling wastes of the Internet". Seven subject services are being experimented with including the OMNI service, based on some of our major medical institutions.

## **Principles**

It is also worth considering some of the policy issues which have been exposed in developing our services. Firstly, it is a cardinal principle that information must be free at the point of use. Where commercial information is provided it is either paid for from central funds or by the institution or by some combination of the two, but never by the end-user. We want to encourage and stimulate use as a strategic national goal. On the whole suppliers do not lose. There is already anecdotal evidence of increased downstream use. As students become employees they are beginning to seek the same electronic resources they used daily at university. We have had and do have major debate over the price to be charged to institutions for such services but always on the premise that services are free at the point of use. In practice most are wholly free and are paid for by "top-slicing" the higher education budget as described above. Only for the commercial bibliographic products are sites required to make a payment.

Secondly, we are committed to subscription based or licensing models and will not fund transaction based models. There is always another alternative product and only the most arrogant of publishers believe that they have a true monopoly. In fact there is some evidence that our policy is beginning to affect the use of products from those publishers who are not willing to accept this model.

Thirdly is the commonality of interfaces. The concept of a common command language for material as varied as the census, wordprocessing software and bibliographic data is an evident nonsense. However by grouping material together in locations by type, whether bibliographic, full text or numeric, we have been able to go some way towards providing common interfaces to the various datasets. Work is now beginning on evaluating OCLC's Sitesearch as a common interface so that services will at least "look and feel" the same.

Fourthly is community involvement. It is a central tenet that resources are to be provided for all disciplines. A Datasets Steering Group has been set up to conduct a planned programme of procurements for all subject areas and it is already planning up to two years ahead. That group conducts product evaluations which involve the relevant academic and library communities in identifying the "best buys" for the subject.

The last point to mention is our present policy of delivering information to everyone. This means delivering to the poorest sort of terminal, currently defined as a VT100. Inevitably this frustrates users with more powerful equipment. As a result we are about to conduct a census of terminals in UK higher education to decide whether it is now time to move the definition upwards without disenfranchising significant numbers of users with old equipment.

Perhaps the greatest challenge remaining is that of mass instruction. Librarians are used to giving individual or small group support to users. However we now see that we must change and be in a position to pass on information management skills to perhaps 5000 students a year. This will require a major shift of attitude, skills and ambitions.

And so this leads us to the underlying goal of the distributed national electronic collection. It is clearly at this point incomplete and it will take several years to have all the elements in place. Some services will succeed and others will fail; we shall have disappointments along the way. But the objective is clear, to create a central core of material which is centrally defined but meets user needs in all disciplines. The user will then have a limited need to search for materials outside the core. We will spend our resources on developing that core rather than on cataloguing anything that might ever be used on the Internet. In doing this we hope to provide a variant of Gresham's Law. While bad money may drive out good, we hope that quality assured data, available reliably and with excellent nationally prepared documentation will remove the need to use unknown data of unknown validity available intermittently and unreliably.

# Conclusion

The analogy is perhaps unfortunate, but what we are consciously doing is the equivalent of giving away drugs in the playground. We see it as our responsibility to create graduate students who are dependent on electronic information and who will go out into the industry and commerce of our country spreading the electronic revolution.

We are creating a distributed library. That poses its own challenges but I also opens up new possibilities of serving the community. The housebound, the disabled, ethnic minorities and remote communities can all now have the same opportunities which are offered to those in affluent metropolitan areas. The network is already being used for experiments in diagnosis and remote assistance of surgery in more remote areas and this will expand archives without leaving Aalborg.

With imagination and foresight - and a retention of our historic vision - libraries and librarians have a great future, but we must persuade the state to join us in sharing that vision. A recent European Union report showed that libraries were the second most heavily used public service in Europe; second only to crematoria. Crematoria have an advantage in that it is easy to identify their "customers". Equally and by definition their customers only ever visit them once. If we can define our customer base and get them to pay only two visits we will build a future in which electronic services can be as accessible to the nation as printed services have been.

# CLASSICAL AND MODERN METHODS OF ACQUISITION

## **Albert Prior**

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Good morning ladies and gentlemen. I am very pleased to have been invited to join you here today for the EAHIL Symposium on Cooperation of Medical Libraries.

Let me start by saying that whilst I trained as a librarian many years ago and have also worked in the booktrade in my career, most of my experience is as a subscription agent - in the supply of serials to libraries - so my presentation will be biased somewhat in that direction.

I am here to present a brief introductory paper for this session concerned with Classical and Modern Methods of Acquisitions. Most of what I shall be saying may be more in the form of questions for us to consider rather than answers, and intended more as a means of stimulating thought on the issues which we are all attempting to address in these times of change.

## **Traditional methods**

Perhaps I can start therefore with some reflections on traditional methods. In the 'good old days' acquisitions was perhaps a somewhat simpler activity, unless I now have an unjustifiably romantic view of things. There seemed to be fairly straightforward divisions and definitions. For example:

- formats were fairly simple: you purchased either books, journals and certain other items such as audio visual material,

- it was clear that the Serials Acquisitions Department in the library was responsible for buying journals; the Monograph Acquisitions Department purchased books,

- the material you purchased - books, journal issues — arrived physically in the library. They came through the door via the postman,

- if you were buying journals, you used a subscription agent; for books, you used a bookseller,