The University Information Centre Under Stress

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It has become increasingly clear in recent months that British university
development is in many respects at a standstill, or at least at a turning-point
in its history. There has been a marked reluctance upon the part of the
Government to increase the funds, in real terms, available to universities or
even to compensate fully for the effects of inflation. Furthermore, the whole
of higher education has been the subject of much discussion, and the merits of
forms of institutions other than universities fervently, and it would seem
successfully, advocated. Student numbers, which it was hoped would continue to
rise, seem not likely to do so quickly, if at all, in universities, and the
development of universities envisaged in the more optimistic 1950's and 1960's
appears likely to be frustrated, or at least modified, partly because the increase
in demand for places, which might justify increased finance, seems unlikely to take
place. If there is growth it is probable that it will come to a great degree in
polytechnics, the development of which is now proceeding alongside that of
universities.

This is a rough summary of the British position and if this paper draws mainly
upon British examples it is in the belief that many of the same basic problems
affect higher education in other countries. Inflation and the questioning of the
nature and necessity of university education are not by any means peculiar to
Great Britain and neither is the inherent link between the evolution of the
university and the changing circumstances of the university library. At the
simplest level, given the present situation in which university building has
dwindled to almost nothing, the library, often hoping for increased accommodation,
is doomed to be disappointed for some time to come; that plain physical constraint
is enough to make librarians ponder on their activities.

It is of particular relevance to consider the position of the university library
as information centre in the light of these pressures, because the increased
interest in information work is of relatively recent growth. Only in the past
few years has a need for such services been realised and the techniques for the
successful provision of them been available. Traditionally in the British
university library there was little care for information activity, as it is now
understood. It was believed that it was right to collect published information,
normally in the classic printed form, to organise it and make it available to
users, who would know largely by the light of nature how to get the most advantage
from it. It was for the library an essentially passive role, based upon a small
number of universities which hoped for a fairly high degree of self-sufficiency
in library provision.

The last two decades have brought changes. The number of British universities has
considerably increased, both as a result of new foundations and of the trans-
formation of other institutions into universities. In the older institutions self-sufficiency has clearly become an ever-receding goal. In some of the newer ones the influences of industrial methods, and of the activities of growing numbers of scientists and technologists, as well as social scientists, willing to look afresh at their ways of working, have been felt.

It now appears that at least a temporary halt has been called to the expansion process, but there are signs of a greater realisation of the appropriateness of information activities and, perhaps as important, an appreciation of the fact that services which came into existence in more affluent times in some universities as supplements to long-established library activities now have to survive in competition for a share of resources dwindling in real value. University libraries are seen to be reducing the number of periodicals they currently receive, resigning themselves, it is true with protest, to taking in fewer books every year, and attempting to maintain staff at present numerical levels with little hope of any increase in the near future. The intake of information to the university library is therefore falling and the numbers of staff available to exploit that information more fully are not increasing. It is a small consolation that the production of information, itself affected by economic recession, may decrease as industrial research at least seems likely to contract in volume, publishers' lists to grow shorter and periodicals to price themselves out of the market. Yet for the time being the library feels confronted with a vast and hardly diminishing problem.

Not all of the picture is black, however, and it seems likely that techniques and attitudes developed in the fat years may well serve libraries in the lean ones. Much experimentation has been carried out recently, notably that protected by the umbrella of the Office for Scientific and Technical Information. Many of the projects developed in the first few years of OSTI's existence have been concerned "to promote research, development of new techniques and systems, improvement of existing information services and experiments with new ones; to stimulate the education and training of scientists for information work - and in the use of information sources; and to help co-ordinate the information activities of Government and private organisations both nationally and internationally". (1)

As a consequence much has been learnt of how mechanisation can replace or support existing systems, how resources can be better exploited and how the interests of users can be better served; libraries have at least received official encouragement to question established practices and the adaptability that that implies can be no bad thing in difficult times. With OSTI's work can be suitably included the growth of the National Lending Library (originally for Science and Technology, but later extended into the social sciences) and the transformation of both these bodies into parts of the British Library, itself now a large coordinating body for a greater range of library and information activities than have ever been carried on in Great Britain before under one organisation.

Financial stringency forces a review of university library activity and no exception need be made of such recently developed aspects as information work. This is not a bad thing; it is perfectly proper to examine such services, which are, after all, largely publicly financed, and to assess priorities. There is now considerable experience of the work of university libraries as information centres; the experience is perhaps patchy, and some of it on too small a scale, but library staffs and, possibly at least as important, university teachers and research workers have been able to gain experience of the resources and techniques now available to them and likely to remain available in some form even in hard
times. A consensus that information services should be maintained and developed in university libraries is indeed now beginning to emerge. (2)

The strengths we have lie in two main areas: greater centralised resources in Great Britain and elsewhere, whether in the British Library or in the data bases of, for example, Medlars, and better means of bringing users and information - the data that changes us, as it has been called - into meaningful contact. These means can vary enormously; one might instance the production of current awareness services using information profiles, the improvement of cataloguing and indexing techniques, the activities of staff serving as information officers and many other possibilities. Viewed in this way the gloom which might have seemed to descend upon British university libraries appears capable of some illumination.

There remain difficulties. The British pattern of many and small universities has led to duplication of resources, frequently linked to great variety of interests within an institution, and, one fears, at an unreasonable cost. It is possible that the brave plans of university development brought out a few years ago would have been very different if the present economic situation could have been foreseen. As one grows further from those days it is difficult to know whether to admire or smile at the optimistic statements which accompanied the foundation of new universities or the transformation of older institutions into something felt to be more fitting to the new technological age.

It is also of little help to the university library dealing with information problems to find that the parent institution, once, let us say, with mainly technological interests, is moving into new fields of, for example, the social sciences or the humanities. The move may, it is true, be in response to a growing interest on the part of students in these disciplines, but also a powerful instinct for institutional self-preservation may on occasions be the cause.

Add to these problems the emergence of new "subjects" and the combination of old ones. We have seen the occasionally feverish attempts to move into a growing area of study: the environment, for example, however that convenient term is to be interpreted. These moves can present an infinite variety of problems to be faced by the university's information service. They are, one feels, distantly but definitely connected with those very factors, which one may term a loss of confidence and an uncertain sense of direction, underlying the inability to provide inadequate resources for universities or even to outline any clear plans for the future. If one is unsure about the content of higher education, both in its teaching and its research, one is inevitably uncertain about the best means of conducting the whole process.

Flexibility of response, necessary apparently if we are to survive, is perhaps more easily obtained by the use of large information sources outside the institution than by attempts to amend the relatively small holdings of the institution's own library. To select from a large store of data is surely a better procedure than to try to acquire with limited means all that may be needed for a possibly transient interest.

One sees, in fact, in the use of large information sources, whether consisting of orthodox library material or of data only accessible by machine, a move to compensate for the time-honoured pattern of small and scattered resources in individual institutions. Librarians and academics in general have lamented the duplication and competition existing between the work of many centres of higher education in Great Britain, but only in some of the most glaring instances,
although fortunately those making considerable information demands such as medicine and law, has there been much pressure from outside the separate institutions for some measure of rationalisation and restriction on developments in new centres. As Fussler has put it: "Entirely local, independent, technological, developmental endeavours are unlikely to save large sums of money or radically improve performance within the limits of existing expenditure levels and concepts of service. This is especially true if technological development costs are included as part of the long-term service costs. For these reasons it seems likely to be most beneficial if technology and other alternatives can be utilised in ways that will be of benefit to many institutions". (3)

The great data bases serving the classic subjects have, however, been supplemented in Britain by specialised information centres, dealing with such subjects as biodeterioration or molecular spectroscopy, and based in universities although not necessarily in university libraries. It has been another OSTI-sponsored scheme, which, on the one hand, represents an attempt to fill gaps at a time when waste of effort is less and less tolerable, and on the other could be held to be introducing unnecessary complexity. The function of the centres has been stated to be "to acquire all material likely to contain information of interest to users working within their specialised fields, to arrange for its evaluation by specialists, and to organise this material for retrieval and dissemination, for example through current awareness publications, specialised bibliographies, answers to enquiries and 'state of the art' reports." (4) Martyn has in fact shown that if the right field is chosen a genuine supplement to existing information services can result. (5) A related type of service is that offered by a library and based upon an information store acquired from elsewhere, as is exemplified by the Engineering Information Service provided by Loughborough University of Technology.

But the emergence of a pattern is largely a matter of chance at present and if it is held that there should be more conscious large-scale planning in the field it is clear, as Lynch points out, that "the severest problems are encountered in establishing the optimal levels of centralisation or decentralisation of information dissemination services and centres, nationally and internationally, and the structure of the networks developing between them. Here, in particular, the basic dilemma of data-base dissemination - high volume and low activity - is evidenced at its most extreme." (6) It is evident that the stresses under which the individual university or other information centre is labouring are here transferred to another level, at which one may hope that larger resources can be more economically employed.

Yet there is unfortunately no guarantee that better co-ordinated and more effectively mechanised information services will automatically satisfy or even stimulate demand. Lynch mentions the situation which more than one British university librarian would confirm: "When, in experimental services, free searches are offered, numbers of volunteers come forward. When charges are levied, the number of subscribers tends to fall so that operators depending solely on the revenue from search systems are often in a relatively shaky financial position and require continuing support for any extension of their operations." (6) This has been the case with many of the "pump-priming" introductions of new services and it is not something which can be easily dismissed as due to laziness or conservatism. If the users, who themselves are knowledgeable in the subject, feel that the costs of some services are not justified by the benefits they receive from them, it is a point of view to be taken seriously, especially at a time when expenditure is under close scrutiny and when it is becoming increasingly acceptable
for charges to be made for library services which were formerly provided without payment by the user. A comment on current awareness services provided in the University of Southampton sums up a very prevalent view: "In the university environment that we investigated, and in the eyes of the researchers, the information obtained through current awareness services apparently made a relatively small contribution to the success of their work - for each pound which they had actually to spend - than perhaps did equipment, computer time, materials, or even the information they obtained in the old fashioned way." (7)

If the university library as information centre must rely increasingly upon data bases held nationally or internationally because of the size, complexity and variability of its needs as compared with its own resources, this does not in any way necessarily lead to the decay or insignificance of the university information centre itself. That must remain the point at which users come into contact with information, apart, that is, from those other channels through which information flows and which remain known to, but outside the immediate control of librarians or information officers. It is also the point at which possibly ill-conceived ideas on the place of information services in the university can be most easily corrected and at which evidence on their usefulness can be most easily gathered and evaluated.

Among the projects sponsored by OSTI was an investigation of the work of information officers in university libraries. Such activities had existed for some time and were taking place in libraries other than the six which took part in the OSTI project, but the project was able to focus attention upon the way in which information officers could provide common ground for librarians and library users. Such work could only become more important as less information was directly accessible in the institution and as the forms in which the information was held necessitated technical skills for their exploitation.

At a difficult period for university libraries there could clearly be no loss in closer communication between users and library; difficulties could then be better appreciated on both sides and all available resources and services used to the maximum advantage. Moreover, this area of work is one in which machines are least likely to be of assistance. The information centre is as useful as its users make it. If they find it difficult to understand, intellectually unattractive, they will go elsewhere or, even if this hampers their work, do without the information. Therefore, if likely resources are small, and perhaps rightly so, there is room for much better guidance for those seeking access to whatever information is available. In assessing reasons for failure to use university libraries it has been said that "one reason is the gap between the growing volume of published information and the antiquated techniques employed for its storage and retrieval. The time and effort involved in using a library are frequently excessive for the value obtained. The strong pressures for library automation have had few visible results so far". (8)

The library or information centre staff seem therefore to be a key to the situation, and to be an even more important key if the distribution of information stores is likely to be as has been envisaged in this paper. The experience at the University of Salford, one of the group of libraries which took part in the OSTI information officer experiment was, to summarise rather crudely, the realisation that while the probable solution of information retrieval problems was important, equally useful was the interchange of ideas between research workers and students on the one hand and library staff on the other.
Thus the scientists and technologists, the main users of information services, at that time, acquired some knowledge of the ways in which information of use to them was stored and retrieved. No less usefully they began to realise the restrictions involved in such work - just those restrictions which now acquire new significance from financial stringency.

Various other benefits accrued; in for example the provision of better guides to existing information services inside and outside the library, and the preparation of better means of instruction for members of the university. Undoubtedly this type of development has taken place in other university libraries, whether or not they received OSTI encouragement, and it is probably still further shifting the balance of interest away from the economics of information retrieval to the much less well defined area of the use made of the material by readers and of the factors which affect that use. One may agree here with Shera who has stated: "Whether the bibliographer employs automation or not, bibliography remains a humanistic enterprise and the presence of the computer does not alter the goal. Behind every computer there stands a programmer, and it is he who is the focus of my concern. The aim of bibliography, as it is of librarianship, is the enrichment of the individual, whether realised through a computer print-out or in face-to-face communication." (9)

It appears, therefore, that a pattern is bound to emerge, under economic pressures, which will include the information centre in the university library. The outline of it can in fact already be seen, and it may well be that financial stringency is merely hastening what might have taken place in any case under more favourable conditions. Larger information stores, no matter where placed, would be tapped by university libraries (and if librarianship means anything, libraries ought to be the best means of doing this). The problems for the university remain those of co-operating with users in establishing and satisfying their needs, using the available and, one hopes, logically arranged sources. The growth of enormous libraries, with the risk that an administration of adequate competence to exploit them cannot be provided, is not likely to be the future for many British university libraries. One need not regret this; perhaps, as has been said in other connections, "small is beautiful".

The librarians will nevertheless have plenty to occupy their skill, for the problems of working with users, typified by the "information officer" experiments, remain theirs. Theirs too are the decisions on what information must be held locally, and the responsibility both to try to meet changing demands and to influence the changes if information needs are likely to be an important factor.

It may be that the British problem is a peculiar one, although the economic malaise is widespread throughout the world. What may be to the British advantage in reaching a solution is the physical ease of communication between libraries and information centres, the existence of a quite close network of libraries of all types, feeling all of them, it is true, the economic pinch, but still fairly vigorous, and the presence of the British Library, under suspicion perhaps of being a little too all-embracing, but nevertheless embodying the hope expressed in the Parry Report that it "would be the focal point for all library development in the country". (10) To plan the way forward would need inevitably decisions on the place of information services in universities and their relations with other types of information service. This would imply, of course, decisions on the types of academic activity which need these services, and on their placing and funding. Such decisions are in fact being taken, but too often ad hoc, without thought for the consequences. When so much has been done to increase the potential usefulness
of information services in universities it would be a great pity if rational analysis could not be made to ensure that even in a period of scarce resources their effectiveness could increase.

REFERENCES


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DISCUSSION

C. G. WOOD: Between 1950 and 1960 there was a move within British Universities towards centres of excellence in technology which, however, did not result in a formal pattern. We are now in a position where direction and achievements must be rigorously assessed. Dr. Wall has been directly concerned with the roots of innovation in a Technological University Library and I would like to ask whether he considers our position as critical as it appears to be.

R. A. WALL: Yes, the situation is certainly critical and not only in University Librarianship. The only answer seems to be the development of regional co-operative schemes, since rigid regional structures have failed in the past. We can look to the results of the British Library Research and Development Department investigations to guide us towards future co-operative patterns. In my view we should settle for a formula based on strategic location and acquisitions, which
DISCUSSION (continued)

will depend on geographic and communication patterns. The Public Library network
and their transport arrangements may also be involved.

S. SCHWARZ: The question of periodicals pricing themselves out of the market is
interesting. Although more and more articles are published some are of very little
worth. Editors have difficulty in centralising peripheral information. There is
discussion of new ways of circulating information but, in my view, these may
result in exclusivity and hence be detrimental to the transdisciplinary transfer
of information.

A. C. BUBB: Technological Universities can deal with what might be termed grey
publications. I do not think the eventual demise of some journals need cause much
concern. It would be interesting to know how much material published in journals
is generated by tax-payers' money. The reduction in funds available to research
establishments will inevitably lead to a reduction in the number of papers being
published. Libraries contain much information which never was and never will be
of any use.

R. A. WALL: Reports of data are one cause of periodical bulk. Can the speaker
give a reason why computerised data banks have not been established at University
centres of excellence within the United Kingdom? At present there is only the
Mass Spectrometry data base put out by the A.W.R.E. The establishment of data
banks would reduce the bulk of periodical literature.

A. C. BUBB: I suggest that, as far as the United Kingdom is concerned, the reason
is simply that the data banks would be too small. The whole point of using the
computer is to handle large masses of data, and consequently data banks are only
feasible if established on an international basis. In many specific fields U.K.
data can be handled by using card files.

J. WIEDER: What can we as Technological University Librarians do in the frame­
work of regional and national structures of research organisations? The crisis
in British Libraries has also reached the U.S.A. and will shortly reach Europe.

It would be useful to know more details on how legitimate services to groups
outside the universities affect library budgets and staff. Are such services
officially acknowledged, reflected in the library budget and taken into account in
academic planning? I have, on one occasion, had to fight against both University
and Ministry decisions, and formed a potent and successful alliance with industry
and commerce.

A. C. BUBB: The service given by the libraries of technological universities to
research and industrial organisations should be recognised, both by the tech­
nological university itself and by those responsible for scientific and industrial
research in general.