Bath University Library and the SWIRL Business and Technical Information Service

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The University of Bath received its Charter in 1966. It developed from the Bristol College of Science and Technology (1960) which had itself evolved from earlier technical colleges in Bristol.

The Charter states as the objects of the university:

"... to advance learning and knowledge by teaching and research, particularly in science and technology, and in close association with industry and commerce."

It has reached its target of some 3680 students - undergraduate and postgraduate - and their studies are organised within Schools as follows. For administrative and resource distribution purposes the Schools are grouped into three areas as indicated:

- Education
- Humanities and Social Sciences
- Management
- Modern Languages
- Biological Sciences
- Chemistry
- Materials Science
- Mathematics
- Pharmacy and Pharmacology
- Physics
- Architecture and Building Engineering
- Chemical Engineering
- Electrical Engineering
- Engineering
- Arts & Social Science Area
- Science Area
- Technology Area

The specific requirement in the Charter for close association with industry and commerce is met in a number of ways; by personal links with members of faculty; co-option of lay people with considerable industrial or commercial experience to the University Council and its sub-committees; by a widespread use of sandwich courses; through the formation of a research company - South Western Industrial Research Ltd. (SWIRL).

In a sandwich course, students spend a substantial period of time (at least a quarter of the total course period) in an industrial placement. In some cases the students come to the university via the firm appointing them, in others the appropriate School of the University has to find places in firms for their industrial periods. In either cases there has to be substantial co-operation.
between the firm and the university.

SWIRL.

From its beginning the university had an industrial liaison officer but in 1970 it was decided to place the resources of the University - staff and equipment - at the disposal of industry on a formal basis by the formation of a company limited by guarantee.

The aims of the Company are, briefly to undertake industrial research and development for clients on a contractual basis where this can be done using the University's resources of brain power and equipment but without interfering with the normal business of the University.

Any profit from undertaking such work is ploughed back into the University under the terms of the covenant which has been agreed by the University and accepted by the Inspector of Taxes.

It is thought this is a unique development in British Universities and has proved consistently successful. Recent examples of work undertaken include the mathematical modelling of chemical reactors, 2-3 phase fluid flow (involving staff of both the Schools of Chemical Engineering and Mathematics) and the preparation of statistics arising from the GCE and CSE examinations for local education authorities.

New ventures at varying stages of development are the establishment of an analytical laboratory and facilities for electronic testing at a new industrial site near Trowbridge in Wiltshire, the establishment of a business and technical information service, and the establishment of transnational links for the furtherance of the transfer of technology and innovation.

The information service, transnational links and the university library.

From the beginning, SWIRL had called upon the resources of the library to further its contractual work either directly as, for example, in providing specific literature searches, or through its use by individual members of staff in the course of work initiated by SWIRL. It was always possible to make an appropriate charge for the library services where the use was specifically known but it was difficult to quantify the return appropriate to the library in other cases. In any case it was believed that there was a need for an information service based on the library specifically targeted at industry for which fees could be charged and the library adequately recompensed.

This need was tested by the authors of this paper in visits to a number of companies in the area. These firms varied in size from large to very small; some having their own library or information services. In every case there was a positive interest but the sort of query that would be raised varied greatly depending on the company and the person in that company who received us. Any information service provided by us would have to be all-embracing and a visit to the Financial Times Information Service provided us with the confidence that we would be able to field almost every type of query in the first instance and would have adequate
referral facilities for very specialist work. Whilst the financial reward may not prove to be large, even in the long run, it was hoped that original information problems could result in operational contracts for SWIRL. This had happened in one notable instance.

The proposal for the establishment of an information service was prepared and submitted to the SWIRL Board and through the University's Library Committee. (A member of the library staff was particularly interested and became the liaison between SWIRL and the library in the beginning although he moved abroad not long after). This proposal also took account of SWIRL's interest and involvement in technology transfer and innovation and licensing. A telefax machine had been partially funded by the EEC in a scheme linking 25 centres in Europe. The proposed structure of the scheme is shown in diagrammatic form in Figure 1.

The service is based in the library although it is staffed by SWIRL employees. A brochure is currently in preparation and already considerable links have been established with Chambers of Commerce, local authorities and such bodies as the C.B.I. Agreement has been reached for co-operation with a similar organisation at Nancy in France and this is being funded at first by the EEC as well.

It is believed that the factor which makes the proposed information service a practical and viable proposition was the advent of the telefax for data transfer. This machine ensures that exact copies of drawings and scientific papers can be transmitted accurately over short or long distances. With this enhancement of the telephone network the enquirer can receive the benefits of contact with a high-tech university library and other technical departments without a physical visit. Thus entrepreneurs can be attracted into the small towns of the South West and, having access to telefax link, be immediately in contact with the resources of a technological university which can play a significant part in the infra-structure of a region to attract high-tech companies.

Europe does not take up new, innovative ideas as quickly as the Americans and Japanese. The EEC has recognised this and is attempting to form the transnational links, breaking down language barriers, to provide information in finance, local government, property, etc. to encourage co-operative business ventures. Our regional business and technical information service, based on the university library is being used to further develop existing academic links with L'Institut Polytechnique du Lorraine, Nancy to create just such a transnational link. We have been successful in obtaining financial support for this venture. We are already active in efforts to link the furniture industry in the Lorraine and the South West of England and nine other lines have been opened within the first weeks of the scheme's operation.

Problems.

As at April 1985 the service has only just been set up - its formalisation and marketing quite undeveloped. The gestation period for the service has been long although the barriers to be overcome have been more connected with attitudes and doubts rather than definable objections. It is clear that the success of
the service will depend on the confidence with which it is prosecuted and which it inspires in the customer.

It is essential therefore that the officer receiving the request has a good knowledge of the way firms work and also to be able to grasp the exact nature of the request being presented. In many cases the query will be passed through a third party within the firm - a secretary perhaps - and it is possible that the originator will not be skilled in query formulation. The skilled questioning at the inception of the query will not only eliminate much unnecessary work but also provide a basis of confidence that the problem is well understood and that the reply will be relevant and useful. At this stage also it should be possible to make an estimate of what will be involved in the quest for a solution and therefore its probable cost.

It is very unlikely that academic library staff will possess this skill - certainly they could acquire it given the will - and adequate value being placed on their work will probably increase their inhibitions rather than reduce them. Again they will fairly claim that they have enough to do with their immediate clients and time taken on outside queries will reduce their internal service. The argument that the more external work the greater the financial benefit both to themselves and to the library service in a better staffing level does not impress.

Again when the issue was referred to the users of the library via the Library Committee the same sort of reaction occurred. The relevance and usefulness of the service was seen but concern was fairly expressed that the library service to the university would be adversely affected.

Under the Net Book Agreement with the Publishers and Booksellers Associations we are required to allow the public free access to our library. Any subscription service to industry must therefore offer something more than simple access. What do we sell and what do we charge? Indeed a fairly simple exercise will show that the financial return to the library will not be very great and, as has been said, SWIRL's motives are to increase their other work.

Why then get involved?

Firstly, there are great changes in the information world and libraries are likely to be by-passed if they do not become actively involved wherever they can. These changes are going to take place where the money is and that is not in the university world - it will be to meet industrial needs.

Secondly - a good industrial information service will be available to our own members - in the end they gain not lose.

Thirdly - and a natural consequence of the second - our graduates are going into industry and should continue with the university in the best possible way and in the spirit of the objects of the university with which this paper started.

Lastly - a personal note. The word 'confidence' has been used a lot in this paper. The whole information scene is one big confidence trick in the best sense. We know there is more than enough
information available. We are supposed to be experts in its handling and retrieval - we should be meeting the clear needs of industry and commerce - and therefore the country - by using our expertise.

Figure 1.

LARGE FIRMS

EXISTING FIRMS (SME's)

Small Incubator Units

via telephone linked microdata or telefax equipment

TECHNICAL AND BUSINESS INFORMATION CENTRE

Information Office

- Desk in Library
- Qualified, Industrial Experience.
  Full Time.

Librarians

Financial Times
B.I.S.
External Data
Banks

Technical Effort

Technology Transfer
and innovation.

Licensors
Licensees

Reference
Books
and
General
Information

Technical
Info.
Library
Stock

Literature
Searches

Access to
Data bases etc.
- UK
- USA
- European

SWIRL

u/v Schools
- academics
- equipment
- specialist
advice

Outside
- sub-contract