

A policy context - eLib and the emergence of the subject gateways

Derek Law and **Lorcan Dempsey** put the development of the UK subject gateways into historical perspective.

This brief paper outlines some of the features of the policy environment which led to the setting up of the influential 'subject gateways' as part of the Electronic Libraries Programme. It has the modest and partial ambition of putting some of the discussions of the time on record. It should be read as a companion piece to two other articles. The first, Law 1994, develops the historical context for the emergence of the data centres, a central component of JISC information infrastructure, and collaterally discusses the broad thrust of JISC's developing informational activity. The second, Dempsey 2000, upon which this piece is partly based, provides a broad discussion of the emergence of the subject gateways and the historical trajectory which led to the setting up of the Resource Discovery Network (RDN), which now provides an umbrella for JISC-funded subject-gateway activity. This article has a particular focus: it looks at some aspects of the policy background which led to the funding of the subject gateways. It does not discuss emerging services and approaches that also influenced developments. There is a very much wider picture. A useful starting point for filling in this picture is the special issue of Online Information Review in which the second article above appears: this includes a range of contributions, and references to be followed. The Ariadne archive also contains many contributions about individual gateways (Ariadne).

The Electronic Libraries Programme (eLib) was an initiative of the Joint Information Systems Committee (JISC) of the UK Higher Education Funding Councils, following the publication of the Follett Report on libraries. Its first phase saw the setting up of projects during 1995 in the following programmatic areas: electronic document and article delivery; digitisation (of backruns of journals); on-demand publishing; training and awareness; and access to network resources (ANR). The subject gateways were funded as part of the ANR area.

A variety of other initiatives was developed in concert with eLib. These included the funding of an Arts and Humanities Data Service (following a joint British Academy/British Library report and a commissioned study on how such a service would operate), the commissioning of work on retrospective conversion needs, and the funding for wider use of the union catalogue of the Consortium of University Research Libraries, COPAC. These activities were in turn part of a larger, developing JISC information agenda begun in 1991, which included the setting up of up to five national data centres (which managed access to licensed bibliographic and other data sets), advisory and communication services, and other shared services. Together, this growing portfolio of activity was a result of a belief in the utility of shared action in the construction of academic 'information infrastructure'. In the same way as the network infrastructure was centrally procured and managed, it was felt that a significant part of shared information resource and supporting services could be so managed. (See Law, 1994, for a discussion of

the data centres in the context of wider academic information infrastructure.)

A call for expressions of interest to develop the eLib programme strands was released by the JISC in August, 1994 (JISC, 1994), and the programme was extended in subsequent calls (eLib). The programme ambition and scope have been quite influential, and it has been discussed in detail elsewhere (Rusbridge, 1998). In this way, the subject gateways can be seen as continuous with other initiatives which were looking at 'academic informaton infrastructure' at around this time in other countries, although the particular approach adopted here anticipated developments elsewhere.

The call characterises the aim of the ANR strand as "to consider funding through the JISC to encourage the development of networking navigation tools and the growth of local subject based tools and information servers". An annex describes the aim in more depth. It suggests that "The main outcome will be to raise awareness of networked information resources, to explore the issues associated with running large scale services, and to ensure community involvement in developments at national and international levels." It furthermore suggests that the intention was not just to fund R&D which would lead to the production of demonstrator services: "It is therefore intended that a series of centrally funded initiatives should be taken with the aim of creating a national infrastructure capable of generating significantly more widespread use of networked information resources." Several areas were highlighted which might deliver such an aim:

- "the creation of an organisational framework within which sustainable services can develop". (this was to include the setting up of a "national entry point and registration agency" responsible for registering HE network services, monitoring use of overseas services and making recommendations for mirroring and caching, promotion of guidelines and standards, coordination with interested UK organisations.)
- "the initiation of projects aimed at improving the design and availability of resource discovery and access systems, and of associated systems. A small number of subject based services will be funded in order to test the problems of scale associated with offering a community wide service. These projects will be expected to work together to explore standards and other common issues"
- "the promotion of preferred software solutions within the HE community by means of disseminating information on the development of resource discovery and access systems within the mainstream Internet environment, and through the provision of advice on technical issues relating to networked information and the planning for its development to individual HE institutions and to the funding councils and their various committees"
- "collaboration in the pursuit of these objectives within the international community as represented by organisations such as Internet Engineering Task Force (IETF), Coalition for Networked Information (CNI), the proposed Multinational Information Framework (MIF) and the European Commission, as well as with information service providers and other interested parties in the UK"
- "the development of guidelines and standards to help raise the quality of registered information services".

Work was to be taken forward in three ways. Following some consultation, bids to provide subject

services would be invited. This led to the funding and establishment of the eLib subject gateways. These were SOSIG (Social Science Information Gateway) (which slightly pre-dated eLib, and in some ways acted as a model for other gateways), EEVL (Edinburgh Engineering Virtual Library), OMNI (Organised Access to Medical Networked Information), History, ADAM (Art, Design, Architecture and Media information gateway), and Biz/Ed. The ROADS (Resource Organisation and Discovery for subject-based services) project, which provided systems support for the gateways was also supported here. Together with some more content-oriented projects these formed the Access to Network Resources strand of eLib (ANR). It was believed that while the community might afford and sustain a series of services at "Faculty" level, that this would not be true at individual "subject" level. The choice of subjects was intended to test this, as well as whether there were discipline specific issues.

Second, a study would be commissioned to advise on how to take forward the "national centre" envisaged in the document. This resulted in a report commissioned from George Brett II, who had been influential in developing analogous systems in the United States of America, which proposed the setting up of an agency which combined some of the responsibilities of the US organisations, CNIDR (Clearinghouse for Network Information Discovery and Retrieval), CNI (Coalition for Networked Information) and Internic (Internet Information Centre). And, third, a study of higher education participation on relevant committees would be commissioned which might provide recommendations on relevant activities (in the area of standards, etc). These latter two strands were not taken forward in the way proposed, though, as noted below, many of the concerns identified have been taken up in later development.

The topics of the call, as described above, leaned heavily on the recommendations of the ANIR report which had been commissioned the previous year (ANIR). Both the Follett IT Implementation Group (FIGIT) and the Information Services and Systems Sub-Committee of JISC were working on closely related themes and, in a Byzantine structure understood by few, effectively sub-contracted areas of responsibility to each other, as seemed appropriate. Thus the Access to Networked Information Resources (ANIR) working group was established to advise the Information Systems and Services Sub-committee of JISC on sensible approaches to networked information, recognising the potential importance to the conduct of research and learning of emerging network information services.

Looking at the call above alongside the ANIR report one can identify some particular concerns:

- A conviction that the effective use of information resources in learning and research depended on creating access, discovery and other supporting services. This was coupled with a recognition that these services are related and should be coordinated where helpful to support a cohering 'network use environment'.
- A belief in the utility of central activity within the relative coherence of the UK higher education community and what was the relatively controlled environment of the academic network.
- An awareness that significant development depended on being a part of wider standards and service development, which could be influenced through participation but which was increasingly various, energetic and unpredictable. This in turn led to an aspiration to engage with centres of energy, whether these be institutional services, international standards or consensus-making

activities, or development initiatives, and to provide structures through which this could happen. This was in the hope that UK higher education participants would become more actively involved in helping shape the development of viable information and systems.

In practice some of these concerns have been partly addressed. However, the pace of development has been greater than was anticipated. The thinking was very much formed in the context of early academic and research information infrastructure. It is notable, for example, that the Follett report, the document that released the eLib funding, makes no mention of the Web. (Follett, 1994) And some proposed developments - the manual, central registration of network services in a 'national entry point', for example - were quickly being overtaken by events, and seem to belong to an earlier stage of development, characterised by a much more sparsely populated network information environment.

However, some of this early thinking is evident in the current range of JISC services. (JISC) For example, there are now national mirroring and caching services, who plan to work with the Resource Discovery Network to optimise the use of available bandwidth. There are a range of advisory and facilitating services, including for example, TASI (Technical Advisory Service for Images), based at the University of Bristol, and the Interoperability Focus and Web Focus, based at UKOLN, who work to influence practice and inform policy in their respective areas. The JISC is a member of international consensus making groups (for example, the World Wide Web Consortium, The Digital Object Identifier Foundation, and the Instructional Management System Centre).

It is an open question whether the central organisation envisaged in the call would have delivered the benefits it proposed, or would have been capable of sustaining sensible impetus in the flux of recent years. Undoubtedly, several of its proposed roles have been variously carried out by other means. However, it is interesting to note that the subject gateways within the RDN are now very much seen as central components of a wider Distributed National Electronic Resource, a 'managed environment for accessing quality assured information resources on the Internet'(DNER), which aims to deliver a richer research and learning information infrastructure.

Note

Derek Law was chair of ISSC when the subject gateways were being set up. Lorcan Dempsey, then at UKOLN, was a member of the ANIR working group, and, with Peter Stone, acted for ISSC in discussions with the gateway proposers. The ANIR group was chaired by Ken Heard, and latterly by Richard Heseltine.

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