

Actively Encouraging the Use of Electronic Resources at a UK Academic Library

CHRISTINE DUGDALE

Bolland Library, University of the West of England, Bristol, UK

Today's students require the skills necessary to access and retrieve information from the global electronic environment. They will need to exercise such skills throughout their lives - now and long after they have left their present centres of learning. Many students, however, are reluctant to learn such skills. They often feel that these skills are irrelevant to the specific demands of the modules or the subject knowledge set under current study. They may be particularly reluctant to attend any additional faculty-run courses on IT or bibliographical skills or any library-provided demonstrations or training sessions. These are often perceived to be unnecessary as well as irrelevant sessions.

The Library Services at the University of the West of England, Bristol in the UK are investigating ways in which students might be encouraged to use electronic resources and to develop important lifelong learning skills through the ResIDe. (Research, Information, Delivery) Electronic Library. Working in close partnership with academics leading one module in the Bristol Business School, they are also trying to devise ways in which a joint academic/librarian team might, through ResIDe, encourage a more comprehensive and heuristic approach to accessing, retrieving and evaluating information. End-of-year results indicate that this approach has been successful.

Background

Today's academic libraries provide students with access to a wide range of electronic information resources. These are usually found in 'hybrid' libraries that hold or provide access to a wide range of both print and electronic resources. Electronic libraries/services have frequently evolved within more traditional print-based libraries. They may have developed in a somewhat *ad hoc* manner rather than as a result of a carefully planned integrated hybrid model (Rusbridge 1998).

Electronic services have tended to develop as a response to technological, financial and cultural changes that have been brought about by technological developments, and such pressures as increasing student numbers, financial constraints and ever higher user expectations (Hanson & Day 1998). They may not necessarily have re-

sulted from a planned move towards more electronic resources. Ninety-five percent (95%) of use and services in academic libraries is still print-based (HyLife 1999). Consequently, an uneasy, uncoordinated, inefficient and unbalanced mix of information, media and interfaces can exist in unplanned hybrid libraries. These might confuse and overwhelm users, discouraging them from using electronic resources. Users prefer 'one-stop-shopping' that reduces the number of services they need to use and leads them to full-text material from the source initially searched (Headline 1999).

Although the mix will change, this hybrid pattern is likely to continue for some years yet. There may be a number of technical or economic reasons why educational institutions are unable to increase the proportion of electronic information in their hybrid mix such as an inadequate

Christine Dugdale is ResIDe Research Fellow, Bolland Library, University of the West of England, Bristol, UK. Frenchay Campus, Coldharbour Lane, Bristol, BS16 1QY, UK. Tel: +44 (0)117 9656261 ext. 3646. Fax: +44 (0)117 9763846. E-mail Christine.Dugdale@uwe.ac.uk URL: <http://www.uwe.ac.uk/library/itdev/reside>

technical infrastructure. The greatest stumbling block to the development of any effective electronic information service, however, is the reluctance of users to utilise electronic resources to a greater extent.

Most students would claim that they prefer access to the much larger volume and wider range of information that electronic resources provide. Most faculty would claim that they appreciated the immediacy of online information and the impact that multimedia teaching and learning materials might have upon delivery of their courses. In providing a variety of media, electronic sources enhance the learning experience (Davies 1997).

Few users, however, are willing to reduce their dependency upon print-based materials. Many students choose to use print-based documents and ignore the many advantages of any available electronic resources. Yet, the library of the future is more likely to hold or provide access to a merged blend of traditional and electronic sources of information, with electronic resources becoming increasingly more important. Electronic information is also more likely to become the norm in every sphere of life – both at work and leisure.

Students, therefore, need to learn and practise today those skills that they will need in order to exploit electronic resources in the future. Yet, a recent survey has shown that a large number of students from a sample population were leaving the university without the necessary transferable skills to cope in an information-based society (Ray & Day 1999). If they do not elect to learn and practise these skills themselves, it may be necessary for educational institutions to consider introducing services that encourage such choices and to design courses that embed the absorption of such skills. Students might, thus, be encouraged to address successfully these unknown learning needs.

It may also be necessary to consider the desirability of embedding evaluative skills into curricula. Although some faculty members have always included the teaching of these skills, some educational institutions have, traditionally, regarded such tuition as a separate 'additional' service that should be offered by the library. They are, however, taught far more effectively when embedded into the curricula by a multi-skilled team of faculty and librarians (Dugdale 1999b).

In addition, those who already use electronic resources might feel that they do not need to learn how to evaluate them. There is a danger of high recall being confused with high precision. Users might be satisfied with results obtained from database searching which are, in fact, less satisfactory than those retrieved by a trained intermediary (Biddiscombe 1996). Skills required to realise the full potential of electronic resources are usually much greater than those required for exploiting print sources (Dutton 1990). Users may not understand which and how many skills are needed to search electronic resources that can appear deceptively easy to use (Brophy 1993). They may need guidance to acquire the transferable learning skills required within a controlled environment, although care must be taken not to adopt too paternalistic an approach. Such an approach can risk stifling a more investigative attitude and mode of study in those students who do already possess such skills.

ResIDe Electronic Library

User reluctance to abandon an almost exclusive reliance upon print-based resources has been evident in studies undertaken for the ResIDe (Research, Information, Delivery) Electronic Reserve service. This is part of the ResIDe Electronic Library at the University of the West of England, Bristol in the UK. User reluctance has led ResIDe's more recent developments to focus much more upon educational, social and organisational factors than upon technical refinements. It was recognised some time ago that technical issues were no longer the greatest impediment to the implementation of an electronic reserve service (Bosseau 1995). It is *people* issues such as obtaining electronic copyright clearance and encouraging users to accept and exploit electronic reserves that present the greatest challenges to system administrators.

ResIDe has provided students studying some Built Environment and Business modules with access to an electronic reserve collection (or electronic short loan collection) for two years. This facility has now been extended to the Faculties of Health and Social Care, Computer Studies and Mathematics, Humanities and Applied Sciences. There are also on-going discussions about rolling the Electronic Library out to other faculties and

other campuses. (Information about ResIDe is available on ResIDe's web pages at the URL: <http://www.uwe.ac.uk/library/itdev/reside>).

ResIDe was originally developed as a research project to examine issues surrounding the implementation of an electronic reserve service such as copyright and management control mechanisms as part of the UK's eLib Programme. (1) This was funded by the Joint Information Systems Committee of the UK Higher Education Funding Councils in response to the recommendations of the Follett Report (HEFCE 1993).

ResIDe is now an established element of University of the West of England's overall hybrid library service that seeks to draw complementary advantages from print and electronic resources. It comprises three databases, an electronic reserve, a current awareness service and a past examination database accessed through a common interface.

The electronic reserve provides students with all the advantages of simultaneous multi-use, multi-location, university-wide access to a dedicated set of secure information supporting specific modules (Dugdale 1998) while seeking to integrate a new electronic resource with the Library's existing print and electronic services. The current awareness service comprises the Tables of Contents of journals to which the Library subscribes. It is of particular value to staff and students seeking information about current academic debate and research findings found in publications held in several different campus libraries and those researching cross-disciplinary subjects. The past examination paper database comprises copies of past papers. This has proved a popular service for all students, but particularly for those taking cross-faculty modules.

Reluctance

Despite the undoubted advantages of an electronic reserve service networked across the entire university, there was some initial reluctance from both staff and students to access it, suggesting that users preferred print-based resources and might require a considerable degree of encouragement to utilise a more convenient and efficient service. There was also a very marked initial reluctance to utilise ResIDe as a teaching and learning tool to initiate or support more innovative

pedagogic practices. (2) Although it proved more difficult to persuade faculty to explore the innovative pedagogic potential of ResIDe than to encourage its more general use among either staff or students, initial reluctance even to access ResIDe continued for some time despite an intensive, ongoing publicity campaign (Dugdale 1997). A March (1999) survey of Bristol Business School staff and students studying ResIDe-supported modules revealed that all student respondents accessed the Electronic Reserve, but only a small percentage did so as regularly as once a week and that very few staff respondents had ever accessed it (Collett et al. 1999). ResIDe's logs suggest that numbers of staff accessing the system only changed markedly quite recently.

A significant and rapidly growing number of module leaders from all faculties, however, are now approaching the library with a view to adding their courses to the database. The numbers of requests are currently greater than the present ResIDe Team can accommodate. Preliminary discussions, moreover, have indicated that this interest has resulted from debate among the faculty themselves. Two of the module leaders who began submitting items for the new academic year as early as June are also planning to use ResIDe's functions to introduce tuition and learning through assignments and workshops in more innovative ways. Student use also increased dramatically towards the end of last academic year – mainly due to ResIDe's past examination paper holdings.

Proactive approach

A more proactive approach is now being taken to increase use of all three databases. Staff and students will, thus, enjoy an additional value-added library service and students will be encouraged to absorb some search and IT-based lifelong learning skills. Faculty will also be supported and encouraged to introduce pedagogic practices, based upon new technologies, into their lectures and workshops and their setting of learning exercises based upon the exploitation of technological aids.

Approaches taken to raise awareness and increase individual levels of usage as well as those who access ResIDe vary according to each database. It always involves an on-going high-profile

publicity campaign at a variety of levels that utilises print, telephone and electronic forms of communication to all staff and students.

Examination papers

Students are encouraged to use ResIDe by the simple expedient of mounting past examination papers onto the system. Easy, fast access to past examination papers was one of the main potential benefits that students identified as resulting from an electronic reserve during the pre-implementation stage. (3) Once they have accessed the Electronic Library to retrieve examination papers and found it very simple to navigate, it is hoped that they will be less reluctant to use what will have become a familiar user-friendly interface to search the other two databases.

The past examination paper database is a valuable resource for all students. Print library copies may be unavailable because they have been stolen, defaced or hidden by users, but material held on an electronic reserve is free from both theft and defacement (Shapiro 1995). The growing use of modularization in teaching (Sumsion 1994) also means that a central electronic database is particularly valuable for those studying cross-faculty and cross-campus modules. If examination papers are only accessible via faculty intranets, then students may have to learn more than one system to retrieve a desired set of papers. This could discourage them from seeking electronic formats. If papers are only held in print versions or in a mixture of electronic and print formats in different faculties, students may find it necessary to go to more than one campus. Networked electronic holdings, however, accessible from a single system found at many locations within the University, are far more convenient. Students feel that it is worth the effort of learning how to use such an electronic system.

The database also provides advantages that increase interest among other user groups. Electronic versions remove cataloguing, storing, shelving and issuing print examinations on paper problems for librarians. Faculty administration officers do not need to store and disseminate the information. Easy access to an archived body of examination papers provides a quick and easy reference for academics and helps them to tailor teaching and revision programmes as well as

underpinning students' own learning and revision. Consequently, all user groups have become more interested in ResIDe publicity. Students easily finding desired examination papers are more likely to search and retrieve readings for their modules. If ResIDe supports academics' personal interests, they are more sympathetic to requests to submit documents and endorse the system to students and colleagues.

A recent intensive campaign to raise awareness about the examination paper service increased demands for ResIDe and expectations of its services. There were demands for remote access to enable the electronic reserve to support new distance-learning courses and existing placement students. It also revealed a number of practical problems experienced by students; mainly centring on their use of web technology. This would suggest that ResIDe is achieving its objective of encouraging students to use new information resources and learn IT, search and bibliographical lifelong learning skills. The ResIDe feedback form and e-mail links provide users with the opportunity to seek help to increase their confidence in using ResIDe and other electronic resources in the future. By accessing and retrieving information from ResIDe, dedicated technophobes might overcome their concerns sufficiently to discover that many electronic resources are easy to use and present no insurmountable barriers. Feedback comments identifying missing papers, hardware problems or requesting papers for other subjects or years has been encouraging in that it has revealed that an enormous number of students have already accessed ResIDe and appear to want it to expand. This includes those from subject areas where widespread use of Internet resources is not the norm.

It has become obvious that, despite the many opportunities offered by faculties and the library, there are some students who do not regularly use any electronic service other than e-mail. Some ResIDe 'publicity' e-mails have been returned because accounts are over-full suggesting that some students do not even use e-mail facilities or, at least, do not do so regularly. One student receiving an e-mail advertising the examination database actually felt the need to ask if ResIDe could be 'meant for me?'

Where the ResIDe Team is able to respond quickly and positively to requests such as those

to mount additional papers, students become even more confident about ResIDe and are more likely to use the Electronic Reserve function and even encourage their lecturers to submit information. This will increase the number of opportunities for lecturers to harness technology in their teaching through ResIDe.

Current awareness service

A current awareness service was originally created to support research into copyright issues, (4) but has been developed as a permanent value-added service for members of University of the West of England, Bristol. This is of increasing importance for students as more self-directed active learning-based courses are developed. It is particularly valuable for academic staff and research students; providing a backfile of Tables of Contents to print journal issues held by the library. It is hoped that, especially as faculty prepare for the UK's Research Assessment Exercise, they will be actively encouraged to use ResIDe more, investigate its other functions and explore ways in which they might use the Electronic Reserve for their own students.

Electronic Reserve

Although development of the above features have provided members of University of the West of England, Bristol with very valuable services and have gone some way towards encouraging staff and students to explore other electronic sources of information, it is the Electronic Reserve that offers the greatest potential to embed IT, bibliographical, search and evaluative skills into the curricula and to design modules around different pedagogic styles. This, however, calls for a cultural change in academic institutions that would mean a greater merging of the professional roles of teaching and support staff with the creation of joint teams of multi-skilled personnel. Indeed, cultural change was one of the main aims of the eLib programme (Davies et al. 1997). The development of an integrated programme of subject tuition and information provision embedding lifelong learning skills, including those required to exploit electronic information resources, calls for a much closer working partnership between academic and library staff than a traditional

client-provider scenario of academic and librarian roles offers (Dugdale 1999a).

It is possible for faculty to use ResIDe as little more than a useful 'housekeeping' device to ensure the integrity and security of documents that they would otherwise place in a print short loan collection. (5) This would give all students equal access to the same material, but would do little to address more fundamental and far-reaching lifelong learning needs. Faculty might also use ResIDe in more imaginative ways in their teaching without any further input from library staff other than that of providing a mass of documents. One module leader intends using ResIDe's documents as a research tool for students to exploit as a springboard to encourage exploration of additional print and electronic resources. To encourage this heuristic approach to the more philosophical aspects of the subject, the ResIDe Team's expertise in obtaining copyright clearance and scanning material will be harnessed. Copyright can be very difficult to understand (Norman 1999) and obtaining permission to use copyrighted material is often very time-consuming (Muir 1998), requiring a degree of experience and expertise. The module leader, within the Department will then create a separate search facility, using programming help from the Department help desk web support. This will link to the ResIDe database to electronically generate and make available a searchable and browsable index of all the articles in the ResIDe collection for this module. The index will link to the articles and encourage students to follow ideas through to other examples from the original source without fostering a tendency to spoonfeed them (Utley 1998) that might result from the personal idiosyncrasies of an academic selecting keywords for each article.

Research study pilot modules

Librarians are working more closely with Bristol Business School academics to encourage students studying three business modules to use electronic formats. Ray and Day felt that one reason for the subject differences recorded by students answering their survey about ease in using electronic sources might be the use of technology in a degree course (Ray and Day 1999). By working together with library staff, the module leaders have

introduced more technology into their teaching and their students' learning.

Two of the modules were supported last year and were led by the same module leader. One is a second year elective, Information for Management Decision-Making, taught by two academics to 95 students through a weekly lecture and workshop. It is assessed by a research-based group dissertation/essay, a case-study-based time-constrained assignment and an examination. The other is a first year mandatory module, Business Accounting, that is team-taught by ten members of staff to almost one thousand students through a weekly lecture and workshop. This is assessed by two multiple-choice tests, one spreadsheet-based exercise and an examination.

A wide range of document types for each module is held on the Electronic Reserve. These comprise teaching and learning materials and modular information such as lecture and workshop handouts, notes, timetables, questions and answers, slides, spreadsheets, assignment details, sample test questions, past examination papers, course outlines, syllabi and module guides. There are also hyperlinks to internal and external databases such as the library's own resources web sites and study skills information, a course book web site and journal databases to which the library already subscribes.

It was felt that business students would be an excellent pilot group. They are particularly well served by online information, should be more familiar with and less reluctant to use electronic resources. Consequently, they should be more likely to appreciate the incorporation of IT skills into their subject tuition and would make more progress in absorbing these than students studying less IT-supported subject areas. They are also more likely to use software applications and electronic information in their future careers. As a result, their need to learn about these might be greater than that of some other students. Analysis of a questionnaire completed at the beginning of the academic year by Information for Management Decision-Making students, however, suggested that very few were familiar with a comprehensive range of databases. Only a third had used a smaller range and two thirds had not use any business databases before despite the very comprehensive programme of demonstrations and training offered by the library. This lack

of student experience of electronic resources confirmed information given by Built Environment students at a focus group held during ResIDe's pre-implementation stage. (6)

It was apparent, therefore, that students might be reluctant to use ResIDe if they were given alternatives in the form of print handouts or were able to access print sources in the library. This posed a problem in that, while wishing to encourage a wider student use of electronic resources and to develop the skills needed to exploit these, it was important to ensure that those students who were uneasy about using electronic sources were not, in any way, disadvantaged. It was necessary, therefore, to provide some element of inducement to encourage students to use ResIDe while ensuring that all students were able to access the same information through different sources.

The Information for Management Decision-Making students were second-year students from whom more could be expected. They were also taught by only two members of teaching staff who were both very enthusiastic about exploring the ways in which electronic libraries could support their students' self-acknowledged and, possibly unrecognised, learning needs. This meant for the library staff that it was possible to extend ResIDe's support further than just encouraging a more general use of electronic resources. The faculty members were willing to consider re-designing the course and setting work that exploited ResIDe's advantages in a way that would address student learning needs with regard to accessing and retrieving information from an electronic source.

Students studying on both these modules have been encouraged to use the digital versions held on ResIDe by extensive publicity, a large amount of dedicated library support and by timing the mounting of information slightly earlier on ResIDe. Students can access most learning materials/publications through lecturer print handouts, library print resources and other electronic resources accessible through the library as well as from ResIDe. At the beginning of the year, students were given training and encouragement to use ResIDe, but they were not disadvantaged in any way at all if they did not do so.

Gradually and subtly, this changed. Those using the Electronic Library were given some earlier

access to documents or additional information, though those limiting themselves to print resources were still able to access sufficient information to complete assignments and additional examination preparation to a high standard. Business Accounting workshop information was available through both ResIDe and print handouts. Answers to each weekly workshop task were mounted onto ResIDe at the beginning of the week. Students using the Electronic Library were, therefore, able to gradually amass a complete set of task instructions and suggested answers well before the May examination. Students unwilling to access electronic sources or waiting to be spoon-fed information received the material printed and bound, but closer to the examination date. Part way through the year, a more proactive approach was adopted whereby answers to the next three workshops were mounted. Thereafter, ResIDe consistently provided model answers in advance for the next two weeks. Although some members of the teaching team were concerned that this would discourage student attendance at the workshops, this fear proved groundless and the numbers of students accessing ResIDe rose. Students were still accessing workshop answers after the last session was held.

In the same way, details of the compulsory assessed assignments for the Information for Management Decision-Making module were posted a day earlier on the Electronic Library. The second of these was a case study. The case was provided in advance on ResIDe and in print. Questions were provided and answered in a controlled examination environment. After marking, model solutions were mounted on ResIDe for next year's students.

Since experience of student use of the examination database suggests that students will learn how to use a system containing examination and assignment details, it is hoped that this will encourage next year's cohort to use ResIDe earlier and more frequently. Once encouraged to overcome any initial reluctance to use ResIDe, they will be able to enjoy a comprehensive, one-stop shop of different teaching/learning materials and administrative information. To help foster enthusiasm for this, the lecturers are now preparing assignment and examination reports that detail common problems and misunderstandings that have emerged. These will also be mounted

on ResIDe for future students. They are also considering approaching students for permission to post some 'excellent' answers.

Following the success of ResIDe's support for the Information for Management Decision Making module, a second academic teaching has already begun to follow a similar approach with a third-year Bristol Business School module, Advanced Management Accounting, that he will shortly be leading. After discussions with librarians about the possible different learning outcomes to be achieved by mounting, organising and exploiting the range of documents and media that ResIDe can support, he has already submitted a skeleton selection of documents. This includes examination papers, solutions, examiner's reports, and journal articles. To these, weekly lecture notes, handouts, slides, assignment details, solutions and bulletins will be added throughout the year.

Pilot assignment

It was in the designing of the first compulsory assignment that ResIDe was most positively used as a teaching and learning tool for the Information for Management Decision-Making module. This was intended to encourage an investigative approach to the subject while developing students' IT, evaluation and research skills in addition to improving and reinforcing their understanding of, and critical approach to, a selected area of the subject. Students had to perform literature searches and evaluate material that they found. It was possible for them to use only print sources or to use only print material and documents mounted on ResIDe. Links to other databases, however, were added to encourage their use of other electronic materials held in other electronic resources. Instructions detailed the most important and relevant articles held in the databases to which there were links from ResIDe. Clear instructions were given for their retrieval, but it was also explained that other, unspecified, relevant articles were held in these databases to encourage students to perform their own searches. The library has subscribed to these databases for some years so that they have always been available to Information for Management Decision-Making students. They are, however, more likely to access them if they can do so through the familiar user-friendly ResIDe interface and if lecturers encourage them

to do so as part of an assessed assignment. Once they have used a number of search engines in this way, they may be more prepared to access new electronic resources during their course of study and in the future; independent of ResIDe.

Assessment of the assignment has confirmed that students have, indeed, been encouraged to explore additional sources accessible from ResIDe. They have also used other databases accessible from the library. Many had not only used a considerable range of databases, but were able to critically evaluate their search engines and interfaces. Seventeen different databases had been evaluated and several of these had been used by a number of students whereas only twelve databases had been identified by respondents on the earlier questionnaire and five of these had actually only been accessed by one person. This extension of student knowledge base about external electronic sources is quite dramatic. The assignment appears to have developed students' evaluative skills while they displayed a mature consideration of theory that they appeared to have gained from the additional reading accessed through ResIDe. Their work has revealed that they have not only developed skills in retrieving information from a variety of sources, but also a greater understanding of the benefits and disadvantages of using each. This appears to have been assimilated quite unconsciously by most of them. Although the assignment was very different to others set in the Business School and students, initially, disliked it, they have gained slightly higher first assignment marks than last year's students. The two module leaders have been greatly encouraged by this and believe that, with a little refinement, the assignment will produce a higher standard next academic year.

The Future

As a library service ResIDe can only suggest the Electronic Reserve's potential for integrating different technical and search skills into a curriculum and for exploiting its potential as a teaching and learning aid. ResIDe does, however, present opportunities for faculty to embed transferable lifelong technical skills into their tuition programmes and supports a wide range of pedagogic styles. While students might not believe such an approach reflects their learning needs, an assess-

ment of the partnership of business academics and library staff through ResIDe would suggest that it could be successful for some students.

References

- Biddiscombe R. 1996. The end-user revolution: CD-ROM, Internet and the changing role of the information professional. London: Library Association Publishing.
- Bosseau, D.L. 1995. Technology issues in digitising the reserve function. *The Electronic Library* 13(3): 217-9.
- Brophy, P. 1993. Networking in British Academic Libraries. *British Journal of Academic Librarianship* 8(1): 49-60
- Collett, R., C. Dugdale, D. Dugdale, & N. Robson. 1999. The Development and Evaluation of Electronic Databases for Students and Staff Use at a UK University, paper presented at CTI Accounting Finance and Management Annual Conference, Brighton, 8 & 9 April, 1999. Text shortly to be available through CTI Accounting and Finance web site: <http://www.mgt.uea.ac.uk/cti/>
- Davies, C., M. Hall, C. Oppenheim & A. Scammell. 1997. Early Impact of eLib Activities on Cultural Change in Higher Education: a supporting study in the JISC Electronic Libraries (eLib) Programme. London: Library Information Technology Centre, South Bank University.
- Davies, J.E. 1997. Learn by wire: managing network access to learning materials. *The Electronic Library* 15(3): 205-14
- Dugdale, C. 1999. Academic/Librarianship Partnerships in the Electronic Library. *Program* 33(1): 15-28
- Dugdale, C. 1999. Managing Digital Collections: new opportunities and new roles for librarians? In: Aparac, T., T. Saracevic, P. Ingwersen and P. Vakkari, ed. *Digital Libraries: Interdisciplinary Concepts, Challenges and Opportunities: Proceedings of the Third International Conference on the Conceptions of the Library and Information Science*, Dubrovnik, Croatia, May 23-26, 1999. Zagreb: Zavod za informacijske studije Odsjeka za informacijske znanosti, Filozofski fakultet Zagreb Naklada Benja, Zagreb: 109-21
- Dugdale, C. 1998. Managing Short Loan Collections in Academic Libraries: print and electronic alternatives for the new learning environment. *Journal of Librarianship & Information Science* 30(2): 133-40
- Dugdale, C. 1997. Promoting Electronic Services in an Academic Library. *Managing Information* 4(9): 38-41
- Dutton, B.G. 1990. An introduction to end-user searching: In: Bysouth P.T., ed. *End-user searching: the effective gateway to published information*. London: *Aslib*: 1-18

- Hanson, T. & J. Day. 1998. Managing the electronic library: a practical guide for information professionals. East Grinstead: Bowker Saur.
- Headline. 1999. *Headline (Hybrid Electronic Access and Delivery in the Library Networked Environment) Newsletter* (Spring).
- HEFCE. 1993. Report of the Joint Funding Councils' Libraries Review Group (Chairman: Prof. Sir Brian Follett). HEFCE: Bristol.
- HyLife: the hybrid library of the future. 1999. Interview with Ian Winkworth in *Electronic Library* 17(1): 17-20
- Muir, A. 1998. Publishers' views of electronic short-loan collections and copyright clearance issues. *Journal of Information Science* 24(4): 215-29
- Norman, S. 1999. Copyright in further and higher education libraries (4th ed.). London: Library Association Publishing.
- Ray, K. & J. Day. 1999. Student attitudes towards electronic information resources. *Information Research* 4(2) October. Available at: <http://www.shef.ac.uk/~is/publications/infres/paper54.html>
- ResIDe web site available at: <http://www.uwe.ac.uk/library/itdev/reside>
- Rusbridge, C. 1998. Towards the hybrid library. *D-Lib Magazine*, July/August, available at: <http://www.dlib.org/dlib/july98/rusbridge/07rusbridge.html>
- Shapiro, B. 1995. Design issues in planning electronic reserves. *The Electronic Library* 13(3): 219-21
- Sumsion, J. 1994. Survey of Resources and Uses in Higher Education Libraries: UK, 1993. Library and Information Statistics Unit, Loughborough University of Technology, Occasional Paper No 6. Loughborough: Loughborough University.
- Utlely, A. 1998. Too loving spoonfuls. *The Times Higher Education Supplement* 16 October: 37

Notes

1. Information about the eLib Programme is available at: <http://www.ukoln.ac.uk/services/elib>
2. See User Survey Report available on ResIDe web site: <http://www.uwe.ac.uk/library/itdev/reside>
3. See Student Focus Group Report available on ResIDe web site: <http://www.uwe.ac.uk/library/itdev/reside>
4. See ResIDe Final Report available on ResIDe web site: <http://www.uwe.ac.uk/library/itdev/reside>
5. See User Survey Report available on ResIDe web site: <http://www.uwe.ac.uk/library/itdev/reside>
6. See Student Focus Group Report available on ResIDe web site: <http://www.uwe.ac.uk/library/itdev/reside>