# Public libraries and the consortium purchase of electronic resources

David Ball

#### The author

**David Ball** is University Librarian at the University Library, Bournemouth University, Bournemouth, UK.

## Keywords

Public libraries, Purchasing, Procurement, Electronic books, Electronic journals

#### Abstract

This paper embodies research on the purchasing of electronic resources by public libraries. It sought to identify what works well and what is problematic with respect to the management of commercial products. Views were also sought on future development, and how procurement could best be managed. The main concerns identified were the lack of a national dimension and strategy, and of expertise in individual authorities and consortia, particularly with licences. Purchasers were felt to be reactive, not taking control of the procurement by specifying requirements. E-resources were felt to be very expensive; there was not necessarily any price advantage as a result of consortial negotiations. It was also felt that hard-copy and e-resource procurement and strategy should not be separated. Licence terms and pricing models were felt to be confusing, and the interfaces provided inappropriate.

# Electronic access

The Emerald Research Register for this journal is available at

http://www.emeraldinsight.com/researchregister

The current issue and full text archive of this journal is available at

http://www.emeraldinsight.com/0264-0473.htm



The Electronic Library
Volume 21 · Number 4 · 2003 · pp. 301-309

© MCB UP Limited · ISSN 0264-0473
DOI 10.1108/02640470310491522

## Introduction

This paper embodies the results of research, undertaken for Resource: The Council for Museums, Archives and Libraries in spring 2002, on the purchasing of electronic resources by public libraries in England. The full report on the issues arising from the research is available on the Resource Web site (www.resource.gov.uk/information/research/respubs2002.asp).

The brief from Resource was to undertake structured interviews with library authorities and consortia in England with a view to identifying:

- what works well;
- what are the various management models that have been adopted;
- what is problematic with respect to the management of commercial products;
- what issues and concerns staff have; and
- what are their views on future development and how such procurement could best be managed.

# Methodology

The research targeted six consortia held to be representative of procurement activity in the public library sector: Central Buying Consortium (CBC), Co-East, Consortium for United Stock Purchase (CUSP), Foursite, LASH (Libraries Access Sunderland scHeme), Libraries in Partnership West Midlands (LIP WM). Five individual library authorities were also surveyed: Blackburn, Bristol, Croydon, Knowsley and Norfolk.

Structured interviews were undertaken in March 2002 (the questions are given as Appendix 1). The interviews sought to determine how consortia are currently procuring hard-copy and electronic resources. First, questions sought to determine how consortia currently operate in terms of membership, decision making and personnel. Information was also elicited on activity – the contracts in operation, and whether e-resources were included. Second, the views of consortia were sought on issues arising specifically from the procurement and

The author's thanks go to all those who responded to tight deadlines and so frankly. The author hopes, but cannot guarantee, that he has not misrepresented their views.

Volume 21 · Number 4 · 2003 · 301-309

use of e-resources – what content was required, what technical and contractual problems were foreseen – both now and in the future. Finally opinion was canvassed on whether there are benefits or disadvantages in divorcing the procurement of e-resources from the procurement of traditional library resources.

The survey of libraries concentrated on more practical issues arising from the use of e-resources, such as those relating to use of technology by both staff and users. The survey was also used to discover what types of content were sought by libraries and to determine if there is any pattern to current spending. Although the interviews were structured, both consortia and libraries were encouraged throughout to raise other issues or concerns themselves.

# Survey of consortia and authorities

# Survey of consortia

The six consortia surveyed responded as follows.

What is the membership?

A variety of consortia were surveyed, showing markedly different genesis, geographical spread and reasons for existence. Some exist for purchasing (CBC, CUSP), one because of a common library management system (Foursite), others have the character of a regional agency (Co-East, LIP WM). The number of members ranges from three to 25.

Two are cross-sectoral, including higher education (HE) as well as public libraries. One (LASH) came into being specifically to support learners across the city, with the aim of providing seamless access to learning through public libraries, the further education (FE) college and the university.

There is limited identification with regional boundaries: CUSP for instance will not accept members from outside the Government Office for the Southwest region. However, CBC, probably the strongest of the consortia in terms of parentage (local authorities rather than libraries are members), commitment and size of contracts, is multi-regional, embracing members from the Midlands, East of England, Southeast and Southwest regions, with London boroughs using the contracts too.

What is the decision-making and management structure?

There is a fair amount of commonality in structures, generally comprising a board of heads of service or senior representatives of members, with specialist groups (e.g. content, connectivity) doing the work.

CBC has a different structure, similar to that of the HE purchasing consortia: the Libraries Group is itself a sub-group of the wider local authority purchasing consortium.

The legal standing of consortia is an issue, resolved in varying ways. Some are not legal entities, and hence cannot contract with suppliers. Two main methods of resolving this difficulty emerge. First one authority will act as the lead authority, and hence legal entity, undertaking negotiations and setting up an agreement. Second the consortium may negotiate a framework agreement with a supplier; there are then bilateral contracts implementing this agreement between individual authorities and the supplier.

The consortia are eminently democratic; while a strategic steer may be given by chairs and work undertaken by relatively small dedicated groups, decision-making, in terms of what contracts to pursue and which offers to accept, is taken by the steering group as a whole. Such a democratic approach is felt essential to reflect the requirements of, and ensure take-up of contracts by, the membership.

What personnel are involved – dedicated, voluntary, procurement ...?

Some consortia have or are about to appoint dedicated full- or part-time staff, but rely as heavily as the others on the contributions, in terms of staff time, of their members. One consortium expressed the feeling that the employment of one or even a half-time dedicated person would have a great effect: membership contributions in terms of staff time tend to be squeezed by other pressures. Not all consortia involve procurement professionals. Where these are involved, their services tend to be donated by or hired from member authorities.

What contracts are in operation?

The purchasing or system-based consortia tend to have traditional hard-copy contracts in place – books, audio-visual materials, binding, official publications. Only one reports going to tender for journals. There are few contracts for online resources – British

Volume 21 · Number 4 · 2003 · 301-309

Standards, EBSCO Masterfile, World Book Online. Some trials of other products are current.

One large consortium had tried repeatedly to enter the e-resources marketplace, but with little success. Pricing by publishers had shown little advantage in aggregated consortium purchase. Experience of traditional contracts and the involvement of procurement professionals in this consortium may have fostered a more realistic and critical attitude to what was on offer. Also, members' focus had been on installing the People's Network and on associated issues such as staff training.

There is an awareness of being reactive. The British Standards contract for instance arose from an approach by the intermediary, accompanied by the news of discontinuation of the microfiche version. Some consortia feel that publishers bombard them with offers that are difficult and time-consuming to evaluate, and seldom offer value for money. These tend to reflect the publishers' agenda rather than the libraries' requirements. Terms and conditions are generally perceived as being unfavourable to libraries.

Two interesting strategies are developing. Firstly CUSP is developing a standard specification for services. They will define what is required, then approach publishers. Secondly Co-East has developed a content strategy and enshrined it in a document to be published on its Website (www.co-east.net/working\_groups/content). The document outlines the strategy and the criteria for selection. It also contains an online questionnaire, which potential suppliers are expected to complete rather than cold-calling.

There is an awareness of the implications for hard-copy budgets of contracts providing electronic resources. The electronic contracts tend to be more expensive than any hardcopy near equivalent.

How are the contracts managed and what problems are there?

In best procurement practice, contract management over the whole period of an agreement is essential to ensure delivery of what is promised; but in reality it may often be ignored by purchasers. The consortia with traditional hard-copy contracts generally show an awareness of the need for contract management, holding structured review meetings every three or six months. This tight contract management, involving both detailed

feedback from member libraries and regular review meetings with suppliers to monitor and improve performance, is generally associated with continuing involvement of purchasing professionals.

However there is little evidence of management of online contracts. This is no doubt partly due to the newness of the contracts. However there were some disturbing comments, such as "we found it difficult to get into dialogue with the new customer manager". There is however an awareness of the difficulties that may arise in the course of contracts for electronic resources: missing or changing content, downtime, access problems etc. These difficulties are additional to the usual vagaries of the hard-copy marketplace, with changes in ownership, staff, location etc.

Such medium-specific issues, combined with the newness of the resource and the arrangements for access, the intangible nature of electronic provision (one is aware of a day's newspapers not arriving in hardcopy) and complex licence terms, suggest that the contracts need careful management.

There is some evidence of the difficulties of the cross-sectoral approach. One consortium had a contract negotiated and led by a university. The non-HE members felt that their usage of the contract was low, and the FE college was believed to have pulled out as a consequence. It was nevertheless felt that there were common content requirements across the sectors, for instance for local history and archival materials. Such materials however may well not be the subject of procurement but of local cross-sector/domain production and free to users.

What issues and concerns do member libraries have regarding e-resources?

There were a number of concerns about access. Remote access, i.e. access from the home or office, was felt to be essential. Those surveyed acknowledged that this could be seen as problematic by publishers. Also limits on the number of concurrent users were felt to be an impediment to the aim of providing access for all.

Financial concerns were also evident. Electronic resources were held to be more expensive on the whole than hardcopy. Funding for additional expensive resources, no matter how appropriate, was problematic. Licence terms were also felt to be confusing

Volume 21 · Number 4 · 2003 · 301-309

when trying to predict cost, often depending on one or more of usage, location and size of population. Other concerns surrounded the technology. Space for terminals in branch libraries was not necessarily available. Authentication was felt by some to be an issue, not by others.

In terms of human resources, staff training had been an issue in the past, but was no longer felt to be so. It was noted that training the user may be a part of the educator role in Advanced European Computer Driving Licence (ECDL). As far as the users were concerned, the level of intellectual access was sometimes felt to be a problem, with interfaces and search methods geared to the specialist or academic user rather than to the general public. The possibility of additional management information was welcomed as being a means of effectively concentrating expenditure on the most used items.

What would you like to see in the future in terms of e-content, and how should it be delivered? There was a considerable unanimity as to what content was required. The most frequently mentioned resources were as follows (the order does not imply ranking):

- reference materials and directories;
- newspapers;
- · legal sources;
- business information;
- official publications;
- advice products;
- resources, particularly bibliographic, for library staff; and
- lifelong learning materials.

It is worth noting that only two consortia mentioned journal content. This reinforces the impression that the content requirements of public library consortia are quite different from those of academic library consortia, where spending on e-resources is almost exclusively on e-journals. There was strong support for the idea of a core electronic reference collection with a single interface designed for use in public libraries.

Many consortia stressed that the desired resources were not necessarily all commercially produced. Some, such as learning materials, may be produced to be free at point of use (e.g. the NOF-Digitise materials, in-house digitisation programmes). The production of cross-domain materials in line with cultural strategies was noted. One can therefore foresee the development of a

hybrid corpus of e-resources – some paid for, some available free of charge, others created in-house – perhaps made accessible through a single portal for each public library.

As regards delivery, there seems to be a consensus that public library needs were not fully appreciated by suppliers. It was felt that the level of intellectual access must be tailored to the majority of users, and take account of increasing remote access. Full attention must also be paid to social inclusion. Authentication must be as easy as possible (e.g. by library ticket number), while enabling delivery both remotely and through libraries.

There was also a consensus in favour of standardisation. One interface/search engine for all content was seen as the ideal; failing this a small number of large databases (e.g. EBSCO Masterfile) was preferred. Customisation by the individual library or consortium would be possible, but a standard off-the-peg product was preferred. Mention was also made of re-purposing content and delivery through virtual learning environments.

Should e-resources and traditional procurement be co-ordinated, and if so how?

Local/regional consortia are seen to work very well for traditional hard-copy resources. They tend to have loyal and hard-working members, supporting well established contracts with large demonstrable benefits to their authorities. Given the long experience of such consortia, their place in traditional library procurement and the interdependence of print and other media, co-ordination of procurement was strongly supported. The consortia with no hard-copy contracts do not co-ordinate activities with traditional consortia, despite in many cases overlapping memberships (see the introduction to the survey of library authorities below). There was a concern that e-resources and hard copy tend to be placed in separate boxes. A holistic approach was felt to be essential: the publishers, the information and the needs of users are common; only the medium is different.

The lack of a national dimension or strategy following the demise of EARL was lamented repeatedly. Lack of the national dimension, and an appropriate national decision-making structure, were felt to have inhibited local and regional action. A national approach to content was felt to be the natural complement to the national approach to the network.

Volume 21 · Number 4 · 2003 · 301-309

There is an interesting contrast here with the HE library sector in the UK, where hard-copy procurement is undertaken by the seven regional purchasing consortia and negotiations for electronic resources are carried out by or on behalf of the Joint Information Systems Committee (JISC). The regional purchasing consortia oversee in aggregate spending of about £70 million (over \$100 million) annually and are well coordinated. Their activities have perhaps not received the attention they deserve.

#### Are there licensing issues?

Licences were characterised as a minefield, with too many issues to detail. There was generally felt to be a lack of expertise and knowledge, as well as resources, in individual libraries or consortia, to fathom the many and arcane issues of the multiplicity of licences offered by publishers and intermediaries. A single national model licence would be universally welcomed by libraries and consortia.

#### Are there technical issues?

Authentication is seen by some as the key technical issue. Consortia demand flexibility from suppliers to enable individual authorities to select the approach appropriate to their circumstances. The novelty of the arrangements to local authority IT departments is seen as a challenge by some. Speed of delivery through modems is an issue for remote access and for some libraries. Replacement strategies for the new equipment installed under the People's Network initiative were starting to be a concern.

#### Other issues and concerns

There is a sense of frustration that little progress seems to have been made with regard to e-resources. This is seen as due in part to the lack of strategy and awareness on the part of publishers and intermediaries. It is felt that publishers do not know how to sell e-resources to the sector, and the sector itself does not know how to buy them.

Transparency of pricing and the difficulty of assessing the costs and value of the deals on offer were noted as an impediment. Furthermore, the additional costs, in terms of both price and staff commitment, of e-resources were mentioned often. Standards for content and delivery were mentioned by one consortium.

#### Survey of library authorities

The survey of library authorities sought both to validate the results of the survey of consortia and to gain an insight into some of the quotidian and technical issues surrounding e-resources. Four library authorities were interviewed: Blackburn, Bristol, Croydon, Norfolk. Knowsley responded to a questionnaire. The preponderant medium for digital resources is still by far the stand-alone CD-ROM.

There is evidence from the survey of consortia that libraries may be members of multiple consortia. Sunderland for instance is a member of LASH, but also uses an agreement of the Northern Chief Librarians Group, and book contracts negotiated by purchasing officers in the Northeast of England.

What e-resources do you subscribe to now? Three groups emerge:

- (1) Some libraries have no online subscriptions, perhaps due to technical difficulties, but as many as 100 CD-ROMs. The latter will often be standalone, available in a central library.
- (2) Many libraries have a handful of subscriptions, typically to newspapers, standards and a bibliographic database.
- (3) A third group has more extensive subscriptions, including legal and business resources. They will generally be authorities with city-centre reference libraries, often serving the business community.

What are the selection criteria? Selection criteria are varied. One authority links resource provision very much to education, particularly Key Stages, to lifelong learning and to information skills. This library authority also offers a variety of information and IT skills courses to its users, and is investigating joint provision with local FE colleges. Others cite the detailed Co-East criteria as a model. These are given in Appendix 2 and published on the Co-East Web-site (www.co-east.net/working\_groups/content). It may be that we are seeing the emergence of a de facto standard.

One authority cites its stock management policy as stating that it "... should satisfy the needs of users actual and potential, and be flexible enough to be adapted in the light of changing information needs and new information sources ...". Also that "... an

Volume 21 · Number 4 · 2003 · 301-309

increasing importance will be placed on electronic resources of information from databases and CD-ROMs. When evaluating these resources at selection, consideration will need to be given to service wide information needs and resulting networking and licensing needs since this may have an impact on the final purchase price."

One authority cites the main criteria as:

- price/value for money;
- speed and reliability of database;
- quality-assured content from authoritative sources; and
- suitability to type of enquiries received in our libraries.

One authority felt there was a danger in treating e-resources separately. They should be covered in stock management policies, and overlap with printed resources carefully managed. There are interesting echoes here of the consortia's concern over the effects of the divorce of electronic from hard-copy procurement.

How do you make the resources available? The common approach is to make links, grouped by subject, from the library Web site to the resources. One authority routes these through the CD-ROM server, either on the Web or as networked CD-ROMs. Another notes that e-resources do not appear in the general catalogue. Two authorities note that they authenticate access to online resources by IP address. Use of a WAN/LAN appears to be general.

Most authorities explicitly aim to make resources available through branches as well as centrally. One notes that its online business resources are not provided through the branches; it is not clear whether this is from financial considerations, lack of expertise, or lack of demand. Others note that availability in the branches is limited, and one authority cites a possible technical solution to the problem of the identification of remote users.

# What is the take-up?

There is a variety of approaches to gathering statistical information on usage, but a general impression that little such information is available. Some use only observation ("queues at peak times") and service providers' statistics. Others count bookings of machines and hits on the proxy server. Service providers' statistics are used at renewal time; subscriptions have been cancelled because of

low take-up. Most resources are judged to be well used, but there seems little firm statistical or comparative basis for this judgement. Low take-up is blamed by one authority on insufficient marketing.

A number of authorities cite system-based improvements in prospect for the collection of statistics. However, although e-resources offer the potential for more accurate monitoring of usage than hard-copy resources, practice seems at present rather haphazard.

Are there technical issues/problems (passwords, IP addresses ...)?

The problems cited by public libraries are generally similar to those encountered by academic librarians over the years: frequent changes of IP addresses, with no notification by corporate IT department; use of proxy servers – the service provider may be concerned about unauthorised access and concurrent usage; lack of support from commercial providers (of networks and resources).

Others may be specific to public libraries and hence not be so familiar: in services not providing IP-address authentication, staff have to log users on; access problems due to filtering software; inability to restrict access to only library PCs (once through the firewall, the whole authority has access; the library bears the cost).

There is some good news: long-standing access problems associated with IP addresses are reported, but seem to have been resolved by one authority. Numerous technical problems with CD-ROM networks are also cited: the online medium is not necessarily more problematic than any other.

# Are there skills issues for staff?

The investment in hardware for public libraries represented by the People's Network has been complemented by investment in staff training. This is recognised as having brought a good degree of general technical expertise. However, difficulties are cited in familiarising staff with services available. A system of "trickle-training" is noted by one authority. These difficulties are perhaps more severe for public libraries, with their distributed branch structure, than for academic libraries, which tend to be more centralised.

Are there skills issues for users?

The diversity of interfaces and search engines, and the level of expertise assumed, are cited

Volume 21 · Number 4 · 2003 · 301-309

as impediments to the general and infrequent user. However an increasing level of IT knowledge and sophistication amongst users is also noted.

Authorities are increasingly providing IT and information-skills training for their users. One public library has developed a wide range of courses in conjunction with the authority's lifelong learning office, and is now investigating the possible application of Netskills materials. Outside agencies such as the Learning and Skills Council have also provided skills training.

Some point-of-use documentation is produced; many authorities rely on service providers' documentation and online help. One authority observes that most users ignore the documentation.

What content would you like to make available? The wish-list, unranked, includes:

- wider subject coverage literature, languages, genealogy, science;
- business resources;
- reference works;
- careers resources;
- · learning materials;
- local studies and heritage;
- · teenage products; and
- · basic skills packages.

There is some overlap with the consortia's wish-list – business resources, reference works and learning materials. However, there is perhaps emphasis on more wide-ranging materials, such as careers resources. Materials to support the e-government agenda and "BIDS-type" services (i.e. databases and electronic journals) were also mentioned. One authority wishes to extend provision to e-books and e-journals "once the price and access conditions are right".

#### Other issues and concerns

The prohibitive cost of some services and the variety of pricing models are seen as problematic. A mismatch between users' capabilities and expectations and the interfaces to resources was also cited.

#### **Summary**

The most striking feature of the survey is the low incidence of online e-resource provision. The CD-ROM is still the dominant digital medium. E-resources are still seen as novel and apart, not yet integrated with traditional provision (e.g. not appearing in the general

catalogue). There is also a general feeling of powerlessness, lack of direction, and of being reactive. Some generalisations based on the results of the survey and supplemented by personal knowledge are offered below.

#### The consortia

There are a number of very strong purchasing consortia of a geographic, but not necessarily regional, nature. These tend to have large and well supported contracts for traditional library materials and functions (books, audio-visual materials, binding), which are tightly managed. Procurement professionals may be involved at all stages.

There are a number of other consortia with a wider focus than purchasing (regional agency, information planning, lifelong learning). These may have some contracts for e-resources, perhaps as a result of approaches from publishers. There are a number of consortia with a functional focus, particularly a common library management system. Libraries may be members of several consortia.

#### A national approach

There seems little co-ordination between consortia and a national approach to a strategy for e-resources was felt desirable by both consortia and individual authorities.

There was a general feeling of waiting for something to happen, of the problems of e-resource procurement being intractable, insoluble, or simply too large to be tackled at the level of the individual authority or even consortium. It was generally felt that a holistic approach covering both hard copy and e-resources was required.

It is however doubtful that a cross-sectoral approach would be worthwhile. There are fundamental differences between the public and academic library sectors, concerning for instance content and type of interface required. Tactically it may also be advisable to approach publishers separately, and not to conflate negotiations for access by strictly defined communities with negotiations for access by all residents in a geographical area.

#### Content

There was some consensus as to the type and nature of content required. Lists of specific content requirements are given above; the underlying requirements may be analysed as follows:

Volume 21 · Number 4 · 2003 · 301-309

- A national electronic reference collection, with a single simple interface designed for public library staff and users.
- Materials to support lifelong learning.
- Materials that are relevant and tailored to the user (e.g. of UK origin, at the appropriate intellectual level, timely).
- Free and locally produced materials are of at least equal importance and should be integrated with commercially provided resources as far as the user is concerned.

## Delivery

There is again some consensus on requirements:

- Remote access, in home or office.
- Flexible but standardised authentication, to allow an authority to choose the most appropriate method, but with a common approach across all e-resources.
- Appropriate intellectual access, with as far as possible a common interface, usable without documentation, remotely from the library.
- Good, standardised management information on usage.

#### Licensing issues

The following features were generally felt to be desirable:

- a single standard national licence for public libraries;
- · transparency of pricing; and
- affordable prices and value for money.

# **Conclusion**

The research suggests a number of issues that public libraries might usefully address if they are to cease being reactive and take the initiative in shaping the marketplace for electronic resources to their advantage. This step-change might be achieved collectively by instituting a national forum of public library purchasing consortia. Its remit might encompass: the development of a national procurement strategy, covering both hardcopy and electronic resources; the development of protocols for agreeing the optimum level of procurement (national, regional or local); the development of a standard national licence for electronic resources; the procurement of a national electronic reference collection, with a single tailored interface; the institution of a single

flexible system of authentication; and the exchange of information with purchasing consortia in other sectors and domains.

# Appendix 1

Interviews of consortia were carried out using the following structure:

- (1) What is the membership?
- (2) What is the decision-making and management structure?
- (3) What personnel are involved dedicated, voluntary, procurement ...?
- (4) What contracts are in operation?
- (5) How are the contracts managed and what problems are there?
- (6) What issues and concerns do member libraries have regarding e-resources?
- (7) What would you like to see in the future in terms of e-content, and how should it be delivered?
- (8) Should e-resources and traditional procurement be co-ordinated, and if so how?
- (9) Are there licensing issues?
- (10) Are there technical issues?

Interviews of libraries were carried out using the following structure:

- (1) What e-resources do you subscribe to now?
- (2) What are the selection criteria?
- (3) How do you make the resources available?
- (4) What is the take-up?
- (5) Are there technical issues/problems (passwords, IP addresses ...)?
- (6) Are there skills issues for staff, for users?
- (7) What content would you like to make available?

Although the interviews were structured, both consortia and libraries were encouraged throughout to raise other issues or concerns themselves.

## Appendix 2

At the time of the survey the Co-East selection criteria were as follows:

- (1) General requirements:
  - Material that is predominantly UK sourced;

Volume 21 · Number 4 · 2003 · 301-309

- Material which is regularly updated and where date of updates is clearly visible to end-user;
- Clear and timely information on product or content changes with option for termination and/or refund.
- (2) Technical requirements:
  - A Web-based subscription;
  - Access through IP address;
  - Access via username and password;
  - Unlimited access;
  - Clear user interface and straightforward searching options;
  - An interface which is accessible to visually impaired people (VIPs);
  - Ability for each partner to retrieve meaningful usage statistics;
  - Remote access with user authentication.

#### (3) Support requirements:

- Free helpdesk for product support;
- Free access to promotional material, tailored to Co-East's needs;
- Free user education sessions for selected library staff.
- (4) Price/contract requirements:
  - Transparent costs for the product and clear pricing structure;
  - Ability to synchronise with existing subscriptions;
  - Invoices to individual partners;
  - Renewal notices;
  - Information on any restrictions on libraries supplying the content to library users;
  - Information on any restrictions on libraries or library users printing the content;
  - A modular approach to title selection.

## About the author

David Ball, University Librarian at Bournemouth University, is a leading practitioner in the field of library purchasing consortia. He chairs Procurement for Libraries and the Libraries Group of the Southern Universities Purchasing Consortium, and has negotiated ground-breaking agreements with suppliers for services and materials. He also has experience in the private sector, as information manager for a major newspaper publisher. He can be contacted by e-mail: dball@bournemouth.ac.uk