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# *Services*

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Information services from libraries have traditionally depended upon the motivated user to seek them and often to wait for them to arrive. All of us in both large and small libraries must change this. (Colaianni, 1992)

The text of Colaianni's lecture to the 91st Annual Meeting of the Medical Library Association provides a fitting starting-point for this survey of trends and developments in library and information service [LIS]. In two short sentences, she encapsulates the essence of the themes that dominate the literature of 1992. The message is simple, but fundamental: quick, flexible responses are the order of the day; we must make our services responsive to the needs of society, and we must take responsibility for the necessary changes that the changing environment requires of us. Political, economic, socio-demographic and technological factors are having a dramatic impact on service provision, creating threats to survival, but also offering opportunities to fulfill a wider more exciting role than ever before. Can we rise to the challenge? There is evidence here to suggest that we can, but not on our own – our success will depend on the partnerships we form both with other suppliers and with our customers.

This chapter begins by looking at how the LIS sector is coming to grips with marketing principles and reconsidering its professional role. It next examines the implications of the 'enterprise culture' in the context of charges for services, and then traces the impact of information technology on the design, development and delivery of services. The survey moves on to the effects of technology and market forces on the traditional reference function, and continues with provision for groups with special needs in relation to changes in society. The remaining sections cover the educational role of the profession in fostering 'information literacy' and the formal evaluation of services as a key element of market research.

## Information in the marketplace

### Assimilation of marketing principles

The struggle to convince librarians of the relevance and benefits of marketing concepts and techniques continues. Rydquist (1992) asserts that despite significant contributions by a few pioneers in Sweden:

most people in the library world considered marketing an necessary evil to be suffered a few times a year as in exercise in public relations.

A survey of special and university librarians in Brazil showed growing interest but limited knowledge, with marketing frequently confused with advertising, publicity and sales (Amaral, 1992). Kar (1992) points out that in India the concept of marketing information ought to be familiar from Ranganathan's Five Laws of Library Science – for example, 'Save the time of the reader' is a classic statement of customer care – but the customary approach of accumulating vast quantities of little-used information suggests that the precepts of the Indian library profession's own 'management guru' have been largely forgotten by many.

From Australia, Morgan and Noble (1992) argue that the survival of the LIS profession in the 1990s will depend on accepting marketing as a fundamental management philosophy: the profession must be driven by the perceptions, needs and wants of current and potential users, rather than by the capabilities and preferences of the provider. They go on to outline the practical steps, from situation analysis and objective-setting to evaluation and control procedures, and stress the importance of applying the principles of segmentation and positioning, as library users today have needs that are far too diverse for them to be regarded as a single group.

In the UK, Burton (1992) also advocates service segmentation geared to the different needs and expectations of every segment of customers; in order to understand what users actually require, we must ask open-ended qualitative questions – for instance, what users expect of an interlibrary loan service, rather than how they rate the existing service. Kendrick (1992) suggests that surveys often rate libraries highly simply because people have not been promised anything specific, so there is no disappointment at poor delivery. He argues that properly conducted research underpins good customer service, and identifies five key areas for investigation – tangibles, reliability, responsiveness, assurance, and empathy. He then outlines the stages of a customer services audit, concluding with a trade-off analysis to highlight the relative importance of different service packages to particular segments/user groups, and finally benchmarking against the best known library for each aspect considered.

The Library Association Information Services Group invited a user to discuss his 'ideal information service', and it is interesting to consider the priority currently attached to his key requirements: background information on the credibility of different authors cited; a user-friendly system – one-stop shopping, with keyword searching and on-screen help facilities; and 'confidentiality domains' for each user, reflecting his or her personal access rights (Cooper, 1992).

In the USA, a nationwide opinion survey conducted by the University of Illinois revealed significant disparities between the service priorities of the general public and those of the profession. The former attached more importance to literacy and ‘latchkey’ programmes (providing a safe place for children of working parents after school) and were also more willing to accept higher taxes or new charges to sustain services (Estabrook and Horak, 1992). This research usefully raises the question whether the public library is viewed by the community as a ‘conservator of social order’ and ‘social safety net’.

Strauss (1992) comments on the extent to which libraries ought to be demanded:

Of course one must take care of users’ needs, but the fact is that people cannot be relied upon to tell you what they ‘need’ for the future . . . . The only test of a new product or service cannot be that users demand it.

He urges us to ‘envision and invent the future’ for our users, who may be held back by innate conservatism, and to establish what business we are in. Strauss argues that people have no real interest in (and hence loyalty towards) products, and will therefore abandon them as soon as a better alternative appears to meet their needs; they do not want books *per se*:

they want entertainment and enlightenment (E&E) and they want it cheaply and conveniently

– and he makes a good case for the first ‘E’. By concentrating on the service, not the product, libraries may change radically (e.g. by providing information via computers and networks) while still serving their historic function – and thus staying in the same business.

At a UK course on trends in public services – a long way from the high tech world of Strauss’s US academic campus – Mead, of Birmingham Library Services, articulated a strikingly similar aspiration, conveniently expressed as ‘I&I’. Discussing the relationship between arts and the library, his central theme was that libraries are an ‘imagination service’ – not just an information service – and they have the potential to be a focus of imaginative life (Sear, 1992). The Director of Dallas Public Library reinforces the above messages; his mission is ‘to provide the best reading and information to our customers at the least cost’. He introduces the concept of the product life-cycle, not to consider whether specific library products or services have entered a phase of growth, maturity or decline, but to focus on the communication life-cycle. The relative position of graphics, oral media, manuscripts, print materials, audio-visual and electronic sources determine where the library must position itself to fulfil its mission. He challenges the assumption of the primacy of the printed word:

We must innovate, we must abandon our obsession with print, and we must reposition ourselves on to the growth curve of the electronic information cycle. (O’Brien, 1992)

Moulik and Lai (1992) are equally forthright, calling for a paradigm shift from an ancillary role to ‘creative partnership’: far from regretting the possible demise of the traditional intermediary role, they link this specifically with our current status, ‘. . .most of the time, we are accorded the respect and recognition that one would expect for an intermediary or *surrogate function*’ [my emphasis]. They argue that adding value to information is not enough, the key question is about our *intrinsic value* to the organization (or community) served. Information requests must be part of continuing collaboration – not time bound events – and LIS professionals need to become involved in the work lives of their users, and act as ‘information counsellors in multidisciplinary research teams, providing both the information needed during the lifetime of the project and managing the information flow’.

### **Application to service provision**

In the UK, the introduction of the ‘Citizen’s Charter’ and associated quality initiatives have given further impetus to the adoption of marketing techniques. J. Hicks (1992), of Berkshire County Library, acknowledges that customer care is high on the political agenda, but suggests that competition is another driver – both from other information providers and from alternative leisure pursuits. The focus in Berkshire is on publicizing policies and standards, and improving customer relations; this is manifest in an annual business plan, and a users’ charter, a service promise and complaints procedure, a customer comments scheme, a three-yearly general survey, *ad hoc* surveys of specific groups, quality assurance audits and staff training. Holman and Hamilton (1992) also refer to the Charter and the change in management culture in Bedfordshire, which has brought the County Library an opportunity to take on a wider role, acting as the public face of the county council and cooperating with other departments to provide information to the community about council services. A condensed version of the marketing plan for the Sandy Information Point illustrates the application of strategic business management in the public sector; the service is presented as a pioneering pilot and as a marketing device for the council.

Other examples include the British Library’s patent services. Garner (1992) describes how a basic under-utilized copy service has been transformed, with the adoption of a brand name *Patent Express*; definition of different levels of service – ‘regular’ and ‘rush’; an innovative pricing policy; and choice of order, delivery and payment methods. The range of offerings has been extended to include the *Currentscan* (current awareness) and *Transcript* (translation) services, and the BL has emerged as one of the world’s leading specialist suppliers. Throughout the UK, the libraries of the Patents Information Network (PIN) are practicing diversification and repositioning their services in collaboration with local patent and business agencies: Birmingham and Liverpool public libraries hold regular patents clinics, offering private inventors and small firms the chance to discuss ideas with patent agents before committing resources to a patent application; in Newcastle-upon-Tyne, a new Patents Advice Centre has been launched (with

government funding) as a joint venture between the city library and a local enterprise agency. The move towards integrating patents collections with business information (rather than scientific and technical literature) shows professional concern to organize resources in a customer-oriented manner, acknowledging the importance of business trend forecasting as a use of patents information (Eisenschitz and Riley, 1992).

The practice of directing effort at particular user groups has demonstrable advantages, notably in making it easier to focus on key requirements, to follow up initial activities and evaluate the results. The Health Sciences Library of the University of Alberta already had an Advisory Council and enjoyed a good reputation for user-oriented services, but the initiation of a new style of 'personal communication forum' through the HUG (Heavy Users Group) programme proved extremely productive, in generating specific suggestions for service improvements (Pfeiffer and Algermissen, 1992). In Stockholm, five chief librarians mounted a joint campaign to promote the benefits of using libraries in an attempt to win support in a difficult economic climate. They opted to target the commuting public and focus on a few key benefits, distributing 80,000 copies of a special newspaper entitled *Travelling Reader* at railway and bus stations, achieving a 30% market penetration; this initiative was later taken over at national level by the Swedish Library Association (Rydquist, 1992).

The Information and Library Service of the Institution of Mechanical Engineers won a Library Association/T. C. Farries Public Relations and Publicity Award for its promotional leaflet; this was only one element of a concerted effort to 'sell' its services to members, which included producing new publications, launching an archive photograph service and attending trade shows (Ollerton, 1992). At a commendably practical level, Michael (1992) outlines the marketing strategy adopted for MAJIDOC, the Water and Sanitation Information and Documentation Centre in Dar es Salaam, which is clearly geared to local needs, and includes using regular administrative and academic meetings to promote services internally; introducing an annual fund-raising dinner with high-level external involvement; and, most practical of all, optimizing physical visibility by closing footpaths going past and around the building to channel people along a direct path to the Centre. In the USA, Simon (1992) also points out that the physical environment can be exploited through the creative use of space – windows, promenades and walkways, entrance lobbys, interiors – to attract users and promote collections and services.

The British Medical Association Library has enjoyed remarkable growth in demand for its services, with institutional membership almost doubling over three years and overseas usage increasing rapidly. Success is attributed to the development of services to meet perceived needs – for example, expansion of its book lending service to fill the gap left by the closure of an established subscription library; the introduction of a 'mobile' service, lending special collections and displays to members to aid local book selection; and promotion of its film and video resources to film companies via a specialist information service (Bonnett, 1992). The State Library of New South Wales has also introduced

service innovations, including a Legal Information Access Centre, a joint venture with the Law Foundation of New South Wales, which has been so successful that eight satellite centres are being developed in regional libraries (Crook, 1992). The Road Accident Research Unit Library at the University of Adelaide has diversified to meet particular needs by expanding into related functions, such as fee-based packaged services to consultants, and publishing support services – including literature reviews, publication outlines, proofreading and editing, advice on bibliographic citation styles, book indexing and a distribution contacts database (Freund, 1992).

## **Access – free or fee?**

### **Threat to fundamental rights**

A quick survey of attitudes to charging for information around the world shows a growing concern in the USA over the impact of government policy on the citizen's 'right to know' (enshrined in the first amendment to the US constitution). Tjoumas (1992) outlines economic factors which have led to cuts and/or charges for services hitherto provided free (such as online searches in universities, no longer available to students). She deplores the tendency to treat information as a tradeable commodity:

Information is no longer esteemed as a vital component to enhance citizens' talents nor an essential ingredient to preserve a democratic state. At best, it is perceived as a product primarily available to those who can afford it.

Sulzer (1992) draws attention to the technological developments which have also influenced this trend, arguing in the specific context of government publishing that the democratic concept of 'public good' has given way to commercial interests. Sprehe (1992) traces the confused progress of federal legislation, including provision for the Library of Congress to provide fee-based research and information products, expressing the profession's concern that essential core services may be neglected in favour of revenue-earning activities, thus creating a society divided into 'information rich' and information poor', which runs counter to the LC's mission.

Shill (1992) uses agriculture as a telling illustration of how the gap between the potential availability and actual usage of information is set to increase, with fewer than one-third of the US farming population reckoned to be technically able to gain direct access to relevant databases. He urges agencies to provide some form of 'information safety net' and concludes by drawing attention to wider implications:

The trend toward 'market-based' or 'value-based' pricing is a negative tendency which will reduce access to government information, broaden existing inequities in the ability to find and use such information, give unfair advantage to more affluent sectors of American society, and

encourage the already disturbing tendency to avoid political participation among increasingly alienated groups in American society.

On a more positive note, Basch (1992) sees potential advantage in developing a 'mixed economy' for information broking and encouraging joint ventures between independent researchers and library-based broking operations. US trends in broking include the entry into the market of more subject specialists and other professionals without a LIS background, and a tendency to add value – both physically and intellectually – to the end-product (facilitated by more sophisticated hardware and software) which in turn helps independent researchers to position themselves as indispensable members of the client's team. Basch sees scope for synergy in document delivery as independent brokers find this activity too labour-intensive and the margins too slim: the combination of an academic library's large collection and retrieval systems with a broker's capacity for a quick and in-depth response can work well together.

### **Opportunities for enhanced provision**

From Canada, Reid (1992) discusses the pros and cons of charging for interlibrary loans; advantages include better control of demand by filtering unnecessary requests and improving ability to cope with price rises through sharing costs with customers; disadvantages include administrative costs of handling payment, and negative impact on public (and staff) relations, the latter underlining the importance of aligning library practice with institutional policy and objectives, and of effective communication with all concerned. In Australia, membership fees for public libraries are seen as neither equitable nor cost-effective: practical difficulties include operating concessions for particular categories of user and material, and coping with misuse or abuse of the system (Mews, 1992). In the State Library of New South Wales, a distinction is drawn between core services, 'necessary for the individual to have access to information' and value-added services, which 'provide some individual-specific and individual-limited benefit', with the latter attracting charges ranging from partial to full cost recovery; interlibrary loans fall in the first category, being seen as basic access to information as the collection cannot be comprehensive (Crook, 1992). The strategic plan of the State Library of Queensland includes 'to maximize revenue raising' among its 'values' and is reportedly making excellent progress towards full cost recovery with the recently established Historical research Service, seeing enormous potential for long-term growth in BRISQ, the Business Reference Information Service – Queensland (Stephens, 1992). In Ireland, a new Business and Technical Information service aimed initially at companies in the Mid West Region was launched at the University of Limerick in November 1991, with the target of becoming self-financing within three years (Flynn, 1992).

The unbound optimism of Queensland and more cautious confidence of Limerick is not echoed in a recent survey of external charged services in UK academic libraries, which found that while there was an obvious and identifiable business market the potential customers were not necessarily receptive or willing

to pay for information. Income generated by information services was unlikely to cover the real costs of provision, which has led to some diversification and changes of direction, notably into consultancy and joint ventures. Examples in addition to LIS include offerings based on library support services, such as binderies and photographic units. Few new services had been developed since the corresponding survey four years earlier, and there was a noticeable trend to re-integrate previously separate services into the mainstream staffing structure. Significantly, the only real success stories identified were both acknowledged national centres of excellence – the Institute of Advanced Legal Studies and the London Business School, the latter having recently transformed its corporate membership into a Library Partners Scheme, with entitlement to service at a special desk in the library as well as a discounted rate for the information service. Despite the lack of substantial revenue, improved status and staff development were seen as important benefits (B. White, 1992).

Nicholson (1992) also cites 'invisible earnings' such as skills/expertise and prestige as prime motives for entrepreneurial activities in academic libraries, as well as pointing out that an increase in turnover – even without profit – can often benefit an institution by improving cash flow. He offers an illustration in matrix form of typical enterprise projects, showing the range of type, size and risk, and suggests criteria for such ventures, including compatibility with the library's objectives and mainstream activities, institutional support at the highest level, and an acknowledgement of the risk and likely consequences of failure. One example in the UK of a relatively new joint venture in business information (launched in 1990) is the service at De Montfort University (formerly Leicester Polytechnic) and run in partnership with Leicester County Council, on behalf of the local public library. The service has a free tier offering unlimited public access to the business collection in the University Library and up to 30 minutes staff assistance. By concentrating resources on one site in the city and reducing duplication, the general public, students and the business community all benefit from improved stock coverage, and the income generated from fees (based on recovery of direct costs) contributes towards the maintenance and development of the service (Towson, 1992). Another new type of priced service has arisen as a response to the overwhelming demand for student access to microcomputer-based facilities: in order to control demand, Leeds Medical School introduced a CD-ROM club with an annual £50 fee offering training, advance booking and priority use (Day, 1992).

UK public libraries continue to offer charged services to business users. A significant entrant into the marketplace during 1992 was the City [of London] Business Library, which had hitherto stood firm against the general trend. The spur to the introduction of its new fee-based Business Information Focus seems to have been the upgrading of its IT capability. The new service is categorically stated to be an optional enhancement and extension of its existing free service, and not a substitute for it (Humphreys, 1992). Glasgow City Libraries was the first Scottish local authority to launch such a service in 1988, initially with two dedicated staff, one of whom was a marketing officer. Key points emerging include the different expectations of clients in comparison with those of the free



service, notably the demand for more thorough research, suitable presentation of results and faster delivery (Diamond, 1992). Other alleged differences between free and fee-paid services are over-reliance on the spurious authority of published information, and a propensity for referral and associated delay by the former; whereas the latter will typically track down information, and then add value (by interpreting, analyzing, collating and evaluating and re-ordering) all in the context of a high-risk 'deliver or die' operation (Brice, 1992).

Within the corporate sector, internal charging for support services, including LIS is becoming more common within a general climate of pressure on resources and a particular focus on reduction of overheads. Karjalainen and Nyrhinen (1992) outline the pros and cons of this form of segregation, based on experience at the KONE Corporation in Finland. Advantages include gains in autonomy and responsibility, and the loss of useless products and unproductive routines – through a new-found discipline; disadvantages include bureaucracy, loneliness/isolation, and the danger of a short-term focus and neglect of the 'common good' if business units concentrate exclusively on their own needs. Their recipes for success have a familiar ring; they emphasize the ability to accept criticism and act on feedback, and a willingness to be flexible and adaptable. A survey of UK companies revealed a mixed picture of charging practices, with slightly more support for charging in service-based than in product-based firms (Yates-Mercer and Pearson, 1992). Reasons for charging include the desire to reduce the budget of the information unit by transferring costs elsewhere; need to justify its existence; and to deter trivial use. Three basic methods were employed – 'charging back', 'charging out' or 'selling direct' – but the basis for setting charges varied considerably and evidence relating to the impact on usage was inconclusive (Pearson and Yates-Mercer, 1992).

Charging remains a controversial issue, raising complex questions of social equity, professional competence and business judgement. There are conflicting and contradictory messages about the willingness of users to pay, but there is an equally confused picture presented (to customers) by different policies and practices in UK libraries, as evidenced by a recent survey of charges for online services in Liverpool (Waite, 1992). Morgan and Noble (1992) point out that the user of a service may actually perceive its value as being cheapened by a low price, equating low price with low quality, suggesting that a charge set well above the actual cost may sometimes be appropriate; on the other hand, competition between services may preclude charging a realistic (cost-base) price and force the provider to offset shortfalls by pricing other services at a relatively higher rate to compensate. What is quite clear is that charging for information services carries an increased risk of being sued for professional negligence. Even though liability can, in theory, arise for both free and fee-based services, the degree of reliance placed on information by the client is likely to be greater in the latter context; Sykes (1992) offers ten tips to minimize the risk of litigation, suggesting that the use of written contracts can have additional benefits in helping to project a professional image.

## Technology – friend or foe?

### Implementation of CD-ROM services

CD-ROM is ‘the medium of the moment’ according to the Editor of *Library Journal*, whose market study produced the surprise result that public librarians in the USA expected to spend more on CD-ROM services in the current year than their academic and special library colleagues (Berry, 1992a). Public libraries in the UK are also avid users, notably members of the Patents Information Network (1992) whose annual report credits CD-ROM with improved take-up of services at Aberdeen, enhanced SDI capabilities at Liverpool and welcome opportunities to introduce students to more sophisticated search facilities at Portsmouth. IT has had a significant influence on use patterns, enabling manipulation of statistical data from patent searches and providing the business community with a powerful tool for monitoring industrial activity (Eisenschitz and Riley, 1992). However, in the USA availability of government statistics on CD-ROM presents problems for the smaller depository libraries: they are faced with new, complex decisions about the level of service to offer (ranging from ‘warehousing’ to value-added information services) because of the equipment and expertise required by staff and/or users to exploit the data in CD format (Ryan, 1992). Butterworth (1992b) indicates both the valuable contributions and inherent problems associated with the introduction of CD-ROMs in British schools, where the Education Reform Act 1988 conferred ‘entitlement’ for pupils to have opportunities to ‘search large databases’ but without the necessary funding to support comprehensive provision. The State Library of Australia has produced its own CD-ROM product, providing an index to popular magazine articles called *Pinpointer* (Awcock *et al.*, 1992).

The significant change associated with CD-ROM is the trend towards end-user searching, leading to big increases in the total number of searches carried out, but with a dramatic drop in the number of mediated searches, often of the order of 50% (Lanier, 1992). A survey at Yale University Medical Library confirmed this picture, but showed that while users enjoyed doing their own searching they acknowledged librarians’ expertise, and turned to them for instruction in search techniques and information on database structures and to satisfy difficult requests. This encouraged staff to market their services at these two levels – mediated searching, and consultancy for system selection, database training, search strategy, and so on (Crea *et al.*, 1992). Similarly, a study at Hartford Hospital, Connecticut, revealed that, despite widespread availability and use of end-user systems, the clinical medical librarian consistently provided physicians with information that directly affected diagnosis and treatment, even when they had personally researched the question beforehand, suggesting that their busy schedules do not allow the time required to learn how to search effectively (Veenstra, 1992).

The challenges facing libraries are numerous and complex: more enquires relating to computer hardware and software, and the need for all reference desk staff – not just specialists – to be able to handle them; increased demand for instruction and advice relating to search techniques and strategies, but fewer

opportunities for staff to practise skills through mediated searching; and new demands for training in the use of network facilities and bibliographic management software (Shipman *et al.*, 1992). The alleged impact of CD-ROM searching on interlibrary loan demand is disputed by Crawford (1992) who suggests that proper instruction will result in more efficient and effective searches, and enable students to find more relevant material in their own library, citing evidence of his own experience with PsychLIT. Potter (1992) estimates that helping a user to run a CD-ROM search takes less time than performing it online, but the greater volume of requests means that more staff are needed to maintain the service at an equivalent level. At Pennsylvania State University, continuing pressure on the reference desk led to the establishment of a separate CD-ROM service desk (Faries, 1992).

An evaluation at the State University of New York highlighted the dominance of technology-related enquiries, and concluded that the systems were not as 'user friendly' as advertised (Kenny and Schroeder, 1992). As system which is easy to use may not be quite so easy to use effectively, so intermediaries will still be needed for searches requiring high levels of precision and recall. According to Steele and Tseng (1992), 'Novices are in danger of being seduced by a superficially simple interface into producing poor quality searches'. Their survey of UK medical school libraries covered methods of end-user instruction and indicated a strong preference for one-to-one sessions, while acknowledging that group work was more likely to become the norm – although few libraries had enough workstations to provide point-of-use training for groups. At Loma Linda University in California, staff experimented with one-to-one training and workshops of 20-30 before settling for small groups (Abella and Kittle, 1992). Day (1992) advocates a more strategic approach, employing a progressive mix of demonstrations, 'hands-on' sessions, and optional follow-up classes at a more advanced level, complemented by point-of-need assistance, with documentation as a back-up. Helik (1992) emphasizes the specialist skills required to introduced users to new technology, and argues for 'individualized' instruction, taking account of differences in educational background, motivation and learning styles. She identifies four style preferences – 'key strokes only', 'key strokes first', 'concepts first' and 'concepts only'. Looking ahead, Henley (1992) points to a growing use of new media-based training technologies such as interactive video, and suggests that the trend towards easier-to-use interfaces and intelligent help systems may make traditional 'how to do it' training obsolete, with trainers concentrating more on conceptual aspects of searching and database structure, and computer-based methods offering a cost-effective alternative to traditional courses (with the attractions of being reusable, self-paced and suitable for either individual or group use).

### **Application to value-added services**

Many academic libraries are already experimenting with computer-assisted instruction – notably Hypercard applications – in place of traditional library

orientation methods to cope with growing demand. At Southwest Missouri State University, two such programmes were introduced during 1990 in parallel with existing instructional media, offering the benefit of interactive practice sessions with immediate feedback. (The 'call number' practice, for example, consisted of simulated shelving exercises with a cart of books; students had to 'click' on the books in the correct order to get them to 'move up' to their proper place on the shelf.) Subsequent evaluation showed no significant difference between the two approaches, but students acknowledged additional benefits in learning to use Apple Macintosh computers at the same time (Mackey, 1992). The State Library of South Australia has introduced a HyperCard-based information service to explain its relatively complex collections and services, which has reduced routine questions at enquiry desks (and also provides detailed statistics on the packages accessed) and the State Library of Victoria is planning a similar service (Awcock *et al.*, 1992; LaScala, 1992).

Technological developments have given current awareness services a new lease of life and provided LIS professionals with the opportunity to make a significant contribution to the research and development effort of their parent organizations, often generating income as well as goodwill in the process. Rowley (1992) points to benefits arising from the facilities to combine external and in-house sources; the wider range of delivery formats; improved standards of presentation; and the ability to tailor services to individual needs, thus shifting the focus towards competitive intelligence. In academic environments, the availability of CD-ROM and disk-based databases, combined with personal bibliographic management software, enables libraries to offer more cost-effective tailored current awareness, with delivery in customized format via disk or electronic mail, saving the time of researchers producing bibliographies (or requests for photocopies/interlibrary loans) without having to re-key data (Cox and Hanson, 1992). The Welsh Agricultural College's UPDATE service, which arose from the need to provide access to practical agricultural literature for its staff and students, illustrates how a small library can exploit its expertise in collaboration with others to fill a gap in the market, generate income through sales to other academic institutions, and make a significant contribution to the wider LIS community (Evans, 1992). Another example of the collaborative exploitation of electronic communication is the daily news summary produced by the Association of Protestant Development Agencies (APRODEV) in Brussels, which includes input from the Christian Aid Library in London and is available via e-mail to development agencies across Europe (Buck, 1992).

Document delivery services are also entering a new era. Full-text databases (such as Business Periodicals Ondisc) save time by allowing users to combine bibliographic searching and document supply in one system; they can also provide input to value-added products, where the LIS professional evaluates the literature available and writes a report incorporating extracts from the documents identified (Lawrence, 1992). The convergence of computing and telecommunications technologies, coupled with changing patterns in scholarly communication, has given birth to a new sector of 'third party' services which are altering the

traditional roles of publishers, librarians and their customers. Sabosik (1992) introduces the concept of ‘unbundling’, whereby individual articles assume a higher level of importance than the journal issues containing them, ‘Librarians . . . are viewing their serials holdings not as a collection of journal volumes but rather as an inventory of thousands of individual articles that they broker to a diverse user community’. The new services are characterized by the availability of online request facilities, typically via a national network; rapid transmission of requested items, which may be stored and transmitted electronically; a variety of payment methods, including deposit account and credit card; and direct order facilities for end-users. Ensor (1992) cites four examples – CARL Uncover, RLG Citadel, OCLC First Search/Reference Document Ordering Service, and Faxon Finder/Faxon Express – and suggests a dozen key questions to ask when considering these services.

IT can either empower or disenfranchise groups with special needs, such as distance learners or people in rural areas. The University of Alaska has exploited electronic technology in implementing a distance delivery programme for rural students, replacing traditional library services with an information-broking and document delivery service. Students pursue coursework primarily through audio-conferencing, and the library aims to turn round requests in 48 hours, offering email boxes, fax and a toll-free telephone line (West, 1992). The University of South Africa is also a distance teaching institution, but urgently needs to upgrade its present postal delivery system, because it is slow and cumbersome, and the material delivered does not adequately reflect indigenous viewpoints. Shillinglaw (1992) sees IT as a means of moving away from a document-based to a text-oriented approach, enabling the development of customized literary packages, combining critical and comparative material, supplemented with local case studies/grey literature (thus removing the existing Anglo-American bias). The electronic book or study pack – perhaps in the form of a mini compact disc or a ‘smartcard’ – is a possible technical solution, but this raises the question of whether students (including those without electricity or telephone connection) can be supplied with, or required to buy, reading apparatus for electronic media; he is adamant that the principle of equal access to educational opportunity must be upheld:

The student who can download text by computer to a remote location via satellite transmission, and the student studying printed text by candlelight, should be equally able to succeed in examinations, provided that the same opportunity is available to access text.

At a less sophisticated level, technologies such as photocopying and micrographics can also improve access to information. A survey of agricultural university and research libraries in India indicated considerable scope for the judicious exploitation of appropriate reprographic processes as a solution to the problem of acquiring material in peripheral areas, out-of-print documents and grey literature, or scientific works of limited appeal, if undertaken as a collaborative project (Naidu and Gunjal, 1992). Another area where new technologies have had

a transformational effect is in publishing and printing in minority languages, for example enabling the reproduction of syllabaries or ideograms that were previously prohibitively expensive to produce for a limited audience; libraries can act as depositories of memorized lore recorded on tape, and fulfil a vital role in the promotion of literacy, forming a bridge between the dominant culture and minority groups (Sever and Sever, 1992). It has also enabled public libraries to transform their outreach services: the use of packet radio or cellular telephone technologies has enabled online circulation and catalogue access to be offered in mobile libraries, in addition to facilities such as CD-ROM workstations, copiers and fax machines; although technologies have not yet been perfected, bookmobiles are now capable of providing a service equal to that available at a small branch, thus enhancing provision to a previously disadvantaged clientele (Alloway, 1992).

### **Distribution of networked services**

Networking technologies have now brought the concept of the 'virtual library' – contemplated for more than a decade – within reach of most libraries, and a reality for many. While large libraries are likely to be the first beneficiaries (by virtue of having the capacity to install the necessary infrastructure), ultimately small libraries will have most to gain from full realization of the concept, which gives the user the illusion of access to a much larger collection of information than is actually present on-site. Embryonic versions are beginning to develop in UK schools through the Campus 2000 initiative, which provides access to both 'own brand' and commercial online databases – and also in Australia, where NEXUS began as an electronic bulletin board for students and teachers, but now also provides access to databases. Electronic mail enables pupils to gather data for analysis (via e-mail questionnaire surveys) and disseminate their findings to others; it has significant potential for developing autonomous learners, but must be used responsibly, so as not to produce 'a generation of electronic couch potatoes' (Butterworth, 1992a).

The current trend in the UK towards distributing or 'networking' higher education through franchised courses has been inhibited by the difficulty of effectively networking the necessary library support. In future, technology will enable services to be distributed not just across the local campus but around the country, with direct delivery of interlibrary loans to users; access to electronic information resources (e.g. CDs) via wide area networks; delivery of packaged materials over cable or satellite systems; and public libraries and local colleges serving as 'access nodes' to the national network, providing professional support, such as information skills training (Brophy, 1992). Closely associated with the notion of the virtual library is the concept of the 'self-service library'. Helmick (1992) describes an experiment at Ohio State University to introduce 'do-it-yourself' services, by providing users with facilities for self-service renewals and reservations, from both library-housed and dial-access terminals. She reports public enthusiasm, with an overall increase in transactions and a decrease in routine activities at staffed points, enabling more time to be given to difficult

queries or to assist users with special needs; future possibilities include touch-tone telephone renewals, and self-service check-out using remotely accessible terminals.

Offering a Netherlands perspective on the current networking scene, Heijne (1992) urges librarians to become more actively involved to guard against their role being usurped by network information centres: she cites examples of end-users bypassing libraries to meet their information needs. The 'revolution in database access' in the UK is attributed to the Bath ISI Database Service (BIDS), which provided networked access to a range of databases for more than 50 sites across the Joint Academic Network (JANET), introducing virtually unlimited end-user access for an annual flat-rate subscription: the initiative has promoted the primacy of the end-user, with 'knock-on' effects similar to CD-ROM, and has also brought into focus the roles and relationships of libraries and computer centres (Scanlon, 1992).

In the USA, the National Library of Medicine's Integrated Academic Information Management Systems (IAIMS) has heralded a new era of 'one-stop information shopping', based on the concept of a network enabling the user to access administrative, research, clinical and scholarly information resources from a single workstation, as well as having access to 'utility' functions such as electronic mail, spreadsheets and word processing. At Columbia-Presbyterian Medical Center, the role of the library has expanded, leading to joint projects with the new Center for Medical Informatics, and there has been a significant upturn in both student and clinical usage (Roderer and Clayton, 1992). At Georgetown University, the role of librarians has shifted dramatically towards instruction in the mechanics of information management, access and retrieval; and in addition, to provision of consultancy services on database development, personal information management, and use of factual databases and expert systems for medical decision-making (for example, teaching students to prepare automated case histories, manipulate diagnostic systems and determine options for treatment). IAIMS has thus contributed to a change in mindset about the library's role, as well as revolutionizing service delivery direct to clinical learning sites (Broering and Bagdoyan, 1992). At the Lawrence Livermore National Laboratory, University of California, a deliberate effort to move beyond the role of passive provider to active collaborator included service experiments to develop a HyperCard interactive guide to the totality of information resources, and an optical imaging system for retrieving and storing all internal correspondence (Moulik and Lai, 1992). Also at California, the MELVYL system, which provides coordinated access to scholarly information, has been utilized to conduct online user evaluation: transaction logs record usage patterns for each campus, database and terminal; online questionnaires act as market surveys to evaluate user reactions to prototypes; and the COMMENT command, introduced as an 'online suggestion box', has been developed into a database – with anonymous or pseudonymous input to promote frank comments (Farley, 1992).

The Australian Academic Research Network (AARNet) is having a similar dramatic impact on access to information services, and on the blurring of functions

between libraries and computer centres – although developments are still in their infancy compared with the US and UK (MacDougall, 1992). AARNet is seen as a major opportunity for librarians to improve their visibility and credibility, and is expected to change the nature of faculty liaison, reference work and user education, with libraries moving into knowledge management at the beginning rather than at the end of the information transfer cycle (Cleary and Linklater, 1992). In the Arab Gulf States, the Gulf War has highlighted the impact of technology, the need to master its use and the potential role for libraries in eradicating computer (and other forms of) illiteracy; an Arab information network is the eventual goal, to link libraries and information centres throughout the Arab world, and gradually provide access to international networks (Aman, 1992). As a result of the crisis, international communication links for the first time provided direct access for the local population to American and British television services, giving an incentive for citizens to improve their English language skills in order to understand the broadcasts; planned network developments at the University of Bahrain (which subscribes to more than 65 CD-ROM services) have had to be delayed, but demand is expected to grow, especially for non-Arabic material (Young and Ali, 1992).

## Reference – standards and structure

Poor standards of reference service have been a matter of professional concern for more than 20 years, with unobtrusive testing for accuracy and completeness consistently showing a mean success rate barely above 50% (Burton, 1992; Lanier, 1992; Massey-Burzio, 1992). Burton points out that librarians have rarely been confronted with the results of their ‘half-right service’ – unlike lawyers and doctors. The emergence of service quality as a key issue for the 1990s is stimulating further debate here. Hagle (1992) believes the problem is rooted in declining standards of professional/technical competence – insufficient knowledge of information sources and ineffective exploitation of new technologies, as well as a reluctance to refer to others when appropriate; others disagree, placing far greater emphasis on the quality of the interaction between librarian and user, and cite evidence from research projects. Dyson (1992) not only identifies basic verbal and non-verbal communication skills as critical, but also points to significant improvement in performance following systematic training to address the issues raised; Lancaster *et al.*, (1992) conclude that the perceived listening skills of the librarian are a major factor determining the user’s overall impression of the library and its staff. Afolabi (1992) argues for more explicit application of the concepts, theories and methods of counselling to the reference interview.

J.A. Hicks (1992) suggests that the reference problem is more fundamental, and stems from a failure to grasp the essence of service and adopt a proper business-like approach. H.S. White (1992) echoes this, criticizing the focus on tools and techniques, and the failure to consider the kinds of clients encountered and what constitutes an adequate level of service – different customers may require different



levels of reference/information interaction. He defines three types of user: traditional basic researchers, who want large piles of raw material to sift; applied researchers/development people, engineers, marketing or other professionals, who want specific answers to specific questions – not merely sources that might contain answers; and executives and managers, who want options (with pros and cons) – a group currently under-represented (except in special libraries), but potentially our most powerful customers. White suggests that part of the problem is the confusion of the premise of the library as a service institution with that of the library as an educational institution.

In addition to the perennial problem of standards, the concern of the moment is undoubtedly coping with growth in demand (exacerbated by the advent of public access CD-ROM facilities) not matched by additional staff resources. A survey of US academic libraries revealed fairly predictable strategies, such as reducing the number of service points, cutting hours, eliminating or restricting telephone enquiries, and cutting down on associated activities – for example, tours and bibliographic instruction (Rinderknecht, 1992). Use of paraprofessional staff to answer telephones when the reference desk is busy, or an answering machine as an additional buffer is not uncommon (Abella and Kittle, 1992). More innovative is the introduction of a recorded information telephone line to deal with callers who only want factual information about the library and its services (location, opening hours, and so on) which not only reduces the number of routine enquiries put to professional staff, but also improves access for callers with subject enquiries (Humphreys, 1992). However, Rinderknecht's most significant finding was the large number of respondents indicating changes in reference/public service desk staffing, which amounted to a policy revision and redirection of service, including the use of paraprofessionals and student assistants, and the existence of 'information desks' or 'catalogue assistance desks' (reported by approximately 40%, many created within the last ten years).

Massey-Burzio (1992) argues that a review of what constitutes good reference service was long overdue and the positive decision to restructure at Brandeis University (without bringing in additional staff) has improved service quality and job satisfaction, and also enhanced the library's image. Brandeis now has an information desk (staffed by graduate students) dealing with directions and basic information/quick reference enquiries, but expected to refer about 40% of questions to the new Research Consultation Service Office, which, she argues, provides a more appropriate physical environment for handling complex or difficult enquiries – for bewildered novice and advanced researcher alike. Again drawing the comparison with lawyers and doctors, she criticizes the library tradition of combining different levels of service as confusing and unhelpful for the client; presenting the in-depth service in a different way has enabled more customers to be aware of and appreciate its existence. At Arizona State University West, a similar split has been devised between the information desk and Research Support Services, but the former (staffed by paraprofessionals) also has explicit responsibility for basic library instruction, including the use of electronic information systems; the role of the paraprofessional staff here is likened to that of

laboratory assistants, and a particular benefit of the arrangement has been more effective faculty liaison (Hammond, 1992).

Campbell (1992) calls for a radical reappraisal of reference services. He notes the lack of formal models – conceptual and economic – and derides the ALA definition of ‘personal assistance provided to users and potential users of information’ as too general. He argues that much more use could be made of computer-based systems to answer questions without face-to-face/personal intervention, estimating that 10% of questions could be dealt with thus immediately, and 75% eventually – using computers to deliver answers to users’ homes, offices or other locations. Campbell’s proposed new job title for reference librarians is ‘access engineers’, which would also encompass the roles of ‘knowledge cartography’ and ‘consumer analysis’. Cullen (1992) criticizes methods of measuring reference service performance, in the context of current practice in New Zealand public libraries. She emphasizes the need to relate evaluation to service objectives and goals, and advocates a two-track approach, involving analysis of the tasks and other factors that make up the service as well as records for each reference encounter, including the user’s response. Performance can then be assessed in terms both of inputs (such as collections, physical environment, staff knowledge and skills, operating costs) and outputs (efficiency and effectiveness). Dalton (1992) proposes a quantitative user satisfaction assessment instrument to evaluate reference service quality, based on five defined levels of performance – ideal, deserved, expected, minimum tolerable, and unacceptable. Her questionnaire comprises 25 questions, yielding 45 variables for analysis, but extends beyond the factors indicated above to include awareness of the service and additional elements, such as current awareness.

## **The library in society**

### **Demographic and cultural influences**

The 1992 US ‘Library of the Year’, Redwood City Public Library, is held up as a model for its innovative approach to meeting the needs of a diverse, rapidly-changing community. Its non-fiction stock – which accounts for 75% of loans – is ‘merchandised like a bookstore’, children’s services acknowledge that many users have difficulty in coming to the library alone, so librarians go out into the community, and story hours are broadcast; literacy and ESL (English as a Second Language) programmes are provided for Hispanic children with language problems. The services are deliberately geared to family needs, with special story hours for families; training on how to choose books for children, and how to tell stories; and the Time Out for Parents (TOPS) programme, which provides free childcare for parents who use the library on Saturday mornings (Berry, 1992b).

In a volume due to be published during the European Year of Older People and Solidarity Between Generations, it is heartening to be able to draw attention to initiatives intended to focus on the cultural wishes and needs of elderly people. In

Finland, more elderly library users are living in their own homes as a result of the trend towards non-institutional care, and delivery services have expanded accordingly. A decentralized scheme was preferred, to enable branch and mobile libraries to continue serving users no longer able to visit them in person, but an individual has been given specific responsibility for central coordination; collaboration with other community organizations is also being pursued – for example, placing a circulating collection in the ‘Granny’s Chamber’ centre of the local church (Koppa, 1992). In Denmark, collaboration between library and health professionals has been very productive, with the latter credited with encouraging the older people to read more, and community groups working together successfully to ensure physical access to facilities (Frederiksen, 1992). The Clwyd Library and Information Services Reminiscence Project in Wales offers an innovative example of how existing expertise and resources can be put to use in different way. Reminiscence work is a novel means of helping to maintain self-esteem, mental alertness and independence, and to promote a positive image of elderly people in the community; Watkin (1992) describes the public library’s role as stimulating, and supporting – building on existing contacts and collections of materials, and contributing to activities such as workshops, quizzes and dramatic performances. Listening to music is also regarded as particularly valuable to the elderly, and to other housebound groups; Homes and Kendall (1992) confirm that public libraries in England are expanding and improving their domiciliary services in this direction, taking account of growth in demand anticipated as a result of demographic and health-care policy changes.

In the context of a review of services to the Chinese community in New Zealand, prompted by demographic changes, Cheng Yen (1992) identifies four models of service to minority cultures: a government-funded nationwide centralized service; a commercial subscription scheme; a local service based on libraries in the residential or commercial area predominantly inhabited by the minority group; and a regional cooperative purchasing, cataloguing and circulating scheme. The centralized model is exemplified by the Swedish Central Library for Immigrants, established in Stockholm in 1991 as a state-financed initiative to cope with the new refugee reception system, which spreads refugees throughout the country instead of concentrating them in larger cities and suburbs. The centre’s responsibilities include collection development; distance lending facilities; a depository for material acquired locally, but no longer needed; and the provision of advice and information, including organization of courses and conferences to raise competence in the field (Siebolds, 1992). Likewise, a state-financed centrally coordinated service seems the appropriate model for service provision to the Sami people, who suffer as a minority culture whose literature is not economically viable. Finland, Norway and Sweden all have special Sami libraries designated as centres of expertise, providing various centralized services. These fulfil a crucial role in preserving, transmitting and supporting the development of the Sami culture (Ayras, 1992). In contrast, in the inner-city environment of Cleveland in the USA, the public library service to a new Hispanic and Arab immigrant population is essentially a local initiative, characterized by novel

strategies to promote the service and improve take-up: a special reservation system is offered to users with no fixed address; the collections emphasize literature reflecting the different cultures, but also include board games and puzzles; and the keynote is not planning too far ahead (Rome, 1992a). At an operational level, in the context of provision to Maori people in New Zealand public libraries, Morris-Gerin (1992) poses a question that has considerable strategic implications, namely whether designating separate sections for minority materials and using bilingual signs is 'patronizing' or 'appropriate' – professional opinion is divided, but separating out Maori materials seems to have increased usage.

In relation to the rural population in Papua New Guinea, Wijasuriya and Evans (1992) warn against importing and imposing traditional library models; they argue that services will have to be 'far more innovative and unconventional, and may need to be closely associated with literacy programmes'. A crucial point is the need to emphasize materials in the main indigenous languages and to take account of preferred forms of communication, notably the oral tradition, storytelling, dance and drama. Nwagha (1992) supports this view in considering the information needs of rural dwellers in Nigeria, arguing that radio is the fastest and most effective communication medium in Africa, and suggesting that essential information can best be disseminated to rural people – either in their indigenous language or pidgin English – in the form of short messages presented in rhythmic jingles, which mirror the songs and tales of African folklore (following the successful example of commercial advertisements on radio). In the UK, an innovative and unconventional approach proved successful in disseminating information to black workers and community groups about changes in legislation: the National Institute for Social Work set up a project to raise awareness of the Children Act 1989 and the National Health and Community Care Act 1990, and used various media, with specially produced case material (Domoney, 1992).

In a university library in Nigeria, the introduction of a newspaper indexing service marked a significant step forward and reflects local needs: with monograph and serial literature in short supply in developing countries, newspapers serve as primary sources for both students and lecturers (Nwali, 1992). The need to take account of cultural differences is also demonstrated by a survey of user education for overseas students in Scotland, which revealed problems arising not only from language-related difficulties but also from differing expectations of libraries, and lack of familiarity with prevailing educational methods and with concepts such as copyright and plagiarism: Robertson (1992) compares Scottish provision unfavourably with examples from American universities, concluding that 'a complete change of "cultural perspective" is required before any real progress can be made'. Mature students are another group with special needs, which extend beyond the obvious need to review opening hours and loan periods. A research project in Wales pointed to a need for 'drop-in facilities' to address problems associated with numeracy, literacy and study skills; the researchers also suggested such facilities could be usefully integrated with library user education programmes, with library staff ideally

placed to take on a more formal support role as personal tutors, by virtue of their perceived availability and independence (O'Donohoe *et al.*, 1992).

### **Political and economic developments**

Heeks (1992) investigated the impact of the Education Reform Act 1988 on the scope of library services to children in England and Wales. Changes in funding arrangements have necessitated boundary definitions and structural changes, and forced clarification of roles and responsibilities of school and public library services, suggesting that in future the former will concentrate on serving children in an institutional setting and the latter on serving children as individuals, which raises questions about continuing public library support for project work. Recent UK legislation on environmental protection and proposed European Community legislation on packaging, landfill of waste and environmental auditing have also had an impact on LIS. The British Library, encouraged by the Confederation of British Industry, has set up an Environmental Information Service, which acts as a one-stop shop to provide access to the totality of its resources and services, ranging from online databases and document supply to environmental recordings held at the National Sound Archive (Woolston, 1992). Similarly, the UK Institution of Mechanical Engineers Information and Library Service has launched a new current awareness service bulletin entitled *Green Engineer* (Ollerton, 1992). A 'Green Library' has been set up in Berkeley, California, to help to find a solution to the world environmental crisis by providing information on ecology, environmental protection, public health and related fields to libraries in developing countries; satellite libraries have been established in Poland, Nepal and Roumania, with plans to develop a worldwide network (Chepesiuk, 1992).

In the USA, prompted largely by the current economic downturn, public libraries have developed services to support the unemployed and economically disadvantaged – often in partnership with other agencies, acknowledging that librarians need to be properly informed about the job market and employment trends, while career counsellors need support in handling information. Initiatives include special collections and displays, providing space for (or sponsoring) local job clubs and other support groups, and producing directories, guides and workbooks to supplement published sources (Anderson, 1992; Larson and Minor, 1992). Illinois public libraries offer presentations by their own staff, and lectures/seminars by outside experts, as well as the Self Help Employment Development (SHED) certificated programme of ten weekly workshops, run with a local charity (Bloom, 1992). Muncie Public Library, Indiana, offers a user-friendly computer database providing national and local information on occupations, vocational and technical courses, apprenticeships, and so on; and also runs a Summer Youth Program for economically disadvantaged students, organized by the Young Adult/Career Librarian and the local employment office (Krohler and Howard, 1992). Cuyahoga County Public Library in Ohio has created the InfoPLACE Adult Career Resource Center with a permanent team of career counselling staff, offering both group and individual counselling sessions

on job search and career planning, and several publications, including a 'survival guide' to services for the unemployed and economically disadvantaged (Jaffe, 1992).

Universities also offer careers information and advice, but a US survey suggests that there is less cooperative activity in this sector between careers services and libraries; a notable exception is the De Paul University, Chicago, where the Career Information Center is a joint venture house in the library and staffed by a reference librarian with specific responsibility for careers information, who organizes print and electronic sources, produces mini-bibliographies for a careers bulletin and carries out research on prospective employers visiting the campus (Abel, 1992). An alternative approach has been adopted at Indiana State University, where a separate Career Center Library has been established as a satellite to the main library, funded by the careers service but staffed by the library, enabling both student users and careers staff to be properly trained in the use of the collections (Lorenzen and Batt, 1992). Cooperation between public and academic library services and their respective partners to provide a coordinated community resource is not mentioned in the above context.

## **The information literacy debate**

Key issues surrounding user education in libraries include disagreement over the librarian's role as 'teacher', a perceived conflict between the delivery of information and instruction, criticisms associated with the failure to stimulate critical thinking, and a more general debate over the whole concept of literacy programmes. Sever and Sever (1992) offer several definitions of literacy: the conventional interpretation – the ability to read and write; functional literacy, as promulgated by Unesco – the knowledge and skills enabling a person to function effectively in a group or community; technological literacy – enabling an individual to cope with the technical demands of the environment, especially computer know-how; and visual or 'multisensual' literacy – a concept combining the sensory, emotional and rational, linking back to the 'pre-literate' world. The term 'information literacy' is gradually gaining currency over previous narrower formulations, which emphasized location and use of library materials. Behrens (1992) acknowledges a gradual shift of emphasis into the realm of evaluative skills, but argues for a new statement of goals and objectives based on a broader concept, emphasizing the use and application of information in the context of problem-solving and decision-making.

A survey of US librarians in different sectors indicated that academic librarians tended to feel they should avoid 'spoon-feeding', while special librarians felt their priority was information delivery; the concept of life-long learning and user independence was important to the former, with public librarians having some sympathy with both viewpoints (Harris, 1992). In developing countries or in the context of serving disadvantaged groups in society, public libraries are seen to have a significant role to play in promoting literacy, often in partnership with other

community agencies (Berry, 1992b; Sever and Sever, 1992; Wijasuriya and Evans, 1992). Boston Public Library in the USA offers creative writing programmes to supplement those offered by schools (Rome, 1992b). With growing numbers of 'non-traditional students' entering higher education, academic libraries may also become more involved at this basic level (O'Donohoe *et al.*, 1992). Experience at Pennsylvania State University suggests the use of computer-assisted instruction methods with such groups (e.g. for remedial mathematics instruction) may be over-ambitious (Stanley, 1992).

Irving (1992) believes that current programmes in academic libraries place too much emphasis on physical location, and offer insufficient guidance on reading and note-taking, analysing assignments and synthesizing information. Controversially, she argues that because teaching styles influence library use more than user education, the development of information handling and study skills needs to be integrated with the professional practice of the lecturer, and the major responsibility for user training ought to be transferred accordingly. Networking and other technological developments have brought new opportunities for librarians to extend their remit into instruction in the use of computer-based systems. The pros and cons of instructing (research) students in online searching – in addition to CD-ROM – as preparation for their subsequent careers are not clear cut, but on balance it seems to be regarded as worthwhile by those who have chosen this route, particularly where instruction has been integrated into the curriculum (Bruce, 1992; Ikeda *et al.*, 1992). Hanson (1992) favours an active role for university libraries in promoting, coordinating and supporting the use of bibliographic management software within their communities, arguing that such packages can link directly with the provision of current awareness and interlibrary loan services, as well as improving the productivity of academic staff, thus making a significant contribution to university research and scholarship.

The methods adopted in LIS skills programmes have also come under scrutiny, particularly because of increasing student numbers. The State University of New York has opted for self-paced workbook courses, involving student attendance at workshops led by librarians, where their answers are evaluated through one-to-one interactions, rather than traditional group instruction sessions; this approach has reduced paperwork and lecture preparation time, and is also considered attractive for librarians who feel more comfortable in one-to-one settings (Feinberg and King, 1992). Bristol Polytechnic (now the University of the West of England) has also experimented with orientation workbooks instead of traditional induction tours, and decided to continue the practice, but with a brief tour and shorter workbook than originally devised: the new approach had additional benefits in stimulating development of comprehensive information skills packages in some subject areas, and raising the library's profile with academic colleagues (Carpmael *et al.*, 1992). The University of Northumbria (formerly Newcastle-upon-Tyne Polytechnic) has introduced a new workbook for a diploma course and a 'research diary' for MSc students, specifically to encourage critical thinking and reflection in its user education; both approaches are now established parts of the programme (Walton and Nettleton, 1992). In addition, many libraries are experimenting with

computer-assisted instruction (Awcock *et al.*, 1992; La Scala, 1992; Mackey, 1992). CD-ROM instruction has already been seen to present particular challenges as a result of its popularity and the difficulty in giving users the individual attention and hands-on experience needed when many libraries lack the resources required for working with small groups (Abella and Kittle, 1992; Day, 1992; Steele and Tseng, 1992).

## Evaluation and service development

Accountability, cost-effectiveness, performance measurement, user satisfaction and 'value for money' feature prominently among current professional concerns. Writing in the context of the UK's Citizen's Charter and the whole 'quality bandwagon', Hall (1992) outlines basic criteria for the formulation of performance indicators for an information service: she emphasizes their role in providing the basis of a comprehensive system of management information for decision-making; the importance of taking account of corporate and service objectives, and of local operational and management needs; the need to focus on outputs rather than inputs; and the potential benefits in raising the profile of the service. An evaluation conducted in fifteen hospitals in Rochester, New York, usefully demonstrates the latter points: the study pinpointed specific areas of patient care where information from librarians made a significant difference; the physicians rated information provided by the library more highly than that from other sources, such as diagnostic imaging, laboratory tests and discussions with colleagues; general comments offered include the telling sentiment from one respondent, 'I would not want to practice in a hospital without a library, nor would I like to be a patient in one'! (Marshall, 1992).

Broadbent (1992) draws attention to the mismatch between the traditional approaches of LIS professionals to evaluation, which emphasize service outputs and operational efficiency, and the requirement of senior management to identify benefits and added value to the organization's processes, products and services: benefits in cost-effectiveness generally come from using the expertise of LIS professionals to save the time of more expensive professional, technical and managerial staff. She recommends two practical techniques – priority and performance evaluation, and product-oriented cost-benefit analysis – and offers ten questions providing an agenda for demonstrating the value of an information service to an organization, emphasizing the need to relate information service activities and costs to the 'business drivers', the priorities and perceptions of key stakeholders. Some LISs are already moving in this direction as a result of becoming involved in evaluation exercises covering the organization as a whole, notably in the context of quality assurance and the requirement to comply with external standards such as ISO 9000/BS 5750. Information service staff of the UK Building Design Partnership judged the process to obtain certification under BS 5750 time-consuming but ultimately rewarding, as it brought the service much closer to its customers and improved effectiveness as a result (Dawes, 1992).



Schlichter and Pemberton (1992) are highly critical of academic library efforts in this area: they argue that libraries have traditionally placed little value on research/user studies for assessment of needs or effectiveness, and hence as input to strategic planning. Criticisms include a persistent focus on users, rather than non-users; the failure to translate survey results into management decisions, and to collect baseline data for later comparisons; and general resistance to environmental/user input in decision-making. They suggest the absence of a research culture (and consequent distrust of statistical methods) as part of the problem and argue for the development of local expertise through a research office in the library. One example of a user study having an impact on library strategy is the case of Yale University Medical Library, where survey results confirmed that online searching skills were still in demand, but indicated a shift of emphasis from mediation to consultancy that has led to marketing services differently at two levels (Crea *et al.*, 1992). The evaluation of reference services conducted at Illinois State University offers an example of an academic library prepared to adopt quite sophisticated research methods in the interests of getting to the root cause of a problem: it was an unobtrusive test, carried out by students who had to score 28 'attitudinal' statements designed to collect an impression of the way he or she was treated by the librarian, in respect of each question asked; the variables were grouped into three categories, relating to physical demeanour, verbal interaction and ability to exploit library resources; attitudinal scores were then correlated with accuracy ratings, to identify the variables most closely associated with complete and correct answers (Lancaster *et al.*, 1992).

The series of three statewide unobtrusive reference/information surveys conducted in Maryland public libraries (with the assistance of independent consultants) is another good example of survey results being put to effective use: on the basis of the findings of the first study, training was introduced to address the issues raised, and the second study assessed the effectiveness of the training by comparing results with those for another group of 'untrained' staff; an additional outcome of the research was the development of a Model Reference Behavior Checklist for subsequent use (Dyson, 1992). Franklin and Hamil (1992) demonstrate an impressive commitment to research, in the context of a comprehensive eighteen-month study of youth service at Flossmoor Public Library, Illinois:

'We believe that well-planned evaluations provide not only the data and concepts needed to target and improve services, but they also produce their own energy and enthusiasm as staff realize more about what they do and how it matches the need for service'.

The methodology encompassed a literature search; book collection evaluation by an external consultant; participant feedback for story hours; staff time logs; reference/readers advisory transaction records; analysis of school, community and demographic data on children; ideas from library users via a suggestions box; interviews with a sample of children; a survey of other community youth

programmes; and a detailed cost analysis of current provision. An evaluation committee with internal and external membership helped to steer the project, which led to improved staffing levels and several service innovations (including the recruitment of older children as volunteer 'Junior Friends' to help with story times).

In the UK, a collaborative venture between the School of Information Studies at Birmingham Polytechnic (now the University of Central England) and Solihull Libraries and Arts involved a team of final-year students in an interview survey of local residents to investigate their attitudes, awareness and use of the public library. The findings were fed into the Council's forward planning, and regular annual surveys authorized as a result; in addition, the project gave the students first-hand experience of researching customer needs and raised their awareness of services and the contribution of surveys to service development – as well as giving them the opportunity to develop the ancillary skills of interviewing, data analysis, report writing and oral presentation (Nankivell, 1992). The British Library conducted a questionnaire survey in its humanities reading rooms over twelve months (deliberately designed to cover a representative sample of days of the week and seasons of the year) to assist with planning services for the new building at St Pancras; a secondary objective to compare results with other national libraries proved impracticable owing to widely differing survey methods and contents, suggesting the desirability of more coordination in this area (Cranfield and Hellowell, 1992).

## **Conclusion**

The marketing imperative is clear: we must do more than care for our customers, for it is our responsibility to sort out what we are about – what business we are in – and then we can attempt to match our capabilities to their needs. This will involve definition of service levels and priorities, including pricing structures; these are difficult issues, but easier to face if we know what our mission is. The pace of change is quickening, with technology presenting real management challenges, as well as marvellous opportunities to put our services within reach of a much wider constituency and to demonstrate our value to the community, which surely includes tackling the questions of access and equity raised here in the particular contexts of North America and economically disadvantaged groups. Evaluation and feedback mechanisms are helping to close the circle, and we can see evidence of libraries and information units already reaping the benefits of more rigorous scrutiny of their activities. Nevertheless, it is perhaps in this area where most effort is required if the service ethos espoused by so many is to become a reality for more than a few.

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