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Some concluding trends and themes

Andrew Booth and Graham Walton

Introduction

The composite picture painted by the contributors to this book has sought to harmonize individual interpretations with recurring trends and themes. The foreground of our 'scope of practice' is becoming ever more complex and continues to be offset against the backdrop of an operating environment that is subject to constant change and revision. Information scientists may be equipped to scan the horizon, but they possess silicon chips, not crystal balls, and should heed the cautionary lessons afforded by eminent commentators who have gone before:

There is not the slightest indication that [nuclear energy] will ever be obtainable. It would mean that the atom would have to be shattered at will. (Albert Einstein, 1932)

[Television] won't be able to hold on to any market it captures after the first six months. People will soon get tired of staring at a plywood box every night. (Darryl F. Zanuck, head of Twentieth Century Fox, 1946)

The purpose of this epilogue is to accentuate some of the trends already highlighted by contributors that will impact on health library and information service providers.

Health services

Health services have continued to be a microcosm for prevailing trends from society as a whole, for example the self governance of education and the accountability of social services. Primary care is increasingly becoming the focus for the delivery of healthcare and this has seen increased interest in cooperative arrangements for information collection and provision. Primary care groups or trusts potentially offer the same stimulus for information service delivery as the purchasing intelligence movement of the 1990s provided for health authorities (see Chapters 3 and 4). Two essential differences exist, however. First, the technology now exists to make such visions of integrated corporate information systems a reality (eg intranet technologies). Secondly, the operating environment is likely to embrace several competing, or even conflicting, practice cultures instead of the relative uniformity of a single health authority.

Debates continue to rage around issues of quasi-rationing – the conflict for resources between low-volume, high-cost technologies (exemplified by beta interferon, donepezil,

riluzole, etc) and less spectacular but more routine healthcare interventions (compression stockings for leg ulcers) continues to occupy the domain of the commissioners of health services (see Chapter 1). The creation of the National Institute for Clinical Excellence in the UK is likely to yield further impetus to the so-called 'guidelines movement'. Such a trend towards centralist control is ironic, running counter to the decision of the US government that halted guideline production at the Agency for Healthcare Policy Research in favour of the production of evidence reviews. The managerial versus clinical battle for power, neatly side-stepped over a decade ago by making clinical audit a peer-reviewed activity, is now likely to be enacted under the standard of 'clinical governance' (see Chapter 2) . Whether this will see the end of medical autonomy and the 'tyranny' of the clinician remains to be seen. Will the health information provider become the supplier of the 'clinical effectiveness stick' by which the manager beats the clinician? Or the bulwark against which clinicians build their risk minimization defence? The jury is still out.

The very concept of 'health services' is itself being challenged by the growth in 'self care'. The realization that an individual is a being more than the sum of his/her physical and psychological parts is reflected by the growth in complementary therapies and renewed interest in coping strategies and empowerment (see Chapters 1 and 5). Such a development is intriguing given the potential for the increasing mechanization, and corresponding dehumanization, offered by high-tech healthcare.

Technology

Interest in the technology of healthcare tends to concentrate on 'Tomorrow's World' scenarios of highly expensive equipment and increasingly specialist staff. In practice it is the potential of existing consumer technologies as they migrate to the healthcare domain that is more revolutionary. An obvious example is the smart card – now universal in the sphere of banking – which has the potential to store health data as a patient-held clinical record. Spin-off possibilities for information are not so far-fetched as to be the domain of science fiction. The prospect of being presented with supporting evidence linked to the clinical record or of printing off patient-tailored information on a condition or its treatment is more likely to be impeded by procedural and medico-legal considerations than technical ones. Similarly the application of telemedicine (see Chapter 1), already evidenced in the telemonitoring of foetal heartbeats or the digitization and transmission of medical images, is being broadened through developments in satellite or fibreoptic communications. The 'plywood box' mentioned above, ironically, might become an umbilical cord for communication between householder and primary care gatekeeper.

The end-user

The end-user phenomenon is mentioned several times throughout this book (see Chapters 2 and 11), and health LIS providers, in common with many other information professionals, are facing difficult decisions relating to the appropriate balance between time spent on direct service provision and user training (see Chapter 14). A disturbing fact is that human-computer interfaces are not developing at a pace that is commensurate with the explosion of information resources. Information providers

therefore find that they are spending a fixed amount of time spread more thinly across an increasing number of tools and interfaces. Given that discussions about proprietarial versus generic interfaces have commanded the attention of the CD-ROM industry for over 15 years with little apparent progress, there are few reasons for optimism in the even more complex world of the Web.

More and more frequently, users are likely to explore an increasing range of routes for obtaining customized information (see Chapter 21) and the information provider will therefore be required to operate in something of a 'free market' (see Chapter 12). This will require that they emphasize the value-added nature of their services including an increasing role as 'web navigator' (see Chapter 18) and the evaluator and appraiser of resources (see Chapter 9) .

Location of resources

The emphasis of this book has not been on any physical location or resource, but rather on the management of knowledge and the skills required to enable this. Critics of this approach might feel that the balance has swung too far – cataloguing and classification of knowledge now command barely a page of text. Nevertheless trends in information provision have not only seen the renaissance of peripatetic roles such as the clinical medical librarian and the emergence of roles in the community or in general practice, but even the stereotypical location-bound hospital librarian being offered an ancillary 'virtual' location via the hospital intranet. Increasingly, the prospect of users receiving a comprehensive package of information services without having to set foot in a location that is labelled 'the library' is proffered by networking technologies.

A logical extension of the 'library without walls' is referred to by several of the contributors in the form of the National electronic Library for Health (NeLH) (eg Chapter 11). Significantly the source material for envisaging what this much-heralded resource might look like is, at present, both scarce and sketchy. It will only be once the *Information for health* strategy starts realizing its deliverables that health information providers will fully appreciate the impact that the NeLH may have on local information provision. The lack of a National Library of Medicine in the UK had been bemoaned for a long time prior to the Cumberlege seminars that appraised the state of the knowledge base of healthcare (see Chapter 3). It is likely that the NeLH may yield the clearest picture yet of what such a deficiency means in practice. It is also imperative that those driving the NeLH draw on the very relevant knowledge base, mentioned several times within this book, derived from the experience of the academic eLib projects.

Role of health LIS providers

The array of skills that makes up the role of the health LIS provider continues to grow at a bewildering rate (see Chapter 4). The solution to such demands continues to lie, not just in the professional development of the individual, but also in improved patterns of networking and collaborative working, perhaps no longer constrained by geographical proximity. Virtual networks of professionals working in a particular speciality, for example orthopaedics librarians, can comprise an impressive knowledge base – one whose potential is already hinted at by the increasing number of success stories arising from

use of general purpose discussion lists.

Health LIS units derive much of their rationale and many of their tenets of professional practice from the fact that they are, in the main, special libraries that focus on health. This is being evidenced ever more clearly in the health information specialist being required to work on the interpretation and evaluation of materials and not just their identification. Critical appraisal skills and the accompanying requirement to digest and synthesize information (see Chapter 19), rather than solely locate it (see Chapters 17 and 18), move the librarian closer to the clinician and bring in new considerations around liability and risk management. Rather than seeing such a transition as a threat, the entrepreneurial health LIS manager will seek to construct the principles and procedures that serve to ensure safe and competent practice. A parallel movement in those health libraries with more of an academic base is seen in the development of a problem based learning paradigm where the subject specialist is required to equip the users with skills rather than merely exploit resources (see Chapter 2). One way or another, the health LIS specialist appears destined to become more accountable and this places an imperative on their own skills for lifelong learning. Professional networks are correspondingly beginning to evolve from information 'swap-shops' to ever more important channels for expertise and repositories for knowledge.

Accumulated expertise and a shared knowledge base are characteristics of another trend that may contribute to an increasing profile for the healthcare information providers – an emphasis on evidence based librarianship. Library and information science, ironically for a profession responsible for information acquisition and transfer, is not renowned for its utilization of research findings. Health information professionals are in a uniquely advantageous position to apply the methodologies of systematic review and critical appraisal to information science. The challenge is for researchers to tackle the questions, and indeed to design the 'right type' of studies, to contribute to a poorly served knowledge base for our professional practice.

Consumer health information

Any classification of the health information domain, prerequisite as it may be to the structure of a book such as this, is likely to have both strengths and deficiencies. A regrettable consequence of the way we have structured the book is that, notwithstanding excellent treatment in the chapter on consumer health information (see Chapter 5), coverage of the interests of consumers may appear somewhat tokenistic. Of course nothing could be further from the truth. NHS Direct Online experienced over 1.5 million hits within its first 48 hours and its impact will continue to escalate. Information providers who serve the professional community will be required to counterbalance the free flow of consumer health information with comparably reliable, timely and up-to-date information to the constituencies that they serve. Those who directly deliver information to the consumer will have to build in checks and quality assurance procedures to safeguard both their own interests and those of an ever more demanding clientele. The consumer health information sector could well drive an agenda that other health LIS units will seek to follow.

Conclusion

With health services, technology, users, location, roles and the interests of consumers all witnessing such sustained development, the health LIS manager risks concluding 'The only constant is change'. This book belies such an impression. The skills required in managing knowledge in health services will continue to be the most valuable asset the health LIS professional can supply. These include the skills needed to evaluate, and respond to, the external environment (Part 1; Chapters 1–5), the skills required to develop and sustain a health information service (Part 2; Chapters 6–14) and the technical skills required, by LIS professionals and users alike, to exploit information resources (Part 3; Chapters 15–21). These skills are a greater legacy than cumulated lists of resources or directories of contact details. We, the editors, commend these skills to the health LIS professionals of today and tomorrow, speaking not as the exponents of such skills, but merely as those who have been privileged both to observe and to record them.