Some reflections on preparing information professionals for the digital environment

Ian M. Johnson
Assistant Dean, Aberdeen Business School, The Robert Gordon University, Garthdee Road, Aberdeen AB10 7QE, Great Britain (i.m.johnson@rgu.ac.uk; http://www.rgu.ac.uk/abs)

Abstract

This paper draws attention to the emergence of the World Wide Web as an alternative to library services, the growth in distance learning, and the potential for libraries to provide virtual reference services. It discusses some of the organisational and pedagogical challenges that are likely to follow from these changes, and notes the way in which 'Schools are Librarianship' are adapting to a new environment. Finally, it poses a number of questions to the employers of information professionals about their ability and suitability to employ the new information professionals.

Introduction

This brief paper aims to review where our profession is now, to consider the changes that are taking place or are about to take place, and may begin to provoke some thoughts about whether we have the expertise to do what we need to do to ensure that information professionals continue to play an effective, and visible, role in the social and economic development of the society in which we live.

In this short paper, I cannot possibly review all the factors that are making an impact on our profession today. I propose, therefore, to consider just one example of the changes taking place today that can be seen to originate from the growing availability and use of the new Information and Communication Technologies.

Where are we now?

Libraries today face new competition, from the providers of Internet based information resources. Conventional libraries have been overtaken by the providers of commercial search engines which, it is said, can now answer, from information freely available on the World Wide Web, 60% of the enquiries previously answered by libraries. The commercial information providers were faster to recognise that what adds value to information is the ability to use it. What can we now do to add value to the services that libraries provide, and what skills do information professionals need to succeed in this competitive digital environment?

In one sense, we should be grateful to the search engine providers. They have created a new market for information that did not exist previously. Most people have little need to do word processing at home, and computer games would have had to compete for their time with other forms of entertainment. It is arguable that, without the search engines' efforts to harvest the information available on the Web, the sales of personal PCs and the growth of Internet Services would not have been so rapid. People have recognised that they can use their networked PC to access a range of information services, but what have libraries done to take advantage of that?

Another challenge comes from the fact that, over the last 10 years, an expansion of distance education has been stimulated by efforts to promote lifelong learning to ensure that the workforce has the skills required in a modern and changing economy, and some major distance teaching programmes have been initiated by conventional universities (and new commercial competitors), using satellite television or the Internet. Supporting distance learners has become a potentially important activity for libraries of all kinds, providing online access to full-text electronic journals or databases. What has been the response of your libraries to meeting the needs of learners who may have no means of gaining direct access to print-based collections?

Let me focus these concerns on one aspect of library service. In conventional libraries, reference services, reader's advisory services, research services, library instruction, and other public services all emerged quite some time after the establishment of collections and the provision of metadata about collections. The paradigm has been the same in the development of digital library services: the collections generally arrived first, followed by the provision of metadata, and - last of all - by services for the public. How many libraries have organised virtual reference services, and advertise the fact that their users can make enquiries by e-mail or through web-based enquiry forms?

Where are we going?

What are some of the implications for professional practice of the changes that I have been describing? The immediacy of posting a question by email raises the enquirer's expectations of getting an immediate answer – at whatever time of day or night they send the question. Few libraries have the resources to operate on a 24/7 basis (24 hours each day; 7 days each week). So how might they provide an information service around the clock, every day of the year? Do they have staff with the web skills who can organise and design web pages covering the most Frequently Asked Questions to minimise the demand for human intervention?

There are benefits associated with working together to provide e-reference service in collaboration with other library and information services serving similar communities, or groups of libraries that come together on a geographical basis. With the benefits come the challenges of careful planning and maintaining effective lines of communication. Do libraries have the staff with the skills to establish and manage a project of this nature? Are libraries' staff equipped with the social and managerial skills needed to work collaboratively with other organisations to provide a 24-hour service?

Making information useful is more important than making it available. Users' direct access to the increasing range of electronic information will raise the need for them to become more information literate, i.e. possessing the skills not only to find and retrieve required information, but also making them aware that the web is not the only source of information, developing their ability to evaluate the relevance and quality of what they have found, helping them to avoid information overload, and teaching them to make effective use of information. Librarians should be offering not only web-based library orientation and bibliographic instruction for users, but also aiding the user in the selection of good e-resources, and recommending sources and search strategies. Assisting users with enquiries should not be seen as an end in itself, but part of a process of providing the user with the transferable skills required to underpin continuous learning. This will place an increasing responsibility on librarians to assist their users to develop appropriate information literacy skills. Do information professionals have these pedagogical skills?

Staff development in the digital environment

The demands on the individual professional working in this new environment will be considerable. In addition to expertise in using the relevant information sources and services, including a variety of electronic resources, competencies needed to survive in the virtual reference environment include not only technological skills and speed and accuracy in keyboard skills, but also the critical thinking skills that are required for assessing users' ability, and a high level of interpersonal communication skills. How can libraries find, develop, and retain staff with this level of expertise?

It has been recognised that all librarians require some managerial skills, but the digital environment makes its own special demands. Marketing a virtual service, for example, requires special efforts. The impact of providing a virtual reference service on the range of resources required to answer enquiries fully and accurately should also not be underestimated. In addition to the cost of purchasing electronic information, and understanding the copyright issues that surround its use, the librarian working in this environment will encounter a variety of types of publishers' licences. These are perhaps symptomatic of a publishing industry that is still unable to think conceptually in terms of access to and use of electronic publications. Whilst we can hope for a future in which the publishers of electronic media will rethink their marketing and pricing strategies, can we expect that to happen unless librarians become persuasive and forceful negotiators? How could these skills be developed, and when? Does the responsibility lie with the University Schools of Librarianship and Information Sciences, or with the employers?

Underpinning any attempt to influence the publishers' approach to pricing must be greater use of evidence drawn from professional practice. The same research skills will be necessary to identify the market for new services, the resources that would be required, the most effective way to promote them, and to determine appropriate ways to evaluate use of the service. How should information professionals develop, and then maintain this expertise?

Organisational development for the digital environment

It is a given that any organisation needs staff with relevant professional skills who are motivated to contribute to fulfilling the mission of the organisation. Virtual reference services can only function effectively if the reference, acquisitions and collection development, and technical services of the library work closely together. Indeed, it may compel changing the library's organisational structure to give individual staff a broader remit that encompasses all these activities. How can library managers determine whether their organisation's structure is 'fit for purpose'?

Successful adaptation to continual change can only be achieved by an organisation that has a strong learning culture. Effective learning organisations need individuals who can apply appropriate high-level analytical skills and decision-making capabilities to organisational functions such as strategic planning, decision-making and forecasting. Where will organisations in the information sector recruit staff with this expertise? What are the consequences for the training that the organisation then needs to provide for its staff?

Recent developments in 'Schools of Librarianship'

The profession generally expects the 'Schools of Librarianship' to take a lead in meeting its needs for new expertise. The 'Schools of Librarianship' are themselves contending with a number of changes imposed on them by external circumstances. It is not my intention to seek your sympathy, but it is important, I believe, that the context within which they work should be appreciated. The growing significance of information and its management in our society has attracted the interest of many universities, and several new departments have emerged in the last few years in almost every country in Western Europe. New departments are being opened in the U.S.A., where a few years ago a quarter of the former 'Schools of Librarianship' were closed because they were not making an effective contribution to their university's finances or academic profile.

Today, however, the continuing pressure on universities' finances is compelling them to reduce administrative overheads, whilst at the same time seeking to create new organisational synergies to underpin innovative course developments. This often means that the former 'Schools of Librarianship' are today often found to be parts of departments that have a broader academic remit, covering for example, business management, computing, or media studies. Seen from outside the universities, the causes and consequences of these changes are not well understood, and there has developed, in some quarters, a perception that the Schools have moved away from the sector of the

labour market that we were initially intended to supply. That perception has been encouraged by the new courses that have emerged. These new courses reflect the Schools' assessment of new markets for their graduates, in areas such as electronic information management, electronic publishing, and Web design and management. Graduates from these new courses are finding jobs with employers outside the traditional library and information sector, but are their skills irrelevant to the needs of today's libraries? Will libraries be able to compete effectively to recruit and retain their skills in the new labour market?

The Universities are also encouraging changes in the patterns of course delivery, with greater emphasis on supporting Continuing Professional Development, often through distance learning programmes. Are these irrelevant to the needs of today's libraries?

Innovation in teaching and learning

Many of these changes in the universities are also being driven by the so-called 'Bologna process', the changes that are taking place in all the countries in the European Union. These changes are primarily seen as affecting the duration, levels and titles of courses. This new framework also, however, helps to clarify what employers might expect of graduates from these courses. This clarity comes from the Quality Assurance processes that are an inherent part of the 'Bologna process', but which are little discussed outside the universities. The challenge that these Quality Assurance processes give to the universities is to define the typical abilities expected of a graduate and the characteristic outcomes of the degree. There is an implicit requirement that these learning outcomes should be assessed. Thus, there are key indicators for students' performance, and these will have to be adequately documented in transcripts, more informative than a traditional degree certificate, that will be provided to all students. Will this information assist employers to identify and recruit potential employees who closely meet their needs?

Issues in preparing future information professionals

I am aware that there are many other developments that I could have mentioned, but I have focused on a particular range of developments that are making an impact on library services and which demonstrate the changes in the nature and range of our professional discipline. They highlight a number of themes that have become the focus of discussions between the Schools of Librarianship and Information Sciences and the employers of information professionals.

Should our so-called 'Schools of Librarianship' be expected to standardise the content of their courses, or will employers be willing to recognise the variety of skills that students from different universities may bring with them and be flexible in their recruitment policies? Should our universities seek to develop practical competencies, or students' critical analytical skills? Is it more important to develop students' subject knowledge or their transferable intellectual and communication skills?

How are employers adapting to the new environment? Do they have in place the organisational structures to accommodate the skills of the new graduates? Do they provide sufficient support for the continuing development of their staff? Are the rewards on offer sufficient to recruit and retain the different kinds of graduates with information skills?

AUTHOR

Ian Johnson is responsible for 26 academic staff and 5 researchers at the Robert Gordon University, Aberdeen, Scotland, where he has held senior posts since 1989, and for about 500 undergraduate and postgraduate students studying in library and information sciences, publishing studies, and corporate communication. His wider responsibilities include the teaching and learning on campus and through e-learning of the 3,000 students in the Aberdeen Business School. Previously he was in charge of industry liaison and continuing education programmes at the College of Librarianship Wales (the University of Wales School of Librarianship and Information Studies); Assistant to the British Government's Advisers on library matters; and an operational manager in public libraries.

He was Chairman of the International Federation of Library Associations and Institutions (IFLA) Section on Education and Training from 1991 to 1993, and Chairman of the Professional Board of IFLA from 1993 to 1995. He was also Chairman of the (British) Library Association's Personnel, Training and Education Group from 1993 to 1995, and from 1996 to 2000 represented the Group on the Council of The Library Association. He was Chairman of the Heads of Schools and Departments Committee of BAILER: the British Association for Information and Library Education and Research from 1997 to 2000, and Chairman of the Executive Board of EUCLID: the European Association for Library and Information Education and Research from 1998 to 2002. He is currently joint editor of *Libri: international journal of libraries and information services*; and a member of the Editorial Board of *Education for Information.*

He is currently undertaking research sponsored by the European Commission's ALFA programme, investigating the feasibility of developing a digital library of the Spanish and Portuguese journals in library and information science, particularly those published in Latin America, as an aid to the development of professional education in that region. Together with colleagues, he has also just submitted to UNESCO draft *Guidelines for e-reference library services for distance learners and other remote users*, which are expected to be published in 2004.