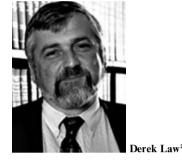
A backwards look at the future: three librarians towards the end of their careers look at what libraries and librarians might become







<sup>1</sup> London, UK <sup>2</sup> Strathclyde University, Glasgow, Scotland Contact: t.mcsean@hollar.co.uk

#### Linda Lisgarten<sup>1</sup>

#### Abstract

The authors, who between them have many years of medical librarianship experience, take a look at the current state of library and information provision and predict some of the changes and challenges that the profession will need to address to ensure survival and success.

Key words: libraries; medical libraries; open access; publishing industry; future.

#### **External Changes**

#### Content

Scientific and medical publishing in the traditional print format is now a by-product of publishers' main business. The major publishers make more than 50% of their worldwide income from ejournals. For most libraries in the major European Union markets it is probably only anomalies in the way VAT is applied that keeps print alive — in the UK the 17.50% differential leads at least one major university keeps its scientific print journals in remote storage without even taking them out of the envelopes (or did until recently). And this does not only apply to current subscriptions; the major publishers already have their backruns available and we can expect to see the cost of accessing these fall drastically in the next few years. E-books are not yet so fully

integrated into our "collections", but are increasingly available in worthwhile quality and quantity and take-up is likely to grow.

Within the next six years, Google plans to make available 36,000,000 book titles. The free outof-copyright books will have limited value for the health community, but there will also be more recent material available for sale or loan. Google's rivals have competing projects. The open web is, of course, a huge resource of free information, although much of this carries no quality assurance. We all have our favourite examples of ludicrous or dangerous websitessoap that washes away body fats and miraculous protections against contracting HIV. Institutional, national and subject repositories continue to gather strength and federate, and to include elusive material such as theses and grey literature which extends their use beyond peer-reviewed papers. And despite the radically changed information landscape, the print-era publishing industry of commercial companies and learned societies retains a financial and structural grip on the dissemination of the formal literature of health.

This brave new world of open-ended and diverse information resources may, paradoxically, require more rather than less professional intervention and support if the benefit to our researchers and practitioners is to be maximised. The more varied the range of information retrieval options available, the more scope there is for sub-optimal (or as we might say *rubbish*) search results.

# User expectations

As the technology of information delivery changes, so do the expectations of our users and the ways in which they will formulate and go about satisfying their information needs. Prensky's widely quoted division of the world into digital natives (the Facebook generation) and digital immigrants (the authors and 80% of our profession) mark a fundamental shift in user expectations. Resources are either on-web or off-web and for most practical purposes offweb might as well not exist for digital natives, particularly in the scientific context. Although the printed word is not in any immediate danger of extinction, Prensky argues convincingly that we are dealing with a far-reaching discontinuity and not just a generational shift. Think, for example, how much more at ease digital natives are with collaborative and group working (read Prensky at http://tinyurl.com/ypgvf.)

# Access

The library is no longer necessarily a place. Reliable dial-up, broadband, internet cafés, wireless and blackberry-type mobile phones

have progressively expanded information access to the point where city dwellers are rarely more than five minutes' walk from mailbox and search engine. As librarians, our place at the physical heart of our institution may be in terminal decline, but our reach has expanded beyond any previous expectation. The resources we manage are already in laboratories and offices, homes and cafés, parks and gardens. Increasingly they are also to be found in wards and surgeries, pockets and handbags, corridors and office kitchens. Information access and conversations are no longer something to be planned for and timetabled. They are an unremarked utility, as much a part of our workaday infrastructure as heat, light, water and shelter.

## **Internal changes**

Even digital immigrants of mature years, such as your authors, can internalise the individual implications of these changes, and adapt accordingly the way we live our working and social lives. The profound structural implications will take longer to show themselves, and as a profession we need to begin to adapt appropriately or the information profession will decline as surely as did the travelling companies of ventriloquists, magicians, acrobats and singers when cinema and television became ubiquitous.

Many of our traditional skills and activities are no longer relevant in the electronic world. A couple of examples:

• many of the particular skills we have evolved to search collections of paper documents will no longer be needed by any but a small minority of researchers (and those librarians who provide for their needs);

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- it may well be that the need for collection development work will decline drastically. One of the elements still missing from the our brave new world is a business model for e-resources that matches the way they are supplied and used rather than they way they are packaged and marketed – i.e. as an integrated database rather than as a collection of discrete and distinct products. Big Deals were the first faltering step in this direction but the current mismatch between space age products and the stone age business plan is surely unsustainable – we need a new model which reflects the nature of the web;
- we have developed processes and procedures, often of spectacular complexity, to ration access to scarce resources fairly. There is no scarcity with ejournals and hundreds of students and researchers can access the same *NEJM* article simultaneously without any civil unrest or danger to the fabric of the library;
- cataloguing as your authors were taught it, has surely now passed into history for all but the most specialist applications.

The pace and depth of change in libraries and information services will accelerate further. Our relationship to our premises will adapt as technology changes the geography of our user base from homeland to diaspora. The first stirrings of this change are already evident in our evolving attitudes to behaviour and (shudder) catering inside the library. We are also seeing the beginning of a systematic embedding of information professionals in the everyday working environments of those we serve: with clinical librarians and informationists our profession is beginning to follow information access out into the wider world. The electronic revolution will certainly require a reduction in the number of less expensive staff for managing stock acquisition, issue, return. We take for granted the Byzantine complexity of many of these processes, but outsiders find our ability to devise and implement them one of the remarkable (though not necessarily admirable) aspects of what we do. With this change, we will also have less need to develop the special skills needed to manage significant-sized teams of paraprofessionals.

Many of the general implications of current trends for information services have already been mentioned. But alongside the savings in routine work it seems very likely that the diversity of information resources and the loss of a corporate centre for information consultation will both require more rather than fewer skilled professional staff. These customer-facing and alert professionals will be essential to ensure that the information activities of researchers, practitioners and students are informed and efficient; that where necessary specialist information practitioners can intervene in the process to save time and money; and that, above everything, the results of information seeking are of high quality and reflect the totality of published knowledge and not some strange, warped subset.

### Conclusion

Most of our users think that all the web's information resources are free as air, including those we provide for them at huge expense to our institutions. Our profession has a very great deal of work to do to correct this misapprehension, and in particular to gain a broad acceptance that information quality has as much importance to the outcome of research and clinical practice as other major support components. Our customers' personal experience of LIS delivery is important, as is general advocacy, but crucial to this effort will be the development and maintenance of an effective evidence base showing the benefits and cost-effectiveness of good information management and of the staff who deliver it.

We live in an increasingly number-driven world, and one in which intermediaries of all kinds are under pressure to justify their existence (when was the last time you booked a flight through a travel agent?). The danger signs are there to be seen. At least one of the major publishers has a project group working on ways to develop models for selling information resources direct to researchers and doctors, and there is an increasing move towards the centralisation and aggregation of licensing for e-resources in a way that bypasses our profession.

The information professional is the very essence of an intermediary, and if we secure the future that our skills deserve, we have to be able to demonstrate to sceptical audiences that we add more real, quantifiable value to the process than we take out in real, quantifiable costs. Our users are developing an almost religious faith in the web, many of them happy to accept it as omni-present, omniscient and infallible. Omni-present it might be, omniscient it might become in the course of time, but infallible it will never be — and it is up to us to make sure that our users never forget it.



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