

Capturing the hybrid ground



How is the blurring of boundaries between information resources and the Web 2.0 world of sharing

influencing the information professions? **Sheila Corrall** and **Andrew Cox** explore the far-reaching implications of convergence.

The 2007 Oxford Internet Survey¹ confirmed the presence of the internet in every-day life in Britain, if confirmation were needed. Ubiquitous access, convergence of technologies and increased bandwidth are features of this information world. A simplistic digital divide has given way to complex digital divides, of access, skill and choice. Terms such as the virtual, digital, hybrid or recombinant library represent successive attempts to encapsulate the impact of the internet on library and information management. Rather than competing visions, they seem to emerge as complementary models that coexist in an increasingly complex context of technology and standards in the management of information resources. Thus one way of looking at Web 2.0 is to see it as another model, in contrast to the increasingly familiar 'traditional' digital library, as shown right (table adapted from Cox, forthcoming).

With these changing conceptions, new demands are made on information professionals, especially those working at the heart of building digital infrastructures and services. So, for example, rather than acting as a gatekeeper that guards quality in content and metadata, in the Web 2.0 library there is much more focus on facilitation of use, community building and user-centric design.

A key feature of the new information universe is the blurring of boundaries between established categories of information resources. Websites of official bodies and commercial enterprises are exposing internal documents to public view. In the academic world, where collaboration is increasingly international and interdisciplinary, researchers are starting to see benefits in sharing both reports of their work and the supporting data in institutional repositories. The open access movement has encouraged scholars to deposit or 'self-archive' journal articles as pre-prints (pre-publication versions) and post-prints, in effect offering pub-

lications free of charge alongside the publisher's subscription-based version. Textbook publishers are using companion websites to make supplementary content available to teachers and students on both open and controlled access models, as well as making titles available as e-books in bundled subscriptions, similar to those offered by periodical publishers. In educational institutions, libraries are trying to integrate access to local and external sources via virtual learning environments and portals. In the government and commercial sectors, the integration challenge has shifted from organising conventional documents to identifying knowledge resource and capturing know-how via intranets and communities of practice.

The Web 2.0 world is thus challenging accepted notions of publication and extending the boundaries of information resource management, beyond the traditional concept of the library collection to include research data, learning resources and other digital assets, with an emphasis on situating information and knowledge in context. Perhaps more fundamentally the explosion of data and open access represent a challenge to information services and the information professionals who provide these services. Just as information sources are now on every desktop, so information staff are not confined to libraries and information centres, but are working in project teams, helping to manage information directly. This implies adapting further towards varying and disciplinary concepts of information management and literacy. At the same time, other professions are moving into our territory. Professions are by definition engaged

'Traditional' digital library

- Digitisation
- Rare/special content
- Preservation + access
- Public data
- Quality control/selection
- Professional metadata
- Documents
- Archived static, definitive content
- Fixed entry points
- Specialist institution
- Centralised
- Clear ownership

Web 2.0 'library'

- Born-digital content
- Everyday material, massive scale
- Access
- Private experiences
- No quality control
- Folksonomy and tagging
- Multimedia
- Dynamic edited and annotated content
- Surprising pathways
- Commercial enterprise
- Networked and syndicated
- Complex IPR

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in knowledge-based work, and the 'knowledge economy' has placed large sections of the workforce in information-intensive roles. With online searching now a routine activity and often seen as a basic IT skill, rather than a specialist professional skill, information professionals are having to define and develop their specialist roles more explicitly to demonstrate the value they add to their organisations and communities.

These developments reflect wider changes in the nature and structure of professions. Professionals generally are recognising the need for continual 'upskilling', closer business involvement and more networking within and across specialist teams. Their work has become more specialised, with development of 'micro-specialties' (niche sub-specialties) within specific disciplines and also, more significantly, emergent hybrid professional specialisms, boundary-spanning roles which occupy the expanding shared territory that represents the overlap between formerly distinct domains. The notion of hybrid professionals came to the fore in the 1990s as a

response to the growing impact of IT on business operations. Researchers such as Michael Earl and David Skyrme² identified a need to develop people who combined technical skills with business knowledge (or vice versa) to enable organisations to exploit the strategic potential of technology. In the information world, 'hybridity' has been particularly associated with the convergence of academic library and IT services, with some commentators suggesting that overlaps in interests and expertise would eventually result in the merger of these services and their respective professions.

However, as others recognised at the time, the situation is much more complex than such visions assumed. Developments in technology and standards, with their organisational and cultural implications, are continually throwing up new forms of expertise.

Over the past decade we have seen continuing convergence of professional roles, both within the information content profession (for example, between librarians, archivists and records managers) and between content and conduit (technology) specialists, as new roles have evolved, combining competencies from both areas (for example, the web manager). In addition, we have observed another area of convergence, between the information and IT professions and the subject specialists, the

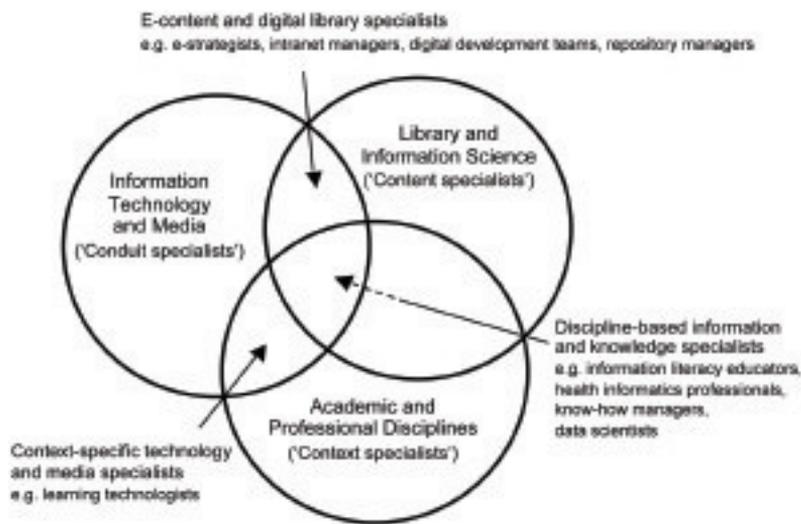
The model helps us to understand some important dimensions of these new species. A key feature of these hybrid domains is that postholders can enter the shared territory from either side of the professional divide to occupy distinctive roles, the focus of which reflects their particular backgrounds. For instance, in the shared space between the library/information domain and the subject field of law, we find law librarians and legal information officers with backgrounds in

the LIS profession working alongside legal know-how managers, typically categorised as professional support lawyers (trained lawyers who have opted to work in support roles serving particular practice areas, rather than as fee-earners). Similarly, the nature of the academic discipline that forms the context of the hybrid role will influence the blend of information and technology required and thus determine where any particular sub-species is placed in the content-conduit continuum of our model. The role of data scientist is a pertinent example here: this emergent specialism, arising from the 'data deluge' created by e-science, sits near the centre of our model, but its precise location will vary in accordance

with the disciplinary focus of the role. (For example, the data collected by chemists is quite different to the types of data collected by ecologists.)

Whether these hybrids are seen as sub-specialties of a broader, more stable profession or recognised as quite new forms of expertise emerges over time. What we know from the history of groups such as learning technologists⁴ and web managers⁵ is that these new professionals often feel isolated and misunderstood. They have a yearning to meet others working in similar roles, from a pragmatic need to share good practice as well as to develop their own support networks and collective identity. There is a danger of being pushed into activities which are defined as technical and of low status.

Possible indicators of their status include representation at successive levels



Hybrid professionals (after Corral & Lester, 1996).

people with expertise in other academic and professional disciplines. Thus, the learning technologist draws partly on the theories and practices of education and partly on the skillset of IT and media. Similarly, the information literacy specialist or 'instructional librarian' (borrowing US terminology) combines educational expertise with competence in library and information science.

Our model (above) builds on earlier work³ in offering a tripartite view that differentiates three types of player, representing three broadly categorised groups. Their areas of specialism are information technology and media (the conduit specialists), library and information science (the content specialists) and other academic professional disciplines (the context specialists).

The emergent hybrid roles sit somewhere between these larger professional groupings.

The emergent hybrid specialisms of the online networked world offer exciting opportunities for library and information professionals, but we need to move fast.

of the organisational hierarchy, creation of professional associations to support their work and the development of specialist training and education programmes. Evidence from job adverts shows that there are now hybrid library-IT posts at every management level, from career-grade posts (e.g. electronic resources adviser) through mid-level (e.g. digital projects librarian) to senior management (e.g. head of e-strategy and development). Examples of mature hybrid specialisms with established professional organisations include law librarianship, learning technology and health informatics, represented respectively by the British & Irish Association of Law Librarians (formed in 1969), the Association for Learning Technology (1993) and the UK Council for Health Informatics Professions (2002).

The health informatics field has been supported by specialist postgraduate education programmes at several UK institutions for more than a decade. Programmes such as the part-time distance-learning course at the University of Sheffield attract professionals from a broad range of backgrounds, including doctors, nurses, therapists and pharmacists, as well as librarians and IT specialists.

New courses

Educational provision in other areas has emerged more recently: the Law School at Nottingham Trent University introduced a one-year postgraduate diploma in Know-How Management for Legal Practice in 2003 (delivered over six weekends); and the Department of Information Studies at Sheffield is launching three new programmes this year in Legal Information Management, Information Literacy and Electronic & Digital Library Management. Our Information Literacy programme meets the demand from practitioners for in-depth coverage of the theory and practice of information literacy and its pedagogy: research with academic librarians identified a need for a course to develop teaching knowledge and skills for the specific context of IL education, tailored to this particular domain, though this programme is equally well suited to practitioners in other information sectors.

Academia – library and information science departments – can have an important

role here. We can reformulate underlying theory to meet new conditions, but also offer arenas in which new professionals themselves can reflect about the nature of their role, and develop viewpoints on long-term strategic issues and on ethical and social concerns – aspects of new work that are unclear at the complex level of the workplace, where reactive, pragmatic considerations dominate. Academia can support new professionals in acquiring skills of inquiry to research current issues in their field in a systematic way, drawing on, and themselves expanding, the evidence base.

As an example, our Electronic & Digital Library certificate, diploma and MSc address the continually evolving space of digital media content, digital services and electronic resource management. The curriculum has been developed in consultation with practitioners working in the field (and we acknowledge their contribution at this point). The teaching will also draw heavily on their input – sharing their knowledge and mentoring new professionals. The aim is to offer a balance of skills in strategy and management coupled with an understanding of technical and practical aspects. There seems to be a clear set of issues around the digital library as digitised content; more familiar library skills of collection management have been adapted to produce electronic resource management.

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Clearly, the syllabus has to directly address changing technologies and standards in the field. However, thinking about the knowledge and skills that the course should develop,

we suggest four key areas of competence that the new professional will need to be able to demonstrate:

- 1 Understanding of user behaviour and methods for uncovering it, with a sense of the wider social context in which these behaviours and practices are changing.
- 2 Project management skills, including proposal writing – skills which we recognise are particularly important.
- 3 Related skills of liaison, negotiation and collaboration within and between organisations – important to all information professionals, critical for those working in digital information.
- 4 A grasp of brand creation, marketing or advocacy.

Beyond the specialist modules, students have a wide choice to fit their learning to their specific needs, combining established modules in search and web design with options in information systems management, knowledge management and content management, as well as electives in a range of information sectors, such as business intelligence, government information, academic or public libraries.

Perhaps professional identities are never stable or unitary and each of us always needs to evolve our own professional identity, making sense of local conditions and personal needs. But it is also important to draw from the well of underlying values and theories of the profession. The emergent hybrid specialisms of the online networked world offer exciting and rewarding opportunities for library and information professionals, but we need to move fast to stake our claim to this territory. ✨

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