Chapter 35
Libraries, Literacies and Lifelong Learning: The Practices Within Higher Education Institutions

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Introduction

Individuals working in academic institutions are now required to engage in increasingly complex learning processes and interact with a vast array of information and range of literacies to complete their academic and professional tasks. In order for academics to maintain participation within this evolving context, it has become essential for them to embrace an evolving concept of knowledge, a breadth of learning and an array of learning strategies and learning technologies.

In this context, acceptance of the imperatives of lifelong learning is vital for both individuals and academic institutions. As an individual's academic and professional objectives are impacted on by this evolving context, the ways in which individuals achieve their objectives and the sources of their support are required to adapt in order to ensure that they respond to their changing needs.

The acquisition, maintenance, development and accumulation of knowledge and a range of learning strategies and technologies are key features of the work of libraries. Libraries are purposeful in their role as giving the impetus and offering their resources to act as an individual's companion for the development of knowledge, understanding and a range of literacies to the ongoing benefits of an academic's lifelong learning.

This chapter will outline what may be regarded as key characteristics of the relationship between academic staff, libraries, literacies and lifelong learning within the new environment of higher education. The polymorphous character and interconnectedness of this relationship will be discussed in light of current international literature and emerging Australian research. The first section which follows aims to illustrate the roles that libraries might play in supporting academics as lifelong

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learners to meet the changes and challenges of the evolving information resources and modes of access intrinsic to their work.

Libraries: Challenges for Lifelong Learning

The changing nature of the profession of librarianship, the role of corporate influence upon information management and knowledge management, and the evolution of information and communication technology (ICT) capacity, all significantly impact on workers in academic libraries. Compounding these challenges is the awareness that academic libraries are influenced by the governance of higher education institutions (HEIs), and thus confront the same challenges as those of their parent institution. HEIs are still responding to the many challenges that have arisen from the assemblage and integration of *New Public Management* (NPM) techniques, in their approaches to management and administration. We may note that there has been an increase in managerialism and micro-management, and a concomitant growth in the diversity of tasks that needs to be achieved, in this context, without commensurate access to more resources, by all staffing levels within HEIs (Becher and Trowler 2001; Jordan 1998).

At the same time, HEIs have been forced to endeavour to achieve more with less. In addition, there has been an emphasis on providing 'seamless access' in the provision of services, a requirement that has been criticised (Becher and Trowler 2001; Brophy 2005; Jordan 1998) as being both unattainable and unsustainable. The application of the 'seamless access' model has been argued to be unattainable and unsustainable, stemming from HEI's relationships with their many 'clients' and 'stakeholders'. These clients include students, academic and general staff, government regulators, and professional and academic bodies. The diverse clientele of HEIs, within this environment, has required their various elements to concentrate on sharpening their sense of the service focus to form a hybrid customer-service approach. This is also evident in academic libraries.

Academic libraries must also confront the challenges of responding to the changing nature of higher education, including moves towards an increasing 'massification' and widening access to higher education and the growing popularity of demand for vocational and coursework degrees. These changes strongly influence the development and revision of course design and teaching methods, such as those now to be found in distance and virtual ICT-based learning, as well as the research trends and targets of the institution. These challenges in turn shape the design and function of hybrid library services, such as the provision and availability of physical and digital collections, digital repositories, inter-library provisions and relationships and increasing demand for the library to serve as multipurpose *learning commons* (Becher and Trowler 2001; Brophy 2005; Jordan 1998; Williams 2009). In this context, academic libraries not only confront challenges that require significant changes to the practice of their day-to-day functions but also to the very nature of their role and objectives.

Information and communication technology has had the biggest impact on libraries (Brophy 2005). Information professionals and libraries are continually

responding to this impact on the processes and actions of information search, retrieval and provision. Library patrons and information seekers are exposed to an abundance of information, more than has previously ever been available or accessible (American Library Association (ALA) 2008a, b; Australian Library and Information Association (ALIA) 2002, 2006; Hock 1999; Keen 2007; Longworth 2003; Margolis 2000).

Information abundance partly complicates the task of isolating specific and relevant information. Personal and occupational information needs have increased in systematic complexity, as an increased number of systems is required to be used, both asynchronously and synchronously, for and in access. Caution should also be exercised when individuals are navigating this proliferation in order to avoid *information overload* (ALA 2008a, b; ALIA 2002, 2006; Hobart and Schiffman 1998; Hock 1999; Keen 2007; Longworth 2003; Margolis 2000), which Margolis derides as an 'embarrassment' (2000, p. 64) of topical and atypical information. Another notable matter relevant to all who are exposed to the phenomenon of information abundance is that they must actively accommodate the amount and controversial quality of excess information, which includes wilful misinformation, the heterogeneous character and orientation of information and the inconsistency of ethical objectivity (Hobart and Schiffman 1998; Hock 1999; Holmes 2006; Keen 2007).

The role and function of academic libraries to effectively shape the provision of information for library patrons are consistently and increasingly exposed to accumulating challenges within this scenario of information abundance. The economic conditions that have contributed to diminished resourcing within HEIs further heighten these challenges. *The Digital Information Seeker: Findings from Selected OCLC, RIN and JISC User Behaviour Projects*[1] (Connaway et al. 2010) outlines the stipulations from library patrons, particularly related to academic libraries, to support a 'greater variety of digital formats and content' (p. 46). The findings, synthesised from 12 user-behaviour studies conducted in the US and the UK, stressed the increasing needs of academics for the provision of data that are further-reaching than e-journals, notably the curation of data sets, virtual research environments (VREs), non-text-based and multimedia objects, blogs and open source materials. Furthermore,

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[1] *The digital information seeker: Findings from selected OCLC, RIN and JISC user behaviour projects* (Connaway et al. 2010) comprises of data gathered from; *Perceptions of libraries and information resources* (2005) OCLC, *College students' perceptions of libraries and information Resources* (2006) OCLC, *Sense-Making the Information Confluence: The Whys and Hows of College and University User Satisficing of Information Needs* (2006) IMLS/Ohio State University/OCLC, *Researchers and Discovery Services: Behaviour, Perceptions and Needs* (2006) RIN, *Researchers' Use of Academic Libraries and Their Services* (2007) RIN/CURL, *Information Behaviour of the Researcher of the Future* (2008) CIBER/UCL, commissioned by BL and JISC, *Seeking Synchronicity: Evaluating Virtual Reference Services from User, Non-user and Librarian Perspectives* (2008) OCLC/IMLS/Rutgers, *Online Catalogs: What Users and Librarians Want* (2009) OCLC, *E-journals: Their Use, Value and Impact* (2009) RIN, *JISC National E-books Observatory Project: Key Findings and Recommendations* (2009) JISC/UCL, *Students' Use of Research Content in Teaching and Learning* (2009) JISC, and *User Behaviour in Resource Discovery* (2009) JISC.

participants in the study emphasised the role of high-quality metadata, data that describe other data for the identification and assessment of electronic resources. Within the present situation of information abundance, the methods and techniques of metadata are escalating and vary significantly in quality as metadata are increasingly collated from predominantly digitised processes (Jacso 2010). The demands and expectations of academic staff for more information and more high-quality metadata to enable them better to identify and judge the available information are highly justified, although it can be anticipated that these factors will not increase simultaneously. Library patrons will require a counterbalance to the magnification of the abundance of information. Individuals will be able to manage the imbalance between information and metadata, by addressing their capacity to acquire, maintain and develop the imperative skills to effectively use the available information.

Since 2003, the *Ithaka Faculty Survey* has gathered data concerning the roles played by academic libraries as perceived by academic staff in the process of responding to the changing nature of their academic work. This investigation of the importance and evolution of the traditional functions of academic libraries is analysed from the perspective of three core information-related practices. These three traditional practices are defined as the 'gateway function' (in which the library is the 'starting point' for accessing information), the 'buyer function' (emphasising the collection development and acquisitions of the library) and the 'archive function' (in which 'the library is a repository of resources') (Schonfeld and Housewright 2010, ch. 1, p. 6). The *Faculty Study 2009: Key Strategic Insights for Libraries, Publishers, and Societies* (Schonfeld and Housewright 2010, ch. 1, p. 7) reported the steady rise of the classification of the library's 'buyer function' as 'very important' by 90% of academic staff. The context of the global economic conditions during which data were collected in 2009 was analysed to have minimal impact on the unwavering decline of perceived importance of the library's archive and gateway function, with preference for the 'buyer function'.

The range of learning strategies and learning technologies adopted by HEIs was found to have disengaged the relationship between academic libraries and academics, most of the latter notably placing 'less value on the library's traditional intellectual value-added role' (Schonfeld and Housewright 2010, ch. 1, p. 13). The perceptions of academic staff of the decline of the library's role as forming the connecting link to information seems to be at variance with recognition of their reliance upon the *technical facilitation* 'behind the scenes' by the library (Schonfeld and Housewright 2010, ch. 1, p. 3). The technical facilitation provided by libraries, in many instances, enables academics to enjoy and profit from the opportunity for the 'seamless exploration' of electronic platforms, repositories, resources, services and domains. This seamless exploration is often anchored by the necessary validation of identity or location, such as an academic's office, by means of internet protocol (IP) recognition or login authentication. This technically facilitated experience quickly turns to technical frustration when any number of contributing, albeit 'behind the scenes', factors are altered. Contributing factors relevant here may include one's computer, location of computer, internet and

network connection, software currency and configuration. The contributing factors also have further relationships and consequences, in which a modification to one factor or aspect might conflict with another. The essential and increasing range of technical knowledge and skills required by academic staff shapes the ways in which academics engage with their work. Alternatively, an individual's response to the evolving characteristics and components of their work may condition the extent of technical knowledge and skills required. The evolving concepts, capacity and practices of academic libraries, as addenda to their functions existing hitherto, have the potential and capacity to complement the developing lifelong learning needs of academic staff.

Literacies for Lifelong Learning

Twenty-first century citizens and library patrons require increasing amounts of a combination of generic and specific understanding and knowledge in order to tackle, work on and achieve their daily objectives. These *literacies* have the capacity to serve individuals so that they can continue to acquire, maintain and develop knowledge and understanding throughout their lifespan (ALA 2008a, b; ALIA 2002, 2006; Information for All Programme (IFAP) 2000; International Federation of Library Associations and Institutions (IFLA) 2006). These literacies maybe employed to assist individuals to address the changing objectives and interests that society values and contribute to individuals' ability to cultivate, define and implement common and personal goals (ALA 2008a, b; ALIA 2002, 2006; IFAP 2000; IFLA 2006). There are spectrums of literacies, beginning with these requiring a foundation of generic skills (IFLA 2006; Skilbeck 2006), and progressing to highly specialised job-specific skills (Skilbeck 2006). The nature and requirements of these literacies are, for the most part, revealed throughout the continuum from cradle to grave. Twenty-first century citizens equipped with these literacies are able to adapt and interact with situations or circumstances as they arise. It is only with the individual powers and facility to employ and exploit these literacies that individuals have the capacity for independent lifelong learning.

ICT literacy, information literacy and digital literacy are increasingly emphasised as essential for functioning within the knowledge society (Dudfield 1999; IFLA 2006; Longworth 2003). These new and extending ranges of understanding and knowledge are assessed as being so integral to efficient functioning in daily life that literacies should be accounted for as constituting a basic human need and right for increasing the quality of life (Dudfield 1999; IFLA 2006; Longworth 2003). Of the three literacies identified (ICT literacy, information literacy and digital literacy), information literacy, and the acquiring of the understanding and knowledge of which it is comprised, is not technologically dependent on and is specifically a matter of learning (IFLA 2006). Information literacy presents the greatest versatility for offering opportunity, ownership and support to advocates and recipients.

In an analysis of the range of tools for information search and retrieval, *The digital information seeker: Findings from selected OCLC, RIN and JISC user behaviour projects* (Connaway et al. 2010) examined what they saw as the contradictory findings from the data gathered. Connaway et al. (2010) highlight the pronounced recurring theme that 'information literacy has not necessarily improved with users' digital literacy' (p. 36). This notion is supported by data gathered from the *Researchers and Discovery Services: Behaviour, Perceptions and Needs* (RIN, November 2006), and *Information Behaviour of the Researcher of the Future* (CIBER/UCL, commissioned by BL and JISC, January 2008) – studies that uncovered the discontinuity between the confidence and self-estimates of researchers and their performance. This finding is supported by the study *User behaviour in resource discovery* (JISC, November 2009) that also found information literacy skills to be lacking and inconsistent with an individual's digital literacy capacity. Moreover, the findings from the Connaway et al. (2010, p. 37) study confirm the view that 'when the level of information literacy and domain knowledge increases, [commensurately there is an] increased use of quality resources'. Corresponding with these findings and the practice of knowledge transfer, *The researcher of the future* (Centre for Information Behaviour and the Evaluation of the Research 2008) 'highlighted the self-taught nature of young people in search, as a contributing reason for their failures' (Connaway et al. 2010, p. 42). A number of user behaviour studies have confirmed that there is an imbalance between self-reliance and the performance of library patrons with current levels of information access and provision. This underlines the need to give priority to matters of information literacy and complementary skills as factors that serve to counterbalance the changing nature and increasing volume of information.

As the number and complexity of information processes grow incrementally, there are to be found an individually unquantifiable and intangible breadth of literacies that varies from site, situation, occupation, geography, societal and cultural context, media and medium specifications. Learners are encouraged to take ownership of their learning to acquire and accrue literacies (IFLA 2006) and maintain their currency for application and extension as needed. Such is the inherent accumulative nature of literacies that IFLA emphasises that 'information literacy and lifelong learning are of the same essence' (2006, p. 5) and, what is more, that 'information literacy lies at the core of lifelong learning' (2006, p. 3). Learners equipped with these literacies can use them in isolation and in unison to filter, interpret and reveal deeper and more complex and sophisticated types and levels of meaning (IFAP 2000) when they are interacting with the abundance of available and accessible information.

Responding to the Changing Nature of Academic Work: Implications for Lifelong Learning

The nature of academic work has changed dramatically in response to the varied and ongoing fluctuations of the ways and means academic work is undertaken in HEIs. Whilst all institutions have to face specific local challenges, the majority of

HEIs also simultaneously contend with a multitude of other factors common to them all. These overarching factors are shaped and informed by global knowledge economies, in which HEIs 'are more important than ever as mediums for a wide range of cross-border relationships and continuous global flows of people, information, knowledge, technologies, products and financial capital' (Marginson and van der Wende 2007, p. 5). The importance and range of the roles that HEIs occupy within global knowledge economies are indicative of the longitudinal impact upon the nature of academic work. Concurrently, HEI employees operate within a distinctive cultural context, emphasised by internal hierarchies and infrastructures, both official and unofficial, yet nonetheless significant. This context has a role in shaping and characterising the psycho-social responses by individuals to the changing nature of academic work (Haymes 2008).

HEI's have responded to the demands of their roles within global knowledge economies by assuming the techniques of styles and types of NPM. The competitive nature of NPM has given rise to and accentuated signs of tension and even discord between academic disciplines and faculties, and similarly between HEIs (Becher and Trowler 2001). It has been argued that the reforms occurring from their origin in NPM approaches and styles and in global knowledge economies, emergent from the effects of globalisation in the last two decades, 'have been the strongest single driver of change' (Marginson and van der Wende 2007, p. 8) upon HEIs.

The dynamic context of changes in the nature, activities and processes of HEIs within global knowledge economies has strongly impacted upon various aspects of academic work. In such a context the changing nature of academic work has been characterised and framed by a range of impacting factors, the most prominent of which relate to technology, management and leadership, human resources, and information and knowledge resources. A leading factor here is the impact of ICT on learning, teaching and research, which is multidimensional, with existing frameworks being enhanced or outmoded, and contemporary frameworks facilitated (Longworth 2003). ICT has had a profound impact on the nature of academic work and on the information and skills required by academics to function, particularly in the areas of research, knowledge transfer and teaching.

Compounding and complicating the challenging context of the evolution of technological capacity in academies and their resource bases is the acceptance of ICT facilitated opportunities by academics and their deference to an evolving concept of knowledge. Students' and educators' relationships to information are changing as the infrastructure of information develops in knowledge societies (Becher and Trowler 2001; Brophy 2005; Holmes 2006; Jordan 1998). Ubiquitous access and availability to information without the prior restrictions of time, space or geography have affected the interpersonal relationships necessary for mediating information, especially those between student and teacher; teacher and researcher; and student, teacher and researcher with the library.

The context in which HEIs operate is furthermore situated in an environment shaped by NPM styles. The NPM approach of compartmentalisation and specialisation of HEI functions and outcomes, which have encouraged a process of transition towards domain-based degrees, emphasised the micro-management of both staff

and students, and increased the volume and complexity of tasks while reducing resources and staffing levels (Becher and Trowler 2001; Brophy 2005; Longworth 2003; Marginson and van der Wende 2007).

Changes in student demographics, with increased numbers, mixed-mode delivery to on campus, online and distance students, thereby widening access to first-generation tertiary students, mature age, part- and full-time employed, continual education, rural and international students, has been accompanied by unfamiliar demands on all HEI staff. Additionally, the distinction of fee-paying and fee-supported students has impacted on the relationship dynamic between students and institutions, now often seen as 'paying customers' who are entitled to demand value and satisfaction (Becher and Trowler 2001; Brophy 2005; Jordan 1998). The evolving composition of the new student cohorts has an ongoing and variable impact on the response of HEIs and the changing nature of academic work.

The increased and varied demographics of students have likewise placed increased and varied demands on HEIs. Negotiations of staff and student ratios, the extent of flexible learning and semantic and ideological conflict between the concepts of e-learning and learning management systems are ongoing. In some circumstances, there have been imbalances between the demand for and delivery of student and staff support services, alongside the limited scope and 'dehumanisation' of these support services. These imbalances of demand and delivery have increased and rendered more complex the roles undertaken by staff that currently occupy interpersonal and interactive roles such as academic and library staff (Brabazon 2007; Brophy 2005; Candy 2000). The physical and electronic visibility of these staff have, in some instances, contributed to these staff members acting as surrogates for career guidance experts, counsellors, health advisors, legal advocates, parental and family figures and friendship.

The ageing work forces of which HEIs are now predominantly comprised now also have personal needs that sometimes conflict with the dynamism of the context of their employment (Haymes 2008). In the present and prospective academic context, academics need to have mastery of a combination of literacies in order to function effectively. Academics without these literacies will not only be less able to fulfil their responsibilities in research, knowledge transfer and teaching but, without these literacies, they will not be able to function in a modern academic library.

The roles of HEIs within global knowledge economies have impacted on the techniques of knowledge management applied to the academic work attributes of learning and teaching, research, administration and governance, and community engagement. Knowledge management often functions as a determinant on the conception, analysis and dissemination of knowledge, the effects of which are exerted upon academic and general staff, administrators, students, human expertise, information and technology (Cain et al. 2008; Marginson and van der Wende 2007).

There is now an assured expectation for academic staff to confidently, efficiently and practically incorporate new information technology within their teaching and learning environments, and this in turn gives point and prominence to the effects of the changing standards of information management. Devlin and Samarawickrema (2010) describe this expectation as 'providing for flexible, "anytime-anywhere"

education … of the effective university teacher' (p. 119). The changing expectations for the nature and production of academic work consequentially alter the processes of information retrieval and the instruction of literacies for academic staff. Instruction in and retention of literacies is at present impeded by the absence of a structure of complementary evolution to ICT.

For their students and colleagues university teachers and lecturers are role models for learning (Jordan 1998), and their reactions and attitudes inform students' experiences (Candy 2000; Hauxwell 2006) and the conclusions they draw from them. Their academic work requires discipline expertise refined over a lifetime of learning to be transposed across mediums (Brabazon 2007). The complex transpositions of an educator's expertise from conceptualisation to the varied formats anticipated for the purposes of learning and teaching might include verbal presentation (lecture, podcast), written presentation (report, journal article, book) and multimedia presentation (PowerPoint, website, blog, learning management system). Accordingly, to better integrate and benefit from evolving technologies, academic staff members are required to apply and promote an acceptance and appreciation for the available resources that support their learning and teaching roles (Beard et al. 2007).

The integration of learning strategies and learning technologies in HEIs by academic staff and the knowledge transfer to students has been reported as an area requiring improvement. The Connaway, Dickey and OCLC Research's analysis of the user behaviour study *Information behaviour of the researcher of the future* (2008) detailed the evidence and potential outcomes of 'teachers not passing literacy on to pupils' (Connaway et al. 2010, p. 37). Similarly, Moyle and Owen's (2009) Australian study of the role of learning technologies by HEI education students and graduates reported corresponding concerns for the knowledge transfer of learning technologies and learning strategies. This study collected data on the themes of access and use of technologies, online and computer games, social networking, learning styles and the educational value of technologies, support for learning with technologies, practicum and becoming a teacher, and the future expectations of participants. Findings from participants in this study included 'concerns about the ability of their university lecturers and their supervising teachers to assist them to learn how to include technologies into their teaching and learning while on their respective practica' (p. 34). Fifty percent of participants 'considered improvements in their lecturers' capabilities necessary' (Moyle and Owen 2009, p. 43).

Given the cultural shift of HEIs towards massification and the practices of managerialism and its forms of processing, provisions for lifelong learning are necessary and complementary for academics to stay relevant, up to date and employable within the evolving workplace environment (Longworth 2003). Lifelong learning can, at times, appear to be conceptually opposed to the HEI transition towards domain-based degrees and the compartmentalisation and rigid specialisation of HEI functions (Becher and Trowler 2001; Longworth 2003). This challenging environment of often competing and opposing demands is further compounded by the reshaping of HEI processes due to the implementation of technology. Technology has conveniently become the universal scapegoat for the causes and effects that in turn have

had adverse effects on learning, lifelong learning and teaching functions (Holmes 2006). Alongside these challenges, educators are increasingly aware of the new guiding roles they are required to occupy for twenty-first century learning. The actions and requirements of educational guides further emphasise educator's need to be informed and experienced of the provisions with which they are required to equip their students, in order to fulfil their personal, social and occupational aspirations (Chapman et al. 2006; Longworth 2003). Consideration by HEI employers and educators needs to be given to conceptions of them by students as learning role models and role models for lifelong learning when they are responding to the changing nature of academic work (Candy 2000). In this context, HEIs' and educators' values and views are relative to their students becoming lifelong learners themselves (Candy 2000). It is for this reason that writers such as Jordan (1998) support the rise and promotion of the values that become embedded when there is a sharing and demonstration of learning experiences in still regarded as delineating groups of academic staff, general staff and students.

Lifelong Learning and the Future of Libraries

Lifelong learning has the ability to inspire personal, social and occupational aspirations. In practice, lifelong learning has the ability to realise these aspirations. Individual commitment to lifelong learning is essential for the cultivation of a learning society to complement the demands of the twenty-first century, characterised as a knowledge society. To achieve the aspirations of a highly skilled workforce, a democratic and inclusive society, and a more personally rewarding life, lifelong learning is also fundamental (Chapman and Aspin 1997). For individuals to achieve these aims of fulfilment, it is necessary to explore the interests and motivations, conceptions and expectations and ownership of learning opportunities that underpin successful and sustainable lifelong learning (Chapman et al. 2006; Longworth 2003; Skilbeck 2006). Comparatively, conditions that foster or inhibit learning require thoughtful examination and meaningful resolution (Skilbeck 2006).

A successful continuum of learning must be extensible, challenging the learner with demands ensuing from a breadth and depth of knowledge. The best design to achieve this requires the restructuring of access and personalised opportunities for lifelong learning (Bryce 2006; Longworth 2003; Skilbeck 2006). Increasingly evident is the importance of the set of changing relationships between work, study and the individual. These, in turn, have effects on work patterns and the issues of training, retraining, up-skilling and re-education (Longworth 2003; Rymarz 2006). It is imperative for learning providers and individuals to look beyond immediate and specific benefits when they start evaluating opportunities for continued learning because, predominantly, these opportunities contribute to both present and future successes (Aspin et al. 2001; Chapman et al. 2006; IFLA 2006; Longworth 2003; Skilbeck 2006). Lifelong learning also presents employers with shared benefits as

their employees become well positioned to take advantage of emerging opportunities and attain their professional and personal goals (IFLA 2006).

Lifelong learning, libraries and librarians share an evolving and cyclical relationship in which the library has a role in offering learning opportunities to their employees and this, in turn, shapes the practice of libraries and their capacity to support the learning opportunities of library patrons. Mayfield and Mitchell (2009) emphasise the importance of the individual ownership of learning opportunities within library and information-based professions, citing the Australian Library and Information Association's (ALIA) statement to plan and implement 'lifelong learning that is unique to you' (ALIA 2008a, b cited in Mayfield and Mitchell 2009, p. 5). The importance of lifelong learning for library staff has strong significance and enhanced responsibility because the staff of public education libraries have evolving roles in the lifelong learning of library patrons for their personal and professional goals (Mayfield and Mitchell 2009). The capacity for libraries to be successful in this endeavour is heavily reliant upon the learning strategies of library staff. In the professional development statement of ALIA, this learning strategy is in part described as the individual's obligation to 'develop new skills, knowledge and confidence to ensure you have a successful and rewarding career' (ALIA 2008a).

Research into the Nexus of Libraries, Literacies and Lifelong Learning

Research into the link between libraries, literacies and lifelong learning, explicitly addressing the requirements of academic staff within higher education, is currently limited. In order to address this area of need, research is currently underway (McPherson-Crowie 2008, 2010) to investigate the relationship between libraries, literacies and lifelong learning in higher education, particularly in the context of the changing nature of academic work. This research aims to examine and analyse the potential learning opportunities for literacies that might be supported by HEIs for the ongoing benefit of academic staff as they respond to the changing needs of their academic work. The research operates from the hypothesis that the response of libraries to the changing nature of academic work has sometimes been to modify, and in particular circumstances to cease to instruct, library patrons in the literacies necessary to their functioning effectively in the changing academic environment. In this respect academic libraries have sometimes limited their patrons' capacity for lifelong learning, instead of enabling and enhancing their acquisition of knowledge and increasing capacity. Moreover, it is suggested that the current notion of instruction in many academic libraries tends to rest on the notion of library literacy and, in doing so, is limited in its approach. In light of this it is proposed that library literacy and information literacy, whilst distinct, are complementary literacies and, in the higher education context, are better served when not operated in isolation.

The combination of the changing nature of academic work and the changing techniques of management within HEIs has transformed the library's provision of

information and services. In some instances of information literacy being adapted or abandoned, the replacement literacy has limited the library patron's competency to the specific library type, for example, to that of an academic library, or a specific library site or venue. The libraries that have adopted such limited responses appear to have replicated the compartmentalisation of the institution's infrastructure and to have applied this schema to their provision of learning opportunities that have accordingly shaped their outcomes.

Computer-based and disparate access to information has been highlighted in this research as dominant features of work in higher education at this time. To function effectively in this environment, the knowledge of a range of literacies is required. Among the breadth of literacies used to support the access, retrieval and use of information within HEIs, information literacy is a central ability. An information-literate person is both able to and has an understanding of the discrete, multifaceted and integrative qualities of information-based tasks. The increasingly fragmented nature of academic work has emphasised both a mode and means of completing tasks. This has the potential to re-arrange and re-orientate an academic's approach to interacting and exploiting with sources of information. The possible outcome of these changes in the emphasis of dominant modes and means of academic work might, I suggest, connote an underdeveloped complement of skills among academics. These underdeveloped complementary skills have the potential for extensive impact on the ways in which academics seek to adopt and enhance their skills. The ends to which the work requirements and present situation of academics and their opportunities and support for development within HEIs in turn shapes, directs and conditions the pathways and characteristics of their lifelong learning.

Across the lifespan of an academic, learning practices are adapted chiefly to match and fit in with the current practices, opportunities and support provided by the HEIs for their employment. Participants in this study elaborated upon the theme of fragmentation and the extent of its application and effects. Significantly, they argued that the rapid growth of HEIs has in some instances and to a varying scale dispersed the on-campus locations of academics, schools and faculties. The physical discontinuities between staff, schools and faculties have, in turn, obstructed or diminished the collegial atmosphere and the practices of learning exchange among staff and students. Successively, the processes of fragmentation have had repercussions on the comprehensive role of networks emphasised in the data as being integral to academics responding to the changing nature of their work. The evolving HEI work environment, under the aegis of current management approaches, is described as inconsistent with traditional and more formal modes of communication and reporting. Informing academics by the processes of newsletters, events and training, people have come to believe, is incompatible with the need and nature of the information required. In contrast, an academic's networks were highly regarded as conditions helpful to academics' issuing a timely response to the changing nature of academic work.

The networks of academics were described broadly in dual terms: one, that of 'campus networks', comprising of on-campus colleagues; and then, 'knowledge-based networks' that have been assembled over one's lifespan. An academic's

combined wider networks, which include campus and knowledge-based networks, were noted to be the greatest source and spring for lifelong learning opportunities. These opportunities were also emphasised in the way they were seen as extending beyond the parameters of institutional affiliation, scholarly discipline, geography and professional hierarchy. In addition, the networks of academics were regarded as being able to attend to the differing needs of diversified facets of academic work, including keeping up to date in order to maintain professional and scholarly relevance.

The role of networks was seen as demonstrating vital exchanges between successful modes, means and experiences, when academics are responding to the changing needs and nature of academic work. Collegiality is emphasised as mediating the pressures and managing the challenges of the reshaping of higher education by the practice of a managerial system of governance. These collegial peer relationships were extolled for saving time and affording academics the opportunity to better manage their limited time, as well as reducing the duration and effort required in keeping up to date with information. The preference for interviewees to redirect reclaimed time into *reflection*, *synthesis* and *fluency* of information was emphasised. This, in turn, influences the learning processes of academics, providing opportunities to move beyond the management of knowledge and make advances into its creation.

Data analysed in this research accentuated the factors of relationships, networks, interaction and proximity to peers as conducive to positive experiences and exchanges of information important to their lifelong learning in HEIs. In contrast, these factors were not expressed in the ways in which academics are reported to be engaging with academic libraries. Growing preference for electronic resources on the part of academics, chiefly accessed from outside of the physical confines of the library, is limiting the opportunities for libraries to pursue and elaborate its nature, activity and practice as a forum for lifelong learning, both tangibly and intangibly. The tangible and intangible practices of engaging and interacting within a library, in the company of sagacious peers, students and library staff, provide the opportunity for the unpredictable, the unexpected and for a range of learning exchanges. These experiences, interactions and observations have the capacity to activate underdeveloped traits and attributes and contribute to the fulfilment of individuals and groups over their lifespan.

Conclusion

For academics seeking learning opportunities in several types of libraries across their lifespan, the need for different yet overarching types of understanding and skills will become prominent. The instantaneous character and accessibility of electronic library resources have made patrons much more aware of the unpredictability and decelerated pace of manual/human intervention in library services and systems. These experiences have shaped the ways that academics interact with libraries, in preference for accessing and utilising electronic systems and resources, many of which emphasise

the compartmentalisations they find in their parent institution. Library patrons with an overall understanding of the purpose and functions of the resources that encompass the information they aim for will come to have a better perspective with which they can respond to the breadth and range of possible outcomes across a series of academic and institutional demands. My research aims to identify the ways in which all academics might be better assisted in developing the skills, knowledge and understanding necessary to function in the new environment of higher education and learning and in particular to identify the role that libraries can play in supporting them in meeting this challenge. This chapter has sought to define and emphasise the links between academic staff, libraries, literacies and lifelong learning within forms and institutions of twenty-first century higher education. As outlined in the discussion, the significance of these linking relationships is the subject of interdisciplinary and international research. This chapter has demonstrated the need for, and the potential roles that libraries might adapt to, in supporting academics as lifelong learners for the mutual benefit of individuals and their employers.

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