

# Academic Libraries - Today and Tomorrow in changing scenario: a study.

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## Abstract:

“Change is the law of life. and those who look only to the past or present are certain to miss the future” ( John .F. Kennedy ).whether we like it or not ,the role of academic libraries in the internet age has changed, is changing, and will continue to change. These changes will occur rapidly and much depends upon our ability to respond to change in academic environment.

Key words: Present, Today, Academic, Libraries, Scenario.

## Introduction

In the environment of digital information era academic libraries have technology application and leader who works with other members of the information management team to design and evaluate systems for information access that meet the user needs.

Academic libraries have a significant role in creating, supporting and participating in digital learning environments, today and into the future. Outline the evolution of the academic library over time, demonstrating the resilience and adaptability of library services and library management.

Many authors have focussed on what the future might look like, offering glimpses of possibilities envisaged given the knowledge and experience at a particular time. This is a positive process, looking to the future, as creating a vision of what might be possible helps to define steps that can be undertaken to make the dreams a reality. Even if the prophecies are not always accurate, establishing a goal to head towards ensures that the library service will be moving in the desired direction. For example, Bush (1945) wrote about the *Memex*, a technology that would be used to access, organise and contribute to the store of human knowledge, which anticipated the development of Web 2.0 type collaborative and joined up information services at least sixty years before its time.

The observation focus on where academic libraries are today, in a general sense, and where academic library services may go in the future, and the challenges ahead for academic librarianship in making the future a reality in changing scenario.

The future will be built upon a solid base. "The library is the heart of the university", attributed to Charles William Eliot who was President of Harvard University from 1869 – 1909, is an often heard phrase and, until recently, it was an earnestly held belief by many in academic libraries and universities generally.

This debate as to whether libraries are at the heart of their university and college can be unsettling for academic librarians. Because of the move to digital information and online services, it is argued by some that the library can no longer be the heart of a university, because many of its most valued services and resources are now located in a virtual library environment. This perception presumes that a heart has to be a physical manifestation and down plays the very important responsibility of the library in actually making the virtual library an easy-to-use space, and much needed service to staff and students, complementing the physical spaces already occupied. The academic library can be the physical *and* virtual heart of a campus!

As a great deal of the existing and future services and resources of academic libraries belongs in a virtual environment, then our brand associated with an iconic *building* at the heart of the campus is no longer the prime focus. Today, there is much discussion on future learning spaces, and a great deal of this discussion revolves around re-conceptualising the lecture theatre or tutorial room, rather than embracing the significant role that can and is being played by the library in a world where students learn in a social networked environment. Over the past decade, there have been great advances in establishing physical libraries as a location of choice for students who undertake group assignments, online learning and 'traditional' library study, through the establishment of learning commons . While libraries can still remain the heart of the university and college, the challenge for academic librarians will be to take information and knowledge services to an entirely different place, not constructed on the concept of a library , but taking the wealth of information, data and knowledge accumulated in academic libraries and enabling it to be accessed, consumed and remixed in the personal places of tomorrow's scholars, teachers and researchers

However, the greatest challenge will be changing the mindsets of academic library staff and capitalising on the fact that academic librarians are blended professionals, with multi-faceted skills and responsibilities that transcend the physical and virtual library. As more and more learning becomes supported by blended and

online modes of delivery, the library and the librarians have to move out of their silos and engage in the virtual learning environment, as well as the physical and virtual library. These skilled staff will develop new ways of working and new partnerships.

The future will not recognise the silo of the academic library, or academic library and information technology converged service. The library's services, its staff and the resources that it manages and delivers will engage across the campus and be embedded into the curriculum and the administration of our university and colleges.

## History (and Revolution) of Academic Libraries

Academic libraries have moved a long way from the early beginnings at institutions like Oxford University in the 1400s. The contents of libraries have diversified from hand crafted parchments and illuminated manuscripts, through a revolution brought about by the invention of the printing press and movable type, which resulted in the mass production of printed books. Today, academic libraries collect books, pamphlets, newspapers, journals, indexing and abstracting resources, multi-media resources (film, audio, image) on a range of technological platforms (tapes, compact discs, digital video discs, microforms etc). The libraries seek to preserve and maintain collections of the past, while embracing the multiplicity of formats that information is published in today, with an increasing emphasis on creating digital versions of collections already held.

The management of information resources has also seen a vast amount of change over the years. The past has moved from limiting access by chaining books and gating stack areas to keep people away from the collections, to book catalogues, card catalogues, and today's online public access catalogues to help academic library customers to find the resources available.

The advent of affordable computers, personal computers for individual use and the development of the Internet have transformed the ways libraries operate. today, there are discovery aids such as federated search engines enabling access to a multiplicity of data sources, both local and remote. Even more technologically advanced, is the capacity for a scholar to embed library-supplied catalogue search widgets in their preferred digital space, such as FaceBook and MySpace, so that searching the library's catalogue does not have to be done from the library's home page, but from their personalised portal. So, rather than restricting access to a library's physical and digital collections, academic libraries are providing the tools for individuals to find useful information regardless of where it is held. With the development of the new generation of search engines, academic libraries can make available resources that have not normally been associated with academic libraries, such as organisational data, in-house web pages, and primary research data.

Not only has the content of our academic libraries changed over time, access to information resources has been transformed. Today's students and academic staff want easy access to information resources, and this is fulfilled through extended opening hours, 24 x 7 access to digital resources from anywhere with an internet connection, self service loans and book returns, virtual reference desks and real-time chat to a librarian, as well as through physical access to print and multi-media resources. In addition, academic libraries facilitate access to the myriad of digital resources by providing vast numbers of networked PCs and by providing wireless networking and power sockets in libraries so that library customers can use their own laptops. Whereas many libraries today lend laptops for in-library use, in the future, portable digital book readers may be available for loan. Although there will be an increase in the use of mobile devices to access information facilitated through libraries, there will still be a need for access to, and borrowing from, physical library collections.

Greater emphasis is being placed on rendering library digital content, including web pages providing access to online services, to formats that can be used by mobile devices, such as smart phones and personal digital assistants. Easy access to information will, most likely in the future, also make use of geo-spatial tags so that an item in the catalogue can be located in the library through the wonders of global positioning systems.

The type of scholars accessing academic libraries has also changed significantly over time. Where once there was little diversity in the students or mode of study (male students and face-to-face learning), today we have a broad range of learners: male and female students; school leavers and mature students; international and local students; on-campus and distance students; full-time and part-time students; students with disabilities; students sitting for foundation degrees, undergraduate degrees, post-graduate taught and research degrees; students studying for continuing professional development and academic curiosity; and the list could go on. Today academic libraries are serving students and staff who have vastly different experiences of and skills in working with digital technologies. Sweeney (2005, p.165) emphasises the impact of *digital natives* on libraries: “they make up the demographic tsunami that will permanently and irreversibly change the library and information landscape”. However, it would be wrong to focus on this demographic (those born from 1982 onwards), as we all have expectations of the web and what it will offer us.

“While we frame digital natives as a generation “born digital,” not all youth are digital natives. Digital natives share a common global culture that is defined not by age, strictly, but by certain attributes and experiences in part defined by their experience growing up immersed in digital technology, and the impact of this upon how they interact with information technologies, information itself, one another, and other people and institutions. Those who were not “born digital” can be just as connected, if not more so, than their younger counterparts.” (Digital Natives, n.d.)

This diversity, which will only increase in the near future, adds a complexity to the way academic libraries deliver services and resources, especially in areas of academic literacy,

### **Emerging Digital Technologies and Academic Libraries in changing scenario**

There can be a sense of reading some accounts of the more recent history of academic libraries and the projections for the future. For instance, Holley (1999), looking back on twenty-five years of academic librarianship in the United States of America, wrote of the challenges of trying to keep up with the output of scholars and spiralling costs of serials, and the financial challenges faced by libraries in 1976 when there were pay freezes and staff cuts, which are realities being faced by academic libraries in the United Kingdom in 2010.

Lyman (1991) wrote of a system of scholarly communication in crisis and the emergence of the digital library. These two themes appear to have a long tail. People are still speaking of the crisis in scholarly

communication. And the digital library is still to become a reality in many developing economies (Harle, 2009).

Dougherty and Hughes (1991; 1993) reported in the outputs on a series of workshops with academic library directors that were aimed at identifying preferred library futures. There was a view that there would be a *scholars workstation* that would deliver a myriad of information to the desktop, but the leaders at that time were unsure how this was going to be achieved, except through an understanding that leadership would be a key enabler. They recognised the need for innovation in the development of demonstration projects, and the need for “long-term, strategic reallocation of resources if the vision of the future is to be more than a mirage” (Dougherty and Hughes, 1993, p.1). Again, these themes are as relevant today as they were almost twenty years ago: leadership, innovation and reallocation of resources towards new services.

Hawkins (1994) recognised the potential wonders of an electronic, information-rich environment, and the realisation of the dream seemed imminent with the advent of the ‘information superhighway’, a term today that seems almost quaint! Hawkins envisaged the electronic library supporting distance learning and life-long learning: “a library is not a place and is about much more than books” (Hawkins, 1994, p.27). He correctly emphasised the need to define technical standards, and to develop tools to organise and search massive amounts of information. Developments of the semantic web, enterprise search engines, data mining of research, standards for open educational resources etc have occurred since Hawkins’ article.

Hawkins also envisaged the library portal: “The library of the future will be less a place where information is kept than a portal through which students and faculty will access the vast information resources of the world” (Hawkins, 1994, p.46). Lombardi (2000) wrote a challenging article highlighting that, regardless of the fact that digital library portals are available, “students have little patience with the formal organizational structure of the library and the authority of the librarian”. Ten years later, academic libraries are still developing and maintaining portals, and the very real challenge still being faced is that of developing the academic literacy skills of learners, so that they should not rely solely on the search services of Google and Wikipedia and the like.

A seminal work on the future of academic librarianship was edited by Lancaster (1993), which collected essays on the library of the 21<sup>st</sup> century. One paper, in particular, resonated with the situation today, in that it advocated a focus more on the services delivered and not on the assets controlled (Penniman, 1993). With the reality of the digital library, academic librarians are able to concentrate on what is required for supporting research and teaching regardless of where the information is held.

The 1990s was a decade of huge developments in digital technologies and digital information resources. However, not everyone saw the advent of these as a panacea. Crawford and Gorman (1995) cautioned that there was no real need to go ‘all digital’ and to avoid ‘technolust’ in favour of technology as a

tool that *may* be able to perform functions more efficiently. Going 'all digital' seems to be a trend today, with growing numbers of libraries moving from print to digital information resources if these are available. The use of technology as an efficiency tool has been embraced for a range of library services: from backroom process in acquisitions and cataloguing to front line services such as self-service borrowing and renewals.

Another dissenting voice was that of Mann (2001, p.268) who claimed "Although libraries must continue to provide electronic resources, the distinctive strength of research libraries lies mainly in their ability to provide free access to preservable book collections that facilitate understanding of lengthy textual works that cannot be tapped into from anywhere, at any time, by anyone". The Google initiative to scan both out-of-copyright and copyright works to create an international library of digital books certainly challenges this assertion. The *Google Book Settlement* is still not settled so how large and what impact this mass digitisation of print-based collections will have is yet to be seen, but it will potentially challenge the need to maintain older print collections of millions of titles. So tomorrow's academic libraries must focus on the value adding that can be delivered by the librarians and the contextual knowledge they have of their organisation's teaching and research profile, rather than on what information they control.

### **New Partnerships – A New Future**

None have gone so far as to predict the death of the academic library, although there are conflicting predictions, such as an exchange reported in *Inside Higher Ed* (2009) in an article on libraries of the future:

"Daniel Greenstein, vice provost for academic planning and programs, University of California System was quoted as saying "the university library of the future will be sparsely staffed, highly decentralised, and have a physical plant consisting of little more than special collections and study areas." ... Deborah Jakubs, vice provost for library affairs at Duke University countered "I see the exact opposite happening, that libraries are taking on new roles — [such as] working with faculty in introducing technology into teaching... there's a lot more intersection with libraries and faculty than he would lead you to believe".

The above exchange highlights the dichotomy between those who see the library as the physical entity, as opposed to those who see the benefits of services and partnerships required to maximise services and resources. Clearly, digital technologies have changed the way academic libraries do and can operate.

Foo *et al* (2002) emphasise the importance of new partnerships and new endeavours in addressing the opportunities offered by a future in which digital technologies are dominant. They speak, in passing, of the convergence of libraries and information technology departments as a way of the future. Certainly, many libraries and IT departments have converged. And today, some are de-converging, such as at the

University of Melbourne in Australia and the University of Birmingham in the United Kingdom. There is a risk in assuming that because IT underpins the digital services that are offered in today's academic libraries, that it is necessary to work in a single organisational unit. Today, almost all functions of a university are supported by technology, not just the library's services.

Libraries are about information, data and knowledge and the services that underpin these, whether located physically, virtually, onsite or somewhere else in the world. There may have been an argument that librarians were not trained to manage hardware and software as effectively as the IT experts. However, with the advent of 'software as a service' and cloud computing, libraries can benefit from applications and services that are not hosted locally, thus removing the need to be database and system administrators etc. There are a growing number of externally hosted library services, for example Ex Libris' PRIMO Direct and the Talis' Aspire resource list service that are managed in the cloud. The majority of eBooks and digital full-text journals are remotely managed. So, why would we join with the IT department? Perhaps for some organisational efficiencies and to install an ethos of customer service that is often seen as lacking, with the library staff translating the needs of end users for their technical colleagues!

The new partnerships are unlikely to be with the IT professionals, but with the academics, student support professionals, educational developers and eLearning technologists who are creating and working in online learning spaces. McKnight (2010) describes the concept of an academic services hub, bringing together colleagues who can transform students' learning experiences:

This assertion of new partnerships is also supported by Bangert (2009) who said "Future academic libraries will blend traditional professional practice with an increased external response to the larger institution and community". The future will be multidimensional and complex, and take place in both physical and virtual spaces. Lowry *et al* (2009) also point to new partnerships and collaborations, predicting an increasingly diverse and talented library staff, with new leadership and technical skills, and new relationships with library customers.

Another theme that is prevalent in the literature of digital libraries and academic librarianship into the future is the need for an increased level of competency in teaching information literacy skills. As the complexity of information in libraries developed, so too did the notion of bibliographic instruction, which become information literacy and, today, more focussed on academic literacy. While this is not a new development in academic libraries, there is a greater urgency to make sure that students have these skills so that they are aware of the potential for useless and misleading information on the web (Foo *et al*, 2002).

New technical competencies will be required to maximise the potential of managing, sharing and re-purposing digital research data. Expertise in data mining, data analysis and digital curation are new skills for the academic library professional. In addition, as the digital environment becomes even more complex, discipline specific skills and research skills, in general, will be valued in the academic library. The

librarian of the future will be a multi-skilled professional, utilising the traditional skills of librarianship with new media, and delivering new services because of the wealth of digital information at their fingertips.

(Tickle, 2009). As academic libraries become more engaged in managing learning assets (lectures, lecture materials, learning objects etc), the need to understand and be able to advise on and manage intellectual property rights, copyright, performance rights and moral rights will become vital skills for librarians.

## Conclusion

Academic libraries are here today, and academic libraries will be here tomorrow. They have survived many changes over the centuries and, in the majority of cases, prospered in the new eras each significant change brings. Since the 1990s, digital libraries have provided great opportunities as well as a suite of challenges, and academic libraries have demonstrated that they are up to the task.

academic libraries, and the librarians that work in them, to adapt and capitalise on the changes that technologies have offered. Others in this book will elaborate on, amongst many things, social networking tools, research data management, libraries as publishers, working in virtual learning environments, and the challenge of educating learners and teachers about the myriad of information resources and services that are available.

However, it will be important for academic library leaders, and the staff who work with them, to scan the horizon well beyond the library and even the institution that it serves. There will be opportunities (and threats) coming from publishers, system vendors, entertainment providers and broadcasters, to name a few. The financial crisis gripping the world at this time will also help to focus minds on envisaging new ways of working, and with new partners, as we grapple with doing more with less resource.

It feels, though, with the rapidly changing technological environment and the increasing expectations of stakeholders and customers of academic libraries that we are on the cusp of the next significant event in the evolution of academic libraries. The challenge and opportunity lies in moving our resources and services and know how beyond the physical and digital library to the spaces where our customers want to work and study and socialise.

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