

Libraries and librarians – what next?

Choy, Fatt Cheong.

2007

Choy, F. C. (2007). Libraries and librarians – what next? *Library Management*, 28(3), 112-124.

<https://hdl.handle.net/10356/91154>

<https://doi.org/10.1108/01435120710727965>

Libraries and librarians - what next?

Fatt Cheong CHOY
Nanyang Technological University, Singapore

Library Management Vol.28 No.3, 2007

Abstract

As Singapore librarians celebrate the culmination of the landmark Library 2000 Plan, it is an appropriate time to look at what lies ahead for the profession. The purpose of this paper is to provide an edited version of a paper originally delivered at the conference "Celebrating Knowledge: The Power and Potential - 12-15 December 2005" organized by the Singapore National Library Board in conjunction with the opening of the new National Library Building. Using a basic model of a library, one that comprises three components - the collection, value added work on the collection, and services that help users exploit and use the collection - the paper discusses each component in light of current technological developments and learning trends to draw conclusions on the relevance of libraries in the future. It is argued that libraries and librarians will continue to play critical roles as the need for the effective preservation and transmission of knowledge in society still remains. As many of these critical roles rely on libraries as permanent institutions, librarians must continue to make significant contributions through their work in institutions such as libraries. The article provides a useful springboard to discuss, identify and elaborate on the roles of libraries and librarians in the near future.

Introduction

More than ten years have passed since the initiation and implementation of the Singapore's Library 2000 Plan in 1994. Though primarily aimed at revitalizing the public library infrastructure, the huge injection of funds and resources in implementing the Plan has created significant impact on the library profession in Singapore as a whole. Today, the National Library Board (NLB) is embarking on the next phase of its development and had set out their strategic direction "to bring the world's knowledge to Singapore to create a positive social and economic impact" (Singapore National Library Board, 2005).

The wider library community in Singapore recognizes the importance of building a strong and cohesive group of library professionals and staff to meet the country's library development goals and the challenges of coping with the ever changing information and knowledge environment. Thus a National Committee of Library and Knowledge professionals in Singapore (NCLIKPS) was formed by the Library Association of Singapore (LAS), together with NLB in late March 2005 with the purpose of forging a coherent strategy and plan for the development of the library and information profession.

This paper arose out of various discussions held by NCLIKPS (of which the author is Chair) and provides a springboard for the library community to discuss and deliberates on plans and action for the next few years. Using a basic model of a library, the paper discuss each components of the model in light of current technological developments and learning trends to draw conclusions on the relevance of libraries in the near future.

Where will librarians work?

Perhaps the best way to start is to consider the possible ways in which a librarian can practice his profession now and in the near future. I can think of the following 4 basic scenarios where a librarian could work:

- With a library which is a component part of an institution (e.g. an academic library, a school library or special library) or the institution itself (e.g. the National Library Board, NLB)
- As a staff in a commercial company offering library and information related services,

products or system

- As a staff in a non-library organization, working in information or knowledge management functions
- As an Individual, e.g. consultant, independent professional, etc

So far, in Singapore, most librarians are largely employed by libraries in institutions. Some private companies were formed to take advantage of the outsourcing opportunities provided by the National Library Board, e.g. in cataloguing and automation. Some individuals have also attempted to go into markets (e.g. school libraries) which were comparatively underdeveloped in terms of provision of library services.

Focus on librarians working in libraries

It is likely that in the near future most librarians in Singapore will continue to be employed by libraries. This is provided that funding bodies in government and education continue to recognize that libraries play very important societal roles that cannot be performed effectively in the long term by commercial companies or for-profit organizations. In an era where decisions are made largely on economic grounds, institutions like libraries face constant challenges to their existence. This paper will focus largely on the important roles of librarians working in libraries and at the same time underscore the importance of libraries as an institution.

There is no doubt that the skills of individual librarians can be utilized in many other areas of work, such as in the emerging area of knowledge management in the public and corporate sectors. There have been many arguments on the need to de-link the professional work of librarians from their institution - i.e. librarians should not be called librarians because it is associated too tightly with their workplace and hence prevent them from getting the opportunities to demonstrate their expertise in other areas of work. Though there is truth in this argument, we will also stand to lose out a lot by de-institutionalizing our work and removing the context from libraries, which play critical roles as I shall argue.

The key role of libraries

If most librarians are to continue to work in libraries and institutions, then it is important to figure out the kind of future that libraries will have before we talk about librarians' roles and functions. We are often asked to look out of the box, but it is also important to know what the original box is all about. So what are libraries about?

If we need to express the key role of libraries in a simple sentence, I would say it is to provide continuing access to the knowledge base of human civilizations. Progress and development, whether it is in the material world or in intellectual and human understanding, depends on cumulated knowledge of the past. Libraries collectively, is the main instrument that preserve and transmit this body of cumulated knowledge or "knowledge base". Libraries maybe called by different names in the future but this fundamental role is a critical component of any advanced civilization.

I use the word "knowledge" fully aware of the myriads of definition and particularly its distinction from the word "information" which is often used interchangeably. As Atkinson (2003) pointed out,

"Knowledge is something an individual 'has' - it is private and cannot be communicated. Information is a set of signs or symbols created by people (or machines) for purposes of communication. The aim of information services is to enable individual users to make use of information, in order to expand their knowledge and to apply that knowledge to their own purposes, one of which may be the production of new information."

Though libraries cannot provide knowledge as defined above, it is also much more than a provider of information. Libraries provide information within an appropriate context to help transform information into knowledge in an individual's mind. A Library, as a whole, is a knowledge base and not just a mere collection of information resources or materials. Just as a database is more than a collection of documents and texts (it has search and collation powers), a knowledge base would include all the structural, organizational and contextual elements that help individuals turn information into their private knowledge.

Managing the human knowledge base

Thus the library, as a knowledge base is the sum total of all documents, organization, tools, services and environment that actively support the use of records for knowledge creation. A knowledge base provides the context that relates a record to the whole, juxtapose records to elicit new meanings and collate similar works together for better understanding, affirmation, or contrast - all of which facilitate the process of knowledge acquisition.

The role of libraries and thus the job of librarians is in tending to this human knowledge base and constantly increasing its value for the betterment of society. Certainly the information and communication technology (ICT) revolution has changed drastically the way in which libraries perform this role. The Internet has liberated us from the tyranny of distance, flattened out silos of information and in the process further accelerated the democratization of knowledge. At the same time it has also created new problems in the effective functioning of this human collective knowledge base. Librarians working in libraries have their jobs cut out for them in responding to these challenges.

What is a library?

How do libraries provide continuing access to humankind's knowledge base? We can answer the question by using a simple model of a library that consists of 3 components - the collection, value added work and services that help users exploit and use the collection. Underlying these components are a set of values and ideals the drives the whole enterprise we call a library.

Essentially a library works in the following way - a selection of information resources is provided and continuously updated to meet the information needs of well-defined groups of users. Librarians then add value to the collection by classifying, cataloguing and describing the content for systematic retrieval, build and maintain tools for access and provide a place (virtual or otherwise) and facilities for their use. The goal of a library is to help people exploit and use information to solve problems, gain new insights and acquire new skills and knowledge. To this end, reference services and other information services are developed to help users better utilize and exploit the library and its collection. The strong user and service orientation of librarians and our firm belief in life-long learning motivate us to constantly respond to the changed environment in order to help people increase their knowledge of the world.

The nature and characteristics of each of these components have changed over time. In present day, each component has been transformed by developments in ICT. However they are still useful starting points for us to examine the work of libraries and librarians. The following is a discussion of each of these components, which I hope will enable us to reaffirm and extend the perennial aspects of our work and identify new areas that librarians need to pay greater attention to in the future.

Defining collections

The collection is an important component of a library as it is the base upon which a library adds value and provide essential services to its users. Since time immemorial, libraries are defined by their collections. For a long time, the usefulness of a library rest chiefly with the size and quality of its collection. Most of the work that libraries do is tied to their collection - from collection development to loans transactions. If libraries are tied very much to collections, then the changing nature of collections (from print to electronic) will have a great impact on the work of librarians. To examine this, it would be useful to identify and discuss the main forms that collection takes today.

Until the recent past, we almost always associate the term "collection" with physical objects. However the increasing digitization and commoditization of information and the availability of worldwide connectivity made possible by the ICT revolution require us to expand the idea and definition of collection to encompass a wider range of resources. Many of these are troublesome to delineate and incorporate in our traditional scheme of things.

Library collections today can be built up and maintained in the following ways - by acquiring from the publishing trade, possessing from parent institutions, leasing, and by incorporating from publicly available sources, most notably the Internet. There may be new ways to "add" collections, such as acting as permanent hosts for collaborating groups.

Acquired materials.

The publishing industry and book trade worldwide, together with various professional and academic organizations produce the main source of supply for library print collections. This is the traditional way in which libraries build collections. Once a library acquires a copy of a book, it owns the copy and can manage it largely as a physical object. Ownership of the copy also enables the Library to preserve it for long-term use. This has been the main method by which libraries contribute to the preservation and dissemination of the intellectual and written output of civilizations.

According to the latest press release from Bowker, the English speaking countries published 375,000 new books worldwide in 2004 ("English", 2005). These are sizeable numbers. Just walk into any bookshop here to experience the health of the book trade. This, plus the often quoted ergonomic advantages of print will ensure that books will remain an important resource provided by libraries.

Moreover, print remains the best way to foster the reading habit, particularly for people at their formative ages. Libraries, especially public libraries have a fundamental role in raising and sustaining high literacy standards of their society through the promotion of reading. In the knowledge and information world, reading is a fundamental, and therefore the public library's role in collecting and promoting print materials is critical.

The disadvantage of print materials is of course their limited accessibility. This has never been a great issue until the advent of Internet. In comparison to easily available information on the Internet, borrowing of library books now seems a cumbersome process to many people, particularly those who have welded themselves to their computers.

Although the Google book digitization project seems like science fiction come true - fingertip access to every book available in the world, we should remember that there is always cost involved in providing information. Even in a fully digital world, books in bits and bytes (especially current titles that are useful) are not going to be totally free for use, otherwise there is no incentive for writers and producers to engage in creating new works. Whenever costs are incurred, there is a need for allocation of scarce resources. This will then involve an agency, such as libraries in selecting resources to provide based on budget available. In other words, libraries will still be needed to perform their functions as they do now, though for an increasingly electronic environment. Librarians will be required to acquire different knowledge and skill sets from print-based work.

Owned materials

Libraries or their parent institutions may also own indigenous materials, e.g. in-house publications, research reports, student theses and dissertations, rare books and increasingly, non-textual materials such as audio, video and electronic formats.

Creating and maintaining digital libraries and institutional repositories to house and provide access to owned materials is more than building technologically sound solutions. Their success will depends much on the right approach in organizing, management and access philosophy. As with collection development, building up useful content for the digital libraries and repositories is critical. Apart from technical issues in architecture, organization, preservation and retrieval, librarians will also have to be actively involved in outreach and promotion work to persuade people on the benefits of putting their works in the repository and making the submission process effortless and effective. These efforts are not trivial and require expertise to develop, manage and maintain. Therefore, librarians will need bibliographic management skills, technical know-how, as well as organizational skills to manage and provide these resources well.

Leased resources

Commercial publishers and companies control most of the highly used electronic resources such as e-journals and databases available today. Their digital format allows them to be commoditized and delivered in a totally different model from print and physical media. Thus almost all are available only through subscription for a fix period of time. Today, libraries spend a large portion of their material budget on providing electronic

resources without seeing any increase in the asset of the library. On the positive side, digital formats allow us to drastically decrease storage space, build up useful "collection", easily and provide greater access to users. At the same time it also lessens the flexibility of libraries in using the collection (since they do not have ownership), possibly increasing the digital divide (through licensing requirements), and create greater uncertainty on long-term access to information. Selection, management and providing access to electronic resources also demand new approaches, tools and different skill sets of librarians.

Already many librarians are developing useful skill sets and acquiring knowledge and expertise in dealing with this new environment. Good IT skills, understanding of the information industry, good knowledge of the variety of electronic resources, searching and use protocols, copyright issues, etc., are essential. This electronic environment is likely to get more complex and the new electronic librarians will have a greater role in helping users negotiate all the nooks and corners.

The Internet

The Internet of course provides access to billions of web pages and free information. Despite the constant admonition about the lack of quality and integrity of many of Internet content, many users do find what they want and are usually satisfied with what they find. Out of billions of websites, even if only a small proportion is of high quality, it has sufficient quantity to satisfy most people. Better finding tools are also likely to be developed to help people locate what they want.

The amount of free useful information on the Internet will probably increase rapidly. Witness the growth of open access sources, collaborative work such as wikipeidias, institutional repositories and the digitization of library books by Google, Yahoo and lately Microsoft.

The question that has always been asked since the advent of the Internet is whether the web will replace libraries in the future. Although we can point out many advantages and unique characteristics that libraries have over the Internet, we can also argue that much of what goes on in the Internet today has seldom occupy the same space as libraries in the past and therefore any displacement, if it occurs at all, may be marginal. For example, libraries have seldom been the first place that people go for their information needs even though we wanted very much for them to do so. As Brophy (2001) pointed out,

"our understanding of the foundations of librarianship is based on myth: libraries have never given access to anything more than a small proportion of the world's information. Perhaps their continued inability to do so will not after all mean that they are doomed to irrelevance" (p13)

Realistically, libraries have been valued most by people who are engaged in sustained learning, research and personal intellectual development. Therefore librarians should focus on those aspects of the Internet that can help libraries extend their roles and usefulness as learning and research centres.

Hosting collaborative and community works

The instant global connectivity make possible by the Internet has paved the way for the emergence of new forms of scholarship and modes of collaboration and learning that have softened or removed boundaries of all kinds. The current product of scholarship is largely static, has few authors and usually focused on fixed boundaries, (e.g. a journal article or a book). New types of scholarship make use of the high connectivity infrastructure to take advantage of multidisciplinary teams, sharing of equipment and resources, and collection of data globally to carry out research which is often global in nature. The Science of Collaboratories (SOC), a project sponsored by the US National Science Foundation lists several examples of such new types of scholarly works in their home page ("Science", 2004). Such collaboratories and other similar new ways of research and scholarship is not only confined to the sciences and engineering, but is appearing in the humanities as well (Abby Smith, 2003 March). Smith (2003 October), noted that new model scholarship, are often experimental, open-ended, interactive, software-intensive, multimedia and unpublished.

As a result, new scholarship will proved to be exceeding challenging to preserved and referenced in the future. Libraries, which had played very quiet roles in maintaining the accessibility of past scholarship and the human knowledge base is now faced with a whole range of complex issues in performing this role.

If libraries are to continue with the role of preserving and transmitting the human knowledge base, we must play an active part in offering feasible solutions to the emerging scholarship and research paradigm. As such works are usually multi-agency in nature, libraries could offer to host such collaborative efforts, with the aim of exercising greater responsibility and control over their preservation aspects. This area of work is not just confined to academic libraries but is also the concern of public, national and special libraries. As online communities proliferate, all libraries should extend their work to host or incorporate the useful bodies of knowledge base in their collection.

Roles of libraries as institutions

In the brief discussion of the various types of collection provided by libraries, it is argued that the provision of a collection, in all its facets, is still quite central to the work of librarians. It is also obvious that these functions can only be performed by institutions that have some measure and guarantee of stability and permanence. There are several key roles in providing access to collections that only libraries as institution can perform effectively. Some of these are discussed below.

Pooling

All libraries, past and present, play a very fundamental role in leveling the cost of access to information. In a traditional print based library, a user can have access to thousands or millions of books that an individual could hardly afford on his or her own. By pooling together small amount of money from each individual in a community, either through tax or student fees, all individuals gain a disproportionate amount of benefit and access.

Similarly in a virtual library, where digital information still costs money to acquire, a library is able to provide access to expensive collections of e-journals and databases to individuals who will find it impossible to pay for all the subscription and access cost on his or her own.

A library does not merely play a passive pooling function, but through specialization of knowledge and attention to the business and industry, ensure that the pooling is optimized. It plays a middleman role in negotiation, implementation and management with suppliers of information to achieve optimization. It also manages all the transaction costs, such as providing easy interfaces, troubleshooting of usage problems, etc., that come with providing a service. The amount of value added activities that are put in by libraries to enable people to access information easily cannot be underestimated.

The roles of librarians in managing these middle-man and transaction cost will therefore be relevant in the future, as long as information has a cost.

Selection

Selection has always been a key function of library work - whether it is selecting a book for the collection to anticipate future information needs, compiling a bibliography to save the search time of a user, or picking a range of information sources to provide answers to a query. In a sense, a Library filters the world's information into a manageable subset to facilitate users' access to information relevant to their needs.

In selection, librarians have always been concerned about matching information needs of people with the right information resources. A good library collection is therefore not a haphazard assortment of information materials, but a well thought out and systematically build-up resource base with a unique profile. Librarians consciously apply criteria base on our social, cultural and collective values to enhance the usefulness of the collection and help users reduce their effort in finding and identifying appropriate resources for their use. It is also quite safe to say that most users trust the reliability and

integrity of sources selected in the library. In contrast, the Internet does not have the benefit of the attention that librarians give to their collection.

Librarians use largely the same expertise in selection in a virtual library. In fact, the selection skills are highly relevant in our digital environment. In an age of abundance of information and with the availability of highly automated searching tools, searching and finding information is less of a concern than knowing how and what to select from the found results. Knowing how to identify reliable, authentic and relevant information are much more important skills that enable an individual to transform information into knowledge. Librarians can further develop their expertise in this area to enhance their value in the digital world.

Preservation

When libraries own their collection, they are able to control the fate of their collection. An act of acquisition is an act of preservation. Generally, every book that a library purchase and add to their collection will remain in the library for access over time. In this way, libraries have collectively built up and preserved the knowledge base or the collective memory of past civilizations.

In contrast, we are still in the infancy stage of finding the appropriate means to preserve the rapidly growing digital information. There are difficult technical problems associated with the dynamic nature of digital information, multimedia formats, technological obsolescence, etc., and the transient nature of information on the web. It is not clear whether the solution lies in a purely technical approach or some means of depositing to a trusted institution. Like many things else, it is likely to be a combination of both. Thus, libraries as trusted institutions will play an important role in this respect. Therefore librarians need to be conversant and prepared for active participation in this area.

Related to the question of preservation is a much more important issue of preserving the reference structure of scholarship and learning. Scholarship and research are cumulative activities. Current work depends on the knowledge base of the past and present. As more information exists solely in digital forms, scholars will increasingly depend on them to build their scholarship and base their research. Thus their references will increasingly point to server locations rather than to physical objects that are kept in multiple library locations. Preservation of digital works will therefore be fundamental to the whole knowledge creation enterprise. Traditionally, libraries have played important roles in the preservation and maintenance of this reference structure, based on their ownership of collection. Today with ownership of digital information resting on numerous commercial publishers, organizations, small groups and individuals, there is increasing instability in digital information.

As the institution primarily responsible for this critical role, libraries could perhaps re-assert their responsibility and find new ways to maintain this reference structure.

Maintaining quality and integrity

An obvious characteristic of a digital document is that it is not fixated to a specific medium, which create problems for users judging their integrity, authenticity and accuracy. In some ways, the ease in which we could easily copy and tamper with electronic documents is similar to ancient times when information and learning were based on copies of originals hand written by scribes, who may alter, add or delete a sentence or two in the process of transcription for reasons ranging from whim to strongly held beliefs and values. Information needs to be trustworthy in order for it to be used appropriately. In the print environment, we trust that what we see in a published book is exactly what others see in similar copies elsewhere and have not been altered since it came into existence. If we cannot say the same for electronic documents in the future, we will either have to spend more time and effort in ascertaining reliability and integrity of electronic documents or become dulled by the sea of uncertain information.

Can libraries play a role in "stabilizing" and maintaining the integrity and authenticity of documents in the digital environment? As a trusted institution, can libraries

and librarians contribute to enhancing the confidence level of electronic documents in relations to their integrity and authenticity? Just as in archives and record keeping agencies, where the provenance, integrity and authenticity of records are maintained by applying proper and stringent process to storing and recording procedures, libraries could find ways to play a custodian role in imparting a measure of confidence in the integrity and authenticity of digital documents.

Using the human knowledge base

The provision of collection and access to information is just the first part of the role of libraries. The ultimate goal of libraries is to help people use information to increase their personal knowledge. Libraries do this by providing tools for people to find useful information in the collection. They also develop and maintain services to assist and educate users in using and connecting with the cumulated knowledge of humankind. Implicit in library services is the strong belief in life-long and independent learning. We also recognize that human beings have social needs in their information seeking and learning behavior that cannot be fully satisfied in a virtual world. Thus, in spite of easy 24/7 and increasing availability of remote access to digital collections and information, the library's role as a community space in the physical world continue to be sought after and strengthened. The following discussion touches on the roles of libraries and librarians in these areas.

Finding

Having an over abundance of information creates the same kind of problems as in an environment with a scarcity of information. Finding the appropriate, relevant and reliable information in a sea of undifferentiated information is as challenging as hunting for information in the pre-Internet era.

Librarians have always paid considerable attention on finding and retrieval of information. We also recognize that finding and organization of information goes hand in hand and has therefore paid attention to both. The current interest in metadata and taxonomy has its roots in classification and cataloguing theories developed by librarians over more than a century ago. We therefore have a considerable body of knowledge that we can apply or bring a clearer perspective to current information retrieval issues.

Many librarians are still convinced that human classification and application of controlled vocabulary offer the best success in information retrieval. This may well be right but in a situation with billions of documents, and with substantial amount being added, changed and disappearing everyday, this approach will certainly pose challenging problems. Probably a combination of automatic and human information organizational skills is the best way forward. Whatever it is, effective retrieval of information is an issue that will exercise the minds of librarians for many years to come.

Roles in independent & life long learning

Information retrieval however is not an end by itself. Rather, the more important goal of libraries is to provide the means by which an individual can use relevant information to add to their knowledge so that they can understand issues, solve problems, make better decisions, gain insight, get inspired, satisfy their curiosity and be more learned. Effective information retrieval cannot by itself do all these. Rather, it is a combination of many factors such as awareness, expectations, personal pre-disposition and the presence of appropriate circumstances which will heighten the likelihood of an individual library user learning effectively.

Increasingly, there is a convergence of roles between teachers and librarians. At the risk of simplification, in the recent past, teachers deliver content, while librarians provide access to the content. Today, content is available in abundance and both students and teachers have generally equal access to content. Once a student reaches a certain level of language and reading mastery, he is capable of being an autodidact. The role of the teacher then becomes one of facilitating (similar to a librarian's) rather than delivery of knowledge.

Librarians, with their familiarity in finding and using information, good knowledge of user search behavior and their deeper understanding of the information industry can add considerable value to independent learning and life-long learning.

The focus on life-long learning and independent learning is likely to stay as these are responses to fundamental changes in society, i.e. the democratization of knowledge, the ease of access made possible by the global communication infrastructure and the faster obsolescence of knowledge. Librarians should build on the skills and experience we have as builders and navigators of the information world and create new services and incorporate them in the total library package.

If the ultimate impact libraries wish to make is on the individual users, then we must also focus more intensely on the needs of the individual. Library services, particularly reference work, have a strong tradition of giving attention to individuals. Instead of making a closure immediately after delivering information, librarians could pay more attention on how the information is used and assimilated in the individual user. Are there tools and services that the library can provide to help people convert the information into knowledge? Some services that libraries currently provide, such as instruction in academic libraries and information literacy and programming in school libraries do intervene in this space. However more can be done and if we are successful, the impact of library service will be much stronger.

Community space

Although the process of gaining knowledge or transforming information to knowledge is a private one, and occurs between one's brain and the interaction of our senses to the environment and stimulus, it does not necessarily follow that we must do it in isolation. Learning and the acquisition of knowledge is as much a social activity as an individual act.

One early prediction of the impact of the encroaching virtual library is that use of physical libraries will diminish. In the academic environment it seems to be common sense that if all of the digital materials in a library are available remotely on 24/7, there is little need for students and staff to continue to visit the physical libraries. However, there is more recognition now in the literature on the importance of physical library space even in a totally digital world. Though people spend most of their time in front of the computer screen at work and at home, they also increasingly crave for more social space. As Geoffrey T. Freeman (2005), an architect noted,

"Whereas the Internet has tended to isolate people, the library, as a physical place, has done just the opposite".

He continues,

"The library's primary role is to advance and enrich the student's educational experience; however, by cutting across all disciplines and functions, the library also serves as a significant social role. It is a place where people come together on levels and in ways that they might not in the residence hall, classroom, or off-campus location. Upon entering the library, the student becomes a part of a larger community - a community that endows one with a greater sense of self and higher purpose".

The need for a community space, or a "third place" (after home and school/workplace) is as human a need as food, drink and shelter, particularly in a digital world.

The nature of learning has changed too as described previously. In addition to the need for quiet reflection and study, there is also a strong need for collaboration, reinforcement and active form of knowledge seeking. The volume and the complexity of information today meant that learning requires more division of labour than before. At the same time it also requires integrative effort, resulting in greater need for discussion and group interaction. The challenge for librarians is to find better ways of accommodating both the reflective as well as the interactive modes of learning. In other words, to achieve a balance between the quiet and the noisy, the stillness and the bustle, and the reflective

and the intrusive.

Managing the physical library mean more than allocating and designing of physical space, but also in designing appropriate activities and services to engage and contribute to the learning effort of users. Assisting in the formation of communities, learning and leisure groups (e.g. literature circles, book clubs, etc) and communities of practice (to borrow from KM terminology) are examples of new and fresh approach to the work of librarians which will add value to learning and personal development.

Conclusion

Libraries are important institutions in any society because of their roles in preserving and providing continuing access to the human knowledge base. This knowledge base, which is the sum total of all library collections and archives (print, electronic or networked) is not only a static collective memory that defines our civilization, but also an active store that we can draw on for continuous progress. It is also the evidence base on which we make reference to for verification and authentication. Most importantly these functions can only be served well by permanent institutions such as libraries.

References

Atkinson, R. (2003), "Towards a rationale for future event-based information services", *Digital Library: A Vision for the 21st Century*, University of Michigan University Library, Ann Arbor, Mich.

Brophy, P. (2001), *The library in the twenty-first century: new services for the information age*, Library Association Publishing, London.

"English-Speaking Countries Published 375,000 New Books Worldwide in 2004". (2005, October, 12), available at: http://www.bowker.com/press/bowker/2005_1012_bowker.htm

Freeman, GT (2005, February), "The Library as Place: Changes in Learning Patterns, Collections, Technology, and Use", *Library as Place: Rethinking Roles, Rethinking Space*, Council of Library and Information Resources, Washington, DC., available at: <http://www.clir.org/pubs/reports/pub129/freeman.html>

Singapore National Library Board (2005), *Library 2010: Libraries for life, knowledge for success*, National Library Board Singapore, available at: <http://www.nlb.gov.sg/L2010/L2010.pdf>

Science of Collaboratories. (2004), Home. University of Michigan, Available at: <http://www.scienceofcollaboratories.org/>

Smith, A. (2003 March), *New-model scholarship: Headed for early obsolescence?* Washington, DC. : Council of Library and Information Resources, available at: <http://www.clir.org/pubs/reports/pub114/pub114.pdf>

Smith, A. (2003 October). "New model scholarship: Destined for the dustbin of history?", *Perspectives Online* 41(7), available at: <http://www.historians.org/Perspectives/Issues/2003/0310/0310vie1.cfm>.