

Library 2.0 versus other library service models: a critical analysis

Tom Kwanya

PhD Candidate, Information Studies, University of KwaZulu-Natal

tkwanya@yahoo.com; 208525433@ukzn.ac.za

Christine Stilwell

Professor, Information Studies, University of KwaZulu-Natal

stilwell@ukzn.ac.za

Peter G. Underwood

Professor of Librarianship, University of Cape Town

peter.underwood@uct.ac.za

Abstract

Literature on library service models is scarce and exists mainly in non-traditional formats such as blog entries and Web pages. Nonetheless, the subject evokes heated debate among librarians with many supporting the model they are using, sometimes without understanding that there are other options which perhaps could be better for their circumstances. Through critical documentary analysis, this study explores the library service models that exist as well as how they compare with each other. The findings have revealed that although there are many library service models, it is not possible to get a clear-cut model which is exclusive of all the others in practice. It is also evident that the models are continuously evolving along general socio-economic and technological development patterns in society. Similarly, the study suggests that none of the models can suit all library service provision contexts. However, it is also apparent that some models may yield more benefits than others to specific library communities at a particular time. In deciding the model to apply, libraries should be careful to accommodate the prevailing characterization of their user communities and their contexts.

Keywords

Library models, traditional model, bookstore model, embedded library, community library, library outpost, mobile library, information commons, library 2.0, digital library.

Introduction

The emergence of Library 2.0 model has catalyzed debate in librarianship and information management circles on how it relates to the other library service models. Whilst most scholars agree

that Library 2.0 represents a change in conceptualizing and delivering library services, there are at least two schools of thought – which are not necessarily mutually exclusive – as to how it relates to the other models. One school of thought perceives Library 2.0 as a progression of the traditional library models (Rothman, 2006; Stephens, 2005) making it better than all the models before it (Miller, 2006; Solomon, 2006). Another school of thought holds that Library 2.0 is just an instance in the continuum of library development (Levine, 2006). There is general consensus, however, that despite the change represented by Library 2.0 fitting so well with the history of libraries and their mission it is still a major paradigmatic shift from the conventional models (Maness, 2006).

There is very little published scholarly work on library service models. The information that exists is scanty and scattered. The aim of this study is to piece together the various resources in order to document the library service models currently used to shape and deliver services in libraries and how the models relate to Library 2.0. Using critical documentary analysis, the authors seek to establish what library service models exist, how the models compare and contrast with each other with a focus on Library 2.0, as well as which models are suited for specific types of libraries.

Library Service Models

A model is a hypothetical description of a complex entity or process. It can also be perceived as the representation of a type of product or service which is identifiable through a unique characterization (Kuhne, 2005). Models are normally recognizable and are easy to replicate. Thus, models are generally exemplars that set standards which are emulated and reproduced by similar entities. They are also often an abstraction from reality, purposely simplified to allow concentration on key factors and aid investigation (Hestenes, 1996). The term “model” is also used to connote an object or service that has been developed according to a plan that has been tested and adopted by others. It is in this sense that we seek to explore library service models.

Library service models can be perceived as types of library services which are differentiated through unique characterization such as type of collection held, target users, type of library (academic, research, school or public) in which it is offered, special features of the services offered, service philosophy, and general library organization. Library contexts are unique and it is not surprising to find that libraries apply hybrid models to deliver their specialized mandates. Practically, it is not easy

to have a clear-cut model which is exclusive of all the others. However, most libraries often adopt more features of a single library model by which they can then be described.

Library 2.0 Model

Library 2.0 is a model of library service which harnesses the power of emerging information and communication technologies to create a dynamic physical and/or virtual library platform which is defined and controlled by the users and librarians and which facilitates the delivery of a superior library experience for the users: anytime and anywhere. The term “Library 2.0” was introduced by Michael Casey through his LibraryCrunch blog¹ launched in September 2005. In this blog, he expressed his views about the possible benefits of applying the, then emerging Web 2.0 to make libraries better (Casey and Savastinuk, 2007a).

According to Farkas (2005), the idea of Library 2.0 represents a significant paradigm shift in the way people view library services. It embodies a seamless user experience, where usability, interoperability, and flexibility of library systems are vital. She adds that it is about the library being more present in the community through programming, community building (both online and physical), and outreach via new communication technology tools such as Instant Messenger (IM), screencasting, blogs, and wikis, to mention but a few. She also explains that Library 2.0 is really about allowing user participation through writing reviews and tagging in the catalogue and making their voices heard through blogs and wikis. Farkas (2005) also underscores the attempt by the Library 2.0 approach to make the library more human, ubiquitous, and user-centred. To achieve these, she concludes, it requires a change in library systems, Web presence and librarians’ attitudes.

Maness (2006) suggests that Library 2.0 theory is underpinned in four essential elements: 1) it is user-centred and allows users to participate in the creation of content and services; 2) it provides multi-media experience; 3) it is socially-rich and encompasses the users’ presence; and 4) it is communally innovative, that is, enables libraries to not only change with the communities but also allow the users to change the library as well. He also explains that, for these theoretical foundations to hold, libraries using the model will have to change their collections to be more interactive. He also suggests that service provision will also shift to facilitate information transfer and information

¹ The blog is available online at <http://www.librarycrunch.com>

literacy rather than providing controlled access to it. In this way, as Sauers (2006) adds, the library becomes more open to the input of the users and creates a more participative environment.

Cho (2008) also explains that Library 2.0 is a transition within the library world in which programs and services are delivered to the users through new and innovative methods. He adds that the principles of Library 2.0 are user-centred and that they facilitate seamless collaboration between the users themselves to create community content using new communication technologies. He is supported by Farkas (2008) who also emphasizes that Library 2.0 embraces change and technology and engages users to create a customer-driven library. Farkas also explains that Library 2.0 looks at how library services fit into the new user-centric world created by Web 2.0 technologies.

One of the areas of library service that the Library 2.0 model seeks to change is access to and the control of systems such as catalogues. Whilst it is relatively easy for librarians to provide open access to the catalogues and collections, it is difficult for them to cede their control to the actual and potential users (Blyberg, 2006). Library 2.0 recommends that libraries focus less on secured inventory systems which are selected and managed largely by the librarians and more on collaborative discovery systems which are designed or selected and managed constantly by both librarians and users in a mutually-beneficial partnership (Miller, 2006). Ideally, rather than creating systems and services for patrons, the Library 2.0 model creates an environment which enables users to create tools and solutions for themselves. Unlike the traditional librarianship model, which is steeped in decades of a culture of control and predictability, this model embraces facilitation and ambiguity.

Library 2.0 is a way of thinking and a way of operating (Casey, 2005). It is not just about searching, but finding; not about mere access, but sharing (Maness, 2006). In the words of Walter (2006), Library 2.0 is a commitment to assess, improve, integrate and communicate library services using the newest information technology and the tried and true “human technology.” It is any service, physical or virtual, that successfully reaches users, is evaluated frequently, and makes use of customer input (Casey and Savastinuk, 2007b).

Cho (2008) explains that Library 2.0 model libraries exhibit the following unique characteristics:

1. 2.0 libraries embrace their communities and change along with them;

2. The libraries embrace user-centred content and services which maximize the library's online presence;
3. The roles of the 2.0 librarian and user (Patron 2.0) are not always clear and are ever-changing;
4. The 2.0 libraries create a multi-media experience in which collections and services consist of both video and audio components; and
5. 2.0 libraries are socially rich and possess a robust Web-presence which encourages a two-way communication environment between the users and libraries.

As a way of demonstrating how Library 2.0 relates to the other library service models, the authors discuss other models beginning with the oldest, and progressing to the latest models. The discussion presents the salient characteristics of the models, their merits and demerits, as well as the library circumstances under which they can be applied.

Traditional model

This is the oldest and most common model of library services. It is anchored in the effective management of the library catalogue and physical collection. Indeed, Sweeney (1994) argues that the traditional library is defined by physical place and collection earning it the title: "Acquire - Catalogue – Circulate" model (Murray, 2006; Remelts, 2005; Xiaolin, 2004). Other scholars also refer to it as the "Acquire – Catalogue – Store – Lend" model (Lim, 2002).

Due to its reliance on collection and physical space, the traditional model is largely site-based requiring the users to visit the physical library to get the services. Further, the library opens for a fixed prescribed period of time and the services can only be accessed during those opening hours. Persson (2003) also explains that apart from being localized, most traditional libraries tend to be rigid and often resist change. He also adds that they (traditional libraries) also accomplish tasks through routines strictly managed and enforced by the appropriate systems in the hierarchies. Farkas (2004) supports Persson (2003) in the suggestion that some librarians can be "traditionalists" who do not want to change the decades-old techniques and tools. Surprisingly, she says she met many of these "traditionalists" as students in Library School!

The traditional model emphasizes mediation of the services by the librarians. The information the users need is contained within the library building, and therefore the help that users also need in order to exploit these resources fully has to be delivered right beside the print collection (Joint, 2008) by the librarians. It follows, therefore, that the resources have to be accurately described to facilitate efficient location and delivery to the users (Borbinha, 2002).

The traditional model of service is also unidirectional, to a large extent, and rarely involves the users in making the decisions on what and how they should be served (Lim, 2002; Pienaar and Smith, 2008). It is hierarchical, relatively slow – exhibits hesitancy by preferring to “play it safe” – but stable (Persson, 2003; Sweeney, 1994). Although there are attempts to embrace participatory processes in this model of service, the libraries using it still apply the “one size fits all” policy in which users’ diverse interests and preferences are least considered (Borbinha, 2002; Lim, 2002).

Another key feature of the traditional model of service is that it emphasizes the use of authoritative information sources. Consequently, libraries using this model have quality control mechanisms to ensure that only credible information sources are acquired and delivered at the libraries. This implies that the quality of library-based information resources is generally much higher than their digital and other contemporaries. Further, the librarian-mediated information services use tested techniques making them more rewarding and reliable than services from other non-mediated alternatives (Krupa, 2006).

Some scholars such as Harloe and Budd (1994) as well as Leach and Tribble (1993) also suggest that the traditional library model utilizes the “Just-In-Case” collection development policy as opposed to “Just-In-Time” policy which is steadily being adopted by progressive libraries. They explain that in a “Just-In-Case” approach the library acquires information resources with the hope that some user may someday require the resources. In the latter concept, however, the libraries only acquire what is needed when it is needed. Actually, the libraries using the “Just-In-Time” approach focus more on access to resources than on ownership (Hanson, 1997). Such libraries have established systems to facilitate faster access to resources “full-text” on demand through various technology facilitated-systems such as electronic journal servers, current awareness services with document delivery, tailored full-text products, bibliographic databases offering full-text access, and pre-print servers, among others (Arant and Payne, 2001; Hanson, 1997; Nielsen and Eriksson, 2002).

The traditional library model has metamorphosed drastically over time. From the ancient libraries such as Assurbanipal's Royal Library in Nineveh which was established by an Assyrian king who reigned between 668BC to 630BC (Robson, 2009); the Library at Alexandria was established in the third century BC during the reign of Ptolemy Soter (367BC-283BC) originally with a collection of Aristotle's works (Meho and Nsouli, 1999; Tanner, 2004); the Pergamum library; the Babylonian, Egyptian and Roman temple/monastic libraries such as that of Monte Cassino; to the Boston Public Library established in 1653, traditional libraries have continued to change with society (Murray, 2009). Nonetheless, the authors have found considerable evidence that many library professionals and users agree that the traditional library model should be re-engineered in tandem with emerging trends in modern society. Some of the arguments put forth to support this view include: 1) user service demands are increasing far more rapidly than the resources to meet these needs in traditional ways; 2) the cost of building large collections of books and journals has escalated far faster than library resources; 3) new information technology provides opportunities for vastly improved services with far greater access than traditional model libraries; 4) external agencies, parent organizations, and governments have placed a greater burden upon libraries and the services which libraries must provide; and 5) users have increased the scope and depth of demands on libraries (Farkas, 2004; Hanson, 1997; Krupa, 2006; Sweeney, 1994).

Community Library Model

Stilwell (1999: 17) explains that the idea of offering library services to "extremely deprived neighbourhoods" began in Britain as early as the 1890s. These unique library services offered in specific neighbourhoods became known generally as community libraries. Stilwell (2001) states that most community libraries, as we know them today, emerged from public libraries in the 1960s in an attempt to move away from the passive traditional public library model towards the active service-oriented and user-friendly library systems based on neighbourhoods (Mostert, 2002; Stilwell, 1989). Stilwell (1989) explains that community libraries emerged to offer services which would satisfy users with higher expectations more ably than public libraries which were perceived as dispassionate and cold. Some scholars, however, argue that most community libraries emerged to provide problem-related information which is unique to particular communities (Atuti, 2001; Stilwell, 1989, 2001). Generally, community libraries provide two broad categories of information: survival information and citizen information. Survival information is information which communities need to survive in

specific contexts and seeks to address challenges relating to health, housing, income, legal protection, economic opportunity and political rights. Citizen information, on the other hand, is information that citizens need to enable them to participate effectively in social, political, legal and economic processes in their communities (Islam and Mezbah-ul-Islam, 2010; Stilwell, 1989, 2001). Critically, Stilwell (1989: 267) asserts that community libraries should be established by the communities themselves – “made by them, for them and in their image” – to succeed.

The community libraries vary in size of catchment, collection and building (Auckland City Libraries, 2008). However, most community libraries are hosted on premises donated by the communities while the public library service provides the reading materials (Atuti, 2001; Mostert, 2002). Stilwell (1989) explains that due to the uniqueness of community needs, oral and other non-book resources are important for community libraries. She adds that such services are typically imaginative, stimulating, innovative and unconventional. Atuti (2001) further explains that community libraries are developed to respond to unmet information needs arising from demographic factors and a dwindling resource base in the public library service systems and seek to fulfil the following aims:

1. To encourage the community to identify its information needs and to involve its participation in the establishment of such new sources of information for their use and mutual benefit;
2. To be an advocate for society’s appreciation of the role and importance of library and information services in modern socio-economic, cultural and political life; and
3. To develop partnerships and strengthen co-operation with the community, and to utilize available community resources (funds, buildings) through mobilization and to supplement government efforts in providing library and information services in rural areas.

Most community library services are offered in communities in which no alternative library services exist due to socio-economic or political factors. Stilwell (2001) explains that in South Africa, for instance, community libraries emerged as a response to apartheid policies which deprived the majority of the citizens of access to public library services. It is also evident from the available literature that most community library services are offered in disadvantaged or rural areas in which library service accessibility is low. For instance, Islam and Mezbah-ul-Islam (2010) explain that community libraries in Bangladesh serve rural communities which face crucial shortages of skilled

human resources, logistical support and infrastructure. Jones (2009) also suggests that community libraries can act as neutral sites for knowledge exchange and empowerment, especially for marginalized populations such as women in developing countries. She also adds that in some cases, community libraries have also played a vital role in promoting literacy and reading cultures within their communities. Magoro (2009) supports Jones' view (2009) that community libraries can be used as agents for community development and education. However, citing the case of Tshwane Community Library and Information Service in South Africa, he adds that most of the community libraries are too under-funded to realize their full potential.

Stilwell (1999, 2001) explains that community libraries differ from conventional library services in many respects. However, she categorizes the major differences as being exemplified through: 1) the nature and content of materials; 2) intensive librarian-user interaction; 3) deeper linkages with community-based groups; 4) the political nature of the libraries buttressed in the principle that everyone has a right to equal access to information and national resources; and 5) participative management involving librarians, community leaders and community groups. Mostert (2002), on the other hand, suggests the characteristics that distinguish community libraries are: 1) inclusion of more community involvement in the management of the libraries; 2) allocation of funds to purchase specific materials needed by the community; and 3) the development of specific skills to enable the library staff to render a pro-active community library service.

Stilwell (1999), citing Bunch (1984), suggests the common functions performed by community libraries are self-help, support for other information services or groups of information workers, simple directional information, referral, escort, practical help, advice, advocacy, community education, community action, outreach, and counselling.

Le Roux (2001) explains that community library models can sometimes be combined with school libraries to support both the schools and the communities around the school. The location of such a library is either the school building (found mainly in the rural settings) or a multi-purpose community hall (mainly in the urban areas).

Embedded Library Model

Bell and Shank (2004: 374) define an embedded librarian as “an academic librarian who combines the traditional skill set of librarianship with the information technologist's hardware/software skills,

and the instructional or educational designer's ability to apply technology appropriately in the teaching-learning process.”

Kesselman and Watstein (2009) suggest that the embedded librarianship concept emerged in the 1970s with the development of clinical librarianship in which librarians played a bigger role in planning and providing patient care through research support. However, scholars explain that although the concept is indeed old, the label “embedded librarian” does not have a long history and is still in its infancy in academia (Bell and Shank, 2004; Dugan, 2008). Chilton (2009) also explains that the concept of blended librarianship, as we know it today, was first proposed by Steven Bell and John Shank in 2004 but she admits that this could not have been the first time this concept was introduced in librarianship. Dugan (2008) adds that the term might have been borrowed from the United States of America's (USA) military's practice of integrating journalists in their ranks during armed conflicts in an effort to expose the journalists to the actual combat to enable them “tell the story” from an eyewitness's point of view, not just from the soldiers' reports. Dewey (2004) explains that the concept of embedding implies a more comprehensive integration of one group with another to the extent that the group seeking to integrate is experiencing and observing, as nearly as possible, the daily life of the primary group.

Dugan (2008) argues that the perception of what embedded librarianship is has been diverse. Quoting Bartnik (2007), she explains that while some librarians have used the term to describe physical office relocation, others have used it to refer to the inclusion of Instant Messenger (IM) services on library web sites targeting specific categories of users. York (2006), on the other hand, uses the term to refer to the placement of a librarian assigned to a class as part of an online distance education program as a co-designer or teaching assistant of the course. Ramsay and Kinnie (2006) also use the term to describe the services offered to online distance learning programs. The term is most commonly used, though, as a label for the practice of establishing a regular presence of a librarian in an on-campus class as a member of the teacher-student team, from the start of the semester through to the end (Dugan, 2008).

The embedded library model facilitates the delivery of decentralized services to the users at a closer proximity. It involves creating desk spaces for liaison librarians among the user reading spaces or in some cases near the users' offices. Freiburger and Kramer (2009) suggest that the liaison librarian should have a special understanding of the subject matter of the department or user area in which

s/he is embedded. For instance, if the liaison librarian is attached to a medical unit, then s/he needs to have had some training in natural sciences or even medicine itself. The idea is that the embedded librarian should be incorporated as a member of the team who participates in the team activities and is briefed adequately (Chilton, 2009; Shumaker and Talley, 2009; Talley, 2009).

The higher level of bonding with the users attainable through embedding enables the liaison librarian to offer customized services to the users who consider the librarian as one of them. This model also facilitates ready and direct feedback from the users on the services and their needs. Moreover, it also makes the library more visible to the users and has the potential of enriching and increasing library usage (Chilton, 2009; Freiburger and Kramer, 2009; Kinnie, 2006).

Shumaker and Talley (2009: 5) identify some of the key features of the embedded library model as: 1) location of the service among the “customers”; 2) funding for the embedded library service ideally comes from both the institutional library provisions (budget) and the supported unit; 3) the embedded librarian is supervised closely by the appropriate authorities within the supported unit but ultimately by the assigned officers in the library hierarchy; and 4) the embedded librarian participates actively in the activities of the department s/he supports.

There is debate as to whether embedded librarians should be considered librarians or members of the professions and teams they support. Shumaker and Talley (2009) assert that it is true that embedded librarians are members of other teams, groups, and units and are indistinguishable in status or value to the group from any other members. However, he adds that, regardless of where they work from or the institutional arrangements they are involved in, embedded librarians still have unique librarianship skills that make them librarians.

Bookstore Library Model

In this model information resources and books are stored by topic; not by call numbers (Rippel, 2003; Sauers, 2007). Some scholars have called this arrangement the reader-interest classification. It is not a classification in the sense of a systematic sequence of knowledge but a shelving arrangement based on broad areas of interest which relate themselves to the needs of the library users. These broad areas have been designated as interest categories (Huff, 2006; Sapiie, 1995; Thomas, 1995). The resource arrangement emulates the pattern used in bookstores which is reputed to facilitate ease of access of the items. The patrons of this library model do not use catalogues to locate resources;

instead they just browse the shelves (Sridhar, 1986). The ease of access is enhanced through the use of attractive and large signs, bright light displays, pull-outs, and other “way-finding” aids (Coalwell, 2006). Rippel (2003) also explains that bookstore model libraries utilize strategic shelf arrangement by applying the common rule that users are normally attracted to shelves in the first 5-20 steps to their right upon entering a library. Most important books are kept in this area to ensure higher visibility and usability. The publications are displayed “face-out” not “spine-out” as the case is in most libraries in which the call numbers are displayed on the spine. The “face-out” arrangement is also more inviting and attractive, especially for thin books whose spines are too small to give a hint about what the book is about (Bartlett, 2008).

The bookstore model library limits the reading space in an effort to minimize the time users spend in the library. Indeed, the model emulates the actual bookstores where the best interested customers can do is to peruse the books as fast as they can.

As a general rule, bookstore model libraries do not hold stocks of reference material. The libraries also strive to keep the latest publications only. Generally, the collection is leaner than in other library models giving the resources on the shelves better visual layout. The bookstore model libraries are also reputed to exhibit higher customer service sensitivity than other library models. For instance, when customers enter their section, a member of staff makes contact with the customer to show help is near. In many libraries, by contrast, staff members are not trained to greet people walking through the front door or invite patrons to ask questions (Rippel, 2003).

Significantly, bookstore model libraries have a fresh attractive look due to the graphics and displays that are changed frequently to point the users to the new material in the library. They are also reputed to have better and brighter lighting than other library models. Some scholars also point out that bookstore model libraries smell better than traditional libraries which generally smell of must and mildew. Some propose that libraries should be scented to remove the offensive smell that may keep users from the library (Coalwell, 2006; Rippel, 2003).

The location of bookstore model libraries is easily accessible and is often influenced by proximity to schools, bus (transportation) routes and shopping centres. While traditional library sites are generally determined by the county or municipality planning, and perhaps based on the available free land,

bookstore libraries are based on thorough demographic analyses to determine the location with easiest access (Woodward, 2005).

Rippel (2003) suggests that bookstore model libraries should have background music. He is aware of the controversy this is likely to elicit but he justifies this suggestion by quoting psychological experiments by North et al., (1999) and others to demonstrate the influence of music on customers in restaurants and supermarkets and explains that these experiments proved that slow background music positively influences the sale of products in shops. He concludes that good background music may have the same effect on library users and may increase the frequency and intensity of library usage. Already, there are a number of libraries which have introduced piped music in the reading areas. Though some have reported that the libraries have been “very busy” since the introduction of the music, others say that music has “chased away” some patrons especially the older ones who, for instance, complain that they cannot concentrate on choosing their books because of the “thumping background beat” (Berlins, 2009). Others also suggest that those who want music while they browse can have their own, for example by using iPods, without disturbing anyone else or the library staff having to overcome the difficulties of reconciling differing tastes (Roper, 2009).

Coffman (1998) suggests that bookstore library models may be less costly to operate but offer more value, such as a wider selection of current books, more comfortable amenities and longer opening hours, to the patrons. However, he also avers that bookstore libraries may not offer services which are currently popular with users, such as access to computers and Internet connections, reference services and a conventional catalogue system. Dwyer (2001) also argues that bookstore model libraries tend to undervalue authors of works which may no longer be popular yet may still be valuable in certain respects like culture. He explains further that bookstores, as opposed to libraries, are not meant to be repositories of culture. He supports the view that libraries ought to change with the times but cautions that such changes should not alter the basic foundations of librarianship. Sannwald (1998), however, sees no need for libraries and bookstores to compete. Conversely, he suggests that libraries and bookstores should learn from each other. Specifically, he recommends to libraries to adopt best practices – such as design and use of space – which bookstores employ to serve their customers better, but retain what would keep a library unique.

Library Outpost Model

This model was popularized by Nate Hill in 2008. The library outpost, as a library model, is aimed at transforming public libraries in urban centres to offer better services to their users. The idea was to create library outposts in places where people are already congregating such as business centres, schools, apartment complexes or department stores (Koerber, 2008). Historically, there were various experiments with this library service model in the 19th Century in the United States of America and the United Kingdom. Some of these came in the form of shop libraries and reading rooms which can be categorized as commercial shop libraries, exemplified by the Boots Booklovers' Library, and reading and service points operated by public libraries in shopping centres. Current outposts, however, are streamlined library buildings, with little-to-no print material but more space for computers and events. According to Hill (2008), the salient features of the model are:

1. *Strategic location* – The outpost is a small (not more than 1500sq ft) “storefront” library located in central commercial areas, a business improvement district, or a transportation hub. Rather than bring the patrons to the library, the outpost model seeks to take the library to the patrons through physical proximity;
2. *Extended service hours* – The outpost library ordinarily remains open from 8a.m. until 10p.m., giving the user community longer access to library materials, exhibitions, and programs during the times most convenient to them;
3. *Collection available via online holds system* – Rather than providing a localized browsing collection, the outpost connects users to all library materials via the catalogue;
4. *Reference service* – Outpost staff provide exceptional reference services using online databases and Internet searching strategies. All reference sources are electronic;
5. *Wireless access and digital library content* – The outpost is a comfortable Wi-Fi² zone to work in from a table or play in from a lounge chair. Through the patrons' portable devices they can access digital content via the library Web site and other online resources;
6. *Programming and exhibition space* – The outpost features exhibitions that pair the library's collection and services with art related to the community interests. The space is also flexible

² Wireless network technology facilitating easy Internet connectivity. It is used here to imply a convenient Internet connectivity zone by which library patrons can access the Internet.

enough to accommodate performances, lectures, concerts, discussions, and even meals during evening hours.

Hill (2008) also explains that the unique feature of the outpost model is that it has no local collection and adds that the libraries only hold items that have been requested for pickup at the outpost location.

To justify the need for this model, Hill (2008) uses the example of the Brooklyn Public Library to explain that most library branches were built many years back and since then entire communities have “moved, disappeared, shifted, and grown” but library facilities have not been able to follow the people as community centres and business districts migrated to new areas. He points out that many large, beautiful public libraries are located in desolate and remote corners of their neighbourhoods. Regrettably, the working adults who live and labour in the rapidly developing communities have moved out of reach of the libraries. Although this model, as conceptualized by Hill (2008) focuses on urban populations, Haggis and Goulding (2003) also suggest a variant of the model – village shop libraries – which target isolated rural communities which are equally underserved due to their remoteness and poor transport links. Village shop libraries operate from either the post office or general shop premises with the shopkeepers acting as library agents and offering services during the hours the shop is open. The main advantage of this model is that the services are offered at the local level. The major disadvantage, on the other hand, is the fact that shop libraries can only hold minimal material. Further, some users are not comfortable with the services because they are not delivered by professional librarians (Harrop and Palmer, 2000). Evidently, the library outpost model and its variants operate on one principle: to take the library to the people.

Kesselman and Anfenson (2008) aver that the library outpost model generates some benefits for wider library service delivery. Basically, the model enables librarians to: 1) extend services and access to users; 2) be where the users are; 3) be moveable and flexible; 4) be visible affordably; 5) help users overwhelmed by libraries; and 6) partner with the library communities in offering services suitable for their contexts. However, they (Kesselman and Anfenson, 2008) warn that the library outpost model deploys staff inefficiently and therefore requires more people. The model is also not scalable to other locations. Blumenstein (2008) also points out that implementing the library outpost model is expensive, leading some libraries to drop it midstream.

Mobile Library Model

Butdisuwan (2000) defines mobile libraries as all travelling or movable library activities in any format such as large enclosed trucks or vans or large motor vehicles equipped with shelves and a staff enclosure to visit rural districts or remote areas where there is no other library service at specific times on a certain day or days of the week. Depending on the society and operational environment, other modes of transport such as horse-carts, camels, boats, motorcycles or bicycles may be used to transport the library materials to the users in the villages or other places far away from the actual library premises.

Mobile libraries are suitable for poor or underserved neighbourhoods or locales where the authorities responsible for library services cannot afford to build and operate a full library. It also works for regions where the population is too small to justify the establishment of a fully-fledged library. Mobile libraries are also suitable for users whose way of life cannot be supported by a “stationary” library. Such users, like the nomads in North Eastern Province in Kenya, move from one place to the other depending on weather and security conditions. In such settings, operating a physical traditional library is not suitable as the potential users are constantly migrating.

Mobile libraries are also perceived to be economical; convenient to the users who do not have to travel long distances to the permanent library premises; and more affordable especially because the authorities do not have to build a complete library in all the regions. Some scholars are also of the view that mobile libraries more easily attract support than their other counterparts. This has been attributed to the fact that individuals and organizations can easily donate components of a mobile library such as unused train carriages or buses. It is also possible for interested supporters to volunteer labour. It has been argued that it is easier to promote mobile library services than other library models (Lerdsuriyakul, 2000).

The major challenges the mobile library model faces include the following: difficulty in meeting most users’ needs in a limited physical space; operating on strict schedules which limit their access; and difficulty in maintaining membership inventories. The libraries are also exposed to harsh weather conditions such as high temperatures, wind, dust, and rainstorms resulting in rapid wear and tear of the resources (Lerdsuriyakul, 2000).

The first documented mobile library is perceived to have been a horse-drawn bookmobile (perambulating library) operated by the Warrington Mechanics Institute in Britain in 1859 (Jagell, 2003). In the United States, the first mobile library was launched in 1905 by Washington County Free Library and used a wagon to take books to people's homes in the remote parts of the country (Eberhart, 2006; Fain, 2007; Upjohn and Fitchett, 2008). Since then, many forms of mobile library model have been developed and used in various places in the world to date. Some of these include mobile train libraries in Thailand, biblioburro in Colombia, llama libraries in Peru, donkey mobile libraries in Zimbabwe, and camel mobile libraries in Kenya.

Information Commons Model

Cowgill et al., (2001) define an Information Commons as a specific location in a library designated to deliver electronic resources for research and production that is maintained by technically proficient staff. Thus, it is a centralized place in a library where the common activity is to find, create or use information. It is a place where research, group collaboration, community-building and consultation can all be done with the help of appropriate technologies in support of the patrons (Whitchurch et al., 2006). The term has also been adopted to refer to a model of library service mainly embraced by academic libraries and emanating from the understanding that there are certain pieces of information which should be known by everybody as a common property of the society. To perpetuate and benefit from such common information requires the use of an open, free, flat, peer-to-peer network that enables anyone – individual, small group, or large group – to come together to build a common information environment (Kranich, 2004; Leighton, 2003).

Lippincott (2006) explains that the Information Commons is a special library place and often occupies one floor of a library facility, generally a main service floor, which often includes or replaces the library's reference area. She adds that most Information Commons are currently in library spaces that have been renovated, although a minority are in totally new buildings while a small number are in non-library buildings. Generally, Information Commons are bright and welcoming and contain resources that go beyond text-based information to audio, video and other multimedia.

Although most of the analyzed literature defines Information Commons as renovated library spaces, the term also refers to a library service that combines flexible instructional settings and collaborative

learning spaces with a full range of digital library resources, productivity software applications, and expert professional and technical assistance. The Information Commons brings together students, information, expertise and technology in an enriched environment promoting collaboration and innovation in support of learning, teaching and research. It accommodates diverse learning styles, including formal classroom instruction, small group coaching, individual research consultation, and drop-in assistance (Leighton, 2003; Lippincott, 2006). Lippincott (2006) identifies three major distinguishing characterizations of Information Commons as:

- 1) Information Commons use pervasive technologies more than traditional libraries do. For instance, she explains that while most traditional academic libraries have computers linked to the Internet and space for laptops, the public computer workstations in the libraries are restricted in terms of software as many of them only allow the users to access bibliographic information. Conversely, computer workstations in Information Commons have other applications that enable the users to do more than just access the library's catalogues;
- 2) Traditional libraries focus on providing a quiet space for individual study. Even where group study rooms exist, they are normally considered a peripheral feature of the library. In an Information Commons, however, much of the space is configured for use by small groups of students, reflecting the students' desire for collaborative learning and combining social interaction with study. Besides, Information Commons frequently provide furniture built to accommodate several people sharing a common computer and provide large tables where several students can use their laptops while working together. Information Commons also provide comfortable seating areas with upholstered furniture that encourage informal meetings, cafés with food and drink, and group study rooms, often with a computer and screen, so students can work together efficiently on projects;
- 3) The range of services in an Information Commons is broader than in a traditional reference area. Significantly, the library staff members also assist with users' technology needs, not just their information needs. For instance, Information Commons that include multimedia production capabilities also provide support for those specialities. To ensure seamless service delivery, a service desk in the Information Commons is generally managed jointly by library and information technology personnel.

Sancomb-Moran (2009) explains that the benefits of the Information Commons model can be seen in its ability to attract more users to the library, encouragement of active learning and fostering of creativity. She adds that the Information Commons achieves these by creating a flexible and collaborative space, fitted with suitable technology and furniture, in which the users can socialize and “have fun” as they learn. Generally, Information Commons are so designed to be used for longer hours by the students and researchers. In fact, most of the Commons are open on a 24-hour basis. Stephens (2008), on his part, identifies the benefits of Information Commons as 1) the Commons puts the students at the centre; 2) the Commons is built with student involvement; 3) the Commons is a welcoming gathering place; 4) the Commons makes connections; and 5) the Commons is a relevant, required space on campus. Bollier (2004) associates Information Commons with openness, shared decision making, diversity and sociability. For an Information Commons to succeed librarians should undertake elaborate space planning, budgeting and technology set-up; service modification, staff training and reallocation; assessment, improvement and modification of services and facilities; and publicity and marketing of the new Commons (Beagle, 2006).

Digital Library Model

A digital library is a library where the collection is processed and stored in digital formats facilitating electronic searching and retrieval of the same through digital devices such as computers. This model of library service has evolved for many years (Singh, 2003) and is sometimes described as “paperless,” “virtual,” “library without walls,” “electronic library,” and “bionic library,” among other names (Harter, 1996). Although some scholars also describe digital libraries as those libraries which have more digital collections than physical ones, others assert that digital libraries only offer services electronically; they are virtual and do not have a physical presence. Some literature also reveals the common understanding that most digital libraries contain highly specialized collections. It is also evident that digital libraries do not stock all the information resources locally but often collaborate with content producers to facilitate online access (Harter, 1996; Leiner, 1998; Levy and Marshall, 1994; Miksa and Doty, 1994; Prasad and Swarnalatha, 2005).

Baohua et al., (2002) also suggest that the digital library is a major transformation of the traditional library model. They explain that this transformation is evident in the transition of the traditional libraries from passive to active use; from direct to indirect service; from providing information “blindly” to selective and accurate dissemination of information; and the provision of “rich”

collections whose quality is enhanced through mixing and remixing by different collaborators such as librarians and users at various levels.

Singh (2003) emphasizes that the digital library is more about the digital service environment than the digital content. He asserts that this environment brings together digital collections, people and services that support information processing and sharing. Prasad and Swarnalatha (2005), on their part describe digital libraries as organizations that provide the resources, including the specialized staff to select and organize; offer intellectual access; interpret, distribute, preserve integrity; and ensure the persistence over time, of collections of digital works so that they are readily and economically available for use by a defined community.

Baohua et al., (2002) identify the major characteristics of the digital library as: 1) the digitization of the information resources making them more durable and easily sharable; 2) digital information transfer through communication technologies such as the Internet; 3) limitless potential to share information across physical boundaries; 4) focus on knowledge and not just information resources; and 5) fast speed of service delivery. Singh (2003) also adds that digital libraries 1) have a higher variety of information resources; 2) provide localized access to distributed content; 3) enable the same information resource to be shared by many people simultaneously; 4) have shifted paradigms from collection ownership to mere access; 5) emphasize quality and usefulness of collection as opposed to quantity; and 6) presuppose the absence of human intermediaries.

The major benefits of digital libraries discernible from the literature reviewed (Amrelia et al., 2005; Baohua et al., 2002; Harter, 1996; Lagoze et al., 2005; Leiner, 1998; Singh, 2003) include no physical boundary; round the clock availability; multiple access points to services and collection; user-friendly interfaces; longevity of documents; cost-effective use of space; and value addition to services and collection.

Key library model development timeline

3600BC – Temple and Government Libraries

Temple and government libraries established by the Sumerians, Babylonians and Egyptians; libraries, such as Telloh, Borsippa and Gizeh Thebes, emerge. These libraries were mainly conservatoires of government records, religious writs, commercial transactions and historical

artefacts. Needless to say, they were closed and used only by the monarchs or priests and their close aides. The collection in such libraries was developed through copying of original works, plundering of other libraries or creation of new records by scribes (Brown-Syed, 2003; Ocholla, 1993; Weise, 2004).

626BC - Royal Libraries

During this period private royal libraries emerge. A good example is the library of Ashurbanipal in Nineveh. Generally accepted as the first catalogued library, its nearly 30,000 item collection comprised mainly works of philosophy, poems, correspondence, mythological texts, biographies, records of political conquests and sciences such as astronomy, biology and physical sciences (Murray, 2009). The items were obtained as copies of original manuscripts, plunder of other libraries, gifts from other collections or confiscations from merchant ships. It is reported that Ashurbanipal sent his scribes to other libraries to record their collections. He believed that he would access the knowledge of other people by knowing what collections they held (Murray, 2009). The collections were closed and used only by the royal families and designated officials. The collections were organized according to size, typology or body of knowledge covered largely for the convenience of the librarians. Such libraries were managed by philosophers such as Aristotle and Hypatia as well as palace attendants (Brown-Syed, 2003; Thomason, 2005; Weise, 2004).

4th Century – Roman Bath Libraries

The Romans popularized public baths which incorporated libraries, lecture halls, restaurants, galleries, gyms and public gardens (Kubesh et al., 2007; Weise, 2004). One of the first libraries opened to the public were in these baths which were generally accessed by the rich elite in the major Roman cities. The collections in these libraries were stored in designated reading rooms located in the dry sections of the baths. The bath libraries were bilingual – Latin and Greek (Calvert, 2002; Murray, 2009; Redmond, 2007; Richardson, 2007). The users had direct access to the collection but used its contents only within the premises of the library. The libraries did not lend out any items of the collection which were kept in wooden cases to protect them from the damp environment. The collection comprised autobiographies, archival materials such as edicts and senatorial decrees and war records.

The Ulpian library, established by Emperor Trajan was one of the most popular of these libraries (Richardson, 2007). The bath libraries can be considered the harbingers of social libraries similar to the ones that Library 2.0 and information commons conceptualize – where people can meet, chat, drink, watch games, exercise and access library services.

5th Century – Greek Private Libraries

Several Greek private libraries emerged in this period. These libraries were generally owned by rich booklovers known as bibliophiles. Some of the libraries were also owned by professionals such as doctors who needed information close at hand. It is also reported that some of the libraries were owned by rich non-readers as well just for show and were rarely used. Indeed some authors claim that libraries had become a standard component of houses just like bathrooms and hot water. Most of the books in these libraries were not kept in any specific order but were merely displayed for ostentation (Murray, 2009).

9th Century – Halls of Science

The halls of science libraries were established by Islamic groups in North Africa and Middle East to promote research (Toren, 2000; Murray, 2009). Some of these libraries were the first to develop and implement comprehensive lending policies. This is perhaps attributed to the fact that the libraries were the first to hold collections made of paper instead of scrolls. However, they were still restrictive and most patrons had to use the collection on site. Although sponsored by rulers, mosques or religious groups and containing religious literature the libraries were best known for the collections on secular knowledge, especially science (Noorani, 2002). These libraries were lavishly furnished and used catalogues extensively (Murray, 2009). They were also the first to diversify the use of library collections and buildings by providing discussion space and lodgings for such scholars. The libraries formed the basis for the structure and operations of libraries in medieval Europe. Surviving examples of such libraries include the Chinguetti library in Mauritania and the Central Library of Astan Quds Razavi in Iran (Oumar, 1993).

5th to 15th Centuries (Middle Ages) – Traditional Libraries

Conventional traditional models of libraries emerged in this era. Collections were treated as invaluable and were highly secured (Murray, 2009). The architecture of these libraries was so designed to ensure security of the collection. Chaining of books emerged in this era. Even though some scholars have argued that this practice was not meant to keep the books from the users, many others view it as such. This era is also known for the numerous curses upon book borrowers who failed to return the borrowed books (Duncan, 1977). In spite of this apparent protectiveness, these libraries lent out books based on mutual trust or security deposits (Murray, 2009). Interlibrary lending also emerged in this era, especially among Monastic libraries which exchanged books for the benefit of the readers and also to facilitate copying of texts. The libraries gave users direct access to the books and had reading areas (Murray, 2009).

1598 – Public Libraries

This began a new era of public libraries. Francis Triggs Chained Library, reportedly the first public library – in the modern perception of the term – was established in this era (Murray, 2009). This was a traditional library which offered reading spaces and lent out books. By this time books had multiplied due to technological advancements but literacy had also grown. Thus the demand for books remained high in spite of the increment in the quantities. Most public libraries, to date, still operate in the same way as this library. Inadequate funding was, and still remains a major challenge for this model of libraries (Oswald, 2008). Other pioneer public libraries include the Mazarine Library established in 1643 in France; Boston Public Library established in 1653; the German State Library established in Berlin in 1661; National Library of Spain established in 1711 and Lisbon National Library established in 1796 (Krasner-Khait, 2001).

18th Century – Subscription Libraries

Subscription libraries were established by membership societies which purchased library items to create a common library. One of the earliest of such libraries was the Philadelphia Library established in 1731 in the USA (Mease, 1811). Such libraries emerged from book clubs which focused on specific subject areas and charged membership fees. Later on,

circulating libraries emerged from the subscription libraries. These two types of libraries were similar in many respects except that the circulation libraries did not maintain permanent collections. Further, circulation libraries, unlike subscription libraries, held general collections including works of fiction. Circulation libraries also did not have strict lending periods. The number of books or length of loan depended on the individual user's capacity to pay. Most of the subscription and circulation libraries did not have institutional bases (Krasner-Khait, 2001). Commercial circulation libraries also emerged in this era and were developed by booksellers who lent out books from their collections for a period for a fee. This latter category of circulation libraries operated from bookseller outlets (Gerard, 2003; Wiegand and Davis, 1994). Subscription libraries can be considered the harbingers of research and other special libraries. Commercial circulation libraries demonstrated that commercial premises can be used as library outlets. This is the foundation on which the library outpost model is based. A good example of a subscription library was the Boots' Book Lovers' libraries³ operating from the Boots' Pharmacy chain in the United Kingdom from 1898 (Boots Learning Store, 2007). These libraries were generally phased out as free public libraries became more ubiquitous (Raven, 1996; Whatmore, 1993) but they have begun re-emerging as library outposts. These subscription libraries have also influenced the development of the bookstore model of library service in terms of physical arrangement and a higher holding of collection on current affairs (Rhiger, 2000).

1859 – Mobile Libraries

The first mobile library service is reportedly the bookmobile service launched around 1858 by the Warrington Mechanics Institute in Britain (Eberhart, 2006). A similar service was launched in 1905 by Washington County Free Library in the United States of America through the efforts of a renowned American librarian, Mary Titcomb. Since then this library service model has changed the mode of transport, largely depending on the common means in the locality in which it is offered, but its fundamental principle still remains taking the library to the people (Want, 1990).

³ This library service was established by Jessie Boot, the originator of Boot's Pharmacy, and his wife Florence and in 1898 operated from their chain of pharmacies. Readers and borrowers were charged a minimal fee to access the service. The chain benefited from the readers in that the libraries were located at the back of the shops. So, one had to pass through several shelves of drugs before accessing the library services. Thus, the readers were likely to notice and purchase drugs even though their original intention was just to borrow a book (Boots Learning Store, 2007).

1960s – Community Libraries

Community libraries emerged in the early 1960s (Stilwell, 2001) to extend the reach of libraries to disadvantaged communities with no access to the services. Initially, efforts to address the needs of all members of community were concentrated on content. In the United States of America, for instance, the focus was on development of special collections either in the language or related to the history or traditions of special groups within the community. With time, these efforts shifted towards establishing libraries within communities in which the members participated actively in determining the information services offered and collection held (Estabrook, 1979). Estabrook (1979: 157) also avers that the advancement of community libraries has been slow because of their uniqueness and also due to perceived low demands from users who are generally “unfamiliar with library use, who do not know what questions to ask, and whose information needs could not be handled easily”. Today, community libraries take many forms such as Village Reading Rooms in Botswana, Community Information Centres or Community Resource Centres in South Africa, and Neighbourhood Information Centres or Alternative Information Centres in the United States of America (Dent and Yannotta, 2005; Estabrook, 1979; Stilwell, 1999).

1970s – Embedded Libraries

Although the exact date is unknown, Kesselman and Watstein (2009) suggest that the concept of embedded librarianship emerged in the 1970s through the development of clinical librarianship. They explain that the term clinical librarianship was coined to “denote the valuable role librarians play by being integral members of clinical teams providing research support to help in the planning of appropriate patient care” (Kesselman and Watstein, 2009: 389). The modern use of the concept, however, was coined in 2004 by Steven Bell and John Shank and was used to describe librarians who are deployed to join and offer specialized services to technical teams in research/academic institutions. The concept was designed to operate in the same way as the embedded journalists in the army (Chilton, 2009).

Early 1990s – Digital Libraries

Even though experimentation with digital tools for library work and services (such as the Memex conceptualized in 1945 by Vannevar Bush and digitization of the American Declaration of Independence by Michael Hart of the Project Gutenberg⁴ in 1971) began earlier, digital libraries as currently perceived emerged in the early 1990s with the advancement of Information Technology which facilitated the development of distributed networked systems and the Internet. Most of the early digital libraries were academic and research libraries which converted physical collection to digital formats and digitized service delivery to cope with new demands relating to teaching and research in academic institutions (Fox, 1999; Greenstein and Thorin, 2002).

1996 – Hybrid Libraries

The term “hybrid library” was popularized by Chris Rusbridge to describe libraries that have elements of the digital model existing alongside the traditional model (Oppenheim and Smithson, 1999). Thus, hybrid libraries are neither purely digital nor purely traditional. This library model seems to have developed as a response to the dilemma traditional libraries moving towards the digital model faced regarding the non-digital information collection they already held. The hybrid library model is a means of integrating the traditional library with the digital library. A hybrid library model augments rather than replaces the traditional library model (Oppenheim and Smithson, 1999; Hsiung, 2007). Some authors (Pugh, 2004; Hsiung, 2007) also suggest that hybrid libraries are managed by hybrid librarians who combine information skills with technical computing skills to meet the dynamic user needs. Oppenheim and Smithson (1999) aver that hybrid libraries will gradually become more digital over time although the pace of change cannot be predicted.

Early 2000s – Information Commons

The concept of Information Commons emerged in the millennium as an augmentation of the study rooms initially present in most academic and research libraries. Because users needed much more than just secluded rooms but more sociable spaces, academic libraries began to experiment with creating specialized rooms where users could relax, learn and co-

⁴ A volunteer effort to digitize and archive cultural works (Hart, 2004)

work. These rooms grew into Information Commons as we know them today (Kranich, 2004).

2005 - Library 2.0

The term and concept of Library 2.0 is coined and concretized to describe new library services model founded on the emerging Web 2.0. Its focus is to deliver library services anywhere, anytime (Casey and Savastinuk, 2007a).

Comparing and contrasting the models

Model	Collection	Service	Resources	Mediation	Place	Year of origin	Library type
<i>Traditional</i>	Focus on ownership of general collection	Traditional “acquire and lend”	Physical	Full mediation by librarians	Physical “sacred”	3600BC	Public, school, national
<i>Outpost</i>	Focus on less collection; just what is needed	Less traditional; users take shortest time in the library	Less physical and more digital	Less mediation by librarians	Liberal use of space	1731	Public, school
<i>Mobile</i>	Focus on less collection; just what is needed	Traditional “acquire and lend”	Physical	Full mediation by librarians	No space	1858	Public, school
<i>Bookstore</i>	Focus on ownership of new collection	Less traditional; including shared spaces	Physical	Less mediation by librarians; more self-service	Liberal use of space	1898	Public

<i>Community</i>	Focus on ownership of localized collection	Traditional “acquire and lend”	Physical	Full mediation by librarians	Physical “sacred”	1960s	Public, school, national
<i>Embedded</i>	Focus on specialized collection; less ownership and more access	Less traditional; services tailored to individual researcher needs	Mix of physical and digital	Less mediation by librarians; more self-service	Liberal use of space	1970s	Academic, research
<i>Digital</i>	Focus on access and not ownership of diverse collection categories	Non-conventional services mixed and remixed by users and librarians	More digital than physical	Full self-service; minimal mediation	Generally virtual	1990s	Academic, research, public
<i>Information Commons</i>	Focus on specialized collection; less ownership and more access	Non-conventional services mixed and remixed by the users and librarians	Mix of physical and digital	Less mediation by librarians; more self-service	Liberal and innovative use of space	2000s	Academic, research
<i>Library 2.0</i>	Focus on access and not ownership of diverse collection categories	Non-conventional services mixed and remixed by the users and librarians	Mix of physical and digital	Full self-service; minimal mediation	Extremely liberal use of physical and virtual space	2005	Academic, research, public

Table 1: comparing and contrasting library models

Source: Authors

Conclusion

From the foregoing, it can be concluded that library service models are continuously evolving. Similarly, it is evident that none of the models can suit all library service provision contexts. Therefore, none can be perceived as better than the other(s). However, some models may yield more benefits than others in particular library community contexts.

Several trends are discernible from the analysis in as far as library models are concerned.

1. There is a shift from the static library service points as exemplified by the traditional model to mobile and virtual models which take the library services to the users.
2. There is also a shift from offering physical information resources, as the case is in the traditional model, through delivery of hybrid physical and virtual resources in the library outpost and bookstore models to pure digital models delivering intangible services and products.
3. A shift of focus is apparent from collection development through ownership to collection federation through mere access to information resources.
4. There is a shift from conservatism to liberalism in terms of classification (adoption of reader-interest approaches and folksonomies), decentralized and shared control between librarians and users, provision of shared spaces; and acceptance of food and drinks among others.
5. One sees repetition of history with models moving from library services offered through the initiatives of individuals passionate in sharing knowledge (like ancient special libraries) through institutionalized libraries (most models fall here) and inevitably back to individual initiatives like the Biblioburro by Luis Soriano and library outposts by Nate Hill.
6. A full-cycle shift is seen from free library services – exemplified by the temple and Roman bath libraries – through fees based environments such as the subscription libraries and inevitably back to free service delivery facilitated by Library 2.0.
7. There is a shift from robust organization, quality control and standardization to less organization, minimal quality control and fluid mutational services and products.
8. There is movement from less automation to more automation of library resources' processing, organization and delivery.

9. An increase in the adoption is noted of marketing, customer care and public relations techniques in enhancing the uptake of library resources and services.
10. There is acceptance of ergonomics (better upholstery) and aesthetics (flowers, scenting) as part and parcel of a good library experience.

These library service models confirm that libraries have always adapted to their environments in an effort to meet the dynamic users' needs. Each model of library service represents a response to a prevailing pressing need in the library environment. Librarians who understand the fundamental characteristics of these models are likely to choose and apply the one that is appropriate for their contexts. Nonetheless, the magnitude and pace of change which modern libraries have to contend with are immense. For instance, the users' expectation for convenience, timeliness and participation has been heightened. Library 2.0 seems to be the model that stands a higher chance of accurately meeting these emerging users' expectations. The model, however, cannot be considered to be the single magic bullet to alleviate all the challenges currently facing libraries. Whereas librarians are advised to consider their environments when choosing which model to apply, they should be brave enough to change or discard services or resources which do not succinctly meet the needs of their users. This is the essence of the Library 2.0 model.

References

- Amrelia M, Murthy TAV and Satyabati T (2005) Digital library: an unavoidable need in today's world. In: *ReadIT 2005: Digital Libraries to Knowledge Systems. Proceedings of the Conference on Recent Advances in Information Technology, 14-15 July 2005, Indira Gandhi Centre for Atomic Research, Kalpakkam, India*. Kalpakaam: Madras Library Association - Kalpakkam Chapter and Indira Gandhi Centre for Atomic Research, 18-22. Available at: <http://library.igcar.gov.in/readit-2005/conpro/facets/s1-4.pdf>.
- Arant W and Payne L (2001) The common user interface in academic libraries. *Library Hi Tech*. 19(1): 63-76.
- Atuti RM (2001) Managing adaptation of buildings to library use: a case study of community libraries in Kenya. *Library Review* 50(5): 231-236.
- Auckland City Libraries. (2008) A description of Auckland City Libraries. Web page. Available at: <http://www.aucklandcitylibraries.com/aboutthelibraries/aboutus/strategyandpolicy/collectiondevelopmentpolicy/description.aspx>.

- Baohua W, Xiaoyan M and Fei G (2002) On the characteristics of the digital library and the influence on the work of reader service. In: Mei Fangquan (ed) *Asian Agricultural Information Technology and Management: Proceedings of the Third Asian Conference for Information Technology in Agriculture, 26-28 October 2002, Beijing, China*. Beijing: China Agricultural Science Press for Chinese Academy of Agricultural Sciences (CAAS) and Asian Federation for Information Technology in Agriculture (AFITA), 529-532. Available at: <http://zoushoku.narc.affrc.go.jp/ADR/AFITA/afita/afita-conf/2002/part7/p529.pdf>.
- Bartlett G (2008) Ideas for Bookstore Model. Unpublished lecture note. Available at: http://www.cgrove417.org/cghs/KASL/Handouts/Bookstore_handout.doc.
- Bartnik L (2007) The embedded academic librarian: the subject moves into the discipline college. *Kentucky Libraries*. 71(3): 4-9.
- Beagle DR (2006) *Information Commons Handbook*. New York: Neal-Schuman.
- Bell SJ and Shank J (2004). The blended librarian: a blueprint for redefining the teaching and learning role of academic librarians. *College and Research Libraries News* 65(7): 372-375.
- Berlins M (2009) Piped music may encourage young people in, but it risks forcing older readers out. *Guardian*, 22 April, Comment. Available at <http://www.guardian.co.uk/commentisfree/2009/apr/22/marcel-berlins-libraries-music-boyle-susan>.
- Blumenstein L (2008) Brooklyn drops outpost plan. *Library Journal* 133(7): 17-18. Available at: <http://www.libraryjournal.com/article/CA6547073.html>.
- Blyberg J (2006) 11 reasons why Library 2.0 exists and matters. *Blyberg.net: a Library Blog*, 9 January. Available at: <http://www.blyberg.net/category/library/>.
- Bollier D (2004) Why we must talk about the information commons. *Law Library Journal* 96(2): 267-282.
- Boots Learning Store. (2007) History: diary of events. Web page Available at: <http://www.bootslearningstore.com/about/history.php>.
- Borbinha JL (2002) The digital library. In: Carvalho, J. A. et al., (eds) *elpub2002 - Technology Interactions. Proceedings of the 6th International ICC/IFIP Conference on Electronic Publishing, 6-8 November 2002, Karlovy Vary, Czech Republic*. Berlin: VWF Berlin, 70-80. Available at: <http://elpub.scix.net/data/works/att/02-07.content.pdf>.
- Brown-Syed C (2003) Ancient and medieval libraries. Unpublished course notes. Available at: <http://valinor.ca/ancient.html>.
- Bunch A (1984) *The Basics of Information Work*. London: Bingley.

- Butdisuwan S (2000) Reaching out through a mobile library. Paper presented at the Mobile Libraries Workshop of the 66th IFLA Council and General Conference, 13-18 August 2000, Jerusalem, Israel. Available at: <http://archive.ifla.org/IV/ifla66/papers/099-175e.htm>.
- Calvert RN (2002) *The history of Massage: an Illustrated Survey from Around the World*. Rochester: Healing Arts.
- Casey M (2005) Service for the next generation library: a library 2.0 perspective. *LibraryCrunch*, 21 October. Available at: <http://www.librarycrunch.com/>.
- Casey M and Savastinuk LC (2007a) *Library 2.0: a Guide to Participatory Library Service*. Medford: Information Today.
- Casey M and Savastinuk LC (2007b) We know what library 2.0 is and is not. *LibraryCrunch*, 31 October. Available at: http://www.librarycrunch.com/2007/10/we_know_what_library_20_is_and.html.
- Chilton G (2009) The life and times of an embedded librarian. Presentation at Library Technology Conference, 18-19 March 2009, Macalester College, St. Paul, MN. Available at: http://digitalcommons.macalester.edu/cgi/viewcontent.cgi?article=1028&context=libtech_conf.
- Cho A (2008) Library 2.0 and the new librarianship. *Suite101.com*, 24 December. Available at: http://educationalissues.suite101.com/article.cfm/library_20_and_the_new_librarianship.
- Coalwell M (2006). Libraries and the “Big Bookstore” model. Unpublished lecture notes. Available at: http://skyways.lib.ks.us/tricon/2006/handouts/big_bookstore_files/frame.html.
- Coffman, S (1998) What if you ran your library as a bookstore? *American Libraries* 29(3): 40-42.
- Cowgill A, Beam J and Wess L (2001) Implementing an information commons in a university library. *Journal of Academic Librarianship* 27(6): 432-439.
- Dent V and Yannotta L (2005) A rural community library in Africa: a study of its use and users. *Libri* 55(1): 39-55.
- Dewey BI (2004) The embedded librarian: strategic campus collaborations. In: Miller W and Pellen RM (eds) *Libraries Within their Institutions: Creative Collaborations*. New York: Haworth, 5-18.
- Dugan M (2008) Embedded librarians in Ag Econ class: transcending the traditional. *Journal of Agricultural and Food Information*. 9(4): 301-309.
- Duncan JA (1977) *A Small Book of Book Curses*. Minneapolis: Scholar Gipsy.
- Dwyer J (2001) Books are for use: keeping the faith in reading. In: Katz WA (ed.) *Readers, Reading and Librarianship*. New York: Haworth, 61-80.
- Eberhart GM (2006) *The Whole Library Handbook 4: Current Data, Professional Advice, and Curiosa about Libraries and Library Services*. Chicago: American Library Association.
- Estabrook L (1979) Emerging trends in community library services. *Library Trends* 28(2): 151-164.

- Fain MK (2007) Bookmobile staff perceptions on bookmobile service: a national study. Unpublished Master's thesis, University of North Carolina, Chapel Hill.
- Farkas M (2004) Tech vs. traditional in library school and libraries. *Information Wants to be Free: a Librarian, Writer, Educator and Tech Geek Reflecting on the Profession and the Tools We Use to Serve Our Patrons*, 29 November. Available at: <http://meredith.wolfwater.com/wordpress/2004/11/29/tech-vs-traditional-in-library-school-and-libraries/>.
- Farkas M (2005) Web/Library 2.0 backlash. *Information Wants to be Free: a Librarian, Writer, Educator and Tech Geek Reflecting on the Profession and the Tools We Use to Serve Our Patrons*, 1 December. Available at: <http://meredith.wolfwater.com/wordpress/index.php/2005/12/01/weblibrary-20-backlash/>.
- Farkas, M (2008) The essence of Library 2.0? *Information Wants to be Free: a Librarian, Writer, Educator and Tech Geek Reflecting on the Profession and the Tools We Use to Serve Our Patrons*, 24 January. Available at: <http://meredith.wolfwater.com/wordpress/2008/01/24/the-essence-of-library-20/>.
- Fox EA (1999) The digital library initiative: update and discussion. *Bulletin of the American Society for Information Science* 26(1): 7-11.
- Freiburger G and Kramer S (2009) Embedded librarians: one library's model for decentralized service. *Journal of the Medical Library Association* 97(2): 139-142.
- Gerard, DE (2003) Subscription libraries. In: Drake, M (ed) *Encyclopedia of Library and Information Science*. 2nd ed. London: Taylor & Francis, 2755-2764. Available at: doi:10.1081/E-ELIS-120008959.
- Greenstein, DI and SE Thorin (2002) *The Digital Library: a Biography*. 2nd ed. Washington, DC: Digital Library Federation and Council on Library and Information Resources. Available at: <http://www.clir.org/PUBS/reports/pub109/pub109.pdf>.
- Haggis S and Goulding A (2003) Books to rural users: public library provision for remote communities. *New Library World* 104(3): 80-93.
- Hanson T (1997) The developing electronic library. *Computers in Higher Education Economics Review (CHEER)* 11(1): 10-14. Available at: http://www.economicsnetwork.ac.uk/cheer/ch11_1/ch11_1p10.htm.
- Harloe B and Budd JM (1994) Collection development and scholarly communication in the era of electronic access. *Journal of Academic Librarianship* 20(2): 83-87.
- Harrop A and Palmer G (2000) *The Cost of Joint Provision of Services in Rural Communities: a Report for the Countryside Agency*. London: New Policy Institute (NPI). Available at: <http://www.npi.org.uk/reports/rural%20joint%20provision.pdf>.
- Hart MS (2004) Project Gutenberg mission statement. Available at: http://www.gutenberg.org/wiki/Gutenberg:Project_Gutenberg_Mission_Statement_by_Michael_Hart.
- Harter SP (1996) What is a digital library? Definitions, content and issues. Paper presented at the Korean Library and Information Science Society (KOLISS) International Conference on Digital

Libraries and Information Services for the 21st Century, September 10-13, 1996, Seoul, Korea. Available at: <http://php.indiana.edu/~harter/korea-paper.htm>.

Hestenes D (1996) Modeling methodology for physics teachers. In: Redish, E and Rigden, J (eds) *The Changing role of Physics Departments in Modern Universities: Proceedings of the International Conference on Undergraduate Physics Education (ICUPE), College Park, Maryland, 31 July – 3 August 1996*. Melville, New York: American Institute of Physics (AIP Conference Proceedings 399), 935-958. Available at: <http://modeling.la.asu.edu/modeling/ModelingMeth-jul98.PDF>.

Hill N (2008) Library outposts, a new service model for urban public libraries. *Catch and Release*, 15 March. Available at: <http://natehill.wordpress.com/2008/03/15/library-outposts-a-new-service-model-for-urban-public-libraries/>.

Hsiung L (2008) Expanding the role of the electronic resources (ER) librarian in the hybrid library. *Collection Management* 32(1/2):31-37.

Huff K (2006) Genre fiction classification: a continuation study of its reception by patrons in Durham county (NC) public library. Unpublished paper, Master of Science in Library Science, University of North Carolina School of Information and Library Science, Chapel Hill, NC. Available at http://dc.lib.unc.edu/cdm4/item_viewer.php?CISOROOT=/s_papers&CISOPTR=859&CISOBX=1&REC=6.

Islam MA and Mezbah-ul-Islam M (2010) Community information services through public libraries in Bangladesh. *Library Philosophy and Practice* (February): 1-11. Available at <http://unllib.unl.edu/LPP/islam-mezbah.pdf>.

Jagell K (2003) Who does the mobile library reach? A minor field study of the bookmobiles in Bangkok, Thailand. Unpublished Masters thesis, Department of Archival, Library, Information and Museum Studies, Upsala University, Upsala. Available at <http://uu.diva-portal.org/smash/get/diva2:213296/FULLTEXT01>.

Joint N (2008) Virtual reference, second life and traditional library enquiry services. *Library Review* 57(6): 416-423.

Jones SK (2009) The community library as site of education and Science fiction writers, homeland security and empowerment for women: insights from rural Uganda. *Libri* 59(2): 124-133.

Kesselman M and Anfenson S (2008). Virtual library outposts: enhanced reference with limited staffing. Unpublished presentation. Available at http://www.webjunction.org/c/document_library/get_file?folderId=441120&name=DLFE-11901.pdf.

Science fiction writers, homeland security and Kesselman M and Watstein SB (2009) Creating opportunities: embedded librarians. *Journal of Library Administration* 49(4): 383-400.

Kinnie J (2006) The embedded librarian: bringing library services to distance learners. Paper presented at the 22nd Annual Conference on Distance Teaching and Learning, 2-4 August 2006,

- Wisconsin. Available at:
[http://www.uwex.edu/disted/conference/Resource_Library/proceedings/06_4Science fiction writers, homeland security and327.pdf](http://www.uwex.edu/disted/conference/Resource_Library/proceedings/06_4Science%20fiction%20writers,%20homeland%20security%20and%20327.pdf).
- Koerber J (2008) A thoughtful return. *Notes from an Eclectic Library*, 25 March. Available at:
<http://eclecticlibrary.blogspot.com/2008/03/thoughtful-return.html>.
- Kranich N (2004) *The Information Commons: a Public Policy Report*. New York: Free Expression Policy Project, Brennan Center for Justice, School of Law, New York University. Available at:
<http://www.fepproject.org/policyreports/InformationCommons.pdf>.
- Krasner-Khait B (2001). Survivor: the history of the library. *History Magazine* 2 (October-November): 19-24. Available at: <http://www.history-magazine.com/libraries.html>.
- Krupa Z (2006). The Internet – a threat or supplement to the traditional library? *World Libraries*. 16(1/2). Available at: http://www.worlib.org/vol16no1-2/krupa_v16n1-2.shtml.
- Kubesh K, McNeil N and Bellotto K (2007). *Ancient Rome: project pack*. Coloma, MI: In the Hands of a Child.
- Kuhne T (2005) What is a model? In: **Bezivin, J and Heckel, R (eds)** *Language Engineering for Model-Driven Software Development: Dagstuhl Seminar 04101, 29 February-5 March 2004*. Dagstuhl, Germany: Internationales Begegnungs-und Forschungszentrum für Informatik (IBFI), Schloss Dagstuhl (Dagstuhl Seminar Proceedings). Available at:
<http://drops.dagstuhl.de/opus/volltexte/2005/23/pdf/04101.KuehneThomas1.Paper.pdf>.
- Lagoze C, Krafft DB, Payette S and Jesuroga S (2005) What is a digital library anymore, anyway? *D-Lib Magazine*. 11(11). Available at: <http://www.dlib.org/dlib/november05/lagoze/11lagoze.html>.
- Le Roux S (2001) School-community libraries: some guidelines for a possible model for South Africa. Unpublished MBibI dissertation, Department of Library and Information Science, University of Pretoria. Available at: <http://upetd.up.ac.za/thesis/available/etd-04142008-081748/unrestricted/00front.pdf>.
- Leach RG and Tribble JE (1993) Electronic document delivery: new options for libraries. *Journal of Academic Librarianship* 18(6): 359-364.
- Leighton PD (2003) The information commons: a conceptualization and vision for collaborative and interactive learning. *Information Edge: Newsletter of the Pace University Library* 8(1). Available at:
<http://www.pace.edu/library/pages/newsletter/fall2003/informationcommons.html>.
- Leiner BM (1998) The scope of the digital library. Draft paper for the DLib Working Group on Digital Library Metrics 16 January 1998. Available at:
<http://www.dlib.org/metrics/public/papers/dig-lib-scope.html>.
- Lerdsuriyakul K (2000) Telling the mobile libraries story: collecting the past to build a future. Paper presented at the Mobile Libraries Workshop of the 66th IFLA Council and General Conference, 13-18 August 2000, Jerusalem, Israel. Available at: <http://archive.ifla.org/IV/ifla66/papers/102-175e.htm>.

Levine J (2006) Library 2.0. *davidrothman.net*, 30 November. *Adavidrothman.net*, available at: <http://davidrothman.net/2006/11/30/library-20/>.

Levy DM and Marshall CC (1994) Washington's white horse? A look at assumptions underlying digital libraries. In Schnase, JL et al., (eds) *Digital Libraries '94: Proceedings of the First Annual Conference on the Theory and Practice of Digital Libraries, 19-21 June 1994, College Station, Texas*. Available at: <http://www.csdl.tamu.edu/DL94/paper/levy.html>.

Lim EHT (2002) The Australian Academic and Research Library *davidrothman.net*, Network (AARLIN): library service for the 21st century. Paper presented at Conference on New Information Technologies: Information Resources Integration: an Agenda for Change, 24-27 Sept 2002, Universiti Brunei Darussalam. Available at: <http://www.aarlin.edu.au/publications/documents/Brunei.pdf>.

Lippincott JK (2006) Linking the information commons to learning. In: Oblinger DG (ed.) *Learning spaces*. Washington, DC: Educause, 7.1-7.18. Available at: <http://net.educause.edu/ir/library/pdf/PUB7102g.pdf>.

Magoro J (2009) Tshwane community library and information service. PowerPoint presentation to the Winter Seminar of the Centre for Information Career Development of the Library and Information Association of South Africa, 29 June-1 July 2009. Available at: http://www.liasa.org.za/partnership/cicd/winter_seminar_2009/TCLIS_now_and_the_future.pps.

Science fiction writers, homeland security and Maness JA (2006) Library 2.0 theory: Web 2.0 and its implications for libraries. *Webology* 3(2). Available at: <http://www.webology.ir/2006/v3n2/a25.html>.

Mease J (1811) *The Picture of Philadelphia*. Philadelphia: B&T Kite.

Meho LI and Nsouli MA (1999) *Libraries and Information in the Arab world: an Annotated Bibliography*. Westport: Greenwood.

Miksa FL and Doty P (1994) Intellectual realities and the digital library. In Schnase, JL et al., (eds) *Digital Libraries '94: Proceedings of the First Annual Conference on the Theory and Practice of Digital Libraries, 19-21 June 1994, College Station, Texas*. Available at: <http://www.csdl.tamu.edu/DL94/paper/miksa.html>.

Miller P (2006) *Library 2.0 – the Challenge of Disruptive Innovation*. Available at: http://www.talis.com/resources/documents/447_Library_2_prf1.pdf.

Mostert J (2002) Community libraries: the concept and its application with particular reference to a South African community library system. *International Information & Library Review* 30(1): 71-85.

Murray R (2006) Library systems: synthesize, specialize, mobilise. *Ariadne* 48(July). Available at: <http://www.ariadne.ac.uk/issue48/murray/>.

Murray SAP (2009) *The Library: an Illustrated History*. New York: Skyhorse.

Nielsen U and Eriksson P (2002) The integration of digital library services in an academic environment. Paper presented at Library Management in Changing Environment: 25th Conference of the International Association of Scientific and Technological University Libraries (IATUL), 30

- May-3 June 2004, Library of Krakow University of Technology, Krakow, Poland. Available at: http://www.iatul.org/doclibrary/public/Conf_Proceedings/2002/NielsenEriksson.pdf.
- Noorani AGAM (2002) *Islam and Jihad: Prejudice versus Reality*. Dhaka: The University Press.
- North AC, Hargreaves DJ and McKendrick J (1999) The influence of in-store music on wine selections. *Journal of Applied Psychology* 84: 271-276.
- Ocholla DN (1993) Typology of libraries. In: Ocholla DN and Ojiambo JB (eds) *Issues in Libraries and Information Studies*. Nairobi: Jomo Kenyatta Foundation, 22-30.
- Oppenheim C and Smithson D (1999) What is the hybrid library? *Journal of Information Science* 25(2):97-112.
- Oswald G (2008) *Library World Records*. Michigan: McFarland.
- Oumar D (1993) Mauritania. In: Wedgeworth R (ed.) *World Encyclopedia of Library and Information Services*. Urbana: American Library Association, 545.
- Persson R (2003) Traditional and modern in the library world. *Scandinavian Public Library Quarterly* 36(1): 26-27. Available at: http://www.splq.info/issues/vol36_1/09.htm.
- Pienaar H and Smith I (2008) Development of a Library 2.0 service model for an African library. *Library Hi-Tech News* 5: 7-10. Available at: doi: 10.1108/07419050810901933.
- Prasad BS and Swarnalatha (2005) Digital library infrastructure and architecture. In: *ReadIT 2005: Digital Libraries to Knowledge Systems. Proceedings of the Conference on Recent Advances in Information Technology, 14-15 July 2005, Indira Gandhi Centre for Atomic Research, Kalpakkam, India*. Kalpakaam: Madras Library Association - Kalpakkam Chapter and Indira Gandhi Centre for Atomic Research, 33-40. Available at: <http://library.igcar.gov.in/readit-2005/conpro/facets/s1-7.pdf>.
- Pugh L (2004) The management of hybrid libraries. *The New Review of Information Networking* 10(1):71-84.
- Ramsay KM and Kinnie J (2006) The embedded librarian. *Library Journal* 131(6): 34-35.
- Raven J (1996) From promotion to proscription: arrangements for reading and eighteenth-century libraries. In: Raven J, Small H and Tadmor N (eds) *The Practice and Representation of Reading in England*. Melbourne: Cambridge University Press, 175-201.
- Redmond M (2007) *Literacy and History: the Romans*. Greenwood: RIC.
- Remelts G (2005) Where research will happen: the traditional library. In: VanderLeest, SH, Nyhoff, J and Zylstra, N (eds) *Being Fluent and Faithful in a Digital World*. Grand Rapids, MI: Calvin College, Chapter 4, Section 1. Available at: <http://www.calvin.edu/academic/rit/webBook/chapter4/Sec1/tradlib/>.
- Rhiger M (2000) Bookstores vs. libraries. *Suite101.com*, 22 December. Available at: http://www.suite101.com/pages/article_old.cfm/libraries/55676.
- Richardson EC (2007) *Biblical Libraries*. New Jersey: Richardson.

- Rippel C (2003) What libraries can learn from bookstores: applying bookstore design to public libraries. Presentation for the Public Library Section of the Kansas Library Association, 11 September 2003, Hesston, Kansas. Available at:
<http://www.ckls.org/~crippel/marketing/bookstore.html>.
- Robson E (2009) *Assurbanipal's Library*. Leeds: Project on Knowledge and Power in the Neo-Assyrian Empire, Subject Centre for Philosophical and Religious Studies, Higher Education Academy, University of Leeds. Available at:
<http://knp.prs.heacademy.ac.uk/essentials/assurbanipalslibrary/>.
- Roper T (2009) Piped music in libraries. *Tom Roper's Weblog*, 22 April. Available at:
<http://www.roper.org.uk/tr/2009/04/piped-music-in-libraries.html>.
- Rothman D (2006). Library 2.0. *davidrothman.net*, 30 November. Available at:
<http://davidrothman.net/2006/11/30/library-20/>.
- Sancomb-Moran MB (2009) Applying the information commons concept in your library. *Impromptu Librarian*, 18 March 2009. Available at: <http://impromptu.wordpress.com/2009/03/18/applying-the-information-commons-concept-in-your-library/>.
- Sannwald W (1998) Espresso and ambiance: what libraries can learn from bookstores. *Library Administration & Management* 12(4): 200-211.
- Sapiie J (1995) The user-friendly schemes. *Cataloging & Classification Quarterly* 19(3): 143-155.
- Sauers M (2006) Library 2.0: creating borderless library. In: *Thinking Outside the Borders: Library Leadership in a World Community. A Manual for Professional Development*. Urbana-Champaign, Ill.: **Mortenson Center for International Library Programs at the University of Illinois**, 157-160. Available at http://www.library.illinois.edu/export/mortenson/book/21_sauers.pdf.
- Sauers M (2007) A new twist in the bookstore model. *Travellin' Librarian*, 30 May 2007. Available at:
<http://www.travelinlibrarian.info/2007/05/new-twist-in-bookstore-model.html>.
- Shumaker, D and Talley, M (2009) Models of embedded librarianship: final report. Prepared under the Special Libraries Association Research Grant 2007. Available at:
<http://www.sla.org/pdfs/EmbeddedLibrarianshipFinalRptRev.pdf>.
- Singh S (2003) Digital library: definition to implementation. Lecture delivered at Ranganathan Research Circle, 26th July 2003, Delhi, India. Available at:
http://arizona.openrepository.com/arizona/bitstream/10150/106534/1/lecture_rcc_26jul03.pdf.
- Solomon L (2006) Future of librarians. Interview. Available at:
<http://www.degreetutor.com/library/librarians-online/laura-solomon>.
- Sridhar MS (1986) Pattern of card catalogue consultation in a special library. *LASLIC Bulletin* 31(1): 9-16. Available at: http://eprints.rclis.org/11460/1/J_22_use_of_catalogue.pdf.

- Stephens M (2005) Do libraries matter: on Library and Librarian 2.0. *ALATechSource*, 18 November. Available at: <http://www.alatechsource.org/blog/2005/11/do-libraries-matter-on-library-librarian-20.html>.
- Stephens M (2008) A “commons” experience: five benefits of the Information Commons. *ALATechSource*, 17 November. Available at: <http://www.alatechsource.org/blog/2008/11/a-commons-experience.html>.
- Stilwell C (1989) Community libraries: a brief review of their origins and nature with particular reference to South Africa. *Journal of Librarianship and Information Science* 21(4): 260-269.
- Stilwell C (1999) Community information services: a view of the theoretical foundations. *DESIDOC bulletin of information technology* 19(1): 15-33.
- Stilwell C (2001) Community resource centres: a turn of the century update. In: Stilwell C, Leach A and Burton S (eds) *Knowledge, Information and Development: an African Perspective*. Pietermaritzburg: School of Human and Social Studies, University of Natal, 200-214.
- Sweeney RT (1994) Leadership in post-hierarchical library. *Library Trends* 43(1): 62-94.
- Talley, M (2009) Science fiction writers, homeland security and embedded librarians. *The Embedded Librarian*, 1 June. Available at: <http://embeddedlibrarian.wordpress.com/2009/06/01/science-fiction-writers-homeland-security-and-embedded-librarians/>.
- Tanner RG (2004) Aristotle’s works: the possible origins of the Alexandria collection. In: McLeod R (ed.) *The Library of Alexandria: Centre of Learning in the Ancient World*. London: I.B. Tauris, 79-91.
- Thomas AR (1995) *Classification: Options and Opportunities*. New York: Haworth.
- Thomason AK (2005) *Luxury and Legitimation: Royal Collecting in Ancient Mesopotamia*. Hampshire: Ashgate.
- Toren N (2000) *Hurdles in the Halls of Science: the Israeli Case*. Oxford: Lexington.
- Upjohn M and Fitchett D (2008) Library on location: taking library services outside the library walls. Paper contributed to *Poropitia Outside the Box: LLANZA Conference 2008, 2-5 Nov 2008, Auckland, New Zealand*. Available at: http://ir.canterbury.ac.nz/bitstream/10092/2516/1/12615067_Upjohn_Fitchett.pdf.
- Walter S (2006) What 2.0 means to me. *ACRI Log*, 10 March. Available at: <http://acrlblog.org/2006/03/10/what-20-means-to-me/>.
- Want P (1990) The history and development of mobile libraries. *Library Management* 11(2): 5-14.
- Weise F (2004) Being there: the library as place. *Journal of the Medical Library Association* 92(1): 6-13.
- Whatmore G (1993) Subscription libraries and the cost of living. *Library Review*. 16(3): 162-165.

Whitchurch MJ, Belliston CJ and Baer W (2006) Information commons at Brigham Young University: past, present and future. *Reference Services Review*. 34(2): 261-278.

Wiegand WA and Davis DG (1994) *Encyclopedia of Library History*. New York: Garland.

Woodward JA (2005) *Creating the Customer-Driven Library: Building on the Bookstore Model*. Chicago: American Library Association.

Xiaolin DZ (2004) Search for a new information service model. Paper presented at the Sino-German Symposium on Development of Library and Information Services, April 2004, Chengdu, Sichuan, China, 153-158. Available at <http://conference.las.ac.cn/Sino-German/2004/pdf/en/15.doc>.

York A (2006) The embedded librarian service at MTSU. *Tennessee Libraries* 56(2): 1-7.