DEVELOPMENT AND IMPLEMENTATION OF INFORMATION COMMONS IN AHMADU BELLO UNIVERSITY LIBRARY, ZARIA

BY

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Declaration

I humbly declare that this thesis titled **"Development and Implementation of Information Commons (ICs) in Ahmadu Bello University, Library Zaria"** has been carried out by me in the Department of Library and Information Science. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree at this or any other Institution.

_____ _____ _____

Musa, Shittu **Sign;** **Date;**

Certification

This thesis titled **"Development and Implementation of Information Commons (ICs) In Ahmadu Bello University Library, Zaria"** by Musa, Shittu, meets the regulations governing the award of the degree of Masters of Information Science of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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Dedication

With immense gratitude to Allah, I dedicate this thesis to the memories of my late father, Alhaji Musa Umar and my mother Hajiya Hajaratu Abdullahi, as well as the entire members of my family.

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Abstract

The purpose of this study was to determine the development and implementation strategies and policies of Information Commons in Ahmadu Bello University, Library Zaria. The data was collected from both primary and secondary sources. Two survey instruments were used to collect the primary data. The Instruments include interview and documentary. The data was qualitatively presented and analysed through phenomenology research method. The study found that, provision of collaborative spaces with specialized system software, workstations that accommodate small groups, and the group study rooms equipped with computers or space for laptops and projectors are some of the basic requirements needed in the development and implementation of ICs in the ABU Library. Also, the study discovered that a well-designed student-centered information commons has to integrate a range of campus partners to offer students a centralized access to all of their academic needs, spelling out clearly the common property, resources, and economic models that will raise the value of shared access over individual consumption, and propagation and promotion of the value and benefits of access as well as the likely danger of enclosure are some of the strategies to be adopted for the development and implementation of ICs in the ABU library. In view of these findings, the study recommends that the ABU library complex should adopt the development strategies of ICs proposed by the researcher in order to be up to date in the provisions of a welcoming enabling environment and relevant information resources and technologies; the library staff should be given a rigorous training in the area of information technology literacy in order to effectively handle the affairs of ICs to harness its maximum value and the Information commons should be situated within the main Library for effective usage and proximity in terms of resources and users.

Abbreviations

1. **ICT -**Information and Communication Technology
2. **ARL-** Association of Research Libraries
3. **PCs-** Personal Computers
4. **USA -** United States of America
5. **IDR** - Institutional Digital Repositories
6. **LMS** – Library Management Systems
7. **ICs** – Information Commons
8. **US** – United States
9. **IFLA** – International Federation of Library Association and Institute
10. **UBC** – University of British Columbia
11. **ACRL** – Association of College and Research Libraries
12. **ABU**- Ahmadu Bello University
13. **UK** – United Kingdom
14. **UIS** – User- influence – Space
15. **LUC –** Loyola University Chicago

ABULLC- Ahmadu Bello University, Library Proposed Learning Commons

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In 2003, a group of experts in the United States of America predicted that in the future Library will become; knowledge management centers, site for study and consultation as well as places to use highly specialised technologies (Ludwig and Starr, 2004). Wireless connectivity will be universal in 2010 and library will be providing online services or access to lectures by visiting experts. The manner in which Libraries developed and delivers services and collections will change. Users will want to access food services, learning commons, group workspace and good public services delivered by a single desk (Ludwig and Starr, 2003) Looking at the above predictions by scholars one will be convinced that the time has really come. Similarly, William (2010), stated that the rapid expansion of the Internet and the availability of an ever growing array of information technology tools have created a paradigm shift in the field of Library Science.

Today, many Library users seeking for information prefer using the Internet for their information needs, Just like the present day students who are referred as millennial, digital native, (Prensky, 2001), or net- generation, generation Y, that have not known a world without Internet (Oblinger and Oblinger, 2005), and have an unprecedented fluency and comfort with technology in all aspects of their lives, and they are also well versed in social media and collaborative learning, and prefer to learn in social context (Cabral, 2011). Thus, the expectations and want of generation Y students are highly different from the old generations as well as the type of library resources and facilities. Hence, the development plays a great role in the reduction of onsite usage of libraries. Similarly, report by the Association of Research Libraries (ARL) for

the years 1991-2002 showed total student populations increased was 9%, then was the most noticeable library user statistics decreased "Reference Transactions decreased by 26%, Total Circulation decreased by 10% and In House Use decreased by 35% (Kyrillidou, 2006). In the same vein, the number of persons who physically enter library and use facilities as compiled by the National Center for Education Statistics declined steadily from 1994-1998. This decline led the casual viewers to see the library as deserted. Scott Carlson in his 2001 article "Deserted Library" for the Chronicle of Higher Education, says "The shift leaves many librarians and scholars wondering and worrying about the future of what has traditionally been the social and intellectual heart of campus, as well as about whether students are learning differently now – or learning at all" (Carlson 2001). This has really posed a threat to the Library system and the librarians. This problem has been further compounded by the outdated design of the traditional academic library, which discourages collaborative group work, access to food and drink within the library and flexible learning environment (Britto, 2011). This situation has seriously disturbed many library professionals and other stakeholders which mandated the critical thought for a solution. Micheal, (2001), further stated that, since the early 1990s and the birth of the World Wide Web, libraries have attempted to improve access to, creation of and dissemination of information and the pedagogy at institutions of higher education has moved more from one of individual learning to one of group learning.

Therefore, it is imperative for the library managements in Nigeria and beyond to take a drastic action to curb the likely menace of the foregoing phenomena in the area of library and information services delivery. The researcher is of the opinion that information common may be the most desirable remedy to the stated challenges. In order to maintain the status-quo and be relevant in the contemporary age, the great scholars have come up with what it takes to be a

solution to the above stated problems. It is tested and proven that its relevance as it has become widely acceptable globally (Britto, 2011). Furthermore Britto, (2011), observed the Information Commons have been growing steadily in academic libraries in the past decade in United State of America and other Developed countries, primarily due to rapid technological changes in society and the need to meet evolving student demands and expectations. He also asserted that the idea of the Information Commons forces the reconceptualisation of the traditional librarian roles, services, resources and physical space of the academic library. The growth and popularity of the Information Commons in academic libraries have been primarily a means to respond to these critical issues and new challenges (Lippincott, 2010).

Initially, the Information Commons involves the collocation of at least information technology and library resources and services. While some Commons may begin as a computer lab with library resources attached to it, this is not the eventual goal. A much more integrated model is necessary in order to be effective. Sinclair, (2007) describes the intent and potential of a well-designed Learning Commons: It incorporates the freedom of wireless communication, flexible workspace clusters that promote interaction and collaboration, and comfortable furnishings, art, and design to make users feel relaxed, encourage creativity, and support peer-learning.

The goal of ICs is to create a flexible and modular learning environment that can accommodate different configurations and student group sizes, and ultimately captures and accentuates students' propensities and need for social learning (Sinclair, 2009). He also asserted that in recent years, classroom pedagogy focused more on collaboration and group projects rather than individual work. Scott Bennett and the Council on Library and Information

Resources, (2003), referred this situation, as a fundamental change to "active learning practices." They further states that "students everywhere were increasingly working in collaborative study groups of their own making, to engage more strongly and often more adventurously with their coursework (Bennett 2003). Furthermore, Michael (2001), narrated that as encouraged by this transition, libraries began to implement services that would facilitate and assist campus faculty and students with this change and to support the changes in information access and student study habits, some academic libraries created information commons (also called learning commons or knowledge commons). The information commons concept used to be a solution to implementing services and resources in this new collaborative environment.

Although, Information Commons has been in the mainstream of Library services in Europe, U.S.A. and other African countries such as South Africa, for almost two (2) decades now, but in Nigeria the situation is different. As buttressed by Forrest and Halbert (2009), though the concept is new but has gain popularity in Europe, America and some African countries and Asia. Confluence of three major factors resulted to the wide spread of the idea of information commons in academic libraries as well as its unifying characteristics as a new entity. These factors are; its ability to visibly and functionally, incorporates networked computer resources, and collaborative work environments into libraries mission; it also serves as a testing ground for interdepartmental cooperation and shared resources, by providing spaces for different campus populations to meet and collaborates to support social learning and intellectual play, and reassert the role of Library spaces in fostering and supporting academic work (Hartman, 1995).

1.1.2 The Concept of Information Commons (ICs)

Information Commons is defined as "a conceptual, physical, and instructional space" offering a "continuum of services delivery" in an integrated digital environment and to include

identification, retrieval, processing, and presentation of information in a variety of formats" (Beagle, 1999). Beagle (2010) also put it as "It offers a "continuum of service" that can help the student move through and beyond the established regime of access of information and retrieval, through further steps of interpretation, processing, and manipulation, and on to the development, packaging, and presentation of new knowledge. Bailey and Tierney, (2011) also defined information commons more broadly as a model for information service delivery, offering student integrated access to electronic information resources, multimedia, print resources, and services.

> According to the American library Association's office of technology policy; Information commons ensure open access to ideas and the opportunity to use them. These commons are characterized by laws, organizations, physical and communication infrastructures, resources, and social practices that promote sharing, community, and freedom of information. They encourage peoples to learn, think, and participate in democratic discourse, in short, information commons are essential to democracy (In Forest and Halbert, 2009).

Therefore, Information Commons can be described as a unique integrated space, dynamic in nature, specifically designed, to harbour all the necessary resources in variety of formats and information technology tools that enable the users to freely access, use, manipulate, create and package new knowledge, through collaborations, interactions, and socialization. It also facilitates and encourages community building.

1.1.3 Evolution of Information commons

The evolution of library can be traced back to the ancient period. The original libraries of the ancient world were used to store and preserve what was then known as the body of knowledge, and made available to suitable scholars (William, 2010). Most of the methods of storing and retrieving information resources were classical in nature then. The libraries of the middle Ages and Renaissance were little changed as in either case this knowledge was

maintained for the privileged few. Geoffrey (2012) argued that "Since the rise of universities across Europe during the age of enlightenment, the academic library has always held a central position as the heart of an institution-both symbolically and in terms of its physical placement. Preeminently sited and often heroic in scale and character, the library has served as a visual anchor for the surrounding buildings on campus. These early academic libraries were very different from those of the monastic tradition from which they emerged" Furthermore, it was not until the late 19th to early 20th century that the growth of public libraries began to democratize knowledge, which marked the beginning of the modern library to the development of the 21st century library.

The evolution of Information Commons started from the historical commons of the agricultural fields used freely by farmers in England to grow food and pasture animals. Between 1500 and 1800, however, many of these common fields were transformed into private property in order to boost agricultural production, accommodate population changes, improve soil, advance industrial development, and bring lands under the control of wealthy aristocrats (kranich, 2000).

Despite tendencies to downplay the power of place in Libraries of the future, some forecasters did predict that Libraries would provides an area distinct from typical pedagogical spaces yet offering unique, and complementary learning experiences, heralding the Information Commons that will soon materialize.

The new pedagogical changes to knowledge construction in the classroom and a more awareness on the role of social spaces in learning, teaching and scholarship contributes to academic's willingness to experiment and contributes in the development of such spaces. Though some would argue, that, the increasing ability of access to information resources electronically, without any human intercession, has ironically increased the importance of place

as people seek out common spaces for social contact, (Craig, 1995). The Information Commons is relatively new concept in Librarianship. It is derived from the historical commons- resources that are free and available for the benefit of all in society to build relationship and cultural democracy. The Information commons is an evolution of Information technology centers that are already in existence in many Libraries, and a renewed emphasis on Library as place of community building (Beagle, 1999; kranich, 2003). The concept comprises two parts, - the physical commons as space, and virtual commons, of resources and values as a platform for access to and advocacy for ideas (Beagle, 1999; kranich, 2003).

The Information commons or academic Library Commons; were first conceived and implemented in the United States (US) about two decades ago. The Information Commons (IC) is a model of service aimed at meeting the constantly changing needs of academic library users, primarily, but not exclusively, undergraduate (Seal, 2012). Where ever it has been established, onsite use of university library has been increased dramatically mostly day by day (Seal, 2012). In fact, the resurgence in the popularity of academic libraries in general in the past decade particularly among the so called millennial, is a direct result of the appearance of the Information commons in its variety of formats (Seal, 2012).\

1.1.3 Characteristics of Information Commons

The Information commons are often a redesigned space within an existing building, or separate buildings within a library complex, providing a range of resources similar to those already in many libraries, such as rooms booking, word processing, printing services, communications software, and access to licensed databases (Cowgill, Beam, and Wess, 2001). Sited in Bradley, (2004). Commons are bright, welcoming and open spaces. As they are always designed when Libraries are built or renovated, there are no or fewer limitations in placement of

computers, walls outlet, wiring, (Pervasiveness in placing technology) and lighting which can allow Libraries to make a radical changes to physical organization in building. Resources in the common go beyond text base Information resources and include audio, video, and multimedia. (Brigham young University, 2003). These aggregations of information resources enable users to do their academic work comfortably in a way that enhance access to information in different formats. Information commons are spaces where patrons are encouraged to stay and work for a longer period of time, mostly collaboratively, and reference and technical department usually work together to create integrated reference and information assistance to patrons (Bailey and Tierney, 2002; beagle, 1999; Herbat, 1999). Information Commons need to integrate these services in the organization to cope with increased demand for librarians to advance reference and IT skills, and to answer questions that are of different nature to those traditionally asked in reference situation, (Beagle, 1999).

There are two characteristics that distinguish Information commons as a physical space from other types of computer access in Libraries. Inherent in the information commons is a notion of values. The aims of the commons are to provide access to information for all, and the values of freedom to read are entrenched in the history of librarianship (Symons & stoffle, 1998). One can see that many Library association policies have recognised these values. (IFLA, 2002 & ALIA, 2001). The commons support the notion of resources for all. The commons are an equalizer- available to all without any prejudice or preference. Interaction and discussion is posted, promoted and encouraged to enhance Learning, (Kranich, 2003).

Information commons as a concept comprises so many issues that are at stake in the digital era and provide context and cohesive banner. It stresses the importance of the public domains and free exchange of ideas and information, which are in essence under thread in the

digital era, due to copyright and licensing restrictions. Libraries make information available regardless of the market forces controlling it. Patrons do not know about the complexities of licensing, negotiation, funding, and technical issues to make resources available such as databases. (Bollier, 2001). As collaborative and recreational spaces, Information commons have a major role in community building: physically within the library and virtually between information users and creators. It is mainly designed to support working in group. Extra room should be in place in between computers to facilitate sharing, and talking that is normally allowed. To counter increased noise, many commons have quiet study area for individual (Brigham young University, 2003). In academic libraries such arrangement has extended group study areas that are already in existence.

Virtually, the Information commons provide access to many resources that enhance community building. Through the Internet, Users are usually exposed to Usenet, bulletin board, blogs, and chat services. Self published information has increased communication possibilities between information creators and users. Users can have the chance of reading a new work and make comment in some cases. Librarians can communicate with either their colleagues or patrons through emails list, websites, and virtual references. Promotion of virtual services might be helpful for instance, in a busy facility, where students are often reluctant to leave their workstation to go and ask for help, because they may be bumped by other students looking for vacated spots, or seats, as the case may be.

Generally the core services that libraries provide to information commons users are information resources and facilities, reference services and technology assistance. As such issues like co-location, cooperation, collaboration are always natural in its contexts. Information commons frequently have a services desk that is staffed jointly by individuals from the library,

and information technology. Both the staff categories may be in all range – from professionals to non professionals as well as students as the case may be.

1.2 Statement of the problem

The rapid increase in the Internet usage and the availability of an ever growing array of information technology materials has created a paradigm shift in the manner at which Libraries operate. To address this paradigm shift, libraries have been forced to develop and implement extensive physical renovations which can largely fit with the changing nature of intellectual work of the digital age. However, the renovation is directly relevant to the development of information commons as it is observed by the researcher, that many libraries in Nigeria such as University of Sokoto, University of Jos, University of Nigeria Nsuka, University of Benin etc. operate many types of public access computers with the notion of information commons, but in essence, it is not in line with the standard Information Commons. It is against this background that the researcher intends to study the development and implementation of information commons with the sole aim of developing and implementing a standard Information Commons (ICs) model in Ahmadu Bello University, Library Zaria. The outcome of the study would serve as a guide in the implementation of standard Information Commons in future, particularly in the University Libraries

1.3 Research Questions

The following research questions were raised for the study;

1. What are the basic requirements for the development and implementation of a standard Information Commons in Ahmadu Bello University Library, Zaria?
2. What strategies are to be adopted in the development and Implementation of standard Information Commons in Ahmadu Bello University Library, Zaria?

3. Who are the campus partners in the development and implementation of Information Commons in Ahmadu Bello University Library, Zaria?
4. What are the changing roles of library staff in the information Commons environment in Ahmadu Bello University Library, Zaria?

1.4 Objective of the Study

The following objectives are set to be achieved.

1. To find out the basic requirement for the development and implementing of standard Information Commons in Ahmadu Bello University Library, Zaria.
2. To examine the strategies to be adapted to develop and implement Standard Information commons in Ahmadu Bello University Library, Zaria
3. To find out the campus partners in the development and implementation of a standard Information Commons In Ahmadu Bello University Library, Zaria
4. To examine the changing roles of Library staff in the Information Commons in Ahmadu University Library, Zaria.

1.5 Significance of the study

This research will be of a great benefit to the University Library managements of Ahmadu Bello University, Zaria in the development and implementation of standard information commons. It would also be of great value to other Universities in Nigeria and beyond who have the interest to develop and Implement standard Information Commons. It can also serve as a guiding principle for action to the university management, Library administrators and other stakeholders. Furthermore, the findings of the study would serve as source of reference in the area of the development and implementation of standard information commons. Likewise, it would also add to the existing body of literature in the field of Library and information science.

1.6 Scope of the study

The study covers Ahmadu Bello University; Library Zaria, main campus only, in the area of development and implementation of standard information commons. The respondents to the study are mainly top level library management staff, Librarians, ICT staff in Library, staff of Ahmadu Bello University ICT Center and other supporting and technical staff.

1.7 Limitation of the study

The researcher was faced with some difficulties worthy of note as limitation to this work. Such limitations are; difficulty to reach out the respondents to be interviewed; Due to the nature of some respondent's tight schedule and commitments, another major obstacle the researcher encountered was to get the planning document of the University proposed Library Learning Commons to go through, actually it was a herculean task, but later it was gotten.

1.8 Operational definition of terms

The following terms are defined operationally as used in the study.

Development: Creating of a new or advance product or idea/event constituting new stages in a changing situation.

Implementation: The process of putting the created product or principled, idea/ or event in to action

Information commons: Unique spaces beautifully design specifically to offer a continuum of service delivery in an integrated digital environment that provides user with the opportunity to identify, retrieve, processes, and manipulate information resources in a variety of formats, in a comfortable and conducive manner, in both physical and virtual environment.

References

Bailey, D. R., & Tierney, B. (2008). *Transforming library service through information commons: Case studies for the digital age.* Chicago: American Library Association Editions.

Beagle, D. (1999). Conceptualizing an Information Commons. The journal of academic librarianship 25,(2) 82-89

Beagle, D. (2010). The Emergent Information Commons: Philosophy, Models, and 21st Century

Bennett S. (2003), Libraries designed for learning. Washington, D.C: Council on Library and Information Resources;

Bollier, D (2001) Why we must talk about the information commons, Paper presented at the American Library Association retreat on New technology, the information commons and the future of libraries, Wyes River, Maryland, retrieved on February 10th, 2012, from: http//www.newamerica.net/download-docs/pdfs/doc-file-103-1-pdf

Brigham Young University, (2003). Report of the Information commons project team, Retrieved on September16th, 2012, from: http//www.lib.utah.edu/mis/bidg-com/docs/04-01-03info-common-final.pdf

Britto, M. (2011). Planning and implementation considerations for information commons in academic libraries. U S; Library Student Journal. ISSN 19326100. Accessed on 14 / 09/ 2011.

Cabral, J. (2011). Is Generation Y addicted to social media? *Elon Journal of Undergraduate Research in Communications, 2*(1), 5-14. Retrieved July 30, 2011 from http://www.elon.edu/docs/eweb/academics/communications/research/vol2no1/01Cabral.pdf

Carlson, S. (2001) "The Deserted Library," *Chronicle of Higher Education* 48

Cowgill, A., Beam, J. and Wess, L. (2001) Implementing an information commons in a university library. *The Journal of Academic Librarianship, 27*(6), 432-439.

Craig H. (1995) "The future of Libraries" Architecture 84, 43-47fi nal.pdf

Forrest, C. and Halbert, M. (2009) A Field guide to Information commons; UK; The scarecrow press, Inc.

Geoffrey T. F., AIA (2012). The Library as Place: Changes in Learning Patterns, Collections, Technology and Use; Council on Library and Information Resources. 1707 L Street NW, Suite 650 > Washington, DC 20036 > p (202) 939-4750 > f (202) 939-4765

International Federation of Library Associations and Institutions (2002) The Glasgow declaration on libraries, Information Services and Intellectual freedom, Retrieved March 7, 2014 from: http: //www.ifla.org/faife/policy/iflastat/gldeclar-e.html

Johnson C, Lomas C. (2005), Design of the learning space: Learning and design principles. *Educause Review*. 2005; 40(4):16-28. Accessed 4/28/2009.

Kranich, N (2000) .The information commons, The Free Expression Policy Project, Retrieved October 14, 2012 from: http: //www.fepproject.org/infocommons/backgrnd.html

Kranich, N (2003) Libraries and the information commons: A discussion paper prepared for the ALA Office of Information Technology Policy, Retrieved December 15, 2003 from: http: http//www.ala.org/content/navigationmenu/our-association/office/ALAwashington/OITP-(office-for-information-technology-policy)/icprins.pdf

Kranich, N. (2004). The Information Commons Public policy Report, NY; Burnnan Center for Justice. Access on 9/23/2011

Kyrillidou, M. (2006). Library assessment: why today and not tomorrow? In Mersini morelelicacouris(Ed) Library Assessment Conference- Thessaloniki13-15 june 2005 (pp9-27). Washington, D C: Association of Research Libraries. *Retrieved on March 3, 2012 from http://www.arl.org/bm-doc/lac- greece- 2005pdf*

Lippincott, J.K. (2010). Information commons: Meeting millennials' needs. *Journal of Library Administration, 50*, 27-37.

Ludwig, L. & Starr, S. (2003). Results of a Delphi study: what the Library is depends on what it does in: The Library as place: Symposium on Building and revitalizing Heal sciences.

Ludwig, L. & Starr, S. (2004). Library as place: results of a Delphi study. In: supplement to official program, Abstracts, Washington, D C Medical Library Association. *Retrieved on 29 December, 2014, from http://www.mlanet.org/am/am2004/pdf/abstracts.pdf.*

Oblinger, D., & Oblinger, J. (2005). *Educating the net generation*. Retrieved April 11, 2011 fromhttp://net.educause.edu/ir/library/pdf/pub7101.pdf

Prensky, M. (2001). Digital natives, digital immigrants, Part II: Do they really think differently? *On the Horizon, 9*(6), 1-9.

Prensky, M. (2006), Learning in the digital age. Educational Leadership, 63(4), 8-13.

Seal, R. A. (2012). The Information Commons: New Pathways to Digital Resources and Services

Siclair, B. (2009), the blended Librarianin the Learning commons: New skill for the blended Library. College and Research Library News, 70(4), 504-516

Sinclair, B. (2007). Common 2.0: library space designed for collaborative learning: Educause Quarterly 3*0*(4), 4-6.

Symons & Stoffle (1998), sited in Brandley, F. (2004). Challenging Ideas: Enabling the Information commons; in a paper presented at ALIA 2004, SBS Radio Resource Center Sydney. Retrieved on 23rd March, 2012.

William, C. (2010) Academic Library Design: A commons or an athenaeum, *Library Philosophy and practice 2010*, Hempstead, NY 11549-1000. Retrieved on 19 /08/ 2014.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter contains the review of the related literatures on the Information commons Development and Implementation under the following sub- headings. Development policy and strategies of Information Commons, the Implementations of Information Commons, Implementation procedure of Information Commons, partners of Information Commons and Changing role of Library staff in Information Commons (ICs) and Summary of the review.

2.2 Development Policy and Strategies of Information Commons

Development as a concept has been conceptualized differently by many scholars in different perspectives. This overall multiplicity of definitional debates includes a general agreement on the view that 'development' encompasses continuous 'change' in a variety of aspects of human society. The dimensions of development are extremely diverse, including economic, social, political, legal and institutional structures, and technology in various forms (including the physical or natural sciences, engineering and communications), the environment, religion, the arts and culture (http://www.sagepub.com/updata/18296_5070).

Similarly, development is seen as change or an increase in something or a situation and therefore, it is a stage of growth and process by which a multicultural organism develops (www.ask.com). According to online reference dictionary -boss.com (2014), development as a scientific study of human development seeks to understand and explains how and why people change throughout life. Development does not just involve the biological and physical aspects of growth but also the cognitive and social aspects associated with it (www.reference Boss.com). Development is also defined by online business Dictionary as a systematic use of scientific and

technical knowledge to meet specific objective or requirement (www. Business dictionary.com). Development means progression from a simpler or lower to a more advance, matured, or complex form or stages. It is also defined as the gradual advancement or growth through a series of progressive changes and an advancement product or idea/event constituting new stages in a changing situation, (Online oxford dictionaries.Com 2014). While others view development as the process of producing or creating something new or more advanced product (oxford advanced learner's dictionary of current English, 2005).

However, upon all the above definitional views of the concept of development only the last one goes in the same line with what the researcher intends to develop as a model of Information commons for Ahmadu Bello University Library, Zaria. The research work will serves as a fundamental bases or guiding principles for establishing Information commons In Ahmadu Bello University Library, Zaria.

The fundamental policy and strategies for development of Information commons in academic Libraries have been brought up by so many scholars and team reports of many institutions that either established one or are in the process of doing so, across the globe. In that regard, while planning for the development of an Information Commons, Bennett (2003) stated that, it is vital to begin with a vision statement crafted and endorsed by all relevant participants, including the stakeholders. But Lippincott, (2010) argued that, although this approach may seem to be obvious, one study found that only 65 percent of respondents indicated their Information Commons was influenced by any vision statement; clearly, most a times the physical layout of the space and associated equipment and furniture drive the design. In addition, the design is often based on perceptions of public-service librarians and not on any formal needs assessment or student input.

Furthermore, Stuart (2008) reported that the ARL has developed a comprehensive set of needs assessment techniques and resources that have been well received and adopted by many academic libraries throughout the world. In a related development, many institutions have developed robust needs-assessment models of their own and have made them available online with the intent of sharing them. These institutions include the University of Rochester (known for their anthropological approach for studying students), the University of Massachusetts-Amherst, Georgia Institute of Technology, Ohio University (focusing on technology and services) and New York University (focusing on graduate students) (Lippincott, 2010).

However, one of the dominant strengths of an Information Commons is its ability to accommodate a variety of space configurations to meet a broad range of users' needs, learning styles, and study preferences. Many Information Commons are so focused on meeting the needs of digital natives, which tend to be their primary audience, but some end up not meeting the needs of other groups, in which many are marginalized (UBC, 2010). Other important populations to consider consist of older adults, commuter students, foreign students, career-switchers, and students with disabilities and special needs. One method to confirm their requirements are met in the Information Commons is to engage them to actively participate in the planning and implementation processes. The University of British Columbia (UBC) has succeeded in this approach. At UBC, students in collaboration with library staff are actively involved in suggesting, building, designing, writing, dreaming, and implementing every aspect of its Learning Commons (UBC, 2010).

The idea behind the new policy development of information commons is that it would provide an integrated learning environment - bringing print and electronic resources together, accommodating a range of learning styles - within a research-led university (Lewis and Sexton,

2012). Similarly, According to Kranich (2004), development policy of information commons is to provide, sustain, and govern information commons with a significant investment in infrastructures and contents. This definition suggests that developing information commons requires a huge investment in infrastructural building and provision of library facilities (reading, table and chairs that are flexible in nature, ICT facilities; hardware, software etc)

On strategies for information commons development, a well-designed and student-centered information commons has to integrate a range of campus partners to offer students centralized access to all of their academic needs (Briton, 2011). Also students input and involvement are essential in developing strategies for a well planned of the information common. Therefore, mechanisms for ongoing feedback and input are critical to ensuring the Information Commons continues to meet users' needs (Briton, 2011).

Nancy (2003) proposed the following well articulated strategies for the development of information commons in academic libraries: For any institution that intends to develop an information commons has to put either all or most of these strategies into consideration;

1. To involve communities of stakeholders in the design, creation, and management of information commons;
2. To spell out common property, resources, and economic models that elevate the value of shared access over individual consumption;
3. To publicize and promote the value and benefits of access as well as the perils of enclosure;
4. To promote legislation that ensures public ownership of public research;
5. To oppose new copyright laws and regulations that limit the public's access rights;

6. To support policies that ensures fair and equitable access to information for everyone.
7. To sign licenses and contracts that ensure open access and existing intellectual property rights
8. To encourage peer production of information.
9. To publish in and purchase open access journals.
10. To promote open access licenses.
11. To purchase materials from a diverse array of information providers.
12. To resist attempts to filter and otherwise control access to ideas.
13. To protect against the invasion of privacy through the use of technological surveillance measures.
14. To develop digital repositories to facilitate open access to the information assets of individuals and communities.

Moreover, Stuart (2009) and Briton (2011) suggested the following strategies for information commons development:

To collaborate with Campus Partners;

1. To provide Multimedia facilities;
2. To create digital centers;
3. To provide Faculty and Graduate Student Spaces;
4. To provide Branch and Subject Libraries;
5. Flexibility; allow for change;
6. To create User-Influenced Spaces;
7. To provide Classrooms,
8. To provide Workshop centers,

9. To provide avenue for Instruction;
10. To create Galleries,
11. To design an Artistry structures,
12. To create areas for Exhibitions,
13. To create art and performing spaces,
14. To create special Events;
15. To provide Tutoring and Peer Support areas;
16. Cafes and Refreshment centre facilities;
17. Presentation and Practice Facilities.

Similarly, Forrest and Halbert (2009), presented a standard strategic elements for the development of millennium information commons:

1. To create Individual workstations;
2. To create Workstations that accommodate small groups;
3. To create Group study rooms equipped with computers or space for laptops and projectors;
4. To provide Practice presentation rooms;
5. To provide Multimedia production areas;
6. To provide Rooms equipped with adaptive technology;
7. To provide Rooms equipped for videoconferencing;
8. To provide Classrooms for information literacy instruction;
9. To create General purpose classrooms for campus use;
10. To provide Teaching and learning center;
11. To provide Consultation areas (offering student or faculty consultation with reference Librarians, writing tutors, etc.);

12. To provide Scanning stations, printer stations, digitization facilities;
13. To provide Service desk(s) that offer library and information technology assistance or other services, such as laptop or camera loans or computer sales;
14. To provide Staff offices;
15. To provide Informal, comfortable seating areas for learning and research;
16. To create Collaboration spaces with specialized software;
17. To provide Cafés services.

Considering the above stated strategies critically, their applicability depend on the locality, set target and the available fund of the institution in question.

2.2 Implementation of Information Commons

Implementation inevitably takes different shapes and forms in different cultures and institutional settings. Implementation literally means carrying out, accomplishing, fulfilling, producing or completing a given task. According to O'Toole (2003), implementation can be seen as what develops between the establishment of an apparent intention on the part of institution or organisation to do something or stop doing something and the ultimate impact of the implemented project. More concisely, he further remarks that implementation refers to the connection between the expression of institutional intention and actual result (O'Toole et al., 1995). For Ibach (1999), Implementation refers to the process of preparation, installation, integration, system testing and training. This author basically defines the concept of implementation from the angle of the information system.

However as a process, implementation of Information Commons involves the following steps; Pre- planning, forming the team, producing the planning document, spaces/location, assessment plan, policies formulation, other resources, and staffing (Micheal, 2001).

Pre-planning Phase

In the pre-planning phase, support for the commons needs to be obtained, particularly from groups of stake holders such as library employees, library administrators, students, and faculty as well as campus administrators. This is because of the financial, political or other reasons necessary, hence the implementation of an information commons should be carefully and well plan. Once the decision has been made, continued support from all of these groups is vital as well. In addition to getting student support and input, it is imperative that campus administrators support the effort to develop a commons. This task becomes easier when "both the library and university administration agree that a library is the focal point of the university's intellectual life." (Holmes-Wong, 1997) The plan for the commons should always conform to the mission, vision and values of the university. This will bring buy-in from the campus administrators.

Before beginning the intense planning phase of an information commons, a local needs assessment should be completed. This assessment will not only inform the decision of whether a commons should be implemented, but will also help guide the planning process and implementation. The result of the assessment and subsequent evaluations will be used to determine the necessity and viability of creating a commons. The needs assessment could be as simple as listening to users' wants (complaints) or the assessment could escalate to a complete assessment of the library. Stuart, (2008) also suggest that, ARL Learning Space Pre-Programming Tool Kit is an excellent resource for any group wanting to investigate and study the feasibility of an information commons.

A needs assessment can be completed using many of the same evaluation/assessment methods that should continue to be used after implementation. Some of these methods are surveys and comments, focus groups, student and faculty advisory groups or survey tours, to name only a few

(Stuart, 2008). After evaluating the needs assessment, the services and space requirements for the commons should become evident. Each component or service suggested by the needs assessment should be considered equally and be evaluated for feasibility and desirability, based on the goals and mission of the library and the university.

Forming the Team

Pre-assessment and planning should be managed by a small team or group. It should be comprised of personnel capable of conducting and evaluating the needs assessment, and of proposing an implementation plan. Each team member must understand the results of the needs assessment within the context of the university and library mission and vision. With this understanding, decisions will be made with patrons need in mind. Providing a space that is useful and usable by the constituency should always be the central desire guiding the team. The group should include representatives of those who have a stake in the outcome of the commons. The group's composition will be different for each library and will depend on the political climate, campus hierarchy and the scope of the information commons (i.e. room remodel or new building construction) (Micheal, 2001)

As a part of the investigation into a commons, not only should its viability be ascertained, but also what components and services the commons should contain. Some of the possible components of commons include: group study spaces, study rooms, multimedia stations or lab, café, personal assistance, and printing/copying capabilities. Because the space should be customized to the needs of the particular community, no two commons are identical: each implementation of a commons is different from all the others.

As the team investigates components to include in the commons plan, it is worth the time and effort to investigate what other institutions have done in their planning process. Consult

documents such as the "Information Commons: Planning Checklist," written by Susan Beatty and Hester Mountifield (Beatty &, Mountifield , 2006). For guidance in planning, studying the results of implementations and studies conducted at other institutions, along with site visits, when possible, is an important way to keep from reinventing the wheel. However, this caution from Georgia Tech should be kept in mind; the most effective learning spaces complement and respond to one's own faculty and students. Rather than mimicking what others have done, you must perform your own user-centered discovery.(Fox & Stuart, 2009)

A well planning document

The planning document is the most important product of the planning team. This document will largely determine the success of the information commons implementation. It is for this reason that, when possible, planning documents should be obtained from other institutions which have successfully implemented a commons. Looking at the experiences of others will help facilitate brainstorming as well as the overall document creation process. Build phasing into the process. Change will continue to occur in the technology and in the group that the commons serves. A great example of phasing in information commons can be found at Georgia Tech. Their process started with the renovation of just a part of their library in 2001. Phase two was completed in 2006 and the third phase is currently in process. Through each of the first two phases lessons were learned that are being applied to the current phase.

The conveniences that can be provided to students in the commons, one of the most helpful is to create a one-stop-shop of services. The fewer points of service available, the happier the student will be when leaving the library. Traditionally library services have been much siloed, working independently from one another. However, in many institutions, as reference statistics are in a downward trend and given the depressed financial situation many institutions are experiencing,

combining various public services should be considered. Possible inclusions in such a meta-service could be circulation, reserve, reference (knowledge discovery systems), and media services. In addition to library services, other campus services such as the writing center, tutoring, etc., should be considered for inclusion into the one-stop-shop commons (Micheal, 2001S)

Spaces/ Site

It is important to carefully consider the space the commons will occupy. If a new library building is being constructed, a commons needs to be considered in the planning of that building (e.g. Utah State University, University of Southern California). In cases where a commons will be implemented in an existing building (e.g. University of Utah, University of North Carolina—Charlotte), the space needs to be large enough to provide for all of the desired services. In addition, a plan for scaling or phasing needs to be in place. If the new building will be dedicated to the information commons (e.g. Loyola University—Chicago, University of Sheffield) the planning process will be much different.

When information commons are discussed most people think of them as being located in a library. However, these spaces might conceivably be located elsewhere—in, for instance, a student center (Bennett, 2003). Because libraries provide much of the essence of information retrieval, creation and dissemination they make ideal locations for information commons. However, adequate services may be implemented elsewhere.

Academic libraries have traditionally been quiet spaces for study and contemplation, but that has changed. The students who frequent the library are using the space for more group work. Because of this and the change in class pedagogy, collaboration has become an integral part of a contemporary college. With the advent of online social networks, online collaboration is the most widely used form, but in-person collaboration remains important for social development.

Information commons should be comfortable and adaptable to the needs of the user. For example, individuals who prefer to study where there is a constant hum of activity often uses these group spaces.

Despite the need for group spaces in a library, it is still essential to have some spaces set aside elsewhere in the library for individual quiet study. Be creative with technology-free environments, which are spaces not only free of talking, but also free of the quiet hum of computers or the ringing cell phones. Areas with little or no cell phone reception should be considered for this type of space. This speaks to the flexibility and adaptability of the library in meeting the needs of users with a variety of personalities and study styles. Be sure to provide space for as many as possible. Ask the users which spaces are most important.

When discussing the information commons space, consider allotting space for other campus entities. The library should be viewed as the center of the campus community. One of the best ways to support this notion is to invite campus collaborators into the commons. Possible campus collaborations include the writing lab, tutoring, or academic advising, among others. These entities should be treated as partners in the commons development and invited into the discussions. If they are involved from the beginning they will feel a shared ownership in the space and perceive that they also have a stake in its success.

Even with a well planned and implemented commons, some things will not turn out as planned. "Often, it is not until a space is pushed to its limits that the desirable (or lacking) features can be identified." Allow the users to innovate in the space and allow for a highly reactive development as well as a planned one. Items that allow for this creativity include furniture on wheels, mobile accessories (white boards, reconfigurable walls, etc.) and opportunities to experiment with new

possible developments (sandbox). The commons needs to support the creativity, experimentation and playfulness of the users [which] can uncover potential new uses.

Information commons have largely been developed with undergraduates in mind. While this is laudable, and perhaps preferred, graduate students and faculty should be considered in developing library space because their needs are typically different from the needs of undergraduates. A space set aside for, and marketed to, graduate students and faculty should be considered if they do not feel comfortable in, or their needs are not being met by the existing commons space.

It is hard to discuss library spaces without mentioning the use of the virtual space. Virtual commons encourage collaborative relationships in the development of class work or group projects. Virtual commons have not been adequately explored yet, but with the reliance of students on the online environment, they will become more used and useful to the student. The Georgia Institute of Technology has created a virtual design laboratory for students to vote on emerging concepts and provide narrative feedback.

To summarize, consider space types, service components, and the needs of all the library constituents. Build flexibility into the space with moveable furniture and a variety of services. Doing so will allow users to create personalized space.

Assessment

As a commons is planned and implemented, the need to incorporate the means of measuring the effectiveness of the library design and evaluating the impacts of decisions made in the programming phase must be addressed. Post-implementation evaluation and assessment is an ongoing process that will continue to inform decisions regarding improvements or phases in the

process. Results of such assessments frequently bring to light "new and important questions, which can then be integrated into the design process.

The space planning toolkit developed by Crit Stuart for the Association of Research Libraries (ARL) mostly available in this website http://www.arl.org/bm~doc/planning-a-learning-space-tool-kit.pdf contains examples of assessments that can be used to evaluate the implementation of a commons. Many university library information commons apply it and ascertain its effectiveness such as Georgia Tech used many of the suggestions in the toolkit and in addition used their Library Student Advisory Council, as a source for information and assistance in implementing the assessments. Observation was one user-centered discovery techniques used by Others (Fox & Stuart, 2003) user-centered discovery techniques include:

1. Organizing focus groups
2. Conducting random interviews
3. Observing where students go in the library when the East and West Commons are full
4. Creating a virtual design laboratory
5. Consulting findings from East Commons discovery and assessment activities
6. Working with outside experts
7. Involving the Library Student Advisory Council in user-centered discovery and interpretation of data
8. Mentioning the project frequently in campus media to generate user interest and participation
9. Conducting design charrettes. (Fox &, Stuart, 2003).

These assessments will help find components that stakeholders or users of the space want to see implemented. Vetting ideas through these groups can happen through surveys, focus groups and a

sandbox. Surveys facilitate the accrual of desirable outcomes, but do not provide the interpersonal interaction apparent in a conversation. Focus groups capture the spontaneity of conversation while discussing options for an information commons, but they require more time and money than surveys. A sandbox, or test space, is ideal for investigating furniture or other services that are tied to a space. Each of these, and others, can be important in assessing how service oriented an information commons really is.

To repeat, because the technology and learning environments change rapidly an assessment plan needs to be in place when the commons opens. This will ensure that any changes will be done with the right motivations and will improve the chance of achieving their desired ends. Creating an initial assessment plan should be part of the charge for the investigation and planning team.

Policies/Rules

Clear policies and guidelines need to be in place so the students know what options exist in the space and the rules for using it. Policies regarding noise, computer usage (in the case of a technology-free zone), and cell phone use and group space should be clearly defined and adequately displayed throughout the library. Many libraries have modified their policies to allow food in the commons space, or throughout the library. This response to the user's request has become a great success in many libraries. The By George café at the Odegaard Undergraduate Library at the University of Washington is just one example. It was implemented in a library space near the entrance that had become less important for library work and study. This is an example of how libraries are responsive to students and the way they want to use the library.

Other Resources

The current generation of college students is a connected generation. They expect to be connected wherever they may be. Although wired connections seem less necessary currently, some students still need a wired connection. These connections should be considered and placed where the students will use them. The commons will be even more service oriented by making Ethernet cables available for purchase or check-out.

Most libraries are transitioning their reference collections from print to electronic formats. While developing a plan for an information commons, address those reference services that are either not available online, have not been purchased for online access, or are preferred in print by some patrons. These items should be considered for inclusion in the information commons. Such decisions should be based on assessments, and any resulting collection should match the assessed needs of the users.

Staffing

Staffing the commons will depend largely on the services that are provided in the space. Most commons implementations provide at least basic computer support and reference services. Another aspect of staffing is management. Should the manager be a librarian, or a support staff person? Regardless of the answer, the manager must understand the capability of all the technology that is supported by the commons. This does not mean that the manager should know how to do everything, but that the manager knows what the technology is there for. A deep understanding of the purpose or mission of the commons is essential in providing the best service possible. This includes understanding other services that may share the commons space, such as a writing center satellite, publication lab, or academic advising, but which will not necessarily be supported by the commons staff.

Another essential aspect of staffing is the training program that is implemented for commons staff. Again, depending on the services provided in the commons, the training needs to be pertinent. Perhaps the most difficult aspect of training staff to work in an information commons is the rapid pace of change in technology. "Training must keep pace with technology changes and system upgrades. Adequate training can involve a great deal of time and money, which are often in short supply" in many libraries. (MacWhinnie, 2003) Inadequate training can result in inferior service and loss of good will toward the library. In addition to training on the technology available in the commons, continuous training and practice in customer service skills is necessary.

Finally, a decision will need to be made regarding the composition of the team working in the public space (on a desk or otherwise). What mix of students, support staff and/or librarians will there be in the commons? What level of expertise will be expected of each staff level? Some patrons tend to more easily approach student workers than support staff or librarians. On the other hand, other patrons view support staff or librarians as the most knowledgeable and gravitate to them.

2.3 Campus partners of an Information Commons

Since the middle Ages, the word 'commons' has described a shared resource and expressed the idea of community. So the Information Commons is a shared environment where the University's academic community can come together to access a wide variety of information and learning resources' (University of Sheffield, 2012).

The term collaboration is often used very loosely to describe any type of working together of various parties, but in the management literature, it has a much more precise meaning. Bringing various units that are administratively separate from the library into the physical location of the

information commons is frequently referred to as an example of collaboration (Forrest and Halbert, 2009). However, the presence of these other units may merely be one of convenience or of superficial interaction with the library. If one thinks of a continuum of co-location, cooperation, and collaboration, it may assist planners to think through the type of working relationships and partnerships they might want to establish within an information commons. In the planning phase, the notion of bringing together a number of campus services is generally one of co-locating services to provide convenience to the user population, especially undergraduate students. Students who need help writing papers or preparing presentations may require assistance from writing center staff that can assist them with the mechanics of writing from library staff who can aid them in locating information resources, or from information technology staff that can assist them with any hardware or software problems they may encounter. So, the co-location provides convenience to users, but it does not imply the creation of new services that leverage the joint expertise of more than one type of professional group. Co-location of services can also provide opportunities for informal staff contact across sectors, especially to encourage easy referral to appropriate service points.

Whenever services are co-located, each unit has to have a physically separate service point (a desk or designated area) within the information commons. Though, in some information commons, the staff of various separate units move beyond co-location to genuinely cooperate in some ways (Forrest and Halbert, 2009). Cooperative activities can include joint planning for service hours, establishing the scope of each other's work in order to minimize overlap in services, sharing publicity or marketing efforts, and developing centralized workshop schedules. This type of cooperation can lead to increased understanding among units that results in developing an overall plan for services and filling gaps in service offerings. In addition, cooperative efforts can lead to the

personnel in the units learning about each other's expertise and being able to make better referrals and plan new types of services (Forrest and Halbert, 2009)

For example, if the library had a collaborative relationship with a center for teaching and learning in the information commons, both the library and center staff would establish goals and create programs to help faculty develop new curricular materials that involve technology and digital content. Just like the Librarians at the University of Tennessee, that enjoyed several successful library/information technology collaborations, suggest that there are readiness criteria by which institutions can judge their capacity to engage in a genuinely collaborative project. These criteria include:

I. culture(encouraged to innovate);
II. history of collaboration;
III. executive support;
IV. willingness to reallocate funds—bootstrap;
V. Ability to leverage existing expertise of library and IT (Forrest and Halbert, 2009).

The core to the concept of an Information Commons is the idea of one-stop shopping for student resources and services (Britto, 2011). As this concept evolves, it has expanded beyond simply supporting students' Information, technology and Library needs. Library partnerships with a range of campus units under the Commons model are becoming more prevalent and valued. These greatly extend the services available to the students, and take the concept of one-stop shopping to a new level. Similarly Gabb and Keating, (2005) argue that without university-wide support and academic partnerships aligned to a common movement toward learning-oriented and learner-centered education, the implementation of a Commons will have minimal impact on student learning.

Moreover, many academic libraries that have successfully partnered with other campus entities in their Commons model exist. In collaborative efforts, the units involved would demonstrate that they

I. develop *shared* goals;
II. engage in joint planning;
III. share governance or administration
IV. pool expertise to develop new services;
V. Contribute resources, such as space, staff, or equipment, (Forrest and Halbert, 2009).

For instance, Alden Library in Ohio University partners with the Center for Academic Technology, the Center for Teaching Excellence, and the Center for Writing Excellence, Dining Services, and the Undergraduate College (Britto, 2011). At the University of British Columbia's Irving K. Barber Learning Center, students have benefitted from partnerships with a number of campus units, such as writing and research, study skills, multimedia creation, course tutoring, advising, and support for teaching and learning (Britto, 2011). At the University of Guelph, the library's Learning Commons is based on a partnership model with Computing and Communications Services, the Office of Open Learning, Student Affairs, and Teaching Support Services (Britto, 2011).

Though, there is a lot of benefit drive from the collaboration, collocation and cooperation of some units in the campus with an information commons model for effective and efficient service delivery, it has some challenges associated with it. As McMullen, (2008) stated that, despite the value and benefits of coordinating and centralizing student resources and academic services with a Learning Commons model, managing these resources and people in such an

environment from multiple units on campus is complex and often takes considerable negotiation, compromise, a common vision, and time.

Finally some authors suggested likely campus units to partners with in developing information commons and the various roles each to play in order to succeed, includes;

1. Library (usually lead partner)
2. Information technology center (usually lead partner)
3. Faculty academic computing center (research computing)
4. Center for teaching and learning
5. writing center
6. Career center
7. Academic advising units (Forrest and Halbert, 2009).

2.4 Changing role of Library staff in Information Commons.

As noted, the Information Commons model, once in a while demands modifications in physical space, access and services. In line with these modifications, the role of the academic librarian in higher education must be re-conceptualized to meet the needs of the new generation of higher education students on the students' terms. One meaningful re-conceptualization of this role in academic libraries is referred to as the "blended librarian" (Bell & Shank, 2004). A blended librarian describes a librarian who is well versed in both print and online tools, and who has the compliment of the traditional skill set of librarianship and the information and instructional technology knowledge and skills to effectively support and enhance the teaching and learning process for students and faculty alike. Accordingly, librarians' professional development must be comprised of appropriate and effective instruction in information and instructional technology skills, as students will undoubtedly request assistance requiring

librarians' fluency in these skills. This focused professional development must be continual and monitored regularly to ensure librarians are mastering the needed competencies. In addition, the professional development content must be revised and updated as new and emerging technologies, instructional strategies, and teaching methodologies appear and are adopted (Cowgill, Beam, & Wess, 2001). Likewise, academic libraries need to encourage a research-and-development mindset so librarians understand that keeping up to date in these skills is an integral component of their professional responsibility (Gibbons, 2007). Furthermore, opportunities for experimentation and creating a culture of thinking "out of the box" are critical for the success of sustained professional development of librarians. Accordingly, developing and sustaining strategic and collaborative partnerships with the information technology, the instructional technology, and the center for teaching and learning units are paramount to these efforts.

The reference desk and the reference librarian represent the most significant re-conceptualizations of existing areas and traditional roles in the academic library necessary for a successful Information Commons. Gone are the days where reference librarians would be "shackled to the library and print collection" (Wolfe, Naylor, & Drueke,, 2010) and would sit behind their desks and wait for students to come to them. It is a kwon fact that, in the past, the reference desk was fixed and reactive, in many situations, even passive and non-engaging. But the appearance of google and the Internet have forever changed this reference service model (Adlington & Chris, 2005). As a result, librarians, and reference librarians in particular, need to be prepared to adapt and transform along with it. Essentially, as Leslie Burger (2007), puts it, "it's as simple as us going to where the people are".

Thus the term “roving librarian” is used to capture the revised role of a reference librarian whose function helps re-conceptualize references services from fixed and immovable to flexible, mobile and portable. As Huwe (2003) describes it; “we need to go to study areas and stacks to begin thinking about enlivening reading rooms with wireless, reference on the fly”. The “wireless reference on the fly” describes a reference librarian who, equipped with a laptop, approaches students in the Information Commons and assists them with a host of reference services. These services can include support in instruction, search strategies, research databases, evaluation of resources, and even an in-depth one-on-one consultation if requested (Moore & Wells, 2009).

According to a study by Moore & Wells, (2009) investigating user preferences in the Learning Commons at the University of Massachusetts-Amherst, reported that students are in favour of receiving reference support in-person and are in support of this “roving librarian” or “wireless reference on the fly” model for reference needs. When asked about their preferred method of reference and research assistance, 85% percent of survey respondents indicated they preferred to receive this assistance face-to-face. When asked how they felt about librarian staff approaching them and offering them assistance while they are in the Library, one student responded, “helpful because if I need help, I might not want to get up and lose my place, or I might not know who to see.” Another student reported, “I appreciate the offer; I think it is great, especially for people who do not want to lose their spot, leave their stuff unattended, or are too timid to ask for help.”

One of the most dramatic and transformative changes needed in the role of the reference librarian in an Information Commons setting is in the support of students in their undertaking of

research projects. The Association of College and Research Libraries' (ACRL) information literacy definition,

(http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm) emphasizes the student's ability to:

1. determine the extent of information needed; access the needed information effectively and efficiently;
2. evaluate information and its sources critically;
3. incorporate selected information into one's knowledge base;
4. use information effectively to accommodate a specific purpose;
5. Understand the economic, legal, and social issues surrounding the use of information; and access and use information ethically and legally.

Before the integration of information technologies, traditionally, reference librarians were only involved in just the early stages of the research process, by helping the student determine the information need and show them how to access and acquire it. But now, with the availability of information technology resources embedded within the Information Commons, the blended librarian is able to assist the student with the entire research process from initial conception of research to the completion of the project (Cowgill, Beam, & Wess, 2001).

The shift in the delivery of references services and the change in the role of reference librarians to accomplish this, represent a major departure from existing practice. The impact of such a transition on library personnel cannot be overstated. Accordingly, it is imperative that librarians be invited to participate in the planning and design of the Information Commons. The hope is that

with their voice in the design and implementation of the Information Commons, librarians will have greater buy-in and be better prepared to make the necessary transitions in their evolving roles.

2.5 Summary of the Review

The chapter reviews literatures related to the problems under investigation both on conceptual and theoretical perspective. Conceptually literatures on Information commons, development policies and strategies on information commons, Implementation of information commons, campus partnership in developing information commons and changing of library staff roles in information commons were all discussed. The literatures mostly focus on the definition or meaning of the concept of information commons, policy and strategies of development on information commons, units in campus to associate with in developing the information commons, new emerging roles of the library staff in the information commons setting, implementation procedures, and assessment processes. The area of challenges that are likely to faced during the development and implantation were not well treated, therefore the researcher will critically look at that aspect

References

Adlington, J., & Chris, B. (2005). Checking under the hood: Evaluating Google Scholar for reference use. *Internet Reference Services Quarterly, 10*(3/4), 135-148.

Beatty S, Mountifield H. (2006), Collaboration in an information commons: Key elements for successful support of e-literacy. *ITALICS: Innovation in Teaching And Learning in Information and Computer Sciences*; 5(4):229-245. Accessed 5/29/2009.

Bell, S. J., & 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),37375.

Bennett S. (2003), *Libraries designed for learning.* Washington, D.C: Council on Library and Information Resources;

Bennett, S. (2003). *Libraries designed for learning.* Washington, DC: Council on Library and Learning resources.

Britto, M. (2011). Planning and implementation considerations for information commons in academic libraries. U S; Library Student Journal. ISSN 19326100. Accessed on 14 / 09/ 2011.

Burger, L. (2007). Transforming reference: Online tools are reinventing reference work. Retrieved on April 02, 2011 fromhttp://lb.princetonlibrary.org/documents/March_2007.pdf

Cowgill, A., Beam, J. and Wess, L. (2001) Implementing an information commons in a university library. *The Journal of Academic Librarianship, 27*(6), 432-439.

Moore, A.C., & Wells, A. K. (2009). Connecting 24/5 to millennials: Providing academic support services from a learning commons. *The Journal of Academic Librarianship, 35*(1), 75-85.

Forrest, C. and Halbert, M. (2009) A Field guide to Information commons; UK; The scarecrow press, Inc.

Foster NF, Gibbons S. (2007) Studying students: The undergraduate research project at the universityofrochester.http://docushare.lib.rochester.edu/docushare/dsweb/View/Collect on- 4436. Accessed 05/06, 2009.

Fox R, Stuart C. (2009), Creating learning spaces through collaboration: How one library refined its approach. http://www.educause.edu/EQ/EDUCAUSEQuarterlyMagazineVolum/CreatingLearning S pacesThroughC/163850 Accessed 1, 32.

Gabb, R., & Keating, S. (2005). Putting learning into the learning commons. *Victoria University Institutional Repository*, 1-28. Retrieved August 11, 2011 from http://eprints.vu.edu.au/94/1/Learning%20Commons%20report.pdf

Gibbons, S. (2007). *The academic library and the net generation*. Chicago: American Library Association.

Holmes-Wong D, Afifi M, and Bahavar S, L. (1997), If you build it, they will come: Spaces, values, and services in the digital era. *Library Administration & Management*.; 11(2): 74- 85.

http://www.sagepub.com/upm-data/18296_5070_Sumner_Ch01.pdf , 2014) retrieved on Thursday 11 / 9/ 2014

Huwe, T. (2003). Casting a wider net with roving reference. *Computers in Libraries, 23,* 34-36.

Kranich, N. (2004). The Information Commons Public policy Report, NY; Burnnan Center for Justice. Access on 9/23/2011

Lewis, M. and Sexton, C.,(2012). Planning and Designing Technology- Rich learning spaces; Northumtin University, JISC. Accessed on 14/09/2014.

Lippincott, J.K. (2010). Information commons: Meeting millennials' needs. *Journal of Library Administration, 50,* 27-37.

Lippincott, J.K. (2010). Information commons: Meeting millennials' needs. *Journal of Library Administration, 50,* 27-37.

McMullen, S. (2008). U.S. academic libraries: Today's learning commons model. Organisation for Economic Co-operation and Development. Retrieved July 24, 2011 from http://www.oecd.org/dataoecd/24/56/40051347.pdf

MacWhinnie (2003) The information commons: The academic library of the future. *Portal: Libraries & the Academy*.;3(2):241-257.

Michel, O. I (1999) CFOR'S management Information system: From concept to Implementation. Center for International Forestry Research: Indonesia.

Musatafa, A. (2012) Resaerch methodology, India: AITBS Publishers.

Oblinger, D., & Oblinger, J. (2005). *Educating the net generation*. Retrieved April 11, 2011 fromhttp://net.educause.edu/ir/library/pdf/pub7101.pdf

Online reference Dictionary Retrieved from (www.reference Boss.com) on 16 /9 / 2014

Online Wikipedia dictionary, (2014) Retrieved from (www.ask.com, 2014) on 11/ 9/ 2014.

Prensky, M. (2001). Digital natives, digital immigrants, Part II: Do they really think differently? *On the Horizon, 9*(6), 1-9.

Prensky, M. (2006). Learning in the digital age. *Educational Leadership, 63*(4), 8-13.

Sinclair, B. (2007). Commons 2.0: Library spaces designed for collaborative learning. *Educause Quarterly 30*(4), 4-6.

Sinclair, B. (2009). The blended librarian in the learning commons: New skills for the blended library. *College & Research Libraries News, 70*(9), 504-516.

Stuart C. ARL learning space pre-programming tool kit. (2008). http://www.arl.org/bm~doc/planning-a-learning-space-tool-kit.pdf.

Stuart, C. (2008). *ARL learning space pre-planning tool kit*. Washington, DC: Association of Research Libraries

Stuart, C. (2009). Learning and research spaces in ARL libraries: Snapshots of installations and experiments. *Research Library Issues, 264*, 7-18. Retrieved April 7, 2011 from http://www.arl.org/resources/pubs/rli/

UBC. (2010). Learning commons. Retrieved August 10, 2011 from http://wiki.ubc.ca/Learning_Commons:Content/About

Wolfe, J.A., Naylor, T., & Drueke, J. (2010). The role of the academic reference librarian in the learning commons.*Reference and User Services Quarterly, 50*(2), 108-113.

Yakubu, F. (2009) Design and Implementation of institutional Digital Repository for Kashim Ibrahim Library, Ahmadu Bello University, Zaria-Nigeria. Thesis Project, Unpublished.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology adopted for the study. In The following subheading; population of the study, sample and sampling techniques, instruments for data collections and the procedure for data analysis.

3.2 Research Methods Adopted for the Study

The study adopted qualitative methodology, which is defined in several forms by many scholars as; some authors highlight the research purpose and focus: “Qualitative researchers are interested in understanding the meaning people have constructed, that is, how people make sense of their world and the experiences they have in the world”. (Merriam, 2009) Others emphasise an epistemological stance.

However, phenomenology research design was adopted for the study. A phenomenological research study is a study that attempts to understand people's perceptions, perspectives and understandings of a particular situation (or phenomenon). In other words, a phenomenological research study tries to answer the question '*What is it like to experience such and such?*' By looking at multiple perspectives of the same situation, a researcher can start to make some generalisations of what something is like as an experience from the 'insider's' perspective.

The objective of phenomenology is the direct investigation and description of phenomena as consciously experienced, without theories about their causal explanations or their objective reality. It therefore, seeks to understand how people construct meaning. A phenomenological study often involves the four steps of: bracketing, intuiting, analysing and describing.

The choice of the methodology was informed based on its appropriateness, as observed by the researcher that it guide the work to a useful deduction and induction for a knowledge creation. Also the researcher found the method more appropriate because the population of the study is relatively small, and the data collected are through the interview and documentary sources. Van Manen (1990) stated that Small samples (probably no more than 10 participants) are most suitable for such type of research that, the data collection tools most often used are: Interviews/speech, diaries/write drawings/non-verbal and observation/visual.

3.3 Population of the Study

According to Razaq and Ajayi (2000) population is a collection of element about which we wish to make an inference. This refers to set of all elements people, or observation that is related to a phenomenon that is of interest to the researcher. The population of this study comprise of the kashim Ibrarhim Library MacArthur project committee members. The total number of the committee members was fifteen people (15), drown from various units of the library: such as high level management staff, ICT division staff and supporting staff of Ahmadu Bello University Zaria, Library.

Table 3.1: Tabular Representation of the Population of the Study

S/N	**Category of the Population**	**Frequency**
1	Library administrators	4
2	Library staff(ICT Division)	7
3	Supporting staff	**2**
Total	4	**13**

Source: Adapted from Kashim Library MacArthur Committee Minute of Meeting KIL/M.17 (2011).

3.4 Sample and Sampling Techniques

Osuala (2001) pointed out that sample is a portion of a population as the representation of the population .The entire population was adopted for the study. Under this, the population was first divided into strata or groups. Thus, the population is categorised into three strata as presented in table 3.2. The sampling techniques adopted for the study was random stratified sampling technique. Where the sample were first sub divided in strata group according to their category.

TABLE 3.2: Distribution of Sample Respondents.

S/N	Category of the Population	Frequency
1	Library administrators	**4**
2	Library staff(ICT Division)	**7**
3	Supporting staff	**2**
Total	4	**13**

Source: Adapted from Kashim Ibrahim Library MacArthur Committee Minute of Meeting KIL/M.17 (2011), ABU Zaria.

3.5 Instrument for Data collections

The instruments used in data collection were consultation of documentary sources: some of the sources were in video format, observation of pictures, semi – structured, unstructured interviews and digital recorder used in recording the interview process. The semi – structured interview involved the researcher personally interviewed staffs of kashim Ibrahim Library that are members of the MacArthur foundation project Committee, based on the structured set of interview guidelines prepared before the interview. This enables the researcher to explain or elaborate on any question that may arise from the respondent.

Documentary Sources: Different categories of documents sources was consulted for this research work, which includes, memoranda, agendas, administrative documents, correspondences and some other document that are relevant to the investigation.

Interview: This instrument was used following the facts that people are the most important element of an operational system. A semi – structured interview was adopted in which interview similar to a survey was used to collect information. According to Fontana and Frey, (2003) who stated that the interview was used to collect data from individual interviews by verifying and elaborating on the information supplied by the respondent individually. In the same bent, Lofland, (1995) recommended intensive one on one interviews, if the topic is reasonably public and would not cause embarrassment to participants. It is believe that, intensive one on one interview allows or gives room for people to reflect on the experiences as others talk on issues under discussion.

3.6 Procedures for Data Collection

A semi – structured interview was adopted in which interview similar to a survey was used to collect information. According to Fontana and Frey, (2003) who stated that the interview was used to collect data from individual interviews by verifying and elaborating on the information supplied by the respondent individually. In the same bent, Lofland, (1995) recommended intensive one on one interviews, if the topic is reasonably public and would not cause embarrassment to participants. It is believe that, intensive one on one interview allows or gives room for people to reflect on the experiences as others talk on issues under discussion. The semi – structured interview was used to find out the basic requirement needed for the development and implementation of standard Information commons in the University library, the basic strategic or policy to be adopted in the development and implementation of

information commons, likely changing roles of library staff in the information commons as well as the campus units to partner with in the development of standard information commons.

The unstructured interview questions were normally emanated from follow – up question. The researcher conducted an interview with the responded within three weeks. The interviews were audio recorded using tape recorder which was later transcribed by the researcher. A period of four weeks was used for the transcription.

The researcher also extracts some valuable and relevant data from the literatures reviewed for the study.

3.7 Procedure for Data Analysis.

The data generated from the research instrument were qualitatively analysed according to the themes of the research conducted, depends on the source of the information. Tabular presentation, analyses and descriptive discussion of some data were also made.

Reference

Creswell, W.J (2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 2nd Ed. Thousand Oaks, CA: Sage Publications.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Guba (Eds.), *Handbook of qualitative research* Thousand Oaks, CA: Sage Publications.

Ezra, S. B. (2011), Digital Preservation Policy and Implementation Strategies for National Information Centers in Nigeria: PhD. Dissertation,(Unpublished), ABU, Zaria.

Fontana, A. and Fray, J. (2003). The interview: From structured questions to negotiation text Chapter 2, in Denzin, N.K., and Lincoln Y.S (Eds) (2003) Collecting and Interpreting Qualitative Materials 2nd Edition , Thousand Oaks, CA: sage Publications.

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report.* Vol. 8(4). Retrieved on 24/09/2009, from http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf

Keen, J.and Packwood,T.(1995).Qualitative Research: Case Study Evaluation *BMJ* 1995;311:444446.Retrievedon22/09/2009.Fromhttp://www.bmj.com/cgi/content/full/311/ 7002/44

Lofland, J., & Lofland, L. H. (1995). *Analyzing social settings: A guide to qualitative observation and analysis*. Belmont, CA: Wadsworth.

Stake, R. (1995). The art of case research. Thousand Oaks, CA: Sage Publications.

Tesch, R. (1990). *Qualitative research: Analysis types and software tools.* Bristol, PA: Falmer Press.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS,

4.1 Introduction

This chapter present the analysis of the data generated.

4.2 Response Rate of the Respondent

Out of the 13 respondents for the unstructured interview, eight (08) were interviewed by the researcher during the field work. However, the table 4.2.1: shows the response rate and the categories of the respondents interviewed.

Table 4.1: Response rate distribution of the Categories of respondent

S/N	Category of the Respondent	Total no. of Population	No. of Population Interviewed	% of the Population Interviewed
1	Library administrators	4	2	15.4
2	Library/ICT staff	7	4	30.8
3	Supporting Staff	2	2	15.4
4	**Total**	13	8	61.5

Source: Field work 2014. Kashim Ibrahim Library, ABU, Zaria.

Table 4.2.1: shows that two out of four of the library administrators were interviewed representing 15. 4 percent of the population, Four out of seven of the Library/ICT staff were interviewed which represent 30.8 percent of the population and two supporting staff representing 15.4

percent of the respondent were also interviewed. The total number of eight respondents was interviewed out of thirteen representing 61.5 percent of the entire population.

4.3 Data Analysis

The data collected for this study was presented and analysed qualitatively using content analysis and interview under the following themes:

4.3.1 Basic Requirement for the Development and Implementation of Information Commons.

Base on the documentary sources examined, it is evident that; the basic requirements for the development of standard Information Commons vary from one academic institution to another, but this study considered most of the following to be among the requirements to develop a standard ICs for Ahmadu Bello University, Zaria Library (ABU).

Forest and Halbert (2009), stated that Provision of collaborative spaces with specialized system software, Provision of workstations that accommodate small groups, Provision of group study rooms equipped with computers or spaces for laptops and projectors, Provision of multimedia production areas, Provision of rooms equipped with adaptive technology, and Provision of rooms equipped for video conferencing are the basic requirements needed in the development of ICs in Academic Libraries.

Base on the documents analysed, the researcher also discovered that; Provision of areas for other activities such as scanning stations, printer stations, practice presentation rooms, classrooms for information literacy instruction, and Provision of general purpose classrooms for campus use, teaching and learning center, as well as consultation areas (offering student or faculty consultation with reference librarians, writing tutors, etc.), digitization facilities, Provision of service desk(s) that offer library and information technology assistance, and Provision of café services, are also basic requirements.

The respondents when interviewed about the basics requirement for the development and implementation of standard information commons have some similarities in their views. However, four of the interviewees stressed that:

> What is required can be grouped into two; that is the facilities or infrastructures, such as computers, comfortable sitting environment, connectivity, resources, especially digital resources. Human resources; you need skilled man power with some sort of ICT skills who will be able to manage those resources for the benefit of users are some of the basic requirement needed for the development and implementation of standard information commons (Interview, 2014).

> Similarly, the development of ICs cannot be possible without multimedia facilities, facility for videoconferencing, whereby a researcher may like to have contact with an expert who is not living in that locality, and he does not have the funds to travel to, so the only means to have contact is through the ICs. Therefore, ICs cannot be developed without the multimedia facilities (Interview, 2014)

> At the same time, in developing the information commons (ICs) [sic] you decide on what you want, and how you want it to look like, considering the user attitude, behavior, and culture. Like the ICs in United State of America (USA), it will be different with the one in United Kingdom (UK), but they will be similar in terms of resources and different in policy of operations and sometimes in spaces. Like in UK, they have limited space and therefore you need to book a space if you want to use it, since there are many people to serve. It does not necessarily mean that we must have everything in ICs at a time (Interview, 2014)

> As supported by another respondent, who stated that, the sitting arrangement of the ICs should be, flexible in nature in this case it can be convertible depending on the needs of the users. Environment should be conducive and then probably if you can afford you may have some provisions for food canteen, so that when one is there, he does not necessarily have to go out looking for one thing or the others (Interview, 2014).

4.3.2 Strategies to be adopted in the Development of Information Commons

Base on the documentary sources examined, it is evident that; the basic strategies for the development of standard Information Commons in academic institution are many, but this

study considered most of the following to be among the strategies for the development of standard ICs for Ahmadu Bello University, Zaria Library (ABU).

In terms of strategies to be adopted for the development and implementation of information commons, a well-designed and student-centered information commons has to integrate a range of campus partners to offer students a centralized access to all of their academic needs. In a related development, students input and involvement are essential in developing strategies for well planned information common. Therefore, mechanisms for ongoing feedback and input are critical to ensuring the Information Commons to continue to meeting users' needs as captured by (Briton, 2011).

Similarly, the following well articulated strategies for the development of information commons in academic libraries are paramount for any institution that intends to develop an information commons. These strategies are; involvement of communities of stakeholders in the design, creation, and management of information commons, spelling out clearly the common property, resources to incorporates. Therefore economic models that will raise the value of shared access over individual consumption, and promote the value and benefits of access as well as the likely danger of enclosure, promote and enhance legislation that ensures public ownership of public research (Nancy, 2003).

On the other hand Briton (2011), emphasised on other critical strategies; as to encourage free access to information resources by giving support to policies that ensures fair and equitable access to information for everyone, and ensure the sign of any licenses and contracts that ensure open access and existing intellectual property rights, encourage peer production of information, always publish in and purchase open access journals, such will surely promote open access licenses. Also, purchasing materials from different and diverse array of information providers

is equally important. Likewise any attempts to filter or segregate users and control access to ideas should be discourage. Protection against the invasion of privacy through the use of technological surveillance measures should be done with care. Developing digital repositories to facilitate open access to the information assets of individuals and communities also need to be encouraged.

Stuart (2009) and Briton (2011), also suggested that strategies for information commons development includes, collaboration of library with campus partners, provision of multimedia facilities; and creation of digital centers; as well as providing faculties and graduates students with spaces.

Briton (2011), also stressed the need for the provision of some spaces that are flexible and able to accommodates changes, create user-influenced spaces,(UIS), classrooms, workshop centers, and avenue for instruction. The other issues to consider are; presentation and practice facilities, galleries, designed artistry structure, exhibitions areas, art and performing spaces, as well as areas for special events. Tutoring and peer support areas, Cafes and refreshment centers are also very important.

The respondents when interviewed about the strategies to be adopted for the development of standard information commons have some similarities in their views. However, some of the interviewees stressed that:

> there is need to conduct need assessment, in order to get the views of our users, because the ICs meant to serve some group of users, Perhaps there is need by the library to get in contact with those meant to serve to hear their views so that at the end of the day, the whole thing will not be a one man show. Whereby we have the information commons but are not serving the purpose. If that can be done it will go along way of helping in development of ICs (Interview, 2014).

> Among the respondents also support similar points as Where you sited ICs as a carved out within the existing library structure, the accommodation will be limited, in that respect what is most encouraging is to go for extension outside the original library plan. (Interview, 2014)

> However, another respondent stressed that in any project that has to do with ICT, you cannot do without the ICT centers and facilities such as classrooms, workshop centers, and avenue for instruction. Most importantly there is the need for collaboration because you in the library cannot do everything alone. there are certain things you have to liaise with them in order to get things moving, like issue of putting internet protocol (IP) address, setting connectivity, setting up the PCs system are not normally done by the librarian (Interview, 2014).

4.3.2 Strategies to be adopted in the implementation of information commons

Base on the documentary sources examined, it is evident that; the basic strategies for the implementation of standard Information Commons in academic institution for the Ahmadu Bello University are stated as follows:

Though, implementation inevitably takes different shapes and forms in different cultures and institutional settings, Implementation literally means carrying out, accomplishing, fulfilling, producing or completing a given task. O'Toole et al., (1995), define implementation as the connection between the expression of institutional intention and actual result.

In a broader perspective, implementation strategies involved the following processes; pre- planning stage, forming the team of expert or task force stage to Marshall the project, producing the planning document stage, spaces/location determining stage, conducting assessment plan stage, policies formulation stage, and determining the other resources to be available, as well as the staffing issues. (Micheal, 2001).

In the pre planning stage, support for the commons needs to be obtained, particularly from groups of stake holders such as library employees, library administrators, students, and

faculty as well as campus administrators. This is because of the financial, political or other reasons necessary, hence the implementation of an information commons should be carefully planned. Similarly, Holmes-Wong, (1997) clarifies that this task will become easier when both the library and university management agree that a library is the focal point of the university's intellectual life.

Furthermore, Foster & Gibbon (2007) also reported a University of Rochester study on need assessment an excellent example. The study addressed issues regarding campus faculty, students and librarians as well as library facilities, schedules, collections, etc. While it is highly recommended to review this study and use the results to help informed decisions, but assessment should be done at each individual institution, as every institution is unique. Stuart (2008), also suggests that Association of Research Libraries (ARL) Learning Space Pre-Programming Tool Kit, is an excellent resource for any group wanting to investigate and study the feasibility of an information commons.

In a similar expression by another expert, particularly in the area of forming a task force team; who stated that, Pre-assessment and planning should be managed by a small team or group. It should be comprised of personnel capable of conducting and evaluating the needs assessment, and of proposing an implementation plan, (Micheal, 2001). In this regard, Micheal (2001) further opined that, each team member must understand the results of the needs assessment within the context of the university and library mission as well as vision. With such clear understanding, decisions will be made with patrons and services in mind. Providing a space that is useful and usable by the constituency should be the central desire guiding the team.

In the same vein, the group should include representatives of all the stakeholders who will have hand in the outcome of the commons. Therefore, the group's composition will be different for each library and will depend on the political climate, campus hierarchy and the scope of the information commons (i.e. room remodel or new building construction). In the area of location or space to site the information commons, some literature reveals that; It is important to carefully consider the space the commons will occupy. If a new library building is being constructed, a commons needs to be considered in the planning of that building (e.g. Utah State University, University of Southern California). In cases where a commons will be implemented in an existing building (e.g. University of Utah, University of North Carolina—Charlotte), the space needs to be large enough to provide for all of the desired services. In addition, a plan for scaling or phasing needs to be in place. If the new building will be dedicated to the information commons (e.g. Loyola University—Chicago, (LUC) University of Sheffield), the planning process will be much different (Micheal, 2001).

Bennett (2003) stated that; whenever information commons are discussed most people think of them as being located in a library. However, these spaces might conceivably be located elsewhere—in, for instance, a student center. Because libraries provide much of the essence of information retrieval, creation and dissemination, they make ideal locations for information commons. However, adequate services may be implemented elsewhere.

The researcher sought the opinion of the respondents on the strategies to be adopted in the Implementation of Information Commons in Ahmadu Bello University, Library Zaria.

there is need for a need assessment, now we already know our strength, that, it is essential to have it, now what is missing may be trying to get the views of our users, maybe there is need by the library to get in contact with those meant to serve, to hear their views so that at the end of the day, the whole thing will not be a one man show, whereby we have the information commons and not serving its purpose. If that can be done, it will go along way of helping in development of ICs. (Interview, 2014).

As I said, or probably you may want to say that an information commons suppose to be unique itself, in the sense that all resources especially information resources have to be available for easy access and use, so that one will expect that under normal circumstance, there should be enough information resources in all formants.. The facilities should be cosy, the reading chairs have to be very neat and clean and one thing is that, it should be properly ventilated. The sitting arrangement should be very ok, and comfortable. Then probably if you can afford you may have some provisions for entertainment, water, minerals drinks, so that when one is there, he does not necessarily have to go out looking for one thing or the others. (Interview, 2014)

The same respondent also stated that, In terms of resources internet connectivity, audiovisual materials, projector, are very important, so that customers can easily have access to the document. There should be room for keeping other networks resources so that whatever is required by the users whether within or outside the library one can easily get it. We should also have periodicals like newspapers, and also other reference material, (Interview, 2014).

In view of the fact that, it may not be necessarily a large environment because there are two approaches to it, you either create it within the library or carved it out as an extension. Where you excite in the library that is to show that, the accommodation will be limited, in that respect what is most encouraging is to go for digitize document either newspaper or magazine provided you have your computers and there should be a small place for a group discussion, meeting, one-on-one interaction and there could be audiovisual, there could be head phone, so that whoever want to listing to any lectures or any particular programmes, so, he can use his earphone without having to disturbing the next person that also mean to use it, there should be a television, a clear screen, and multimedia facilities, (Interview 2014).

The above assertion was supported by another respondent, where he made mention that; Initially we were thinking of erecting a new structure for that project, but after some deliberations and the availability of space it was agreed to have it within the library, (interview, 2014).

4.3.3 Changing roles of library staff in the domain of information commons

The world of information is fast changing, so also the role of library staff particularly in the area of information commons service delivery. As noted, one of the key elements of the Information Commons is dynamism or flexibility in nature. That is once in a while demands modifications in physical space, access and services. In line with these modifications, the role of the academic librarian in higher education must be re-conceptualized to meet the varying changing needs of the new generation of higher education students on the students' terms. One meaningful re-conceptualisation of this role in academic libraries is referred to as the "blended librarian" (Bell & Shank, 2004). Furthermore, Bell and Shank (2004) reiterated that a blended librarian is a librarian who is well versed in both print and online tools, and who has the compliment of the traditional skill set of librarianship and the information and instructional technology knowledge and skills to effectively support and enhance the teaching and learning process for students and faculty alike.

Accordingly Cowgill, Beam, & Wess, (2001) lamented that, librarians' professional development must be comprised of appropriate and effective instruction in information and instructional technology skills, as students will undoubtedly request assistance requiring librarians' fluency in these skills. This focused professional development must be continual and monitored regularly to ensure librarians are mastering the needed competencies. In addition, the professional development content must be revised and updated as new and emerging technologies, instructional strategies, and teaching methodologies appear and are adopted. Gibbons, (2007) also held a similar view by stating that, Likewise, academic libraries need to

encourage a research-and-development mindset so that librarians understand that keeping up to date in these skills is an integral component of their professional responsibility.

The reference desk and the reference librarian represent the most significant re-conceptualizations of existing areas and traditional roles in the academic library necessary for a successful Information Commons. Gone are the days where reference librarians would be "shackled to the library and print collection" (Wolfe, Naylor, & Drueke,, 2010) and would sit behind their desks and wait for students to come to them. It is a known fact that, in the past, the reference desk was fixed and reactive, in many situations, even passive and non-engaging. But the appearance of Google and the Internet has forever changed this reference service model (Adlington & Chris, 2005). As a result, librarians, and reference librarians in particular, need to be prepared to adapt and transform along with it. Essentially, as Leslie Burger (2007), puts it, "it's as simple as us going to where the people are".

Thus; the term "roving librarian" is also used to capture the revised role of a reference librarian whose function helps in re-conceptualising reference services from fixed and immovable to flexible, mobile and portable. As Huwe (2003) describes it; "we need to go to study areas and stacks to begin thinking about enlivening reading rooms with wireless, reference on the fly". The "wireless reference on the fly" describes a reference librarian who, equipped with a laptop, approaches students in the Information Commons and assists them with a host of reference services. These services can include support in instruction, search strategies, research databases, evaluation of resources, and even an in-depth one-on-one consultation if requested (Moore & Wells, 2009)

According to a study by Moore & Wells, (2009) investigating user preferences in the Learning Commons at the University of Massachusetts-Amherst, reported that students are in favour of receiving reference support in-person and are in support of this "roving librarian" or "wireless reference on the fly" model for reference needs. When asked about their preferred method of reference and research assistance, majority of the respondents indicated they preferred to receive this assistance face-to-face. When asked how they felt about librarian staff approaching them and offering them assistance while they are in the Library, one student responded, "helpful because if I need help, I might not want to get up and lose my place, or I might not know who to see." Another student reported, "I appreciate the offer; I think it is great, especially for people who do not want to lose their spot, leave their stuff unattended, or are too timid to ask for help." One of the most dramatic and transformative changes needed in the role of the reference librarian in an Information Commons setting is in the support of students in their undertaking of research projects.

Before the integration of information technologies, traditionally, reference librarians were only involved in just the early stages of the research process, by helping the student determine the information need and show them how to access and acquire it. But now, with the availability of information technology resources embedded within the Information Commons, the blended librarian is able to assist the student with the entire research process from initial conception of research to the completion of the project (Cowgill, Beam, & Wess, 2001).

The shift in the delivery of references services and the change in the role of reference librarians to accomplish this represent a major departure from existing practice. The impact of such a transition on library personnel cannot be overstated. Accordingly, the participation of the

librarians in the planning and design of the Information Commons is very important. The hope is that with their voice in the design and implementation of the Information Commons, librarians will have greater buy-in and be better prepared to make the necessary transitions in their evolving roles.

The researcher sought the opinion of the respondents on the Likely changing roles in the domain of Information Commons in Ahmadu Bello University, Library Zaria. In order to achieve this, professionals were interviewed and the responses were presented as follows:

> As part of the changing roles, it is expected that information commons may constitute a combination of so many people, and probably is not a combination, what is most important is that any library that want to provide ICs services suppose to have some specialist around him who can easily man issues, such as digitization. But I want to belief that with the training a librarian can handle it. A Librarian who has interest in technology, example of such is digital librarians those that have all side of the training and experience of contemporary librarianship. (Interview, 2014).

> Yes, if they want to remain relevant, they want people to come to them at all times not necessarily examination period. The Librarian needs to adopt the concept of roving librarianship, so as to serve their divers users effectively. So, if you want to serve your community, you need to go out and become a researcher, and look at what a young generation want and provide it for them, if not all the library will be like an archive (Interview, 2014).

> A lot of things will change as you see; the present librarians are not the same as the librarians of 10 to 20 years back, because of the changes in technology, information seeking behaviours also changing every day, therefore the way services are delivered by the librarians will definitely change., (Interview, 2014).

4.3.5 Tabular Presentation and Comparative analysis of Standard Information Commons with Proposed A B U, Library Zaria Learning Commons (Allc)

The result of the comparative analysis of standard information commons and the proposed Ahmadu Bello University learning Commons is presented under the following sub-headings:

1. Basic strategic policy for the development of Standard Information Commons in University Libraries
2. Basic requirements for the development of Standard Information Commons (ICs) In University Libraries,
3. Basic requirement for the Implementation of Standard Information Commons In University Libraries,
4. The Campus Partners to collaborate and developed Standard Information Commons (ICs) In University Libraries and Summary of the tabular presentation of the findings,

Table 4. 1: Basic Strategic Policy for the Development of ICs in University Libraries

s/n	Strategic policies	Standard	A B U
1	A vision statement crafted and endorsed by all participants, eg stakeholders	✓	×
2	Engaging all categories of users in the planning and implementation process.	✓	×
3	Development of a standard need assessment,	✓	✓
4	Ability to accommodate variety of spaces configuration to meet broad range of users needs, learning styles and preference	✓	✓
5	Integrating campus partners in the development of ics	✓	✓
6	Mechanism for ongoing feedback should be in place.	✓	✓

Key

✓ -- Strategic policies to be available in a standard ICs 6
× -- Strategic policies that is not available in ABU ICs. 2

Table 4.1: shows that, among the six (6) basic strategic policies that must be in place either all or most of them for the development of standard information commons, four (4) strategic policies were considered in the proposed Learning commons of Ahmadu Bello University Library, (kashim Ibrahim Library). This has indicated that the proposed learning commons of Ahmadu Bello University, Zaria Library is standard in terms of deployment of strategic policies. Therefore, the researcher rates the library learning commons above average. This is particularly, a good starting point, being among the first in the whole country to come up with the innovation.

Despite the good effort shown, the researcher recommend that the remaining two strategic policies should be put in place to make it a world standard, as it is enshrine in the university mission and vision that to be a world class institution comparable to all other institutions across the globe.

The researcher further presented the basic requirement for the development of standard information commons in University libraries and what the proposed Ahmadu Bello University Library plan to provide in the table 4.2

Table 4.2; Basic Requirements for the Development of Standard Information Commons (ICs) In University Libraries.

S/	FACILITIES	STANDRD	A B U
1	Create individual work station	✓	✓
2	Create work station that accommodate small groups	✓	✓
3	Create groups study rooms that equipped with computers or spaces for laptop and projectors	✓	✓
4	Provide multimedia production areas	✓	×
5	Provide practices presentation rooms	✓	×
6	Provides rooms equipped for video conferencing	✓	✓
7	Provide rooms equipped with adaptive technology	✓	✓
8	Provides class room for infor. Lit. instructions	✓	×
9	Create general purpose class rooms for campus use	✓	×
10	Provide teaching and learning centers	✓	✓
11	Provide consultation rooms or area	✓	✓
12	Provide scanning station, printer station, digitization facilities	✓	✓
13	Provide services desk that offer lib. and infor. Technology services	✓	✓
14	Provide staff offices	✓	✓
15	Provide informal, comfortable seating areas for learning research and relaxation	✓	✓
16	Create a collaborative spaces with specialize software	✓	✓
17	Provide café service centers	✓	×
18	Provide refreshment centers and facilities	✓	×
19	Create areas for exhibition	✓	×
20	Create galleries	✓	×
21	Create art and performing spaces	✓	×
22	Create spaces for special event	✓	×
23	Design and artistry structures	✓	×

Key

✓ -- Basic requirements to be available in a standard ICs 23
× -- The number of requirement that are not available in ABU ICs. 11

Table 4.2: shows that among the twenty three basic requirements for the development of standard information commons, the proposed Ahmadu Bello University, Zaria, Library Learning commons, have considered twelve basic requirements. That has indicated that learning commons is rated average in terms of standards in the area of basic requirements to be in place when developing it.

Table 4.3 Basic Requirement for the Implementation of Standard ICS In University Libraries.

s/n	Implementation processes	Standard	A B U
1	Preplanning stage	✓	✓
2	Forming the team	✓	✓
3	Producing the planning document	✓	✓
4	Space/location/ site	✓	✓
5	Assessment plan.	✓	×
6	Policy formation	✓	×
7	Other resource	✓	✓
8	Staffing	✓	✓

Keys

✓ -- Implementation processes of a standard ICs 8
× -- Processes that are not in place in ABU ICs. 2

Table 4.3 shows basic requirements for the Implementation of Standard Information Commons (ICs) in University library; it indicated that six among the eight are in the proposed Ahmadu Bello University, Zaria Library Learning commons. Hence the researcher rates the learning commons high, considering the fact that most of the implementation requirement were in the proposal.

At the same time the researcher recommended that remaining two strategies should be put to reach the world standard.

Table 4.4: Campus Partners of Information Commons (ICs) In University Libraries

S/N	PARTNERS	Standard	A B U
1	Library (Lead partner)	✓	✓
2	Information Technology Centers (lead partner)	✓	✓
3	Faculty academic computing center	✓	×
4	Center for teaching and learning	✓	×
5	Writing centers	✓	×
6	Carrier centers	✓	×
7	Academic advising center	✓	×

Key

✓ -- Campus units to partner in development of a standard ICs 8
× -- The units that are not participating in ABU ICss. 6

Table 4.4: shows that among the eight (8) campus units that should jointly partner to develop a standard information commons, the proposed learning commons of Ahmadu Bello University, Zaria, only partner with two of the components. This is because those units are not in the university structure, example writing centers, Faculty academic computing centers, and academic advising centers but there are individual academic advisers in each department. This table indicated that the propose Learning commons is below standard based on the units collaborated with. as a result, the researcher rated it poor. Hence there is need to partner with more units in the campus to make it up to the standard.

References

Adlington, J., & Chris, B. (2005). Checking under the hood: Evaluating Google Scholar for reference use. *Internet Reference Services Quarterly, 10*(3/4), 135-148.

Bell, S. J., & 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), 37375.

Bennett, S. (2003). *Libraries designed for learning.* Washington, DC: Council on Library and Learning resources.

Britto, M. (2011). Planning and implementation considerations for information commons in academic libraries. U S; Library Student Journal. ISSN 19326100. Accessed on 14 / 09/ 2011.

Cowgill, A., Beam, J. and Wess, L. (2001) Implementing an information commons in a university library. *The Journal of Academic Librarianship, 27*(6), 432-439.

Moore, A.C., & Wells, A. K. (2009). Connecting 24/5 to millennials: Providing academic support services from a learning commons. *The Journal of Academic Librarianship, 35*(1), 75-85.

Foster NF, Gibbons S. (2007) Studying students: The undergraduate research project at the university of rochester. http://docushare.lib.rochester.edu/docushare/dsweb/View/Collection-4436. Accessed 05/06, 2009.

Gibbons, S. (2007). *The academic library and the net generation*. Chicago: American Library Association.

Holmes-Wong D, Afifi M, and Bahavar S, L. (1997), If you build it, they will come: Spaces, values, and services in the digital era. *Library Administration & Management*.; 11(2): 74-85.

Huwe, T. (2003). Casting a wider net with roving reference. *Computers in Libraries, 23*, 34-36.

Wolfe, J.A., Naylor, T., & Drueke, J. (2010). The role of the academic reference librarian in the learning commons.*Reference and User Services Quarterly, 50*(2), 108-113.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The chapter presents the summary as well as the recommendation.

5.2 Summary of the Study

The purpose of the study was to develop a standard guide line, policy and strategies for the development and implementation of information commons in Ahmadu Bello University, Zaria library. The study find out the standard policy and strategies for the development and implementation of information commons in University Libraries, the basic requirements for the development of standard information commons, the basic requirements and policies for the implementation of standard information commons the campus partners or units to collaborates in the development of a standard information commons as well as the likely changing role of library staff in the information commons scenario. The studies also made a comparative analysis between standard information commons and the learning commons proposed by Kashim Ibrahim Library, ABU, Zaria; this is for the purpose of discovering the level of standard compliance or otherwise.

In order to achieve the set objective, of the study, five research questions were formulated. The study adopted a phenomenology research designed and qualitative methodology approach. The population of the study was a Fifteen Member Committee of Marchathur Foundation in the University. Due to the smaller number of the population, the entire population was used as a sample for the study.

A semi- open ended questionnaire was designed were used during the interview with populations that were derived from different professionals sectors – library, ICT section, and Library supporting staff. The researcher also studied the documents of the Proposed ABU library learning commons. The interview session was recorded and transcribed accordingly.

5.3 Summary of the Major findings:

Based on the finding of the study, it was discovered that:

1. Provision of collaborative spaces with specialized system software, workstations or areas that accommodate small groups, group study rooms equipped with computers or space for laptops and projectors, multimedia production areas, (digital camera, video sound recording set or system) rooms equipped with adaptive technology, rooms equipped for video conferencing, and etc are to be considered first.

2. Spelling out the common property, resources, and economic models that will raise the value of shared access over individual consumption, promote the value and benefits of access as well as the likely danger of enclosure, Promote and enhance legislation that ensures public ownership of public research, as well as other issues: such as Pre- planning stage, in which the team of expert or task force to Marshall the project will be form to conduct assessment plan, Produce the planning document, determine spaces/location, formulate Policies and determining the other resources to be available, as well as the staffing issues, are some of the strategies to be adopted in the development and implementation of information commons.

3. In terms of the other units of the campus to corporate or collaborates with Library to successfully build and operate information commons in University, Library, in order to offer students a centralized access to all of their academic needs, are university computing center, I C

T Units, Faculty Literacy Instruction Units. Other issues that have to be address with the collaborators are: issues of fund, staffing, leader's rules in terms of operation and maintenances.

4. In terms of Library staff roles, the staff in the information commons has to go beyond a person assisting the user of library in directing him/her to the relevant resources, by moving on ward to bring it to him. Hence, he must be involved from beginning to the end of a research work. In that regard he must assume the duty of a researcher, consultant, mediator, precipitator as well as facilitator of information resources as implied.

5.4 Conclusion

In conclusion, Information Commons in academic libraries are normally developed in order to facilitate and improves the teaching, learning and research goals of the parent institution, often through an integrated and collaborative service model. The development of information commons in ABU Zaria, Library should be a central, integrated facility that provides space, technology and professional expertise needed to support the academic use of information resources and technology. It should also assist in transforming the library facilities and services which will enable the library system to be re-structured and re-focused the library mission that will tally with the contemporary mode of operations. The information commons is the new trends of the University library systems that will enhance the library's capacity to improve its structure, services and strengthen its relationships with the wider community. This would enable the institution to be the leader among the rest of the Universities in Nigeria, and be among its pairs globally, as enshrined in its vision by creating an enabling and conducive environment for research and learning.

5.5 Recommendations

Based on the research findings the following recommendations were made:

1. Services centers such as; multimedia production, practice presentation, café' services, information literacy instruction, refreshment and general purpose hall or centers should all be provided in the ICs.
2. A vision statement that tally with the vision and mission of the Institution should be crafted and endorsed by all participated units in the development and implementation of the Library Learning commons. The intended users should be involved in the process of the development and implementation of ICs. This is to ensure that, the goals of the commons are achieve. Well articulated policies that align with the main mission and vision of the institution should be formulated.
3. An enlightenment campaign should be lunched in order to make the university community and other targeted beneficiaries much more aware about the ICs and its value in the area of information resources provisions and services delivery. A standard assessment plan should be design, in order to ascertain and evaluate the services provided to allow rooms for adjustment and flexibility for future.
4. The head of ICs should be a professional librarian with the support of well trained ict staff and some non professional librarian train to provide supportive services. The library staff should be given a rigorous training in the area of information technology literacy in order to effectively handle the affairs of ICs to harness its maximum value.

Refences

Adlington, J., & Chris, B. (2005). Checking under the hood: Evaluating Google Scholar for reference use. *Internet Reference Services Quarterly*, *10*(3/4), 135-148.

Bailey, D. R., & Tierney, B. (2008). *Transforming library service through information commons: Case studies for the digital age.* Chicago: American Library Association Editions.

Beagle, D. (1999). Conceptualizing an Information Commons. The journal of academic librarianship 25,(2) 82-89

Beagle, D. (2010). The Emergent Information Commons: Philosophy, Models, and 21st Century

Beatty S, Mountifield H. (2006), Collaboration in an information commons: Key elements for successful support of e-literacy. *ITALICS: Innovation in Teaching And Learning in Information and Computer Sciences*; 5(4):229-245. Accessed 5/29/2009.

Bell, S. J., & 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), 37375.

Bennett S. (2003), *Libraries designed for learning.* Washington, D.C: Council on Library and I nformation Resources;

Bollier, D (2001) Why we must talk about the information commons, Paper presented at the American Library Association retreat on New technology, the information commons and the future of libraries, Wyes River, Maryland, retrieved on February 10th, 2012, from: http//www.newamerica.net/download-docs/pdfs/doc-file-103-1-pdf

Brigham Young University, (2003). Report of the Information commons project team, Retrieved on September16th, 2012, from: http//www.lib.utah.edu/mis/bidg-com/docs/04-01-03info- common-final.pdf

Britto, M. (2011). Planning and implementation considerations for information commons in academic libraries. U S; Library Student Journal. ISSN 19326100. Accessed on 14 / 09/ 2011.

Burger, L. (2007). Transforming reference: Online tools are reinventing reference work. Retrieved on April 02, 2011 from http://lb.princetonlibrary.org/documents/March_ 2007.pdf

Cabral, J. (2011). Is Generation Y addicted to social media? *Elon Journal of UndergraduateResearch in Communications, 2*(1), 5-14. Retrieved July 30, 2011 from

http://www.elon.edu/docs/eweb/academics/communications/research/vol2no1/01Cabral. p df

Carlson, S. (2001) "The Deserted Library," *Chronicle of Higher Education* 48

Cowgill, A., Beam, J. and Wess, L. (2001) Implementing an information commons in a university library. *The Journal of Academic Librarianship, 27*(6), 432-439.

Craig H. (1995) "The future of Libraries" Architecture 84, 43-47fi nal.pdf

Creswell W.J (2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 2nd Ed. Thousand Oaks, CA: Sage Publications.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Guba (Eds.), *Handbook of qualitative research* Thousand Oaks, CA: Sage Publications.

Ezra, S. G. (2011), Digital Preservation Policy and Implementation Strategies for National Information Centers in Nigeria: PhD. Dissertation,(Unpublished), ABU, Zaria.

Forrest, C. and Halbert, M. (2009) A Field guide to Information commons; UK; The scarecrow press, Inc.

Foster NF, Gibbons S. (2007) Studying students: The undergraduate research project at the university of Rochester. http://docushare.lib.rochester.edu/docushare /dsweb/View/ Collection-4436. Accessed 05/06, 2009.

Fox R, Stuart C. (2009), Creating learning spaces through collaboration: How one library refined its approach? From http://www.educause.edu/EQ/EDUCAUSEQuarterlyMagazi neVolum/CreatingLearningSpacesThroughC/163850 Accessed 1/ 7/2014

Gabb, R., & Keating, S. (2005). Putting learning into the learning commons. *Victoria University Institutional Repository*, 1-28. Retrieved August 11, 2011 from http://eprints. vu.edu.au/94/1/Learning%20Commons%20report.pdf

Geoffrey T. F., AIA (2012). The Library as Place: Changes in Learning Patterns, Collections, Technology and Use; Council on Library and Information Resources. 1707 L Street NW, Suite 650 > Washington, DC 20036 > p (202) 939-4750 > f (202) 939-4765

Gibbons, S. (2007). *The academic library and the net generation*. Chicago: American Library Association.

Golafshani N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report.* Vol. 8(4). Retrieved on 24/09/2009, from http://www. nova.edu/ssss /QR/QR8-4/golafshani.pdf

Holmes-Wong D, Afifi M, and Bahavar S, L. (1997), If you build it, they will come: paces, values, and services in the digital era. *Library Administration & Management*.; 11(2): 74- 85.http://www.sagepub.com/upm-data/182965070SummerCh01.pdf , 2014) retrieved on Thursday 11 / 9/ 2014

Huwe, T. (2003). Casting a wider net with roving reference. *Computers in Libraries, 23*, 34-36.

International Federation of Library Associations and Institutions (2002) The Glasgow declaration on libraries, Information Services and Intellectual freedom, Retrieved March 7, 2014 from: http: //www.ifla.org/faife/policy/iflastat/gldeclar-e.html

Johnson C, Lomas C. (2005), Design of the learning space: Learning and design principles. *Educause Review*. 2005;40(4):16-28. Accessed 4/28/2009.

Keen J.and Packwood,T.(1995).Qualitative Research: Case Study Evaluation *BMJ*1995;311:444446.Retrievedon22/09/2009.Fromhttp://www.bmj.com/cgi/content/full/311/7002/44

Kranich, N (2000) .The information commons, The Free Expression Policy Project, Retrieved October 14, 2012 from: http: //www.fepproject.org/infocommons/backgrnd.html

Kranich, N (2003) Libraries and the information commons: A discussion paper prepared for the ALA Office of Information Technology Policy, Retrieved December 15, 2003 from: httphttp//www.ala.org/content/navigationmenu/ourassociation/office/ALAwashington/OITP(office-for-information-technology- policy)/icprins.pdf

Kranich, N. (2004). The Information Commons Public policy Report, NY; Burnnan Center for Justice. Access on 9/23/2011

Kyrillidou, M. (2006). Library assessment: why today and not tomorrow? In Mersini morelelicacouris(Ed) Library Assessment Conference- Thessaloniki13-15 june 2005 (pp9- 27). Washington, D C: Association of Research Libraries. *Retrieved on March 3, 2012 from http://www.arl.org/bm-doc/lac- greece- 2005pdf*

Lewis, M. and Sexton, C.,(2012). Planning and Designing Technology- Rich learning spaces; Northumtin University, JISC. Accessed on 14/09/2014.

Lippincott, J.K. (2010). Information commons: Meeting millennials' needs. *Journal of Library Administration, 50*, 27-37.

Lofland, J., & Lofland, L. H. (1995). *Analyzing social settings: A guide to qualitative observation and analysis*. Belmont, CA: Wadsworth.

Ludwig, L. & Starr, S. (2003). Results of a Delphi study: what the Library is depends on what it does in: The Library as place: Symposium on Building and revitalizing Heal sciences.

Ludwig, L. & Starr, S. (2004). Library as place: results of a Delphi study. In: supplement to official program, Abstracts, Washington, D C Medical Library Association. *Retrieved on 29 December, 2014, from http://www.mlanet.org/am/am2004/pdf/abstracts.pdf.*

MacWhinnie (2003) The information commons: The academic library of the future. *Portal: Libraries & the Academy*.;3(2):241-257.

McMullen, S. (2008). U.S. academic libraries: Today's learning commons model. Organisation for Economic Co-operation and Development. Retrieved July 24, 2011from http:// www.oecd.org/dataoecd/24/56/40051347.pdf

Michel, O. I (1999) CFOR'S management Information system: From concept to Implementation. Center for International Forestry Research: Indonesia.

Moore, A.C., & Wells, A. K. (2009). Connecting 24/5 to millennials: Providing academic support services from a learning commons. *The Journal of Academic Librarianship, 35*(1), 75-85.

Musatafa, A. (2012) Resaerch methodology, India: AITBS Publishers.

Oblinger, D., & Oblinger, J. (2005). *Educating the net generation*. Retrieved April 11, 2011 fromhttp://net.educause.edu/ir/library/pdf/pub7101.pdf

Online reference Dictionary Retrieved from (www.reference Boss.com) on 16 /9 / 2014

Online Wikipedia dictionary, (2014) Retrieved from (www.ask.com, 2014) on 11/ 9/ 2014.

Prensky, M. (2001). Digital natives, digital immigrants, Part II: Do they really think differently? *On the Horizon, 9*(6), 1-9.

Prensky, M. (2006), Learning in the digital age. Educational Leadership, 63(4), 8-13.

Seal, R. A. (2012). The Information Commons: New Pathways to Digital Resources and Services

Sinclai r, B. (2007). Common 2.0: library space designed for collaborative learning: Educause Quarterly 3*0*(4), 4-6.

Sinclair, B. (2009). The blended librarian in the learning commons: New skills for the blended l ibrary. *College & Research Libraries News, 70*(9), 504-516.

Stake, R. (1995). The art of case research. Thousand Oaks, CA: Sage Publications.

Stuart, C. (2008). *ARL learning space pre-planning tool kit*. Washington, DC: Association of Research Libraries from http://www.arl.org /bm~ doc/planning-a-learning-space-tool-kit.pdf.

Stuart, C. (2009). Learning and research spaces in ARL libraries: Snapshots of installations and experiments. *Research Library Issues, 264*, 7-18. Retrieved April 7, 2011 from http://www.arl.org/resources/pubs/rli/

Symons & Stoffle (1998), sited in Brandley, F. (2004). Challenging Ideas: Enabling the Information commons; in a paper presented at ALIA 2004, SBS Radio Resource Center Sydney. Retrieved on 23rd March, 2012.

Tesch, R. (1990). *Qualitative research: Analysis types and software tools.* Bristol, PA: Falmer Press.

UBC. (2010). Learning commons. Retrieved August 10, 2011 from http://wiki. ubc.ca/ Learning Commons:Content/About

William, C. (2010) Academic Library Design: A commons or an athenaeum, *Library Philosophy and practice 2010,* Hempstead, NY 11549-1000. Retrieved on 19 /08/ 2014.

Wolfe, J.A., Naylor, T., & Drueke, J. (2010). The role of the academic reference librarian in the learning commons.*Reference and User Services Quarterly, 50*(2), 108- 113.

Wolfe, J.A., Naylor, T., & Drueke, J. (2010). The role of the academic reference librarian in the learning commons.*Reference and User Services Quarterly, 50*(2), 10

Yakubu, F. (2009) Design and Implementation of institutional Digital Repository for Kashim Ibrahim Library, Ahmadu Bello University, Zaria-Nigeria. Thesis Project, Unpublished.

APPENDIX I.

Letter of Introduction

Department of Library and Information Science,
Ahmadu Bello University,
Zaria.
23th October, 2014

Dear Sir,

My name is Shittu Musa, a Masters Student of the Department, of Library and Information Science, Ahmadu Bello University, Zaria conducting research entitled "Development and Implementation of Information Commons in Ahmadu Bello University Library, Zaria (ABU)".

I do hope you would kindly spear me few minutes of your precious time please.

Thank you

Yours Faithfully

Musa, Shittu
Msc/EDUC/3978/2009-2010

Interview Guide

1 What are the basic requirements need for the developing and implementing of information commons in Ahmadu Bello University, Zaria library?

2 What are strategies to be adopted in developing and implementing information commons in Ahmadu Bello University, Zaria Library?

3 Who are the campus partners to collaborate with in the deployment of information commons?

4 What are the changing roles of library staff in the information commons environment?