PLANNING LIBRARY BUILDING, SPACE AND SERVICES

Course Code: 9205   **UNITS: 1-9**

STUDY GUIDE
BS-LIBRARY AND INFORMATION SCIENCES

AIOU website: https://aiou.edu.pk
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Department of Library and Information Sciences
ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
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Course Organization

The course has been designed as easy as possible for distance mode of learning and it will help students in completing his/her required course work. The course is of three credit hours and comprises on nine units, each unit starts with an introduction which provides an overall overview of that particular unit. At the end of every unit the objectives of unit show student the basic learning purposes. The rationale behind these objectives is that after reading unit a student should be able to explain, discuss, compare, and analyze the concepts studied in that particular unit. This study guide specifically structured for students to acquire the skill of self-learning through studying prescribed reading material. Studying all this material is compulsory for successful completion of the course. Recommended readings are listed at the end of each unit. Few self-assessment questions and activities have also been put forth for the students. These questions are meant to facilitate students in understanding and self-assessment that how much they have learned.

For this course, a 3-days workshop at the end of semester, and four tutorial classes/meeting during semester will be arranged by the department for learning this course. The participation/attendance in workshop is compulsory (at least 70%). The tutorial classes/meetings are not formal lectures as given in any formal university. These are meant for group and individual discussion with tutor to facilitate students learning. So, before going to attend a tutorial, prepare yourself to discuss course contents with your tutor (attendance in tutorial classes/meetings is non-compulsory).

After completing the study of first 5 units the 'Assignment No. 1' is due. The second assignment that is 'Assignment No. 2' is due after the completion of next 4 units. These two assignments are to be assessed by the relevant tutor/resource person. Students should be very careful while preparing the assignments because these may also be checked with Turnitin for plagiarism.

Course Study Plan and Chart

As you know the course is offered through distance education so it is organized in a manner to evolve a self-learning process in absence of formal classroom teaching. Although the students can choose their own way of studying the required reading material, but advised to follow the following steps:

Step-1: Thoroughly read description of the course for clear identification of reading material.

Step-2:   Read carefully the way the reading material is to be used.

Step-3:   Complete the first quick reading of your required study materials.

Step-4:   Carefully make the second reading and note down some of the points in note book, which are not clear and needs fully understanding.

Step-5:   Carry out the self-assessment questions with the help of study material and tutor guidance.

Step-6:   Revise notes. It is quite possible that many of those points which are not clear and understandable previously become clearer during the process of carrying out self-assessment questions.

Step-7:   Make a third and final reading of study material. At this stage, it is advised to keep in view the homework (assignments). These are compulsory for the successful completion of course.

Assessment/Evaluation Criteria of Students' Coursework

Multiple criteria have been adopted to assess students' work for this course, which is as follows:

i.   Written examination to be assessed by the AIOU Examination Department, at the end of semester= 70% marks (pass marks 50%). AIOU examination rules will be applied in this regard.

ii.   Two assignments and/or equivalent to be assessed by the relevant tutor/resource person= 30% marks (pass marks 50% collectively).

Note: Assignments submission and getting pass marks is compulsory, the student who will not submit assignments or marked as fail considered FAIL in the course. He/she will get fresh admission in the course; there is no need to sit in the exam.

Course Introduction

The importance of library building is obvious, regardless of whether one is thinking of the institutions' teaching and research program or of its budget. Library buildings house library collection of various kinds, chiefly books and other printed matter; seating accommodations and other facilities for library users; quarters for the library staff that acquires, catalogues, and serves the collections; and, in addition, architectural or what is preferably known as no-assignable space.

Before a library building is constructed or even planned, a number of tasks should be carried out. The persons directly concerned should in some way become acquainted with the basic problems involved in library building planning. They may include a good many different individuals: the architect selected for the task, the librarian and often several members of his staff, representatives of the library committee, and other persons whom the institution asks for help in the planning or whom it employs for the work, the most important are the user or community to whom the library serves.

Building new libraries, additions, and even remodeling can be a daunting task, and one that most librarians do not undertake frequently. This course will provide references to the tools, resources, and advice to help you manage your library building project, whether large or small. Although the course has been segmented by types of libraries, materials listed for one type may have useful information for planning other types of buildings etc.

Not all libraries are standalone buildings, or have the same internal features. A web search will turn up libraries that have been co-located in apartment buildings, grocery stores, senior centers, shopping malls, arts centers, and museums. Some libraries have coffee shops or theaters as well.

While studying this course to find the specific standards and guidelines pertinent to your project, here are a few simple questions that warrant your consideration:

1. Does the library provide well-planned, secure, and sufficient space to meet the perceived needs of staff and users?
2. Are building mechanical systems properly designed and maintained to control temperature and humidity at recommended levels?
3. What are the perceptions of users regarding the provision of conducive study spaces, including a sufficient number of seats and varied types of seating?
4. Is there enough space for current library collections and future growth of print resources?

5. Does the staff have sufficient workspace, and is it configured to promote efficient operations for current and future needs?
6. Does the library's signage facilitate use and navigation of the facilities?
7. Does the library provide ergonomic workstations for its users and staff?
8. Are electrical and network wiring sufficient to meet the needs associated with current and future electronic access?
9. Does the library meet the requirements of the Americans with Disabilities Act?
10. Are facilities provided to distance learners fully considered?

The course brings together librarians and design professionals to analyze, discuss, and share information related to academic, public, and school library buildings, equipment, and furnishings. Topics addressed include, but are not limited to library site selection; building planning and architecture; library furniture and equipment; interior design; maintenance and security of buildings and property; and disaster recovery.

Course Objectives
This course will empower you to understand and explain:
1. The meaning, nature, characteristics, of library building.
2. The different features of library spaces
3. The recent trends in library building and spaces.
4. Library interiors and how it satisfies the users.
5. History and concept of information commons.
6. Library building trends in UK, USA, Hong Kong and China.
7. Australian and European project and trends in libraries.
8. Technological changes and innovations in libraries.

Recommended reading:
Watson, L. (Ed.). (2013). *Better library and learning spaces: Projects, trends and ideas*. London: Facet Publishing. Available at
https://books.google.com.pk/books?id=9nNTDQAAQBAJ&printsec=frontcover&dq=Better+library+and+learning+spaces:+Projects,+trends+and+ideas.+London:+Facet+Publishing.&hl=en&sa=X&ved=0ahUKEwia8vmL25bmAhWDh1wKHQcuCTIQ6AEIJjAA#v=onepage&q=Better%20library%20and%20learning%20spaces%3A%20Projects%2C%20trends%20and%20ideas.%20London%3A%20Facet%20Publishing.&f=false

Suggested Readings:

1. Bonk C.J. (2009). The World is Open, Jossey Bass.

2. Brand, S. (1995). How buildings learn-what happens to them after they are built, Penguin.

3. Dempsey L. (2010). Outside-in and Inside-out Redux, Lorcan Dempsey's weblog, 6th June 2010, (accessed 19th November 2016).

4. Feynman, R.P. (2000). The Pleasure of Finding Things Out (Penguin) London.

5. Florida, R. (2003). The Rise of The Creative Class: And how it's Transforming Work, Leisure, Community and Everyday Life: Basic Books.

6. Freeman, G. T. (2005). Changes in Learning Patterns, Technology and Use, In Library as Place: Rethinking Roles, Rethinking Space. Washington, DC: Council on Library and Information Resources.

7. Gardner, H. (2006). The Development and Education of the Mind (Routledge) Oxford.

8. Gardner, H. (1999). Intelligence Reframed: Multiple Intelligences for the 21st Century (Basic Books) New York.

9. Gardner, H. (1993). Frames of Mind: the theory of multiple intelligences. New York: Basic Books.

10. Guardian, The (2011). UK ebook sales rise 20% to £180m, 3/05/2011.

11. Horn, C. (2008). Authors fight for UK Libraries, The Bookseller, Issue 5348,9th May

12. Jenkins H. (2013). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century, an occasional paper from The John D and Catherine T MacArthur Foundation, MIT

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14. Johanssen, F. (2004). The Medici Effect, Breakthrough Insights at the Intersection of Ideas, Concepts and Cultures: HBS Press.

15. Kelly, K. (2010). What Technology Wants, Penguin

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19. Lankes D. (2013). Expect More: Demanding Better Libraries (p.32)

20. Laurillard, D. (2002). Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies, Routledge/Falmer

21. Maya Angelou quoted in Prahalad D. Sawhney R. (2011). Predictable Magic – Unleash the Power of Design Strategy to Transform Your Business, Wharton School Publishing

22. Mikunda C. (2006). Brand Lands, Hot Spots & Cool Spaces – Welcome to the Third Place and the Total Marketing Experience, Kogan Page

23. Oldenburg R (1999). The Great Good Place, Marlowe and Company

24. Pass, S. (2004). Parallel Paths to Constructivism: Jean Piaget and Lev Vygotsky (Information Age Publishing)

25. Pine J. B. Gilmore J.H., (1999). The Experience Economy, HBS Press

26. Pink D.H., (2005). A Whole New Mind, How to thrive in the new conceptual age, Cyan Books

27. Rizzo J.C. (2002). Finding Your Place in The Information Age Library, New Library World, Volume 103. Number 1182/1183, pp 457-466

28. Robinson K. (2013). Out of Our Minds, Capstone Publishing

29. SCONUL Working Group on Information Literacy (2011). SCONUL Seven Pillars of Information Literacy: core model for higher education. http://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf (accessed 3.5.2013)

30. Seely Brown, J. and Duguid, P. (2000). The Social life of information. Harvard Business School Press.

31. Sweeney, M. (2011). UK eBook Sales Rise 20% to £180 million, Guardian, 3rd May

32. Watson L. Anderson H. (2008) The Design and Management of Open Plan Technology Rich Leaning Space in Further and Higher Education in the UK, Joint Information Systems Committee, e-learning program, http://www.jisc.ac.uk/whatwedo/projects/managinglearningspaces.aspx (accessed 4/5/2013)

33. Watson L. Ed. (2013) Better Library and Learning Space: Projects, Trends and Ideas, FACET publishing

UNIT NO.1
INTRODUCTION

Planning and construction of library building is one of the important organizational functions. It requires through understanding of needs of the users, objectives and functions of a library. The successful library building is one which clearly and directly expresses and provides the functions that are performed within it. Some general principles of planning should be kept in mind which could serve as criteria in the light of which the building plans can be critically reviewed. The construction of library building should be planned according to the kind of work to be done and the community to be served.

Planning library services for the future, increased space and additional locations may become a major consideration. Planners must decide whether to build a new library, renovate or expand current facilities, or find an existing space to be converted into a library. Construction plans should be considered in the context of the total library plan. They need to study service needs, explore alternatives, project funding, and establish priorities. Most planning processes will lead to the identification of a probable date when new library space should be in operation. While having a new building may be the best answer, it is not always the most practical and should be measured against other options: purchase of an existing building, lease of an existing building, remodeling of the library, addition to the library, or in some cases, addition of branches. Depending on the library and its services, the addition of a bookmobile or other outreach techniques may be considered in expansion plans.

At least every five years, each library system will conduct a community analysis and library-space-needs assessment. Utilization of the latest planning tools, such as Output Measures for Public Libraries and Building Blocks for Library Space, is recommended. Space needs should be incorporated into the library's planning documents. After the library has completed its community analysis, defined its long-term goals and objectives, and determined the need for additional space, a library building program is developed. The building program defines the specific needs of the library in both quantitative and qualitative terms. The building program should bring together the thinking of the library board, the library director, the library staff, and the community on the purpose, scope, and function of the library building program.

The building program should also stress that the building must be flexible and able to respond to future developments. Library functions and spaces should be able to expand and contract as needs develop or diminish. Existing

and future technologies should be anticipated. Computerization, miniaturization, electronics, and other factors are already in play and will continue to develop. This has implications for the building's structure; its heating, ventilating, and air conditioning systems (HVAC); its power, lighting, electronic, and communications systems (PLEC), as well as the ergonomic needs in planning spaces and equipment.

The architect should be hired only after a library has completed these beginning steps of construction planning. The architect can then use the library building program in designing the building. The past experience of the architect should be considered, as well as the architect's personal philosophy. Once an architect is hired, the actual design of the building can proceed, along with final decisions on location, size, addition, or all new construction, etc. In recent years, many librarians have specialized as building consultants, most often in determining space needs and layout.

Library Building Trends in UK, USA and Europe

The libraries of UK, USA and Europe are trend setter in rest of the world. In these developed nations it was noted that today's libraries are serving four key functions, in addition to their traditional role of housing printed materials. **First,** they are a *Locus for collaboration*: As pedagogy shifts and learning becomes more team oriented and less individualistic, there is a new demand for collaboration space for students. Having a place to come together is critical to student success and the full utilization of the library as a learning space. Spaces where students can openly discuss and debate without having to keep their voices down are the new norm.

Second, while providing collaborative space is critical, there is also a need for individual, *Contemplative space* not the long library tables of the past, but rather a variety of spaces to suit the individual needs and learning styles of today's students. Private, traditional study carrels suit some students, while comfortable lounge furniture is ideal for others. A blend of formal and informal spaces can create environments where all students can have their needs met. Of course, sound control is critical to the coexistence of lively, sometimes loud, areas with these quieter spaces. **Third** function of libraries is to provide *Home for services*, such as writing, communication, and tutoring centers, advanced lab spaces, and other specialty spaces. **And last**, libraries must continue to provide both traditional research and technical services while also providing the latest in computer technology and associated technology support services. Most of library plans are made keeping in view the needs of the community, whether it be a public or an academic library,

means that no longer does one rule suit all. Nonetheless, when planning a library project, it remains essential to define space needs for users, collections, staff and meeting areas as well as the space for building services, circulation and other behind the scenes activities. Differing uses of space, learning and research requirements from a user perspective, staff needs, post-occupancy evaluation, green issues and sustainability have come to the fore, emphasizing the use of environmentally friendly building materials, regenerative energy and the successful conservation of existing building fabric. Cost-effective off-site, or indeed on-site, storage using robotics and automation is being emphasized for libraries with large heritage collections.

Moreover, high quality IT and Wi-Fi facilities and access to ever-increasing e-collections are now essential ingredients in any new or refurbished libraries. Accommodating long opening hours, providing a wide variety of seating and study spaces to suit all styles of learning, study and research with special areas for different types of users have emerged as matters to be addressed. Increased attention is being paid to the design of staff areas with much debate about open-plan versus individual office space. As libraries subscribe more and more to the same resources, one of the things that differentiate them is their special collections and archives, so these are acquiring a higher profile in the allocation of space. In universities, learning and teaching spaces increasingly are being incorporated into or managed by the libraries, and in all types of libraries inclusion of makerspaces and creative spaces has made its way across the Atlantic.

Library Building Trends in China, Hong Kong and Australia
China, Hong Kong and Australia are developed nations and they are introducing a new era in library buildings, through replacement or renovation of dated library buildings. New trends are shaping the next generation of public and academic libraries. Many of the libraries they inhabited represent the architectural and societal trends of the early to mid-20th century. Frequently they reflect dated trends that they learned to hate-forbidding fortress-style slit windows, low ceilings, monolithic service desks-not to mention the miles of extension cords and surface conduit they have installed to keep library technology operating.

Times are changing, however, and new principles, one hopes more timeless and flexible, are defining today's libraries. As the library is considered essential part of the community, and it should embody its character and culture through architecture and interior design, a successful library building not only be a reflection of its community, but also providing a space for

learning, sharing knowledge, and interaction. At the same time, the libraries are reflection of its community. They are also reflecting of local culture, a keeper of local traditions and history, and a window to the world. Through architecture and design, the libraries have the potential to embody the spirit of the community and its users. With unique shaped design, building's exterior, glass skin libraries creating a uniquely transparent environment that beckons visitors to enter.

These designs are at once aesthetically pleasing and environmentally friendly. While they allowing for the use of natural light, a rooftop gardens, and an air flow system, it also captures the culture of these nations. Mostly libraries interior design and building layouts are user-oriented in nature and built to meet the technological and diversified needs of the patrons. The building's open spaces, variety of seating, and independent and collaborative spaces accommodate those who wish to read and reflect on their own as well as those who wish to communicate and work with others. The libraries are built to withstand the heat and humidity measures of the climate, and are also built to accommodate the varied and changing needs of the users, the changes in technology, and the growth of the cities. Universities today are focusing and allocating a high portion of their resources and efforts to promote the social dimension of learning. With this, the libraries can act as transformative agents, from mere collaborators of change to partners in creating meaningful knowledge, and not merely to prepare students to become information consumers. These spaces of academic libraries today are being designed not only to stimulate and support creativity, reflection, exploration, and innovation but also impact learning.

These collaborative environment and spaces not only unleashes the students' potential to manage and create their own knowledge but also contributes to enriching one's social learning and life. An excellent learning space "provides students' not only curriculum support, but also a plethora of student services" such as "a studio room which will allow them to record presentations with the push of a button and carry away the results on a flash drive. These libraries are also providing opportunities for students to display their work, practice their presentations, move from their classes straight to flexible learning zones, network with their peers, interact with a tutor in a relaxed and comfortable informal environment with food and drinks. In these multi-purpose spaces, the students can also make use of workrooms supporting real-time, multi-device interaction, to high-end graphics computing and full support for audio and visual media. There are challenges ahead but the future for library buildings still looks healthy and exciting.

Self-assessment Questions

1. Briefly describe the important characteristics of successful library building.
2. What a role an architect can play along with librarian in planning library building.
3. Discuss library building trends in UK and developed countries of world.

Activity

Search on the Internet the recent trends in designing library building in UK, USA, Hong Kong and China, and compare with Pakistani library buildings.

UNIT NO. 2:
LIBRARY SPACE AND TECHNOLOGY(B) LIBRARIES INFORMATION AND LEARNING(C) KEY IDEAS ON SPACE(D) THINKING IT THROUGH

Advances in technology over the past decade have affected every aspect of librarianship. There is an abundance of literature exploring technology's influence on issues such as our approach information literacy instruction, how we connect with patrons, what formats we procure, and even how the library's mission is being shaped by changes in technology. One aspect that is easily overlooked, though, is how technology has subtly changed (and is constantly changing) the brick-and-mortar, physical space of the libraries. Some changes have been immediate, but others have moved at a relatively glacial pace, drastically changing the landscape of the libraries.

To understand the current state of technology's impact on library space, it is useful to frame the discussion within a historical perspective. During 1960–1980, the introduction of microformats required libraries to allocate space for equipment in reading areas and backroom processing. The machines typically did not mandate a complete reworking of a library's floor plan, but they did begin to encroach on areas formally used for shelves of books. The equipment sat on tabletops or desks, involving considerations for access and power outlets (similar to what many libraries would later face with issues surrounding public desktop computers).

The period 1980–1994 included the wide–scale adoption of online catalogs. Unlike the microfiche readers that could be tucked to the side, the online catalog terminals had a footprint in prime locations such as in reference areas. However, the new catalogs did not affect public space too drastically. Physical space requirements for the catalog upgrades were minimal, and by the 1990s many of the bulky card catalogs were completely removed and replaced by smaller terminals.

It wasn't until the mid-1990s that the libraries saw the beginning of technology-inspired, massive change to the physical space within the library. The Internet connected more than just people to people; it networked homes to businesses, scholars to scholars. Information blossomed and flowed through these slow, dial-up connections. Some describe this as the information snowball rolling down a mountain, but it was more like an information avalanche that never waned. The Internet changed everything, and at the heart of it all, libraries were positioned as the first institutions to freely connect the public to the Internet. Before that, however, the technology

that accompanied the Internet began transforming the traditional reference area and the accompanying library print collections. Floor space in reference area began to open up as encyclopedias were replaced by search engines and shelves full of indexes were moved or discarded. Instead of maps and dictionaries, the Reference Desk now looked out across rows of computers and printers. The period 2009–2010 as the tipping point for e-books. That is approximately the time when vendors and publishers began to make extensive collections available in both digital and print forms. This is also the period when tablet computers and e-readers were gaining traction with the general public. Other than fewer print books being purchased and shelved, it still may be too early to identify the impact e-books are having on the libraries' physical space.

Libraries information, service-learning

What is the role of a library when it no longer needs to be a warehouse of books and when users can obtain information without setting foot in its doors? Diverse perspectives stimulated readers to think about the services and roles of the library with an emphasis on the importance of the "library as place—or base—for teaching, learning, and research in the digital age. Discussions turned into actions as libraries responded to the need for enhancing relevance to the learning communities they served. They created information commons, learning commons and makerspaces. The "library as place" movement prompted additions of game tables, more comfortable seating, additional group study space, coffee kiosks and even full-service cafés. Digital natives have come to expect wireless connections, interactive white boards and 24/7 service. But to get to the heart of education, to proactively facilitate engaged learning, libraries need to be in a position of partnership with campus constituents and the community they all serve. This can be accomplished through Centers for Service-learning hosted in library spaces, with library staff serving as integral members of a service engagement team.

In present days the main aim of libraries is to focus their energies and space on teaching and learning. Regardless of any specific answer, one thing is common to all: If an institution's goal is to increase and celebrate scholarly activity on its campus, then a flexible, reinvigorated library must become a focus of its community. Despite careful planning to define specific space requirements for the collaborative research functions identified by the users, technology evolved much more quickly than could be anticipated, and what we thought to be cutting-edge spaces were out of date within the year. The

demand was beyond any expectation. We learned that space for the learning and research of tomorrow must be generically conceived and delivered, using construction techniques and infrastructures in imaginative ways that are readily adaptable to reconfiguration. In trying to anticipate the challenges that the libraries will face in future they should determine how to combine and locate evolving user service points while respecting the unique configuration and quality of public space. Large, open spaces were designed to be reconstructed, so that they could be reconfigured to meet future needs. Enclosed areas for conference rooms, private and semiprivate offices, seminar rooms, and group study rooms were planned so that in the future, these spaces could be incorporated into the open reference and computing commons area. Given these challenges, we must constantly explore and reinvent the concept of flexibility but do so in space of a quality that offers a distinctive, intellectually rich environment for learning, teaching, and research.

Key ideas on space and thinking in through
The library may or may not be able to retain any space savings for its own use. Colleges and universities always have need for more space for meeting rooms, offices, and other uses. Some libraries welcome giving up the space for these other uses because having students and especially faculty use space within the library can help position the library as a core function within the campus community. This advantage obviously does not apply if the library gives up an entire building or the entire space allocated to a branch library. If the library retains the space, the most common use is increased study space. With crowded, noisy dorms and long commutes, many students seek out a quiet space to study, especially if it is wired with the latest technology. Some academic as well as public libraries have experienced increased gate counts even as the use of traditional library resources and services has fallen. Some question whether a better alternative would be to provide quiet study halls at a lower cost rather than keeping the library open with its traditional services and staffing patterns. The space needs of all types of libraries have been affected in various ways by the technological factors as discussed earlier. They have choices in how they wish to implement the technologies and how radical they wish to be in rearranging their space. This concluding section looks at the status of space use today with some predictions for the future.
Space has always been an issue in college, university and public libraries: how it is designed and utilized; where services are located; how materials are stored, displayed, and made accessible; where staff and service points are

placed; growth needs for the collections; furnishings and equipment needs; use of technology, etc. It has been correctly observed that the most striking change in the character of the library over the past few decades has been the result of computer systems, the internet, the World Wide Web, the personal computer, the laptop computer, email. An insightful statement long before newer trends in social media, mobile devices, and cloud computing! In any case, technology has indeed altered library operations in a dramatic fashion and has influenced library space planning to a great extent. Books, articles, and conference papers in most of the twentieth century reflected philosophy that library space should be designed by and for librarians. User needs, while recognized, often came second. We professionals thought we knew what students and faculty needed and planned new libraries accordingly. For instance, user comfort was mentioned as an important design consideration but it focused almost exclusively on the environment.

Given this longstanding practice, it is no surprise that the traditional library we inherit today is not the library of the future. To meet today's academic as well as recreational needs and as well as those in the future, the library must reflect the values, mission, and goals of the institution of which it is a part, while also accommodating myriad new information and learning technologies and the ways we access and use them. As an extension of the classroom, library space needs to embody new pedagogies, including collaborative and interactive learning modalities. Significantly, the library must serve as the principal building on campus where one can truly experience and benefit from the centrality of an institution's intellectual community. With the emergence and integration of information technology, many predicted that the library would become obsolete. Once students had the option of using their computers anywhere on campus-in their residence halls, at the local cyber café, or under a shady tree in the quad-why would they need to go to the library? Those charged with guiding the future of a college or university demanded that this question be answered before they committed any additional funding to perpetuate the "library"-a facility that many decision makers often considered little more than a warehouse for an outmoded medium for communication or scholarship. Many asserted that the virtual library would replace the physical library. The library as a place would no longer be a critical component of an academic institution.

When beginning to conceptualize and plan a library for the future, we must first ask an obvious question: If faculty, scholars, students, and general public can now obtain information in any format and access it anywhere on campus/locality, then why does the library, as a physical place, play such an

important role in the renewal and advancement of an institution's intellectual life? The answer is straightforward: The library is the only centralized location where new and emerging information technologies can be combined with traditional knowledge resources in a user-focused, service-rich environment that supports today's social and educational patterns of learning, teaching, and research. Whereas the Internet has tended to isolate people, the library, as a physical place, has done just the opposite. Within the institution, as a reinvigorated, dynamic learning resource, the library can once again become the centerpiece for establishing the intellectual community and scholarly enterprise.

As new technologies are created that increasingly inform the learning experience, any institution seriously considering the future of its libraries must reach a consensus on the role that it wants these facilities to play in meeting the needs not only of its current community but also of the community it aspires to create in the future. The principal challenge for the architect and librarian is to design a learning and research environment that is transparent and sufficiently flexible to support this evolution in use. However, we must not design space that is so generic or anonymous that it lacks the distinctive quality that should be expected for such an important building. The charge to architects is to create libraries that, themselves, learn. One key concept is that the library as a place must be self-organizing-that is, sufficiently flexible to meet changing space needs. To accomplish this, library planners must be more entrepreneurial in outlook, periodically evaluating the effective use of space and assessing new placements of services and configurations of learning spaces in response to changes in user demand.

To address these community needs, libraries must provide numerous technology-infused group study rooms and project-development spaces. As "laboratories that learn," these spaces are designed to be easily reconfigured in response to new technologies and pedagogies. In this interactive learning environment, it is important to accommodate the sound of learning-lively group discussions or intense conversations over coffee-while controlling the impact of acoustics on surrounding space. We must never lose sight of the dedicated, contemplative spaces that will remain an important aspect of any place of scholarship.

The library is regarded as the laboratory for the humanist and social scientists, as a result of electronic access to information, the pace of their research had increased exponentially. One of the fascinating things that we are now observing is the impact of redesigned library space on the so-called

"psychosocial" aspects of an academic community. The library's primary role is to advance and enrich the patron's educational experience; however, by cutting across all disciplines and functions, the library also serves a significant social role. It is a place where people come together on levels and in ways that they might not in the residence hall, classroom, or off-campus location. Upon entering the library, the patron becomes part of a larger community-a community that endows one with a greater sense of self and higher purpose. While patrons are intensely engaged in using new technologies, they also want to enjoy the library as a contemplative oasis. Interestingly, a significant majority of patrons still considers the traditional reading room their favorite area of the library-the great, vaulted, light-filled space, whose walls are lined with books they may never pull off the shelf.

If libraries are to remain dynamic, the spaces that define them and the services they offer must continually stimulate users to create new ways of searching and synthesizing materials. There is no question that almost all the library functions being planned for today will need to be reconfigured in the not-too-distant future. While certain principal design elements-such as the articulation of the perimeter wall, the introduction and control of natural light, and the placement of core areas for stairs, toilets, and heating, ventilation, and air conditioning-will remain relatively constant, the majority of space must be capable of adapting to changes in use. If this is to happen, a number of fundamental considerations must be addressed.

In the past, expanding collections reduced user space; now, it is just the opposite. Technology has enriched user space, and the services for its support are increasing at a much faster pace than ever anticipated.

Today, we are asked to consider whether a facility can accommodate dense, compact shelving or whether collections should be moved off site. Is the library to be a major research facility, responsible for the acquisition and preservation of substantial collections?

Self-assessment Questions
1. Discuss the role of library as center of learning.
2. Explain the technology influence on library spaces.
3. Briefly describe some space saving solution in libraries.

Activity
Visit your nearby public or university library and evaluate the space provided to users, how much it is flexible and centre of learning for them?

UNIT NO.3
BEYOND SPACE: ACCESS IS ALL OR IS IT? (B) THINKING INSIDE THE BOX

Place and space are two different concepts. Space relates to physical dimensions and area, while place is determined by how people become aware of, or are attracted to, a certain piece of space. Place can be understood as a space that people have made meaningful. The most straightforward and common definition of place is 'a meaningful location' (Cresswell, 2004). Agnew (1987), a prominent political geographer, contends that for a space to become a place, there needs to be a location (positioning a space somewhere by its relationship to other things), a locale (the specifics of the where of social life) and a sense of place (its identification as a unique community, landscape or moral order).

Importantly, this notion of place is not specific to physical space. Digitally-mediated place is also subject to these criteria. People's experiences of spaces determine these connections and emotional relationships taking space from an abstract understanding of physical dimensions into a meaningful place. In particular, feelings of safety, familiarity, personal history and stories are what make a place familiar and help people belong, creating positive relationships with the connection to place.

Libraries are known as trusted and loved places within communities. Libraries are public places that can be linked with the capacity and quality of life that an urban or regional centre can offer people who live there. Library places can provide a refuge and a break from the intensity of urban living and work; and connection for the isolated or lonely.

As librarians, we know the value of our community services. But in an increasingly digital world, we see the role of libraries as community and cultural centers at times undervalued, and occasionally under fire.

Libraries are funded by the public in order to serve the public. More than just books and computers, libraries are important community hubs that serve as centers of learning, professional development, healthcare, and community resources. Public libraries have become active producers of podcast content, through both workshops for patrons and library-hosted programs. Patrons can reserve podcast equipment to be used onsite in a quiet room. The kit includes microphones and a laptop loaded with audio software for multi-track recording and editing. Today in developed nations especially in America libraries are providing very innovative and value added service to the community. Such as *Health Care Services*: In a growing number of libraries,

patrons can check out a book and get a check-up in one visit. *Engaging Social Workers*: A growing trend in the library field is the position of social worker. Libraries around the country are hiring social workers who can help staff and the public. *Shared Spaces in Libraries:* As communities need change, libraries are transforming to meet these changing needs. For a growing number of libraries, that means supporting the workforce by providing co-working spaces, internet access, business incubators, and networking opportunities. Co-working spaces and business incubators in libraries serve freelancers, entrepreneurs, remote workers, and more.

Each individual information service has its own special focus with respect to mission, groups to be served, sorts of material to be collected, and techniques employed. Nevertheless, access emerges as a recurrent theme. The term *access* is frequently used in relation to quite different bits and pieces of information service. Indexes provide subject access to collections; censorship impedes access to materials; new telecommunications technologies permit remote access; fee-based information services are differentially accessible because not everyone can afford the cost; most library collections are open access, meaning that users can go directly to the shelves; most museum shelves are closed access in that only staff can get to and handle the collections; some services are inaccessible to the wheelchair-bound; and most books are effectively inaccessible to people with limited reading skills. Yet each of these senses of access is related. Each refers to one or more aspects of providing means of access to information, of enabling users to accede either to a source of information or, in a fuller sense, to knowledge, to understanding.

For libraries today, the skill of adaptation is necessary for survival. And yet, even among these difficult times, libraries are adapting and evolving. Indeed, to survive in the digital age, libraries must evolve and change to meet the needs of information seekers in the current era. Libraries have transformed themselves from staid, sleepy institutions into hip community centers offering Internet service, classes for kids and seniors, and even coffee and video gaming nights Digital libraries are well and good, but what about traditional libraries? Any librarian will attest that libraries are far from outmoded, and farther from irrelevant to the modern era, but how can information professionals bring this view and this message to the general public? What is required for libraries to remain relevant is to think outside of the box, to re-imagine the traditional idea of what a library is. What has to happen is that libraries need to remove their walls, both figuratively and literally.

Removing the walls is exactly what the libraries are giving access to resources to user at their work place, home or any place where they like. Libraries without walls, which bring the library service model to the community, rather than the community coming to the library, can be of vital importance as libraries struggle to adapt and evolve in the technological age.

In fact, the age of the Internet has brought such an onslaught of information that effectively developed library services may become even more important. In today's world, navigating the sea of information is a daunting task and libraries are well positioned to provide guidance in terms of finding and analyzing information resources. Additionally, libraries can use their resources to bridge the digital divide through the provision of access and education. These functions of libraries fulfill the mission that led to their very genesis: the idea of equal and open access to information.

Libraries already are utilizing new technologies to improve and market their services. Libraries engage in social networking, allow users to download e-books without even visiting the library, subscribe to digital collections, and provide online chat access to librarians. The concept of Library 2.0 is taking off. However, many of these resources require the user to be already aware of the library and the services it offers. Social networking can reach out, but networks remain limited. Moving beyond the walls of the library and straight to the heart of the community is main focus of library. As we know the digital revolution has changed the appearance of today's libraries entirely. The majority of information resources are now of a non-physical nature and accessing them is more varied and complex. All this makes using a library more complicated for the user and requires both the latest information technology and guidance.

Libraries provide free access to all types of information in one place. Today they don't necessarily have to own the items, but act as a gateway to information resources that might be stored all over the world. A library should be an environment where people feel comfortable and varied activities can take place. People expect a place where they can study individually or in a group, check the library catalogue or their emails, get advice, attend a lesson or a cultural event and just meet others or relax. In the means of providing an environment for the different working and communication types zones based on the different levels of noise can be created. As some people spend their whole day in the library working, "soft services" become more important. Having a café, a shop or even a day nursery is already a reality in many new libraries.

The following qualities make libraries attractive to the visitors:

1. Access to information
1. Guidance and education
2. A comfortable (working) environment
3. Possibility for communication and soft services
4. Inspiring atmosphere

New planning principles are required to meet the changing needs of the users of the library of the future. Their design is based on the following main principles:

- Access to the library and its media(s) should be obvious and easy for everybody.
- There should be multifarious space for formal and informal communication between customers and staff.
- The interior should offer an attractive and comfortable environment for both customers and staff.
- The library building should adequately represent its institutional philosophy and aims.
- Its building design, structure and appliances should give consideration to sustainability.

Access to the library, its facilities and media should be straightforward and easy for everybody. The ideal location of a library is in the centre (of a campus or a city) or on necessary routes or interconnections. The entrance should be obvious and welcoming. The size of the entrance hall should be adequate for the number of visitors meeting there at peak times. Inside the building it should ideally be self-explanatory. When a library exceeds a certain size it might become difficult to find your way around and to locate the varied media. Clear patterns of circulation, of architectural and spatial legibility, and the coherent and attractive signage are all means to help the first-time visitor to find whatever he is looking for. Design needs to take into account matters of time-management. The allocation of space and patterns of circulation should reflect the priorities of time-use and people frequency. Highly frequented areas and short-term use activities like a meeting point and quick reference areas are close to the entrance, while less frequented areas such as individual reading and studying are further away from the entrance. Team working can take place in open areas or in study rooms of different sizes. Help desks in strategic places provide orientation points for the visitor. In short the future libraries should be designed for the people/patrons not for the books. The wise use of technology can enhance the usability and access to library resources. Librarians should think forward in anticipating future

trends and demands. When considering a new design for library building we must look at the physical planning and structural implication of the building such as: structure, building services, fabric and connectivity, artistic use of space, flexibility, and innovation in design which is environmental friendly.

Self-assessment Questions
1. Libraries are known as trusted and loved places, why?
2. What is difference between place, and space?
3. Define the concept of library without walls.
4. Enlist the qualities that's make libraries attractive to visitors

Activity
Write an essay on the future of library. Is library going to be without walls?

UNIT NO.4:
NOTHING HAS CHANGED/EVERYTHING HAS CHANGED – THE ENDURINGASPECTS OF LEARNING (B) BOOKS, NOOKS AND MOOCS (C) THE RESEARCHER'S VIEW: CONTEXT IS CRITICAL

Before WWII, Libraries buildings were constructed to carry the weight of book collections in multitier structural stacks. This imposed the separation between reader areas and stack areas. After WWII, a modular design began to be adopted by libraries and, by 1960, this architectural style had been fully accepted. This style is characterized by the equal rectangles by which the floor areas were divided. The main concern here, or better, the main role librarians intended to accomplish with this style was the efficiency of operations and flexibility. Now libraries could "easily" modify the floor plan as they needed to accommodate for changes. However, in the early 60's, displeased with the plain and boring looks of the modular box that had become common, librarians started to adopt a more romantic architectural style, introducing the use of atria, monumental affects, special lighting, and unusual shapes.

Readers now had direct access to books on open shelves. For at least two more decades, these styles served their role: store print collections. Fixed-function and modular-designed libraries buildings were designed. During most of the twentieth century, staff workspaces, display of furniture, traffic flow, and storage of the collection and access were the main concerns of librarians planning and designing libraries spaces. However, in the 1990s, change was in the air that due to technology, this "portal to information" paradigm now is being replaced by a "learning-centered" paradigm in which users once again hold the position of importance meaning that the library now is free to shift its attention back to users and their needs. The phrase, "library as place," was defined in the turn of the century as where students seek out intellectual interaction, informational exchange, and socializing in an academic environment, and even find the library a refuge from a world dominated by slick entertainment, the media sound bite, and pervasive commercial values.

The new model, first commonly known as Information Commons, has four basic features: (1) technology in its many forms, (2) spaces for group work, (3) digital media and online collections, and (4) access to both librarians and technology experts. In the last decade, learning has occupied a prominent place in libraries discussions. The literature provides terms such as *learning centers, learning spaces, information commons, learning commons, and*

collaborative spaces. However, are they the same? If not, what are their main differences and how do these "concepts" affect space planning and provision? Are yet questions to be answered? In order to place the answers into a logical context, we need to delve into the history of library buildings, more specifically, the roles its structures and spaces were meant to accomplish, because, well expressed "spaces and roles are two sides of the same coin".

Books, nooks and MOOCs
At present we are living in the age where "Massive Open Online Courses (MOOCs)" are sweeping the learning world and libraries and librarians are watching this development carefully. There is a need for librarians to gain an understanding of the complexity of the MOOC "movement," learn how to support students and faculty engaged with MOOCs, become familiar with the copyright and intellectual property requirements in relation to MOOCs, and hear what the future may hold for MOOCs.

The role of the librarian as a solutions provider to the online learning community is vital. Whether a traditional online course or a MOOC, librarians should be recognized as full partners throughout the development process. In this changing scenario it is recommended that librarians should provide different levels of service to community members, right up there with advocating for the end of reference desks or a future dominated by bookless libraries. It can be volatile subject matter for discussion. The library is a commons that is owned by each community member, and each of those members is equally eligible to receive all the benefits and services and access all the resources to which he or she is entitled. In an age of heightened customer expectations, does the "everyone is equal" approach still work or should librarians be more customers centric. There are a variety of ways to categorize our patrons, but a lot of those ways are not pertinent to their needs. The best way to categorize needs is by focusing on the situations or gaps that patrons face. Distance learners remote from campus are in a specific situation, for instance, independent of any other categories we normally try to put them in. So categorizing by situation can lead much more directly and creatively to needs and solutions.

To promote the use of Open Educational Resources (OER) on their campuses, more college and university libraries are starting "Alternate Textbook Projects". These projects encourage faculty to replace their commercial textbooks with alternate resources such as OER and licensed library contents (which are openly available to all the members of that

institution). This section of the library links patrons to several of these educational resources and programs, and enhance the affordability of higher education to create a student-centered learning environment, some educators have created, adopted, or adapted peer-reviewed instructional materials that are freely available online for reuse and modification. Because of their flexibility and ready availability, such alternative textbooks are grouped under the umbrella term "**open educational resources**" (OER) or "**affordable course content**." This is where the university library has a key role to play. While the university library is emerging as a field of learning spaces to meet various student learning requirements, it will also need purposeful media nooks to enable engagement (watch, listen, discuss, understand) with content. Nooks may be enclosed for acoustic privacy, or with the use of wireless headphones could be in semi-open caves, curtained nooks or open corners. While student centers and other informal learning environments may be equipped with similar nooks, the library is the natural place for such media-centered engagement. This current spectrum of learning spaces of learning spaces provided students a truly effective learning environment a place for books, nooks and perhaps even one for people to engage in MOOCs.

The researcher's view: context is critical
The library on campus used to be a hot spot of activity and learning for researchers, but is it still the valuable resource it once was? How is it adapting to the digital age? And, with all these questions arising, what kind of role do academic librarians have in research today? There was a time when the library was the resource for students and researchers from elementary school on through Ph.D. work and beyond. Through academic libraries, students and faculty alike had access to a wealth of information and resources that they couldn't possibly collect, navigate, or share on their own. With the technological advances of the past two decades, however, searching for information and resources got significantly easier, more convenient, and more universally possible. As a result, the role filled by academic librarians and academic libraries in the world of education and scientific research has changed dramatically. So dramatically in fact, that many librarians and librarian associations are still debating and defining what their place within the modern world of academia truly is, what skillsets will best suit their new role, and how they can most effectively serve their patrons and become change agents and thought leaders.

Data collection, management, and analysis technologies are changing the landscape of research. Digital technologies, from sensors to analytical instrumentation, are increasingly a core component of observational and experimental research. Meanwhile, changes in scholarly publishing offer new opportunities for researchers to share the products of their work in ways that weren't previously possible. There has been an increasing interest in the library field to better connect with the research needs of faculty and students, and to explore how the skills, knowledge, and practices of librarianship could be applied towards supporting evolving paradigms, particularly in the area of data curation. Technology is also changing the culture of research. The emergence of team science challenges investigators to work together in new ways. In order to identify new roles for libraries in the research enterprise, librarians must first gain a deep and multi-faceted understanding of the research environment at their own institutions.

The research commons model emerges as the preferred strategy globally for promoting library support for research. It is an innovative program if librarians support the patrons/researcher by creating new research commons facilities, along with customizable web-based research resources and advanced trainings for researchers. Studies emphasized that researchers want and need physical facilities that are separate from undergraduates, because they are engaging in knowledge creation and production at a quite different level. It is overarching goal to create a place in libraries that is viewed as a research facility not a traditional library or learning center which offers expert help for all stages and phase of the research process from ideas generation, through problem definition, project design and bid writing, data acquisition, analysis and interpretation, to publication and archiving of findings. The design of user-centered, innovative designed, high-tech expertly staffed research facility on a collaborative space-as-service model will elevate libraries from invisible infrastructure to vital partners in the work of researchers.

Self-assessment Questions

1. What changes have been introduced in library buildings in technological era?
2. What is information commons? Discuss.
3. Briefly describe books, nooks and MOOCs.
4. How researcher feel comfortable in libraries? Describe.

Activity

Visit AIOU central library and check. Is library providing books, nooks and MOOCs services to their users and how?

UNIT NO.5:
LIBRARIES IN THE NETWORKED SOCIETY: EVOLUTION, REVOLUTION, EXTINCTION? (B) LIBRARIES AT THE HEART OF CAMPUS LIFE

Libraries play a fundamental role in our society. They are the collectors and stewards of our heritage; they are organizers of the knowledge in the books they collect – adding value by cataloguing, classifying and describing them; and, as public institutions, they assure equality of access for all citizens. They take the knowledge of the past and present, and lay it down for the future.

These libraries will give the citizen online access to books, to local historical records, to archive films, and museum objects – and provide services so they can use them. Libraries face real challenges in coping with the transition to the digital age. To avoid becoming the dinosaurs of the future, they have to adapt, to attract new and young users, and to develop new business models. This implies profound changes in the organizations, in the skills and sometimes in attitude. The internet provides an incredible opportunity to circulate our heritage to advantage and to make it known on a world scale.

Libraries have a unique role to play in disseminating knowledge about their collections. The information society offers you new possibilities to do this. To seize the opportunity, you need to act in collaboration amongst yourselves and with other stakeholders. To meet this challenge, libraries are one of the leading educational institutions which present the knowledge and materials to the people according to their needs. Except for the formal educational services at schools, libraries function as to support individual learning efforts at independent library halls and virtual platforms

Hence, the libraries have an important and unique role in the education of the society. Specifically, libraries are one of the important axes of the transformation to the information society. Because, in order to actualize the person centered learning paradigm, the individuals should go to the libraries on their own will and/or by not even going to the libraries, they should make individual researches via the enabled virtual services of the libraries. This individuality emphasis derives from the information society concept which is the centre of the power and represented by the knowledge which is the output of the human mind along with the people having this knowledge. In a society where the information and information economy takes the lead, individuals should also access to the information, generate, update and use it in addition to the need of developing lifelong learning abilities via information literacy skills. That is why the libraries have an important place in the information

society as the libraries are the institutions where in the information is gathered, compiled and distributed. Libraries have a vital role with their mentioned features and should raise the individuals that the information society needs. These are the institutions affected by the change in the information society process. The education function structure of libraries which are conducted as an extension to the formal education should be extensively reviewed. In the frame of new approaches like information literacy and lifelong learning, some structural and functional alternations are inevitable at the libraries. Consequently, information society represents a fast change and transformation. In order to adapt to the ongoing process, libraries should be restructured according to today's needs.

Here are some suggestions about the qualifications that the libraries should have in the information society:

- Knowledge is an authentic wealth and primary source of abundance in the information society. From this point of view, it is inevitable for libraries to undertake new and challenging responsibilities in the information society.

- Libraries should have intensive technological installations in the information society in order to gain functionality. Libraries should have advanced technology and more professional service. In an environment where the information society prioritizes the democracy, libraries, as a learning institution, should have a democratic participation feature about their self-decisions. Parallel to this feature, libraries of the information society should include much more diversity and always accord themselves with the environment via their flexibility feature.

- After the decrease in the centrist policies, in the information society, libraries should have a formation that renew itself, open to change and offer alternative services with social and cultural activities in addition to the educational missions.

- Libraries should also offer wider services by cooperating with companies, advisory corporations, governmental offices and voluntary agencies. Libraries in the information society need to be more sophisticated.

- Based on lifelong learning, libraries of the information society should be institutions following organizational, cultural and scientific developments, valuing human resources and helping the individuals to improve themselves.

- Libraries of the information society are responsible for offering universal information service, enhancing scientific, artistic and social activities and being a learning institution as well.

Libraries at the heart of campus life

The library is the heart of the campus and a welcoming space, a repository of scholarship that speaks to the preservation of knowledge and the core of the college experience: studying, learning, exploration, and discovery. Most university libraries have a central and trusted position in the lives of faculty, students, and administrators on their campuses. Librarians support curriculum development, guide instructors to appropriate learning content, and assist with research. Academic libraries have long enjoyed their status as the "heart of the university" and still enjoying. As a hub of academic activities a campus library helps the institute in students' retention and graduation, student's future success. It also contributes in student achievement, learning, experience, attitudes and engagement with studies. Campus libraries enhance the research productivity of faculty, teaching skills, getting grants etc. It is the symbol of institutional reputation and prestige.

In present era the academic libraries are becoming integrated student hub and libraries setting up a common help-desk. The space used for the integrated service is often branded as the hub. An academic library front line staff always welcomes the students and resolves their problems in addition to library services, this integrated student hub generally co-ordinate personal support to students, such as health, counseling, careers, accommodation and finance. The relocation of specialist staff to the hub allows a full service to be available to extend the first-line support provided by the help-desk staff. A student hub operation can often be achieved with minimum physical disruption, and often universities have been able to take advantage of the space liberated by self-service facilities to develop new accommodation where specialists can provide help and advice to students. These areas incorporate desks and seating where staff and students can talk together, and reflect a different style from the earlier counters and queues.

Libraries are providing an ideal test-bed for new learning models. These can act as a showcase, which demonstrates the institution's commitment to providing an excellent experience for students. New library buildings are designed for integrated services and beginning to appear in the campuses. The key requirements of these buildings are imaginative spaces that encourage innovation, which enables integration and multiple occupancy and also convey the sense of excitement associated with learning.

Self-assessment Questions
1. spaces concept in libraries. What role a library can play through its building in library?
2. Why an academic library should be situated in the center of campus? Discuss.
3. Briefly describe the imaginative

Activity
Visit any college or university library and check its location, and prepare a chart of its access to different departments and users. Is it situated in the center of campus?

UNIT NO.6:
THE LIBRARY HAS LEFT THE BUILDING (B) BEYOND ANALOGUE: THE LEARNING STUDIO AS MEDIA-AGE LIBRARY (C) 3-D LIBRARIES FOR 3-D SMARTING

The physical library space has been going through a highly interesting development. Lot of changes over the years has been introduced to think beyond the library as a place for a collection and a traditional study environment with table and chairs. To understand our present, we must know our past as we know humans always driven towards a better world: education, research and learning with the library in a leading role. Historically we see two counterpoints: Knowledge is power and information sets us free. Both are true, and the library has pretty much served them both. In the early medieval Europe, we find Monastery Libraries were huge collections of books, where made in scriptoriums. It was a long and patient process where crafty members of the monastery wrote and illustrated the books. The access to the library collection was reserved for the few and the librarian was a powerful man (not many female librarians around monasteries) that to a great extent was more of a guardian than an intermediary to the collection. The book could not be borrowed; it could graciously be accessed. The physical libraries were fortresses, guardians of powerful knowledge. If we jump in to the history, we see an enlightenment period when famous Gutenberg's printing press came with significant changes. Philosophy and science of librarianship were changed to expand human knowledge. The book was an absolutely perfect medium for disseminating these ideas. The libraries became public and were open to everybody and it was free to borrow books and the libraries role as supporting institution of free and equal access to knowledge for all was established. Through the collection the library was a window to the world, an open and accessible place for everyone and the librarian managed with a steady hand the huge book collections.

If we make a rapid jump to the present era we see the library space where a forceful trend has been that the number of physical titles at the library fell while the number of students who came to work at the library increased. There are still plenty of academic and research libraries, varying from subject to subject, with huge book collections in the physical library, but I think most of us can agree that we are generally moving towards less physical collections in open academic libraries. In the context of this development we think it is interesting to ask whether a library without books is still a library?

And if so, what do we need library buildings for? Yes, the probable answer is that a library is not only defined by its collection – whether it be physical or electronic. It is a very important part, but our main assignment is to support research, education and learning, and it relies on other activities than just the collection. We have created a varied learning environment with reading rooms, group rooms and lounge areas with different types of tables, chairs, sofas etc. Students has been flocking to the library to work and I think this is because the library is a solid brand that signals tranquility, knowledge, contemplation and openness which has given the students study stimulation and study disciplining and a kind of community and identity. It's completely different setup and identity you find to sit and study at a reading room than at home in your dorm room. It seems more professional to meet with you study group in a library than in private. Plus, very important they have valuable assistance from library staff at hand. They may not use the library staff directly everyday but the awareness that it's there and will help them if needed. Very roughly, one can say that we have gone from a physical library as a place for a collection to a library with tables and chairs. The place where people have a unique, location based library, which combines place, the collection and expertise through facilitating approach where the library actively are setting a platform where people meet and learn from each other.

Beyond analogue: the learning studio as media-age library
Library is bringing people together both as physical and mental platform for dialog between people in order to support research, education and learning. In this case the focus is on creating a platform for sharing knowledge and network within data handling and data analysis, digital methods and social sciences this concept can applied to many areas. Could we do this without a physical room? Library is a place where everybody is welcome. Sometimes as library professionals we seem to forget it but libraries are one of the most solid and trustworthy brands in the world. Both public and academic libraries are viewed as open spaces for enlightenment, collaboration, knowledge and experiences. We make communities smarter by bringing people together. That is the library in the mind of many people with or without a physical collection. It's important we remember this when we create and talk about libraries now and in the future. We should get some inspiration on how to use the library space for community building through a facilitating approach. This is only possible if we believe that a library is not only defined by its collection but by the way it succeeds to support learning, education and research. Remember; A Library is not a goal in itself, it's a mean to contain

those very things. When stuff around us changes, like physical books disappearing from the library, let's take up an active approach to continuously support and create values for our communities. In short, the one last note on the library decor in this facilitating environment: Different kinds of learning demands different kinds of physical learning setups plus nothing is static, you might want to change things at some point in the future. That is why the library decor should be flexible and mobile. Put things on wheels or whatever. Where possible, we have also brought experts to campus to lead training workshops and facilitator training to continue to build expertise within the library for the future. We design studio rooms with acoustic treatments for recording basic podcasts and interviews, with extended space to serve students who wanting to film practice speeches and presentations etc. this is a support for advanced users of your community. A library without or less books is not entirely comfortable for librarians and users both. But we are accessing increasing number of books exist in the cloud, and libraries are banding together to ensure print copies are retained by someone, somewhere. Notwithstanding we are transforming the libraries as a media-age library the learning studio.

3D libraries for 3D smarting
The concept of library is associated with books in shelves for readers. The term "Smart Library" has recently been used more frequently, for labeling a vision of libraries of the future in particular as part of the so called "Smart City" concept. This concept addresses the integration of digital processes and informational feedback loops in the public infrastructure and claims this integration to be a desirable state, in which cities become "smarter", i.e. more efficiently organized, resource-friendly, flexible, sustainable, green, and socially inclusive. If this is to be a kind of "smooth space", as is often connoted, or rather a highly "striated" and controlled one, this development is up for debate, and obviously not everybody is happy with it. In any case, we have to ask, what does it mean for libraries to be part of that development? What is their role? How should they act? And what does it mean for a library to be smart in the first place? Referring to the library as a physical space, flexibility in terms of functionality of space is the most crucial aspect. The space is supposed to be transferable and has to fit the actual use. The leading questions are: What function has this space? How can different functions be coordinated simultaneously? One of the main goals of this concept is to create flexible environments for working with digital tools and media. This includes the implementation of digital labs with software for different tasks,

for instance statistics, mapping and visualization tools. The low arc-shaped shelves are supposed to build sound-insulated spaces, which can therefore be used for team meetings or events. Furthermore, these spaces can be assembled flexibly, according to the requirements of the event. Apart from the flexible use of furniture, the coloration and lighting concept gives the impression of a high level of amenity quality. Also, intelligent furniture may facilitate collaborative working processes and offer innovative possibilities to make the library stock or digital cultural objects in general visible. Digital desks have become a common presentation tool for multimedia materials not only in libraries but also in museum spaces. In libraries, as an example of intelligent furniture, self-booking shelves operating with RFID gained popularity.

Modern smart libraries have developed several very innovative and useful tools, for instance the Huddle Lamp. It is a desk lamp equipped with a camera which recognizes all mobile devices placed on the table and enables the transfer of the display content in an easy manner: Just by swiping. For the simultaneous presentation of analog and digital media, to enable a serendipitous browsing of the library stock, libraries are offering a neat solution: In a graphical user interface, virtual bookshelves are generated, which displays all library sources (printed and digital) in a homogenous design. Hence in this virtual shelf the electronic books and papers are presented according to the search mode arranged either right beside the semantically similar printed books or by title and author. It has been further developed as "Hybrid Shelf" for a commercial 3D-visualization.

In the 3D era the role of Smarts should not be underestimated. They lay the foundation for creative entrepreneurship, prosperity and sustainable development. Companies and businesses are looking for this. For education to become 3D it has to be able to recognize what Smarts are:

1. Smarts are selective in finding and processing information. For them information overload does not exist.
2. Smarts are generous in sharing knowledge and information. They are open and communicative. Smarts want no more than to be able to transfer knowledge.
3. Smarts are quick. They are often one step further than the mainstream.
4. Smart keep learning. Their hunger for learning is never over and only stops when they stop breathing.
5. 3D libraries represent 3D authors to their clients.
6. 3D libraries are real life and virtual places where people go to learn. May b 3D libraries with 3D growth books are the real future of education.

These future libraries have an important role as a 'home' for 3D growth books and the journeys that these books have made. We will need libraries that are places not just for books but also places with authors. To tend the books and make them grow. So that smart libraries are our future icons and came into existence, because besides providing information, they had to manage progress at all times and renew themselves in a permanent process.

Self-assessment Questions
1. Why modern library has left the building? Discuss.
2. Describe the role of library as media center.
3. Briefly describe the concept to 3-D Libraries.
4. Explain the concept of smart library.

Activity
Visit any media center library and prepare a report of its archives collection. How they are managing media files?

UNIT NO. 7:
LEARNING LANDSCAPES, THE LIBRARY AND THE UNIVERSITY OF LINCOLN: EFFICIENCY, EFFECTIVENESS, EXPRESSION AND EXPERIMENTATION

E-learning is now a reality in many learning environments in developed as well as in underdeveloped countries. With the development of new technologies in and for the classroom, school and academic libraries are in a position to actively and effectively support these changing pedagogies. But what is e-learning and can we say that e-learning is happening just because learners and teachers use technology? One of the most important things to understand about e-learning is that it is not just one thing. It has many dimensions and applications and can be used in many different ways, from supporting teaching and learning in the classroom to providing fully online distance education. E-learning is best viewed as part of a teaching and learning continuum that begins with face-to-face teaching without the use of information and communication technologies (ICT) at one end and fully online distance learning at the other end. As we move along the continuum from fully face-to-face teaching, technology is used to replace the face-to-face elements. Initially, this has very little impact on how teaching is organized and how learning occurs because the technology is used primarily to enhance the face-to-face teaching. But as we move further along the continuum, the nature of teaching and how it is organized is increasingly affected by the use of ICT. Somewhere around the middle of the continuum we have what is called blended learning or the "flipped" classroom.

In a blended environment, fewer face-to-face sessions are held as technology is used increasingly to deliver the teaching and to facilitate the learning, and nature of the face-to-face session changes. Instead of coming to class to listen to a teacher, students come to discuss, and to work and collaborate in small groups. Once we reach the right end of the continuum there is no longer any face-to-face teaching and we have fully online learning in which all teaching is technology-mediated. E-learning is that part of the continuum that begins when technology is used to replace some of the face-to-face teaching to the point on the continuum where it replaces it all. E-learning: From replacing some face-to-face teaching to replacing it all. It's also important to understand the relationship between e-learning and distance education. These days, distance education is primarily delivered online but historically it has used other technologies and there is still a considerable amount of distance

education that would not be considered e-learning. So there is what we could call blended e-learning in which there are some face-to-face sessions but most of the learning is done online, and there is distance education e-learning in which all teaching and learning is done without teacher and learners ever meeting face-to-face. And there is distance education that is primarily print-based and would not be considered e-learning. The picture portrayed above is a fantastic way to understand the complexities of defining e-learning. For public school libraries, and some academic libraries, encountering all or none of these implementations and applications is an ongoing reality—it creates a trend of defining e-learning by the shape it takes in our educational institutes. If schools, colleges, and academic libraries look at the whole e-learning picture, they can get lost in what could be and not what is e-learning at their institutions. This means, for some school and academic libraries, e-learning is defined by the digital tools and applications through which it happens: The learning management system, the online forums, or the digital literacy initiatives happening in individual institutes.

E-learning becomes contextualized, and libraries work with the teachers to support e-learning as it exists in their educational institutions. This doesn't mean, however, that library professionals are blind to the possibilities of e-learning, as many of us work to be knowledgeable about the big e-learning picture, and support new e-learning initiatives brought forth in our institutes.

Libraries as e-learning spaces
Learning happens in many different contexts and environments: Home, work, school. Certainly school and academic libraries seem to fit naturally with ideas about where classrooms "live." Here we can't discuss to a how-to, since certainly school libraries (public and academic) will require different needs, have different resources, and will involve the library and library staff in different ways. However, we can start to evaluate how libraries can best support the needs of staff and students engaged with e-learning methodologies in a broad and critical way. Certainly, public, school and academic libraries can support e-learning approaches by:

- Developing meaningful digital literacy programs.
- Digital literacy is the ability to effectively use and communicate information with digital technologies. This means understanding how digital technologies work, using it to find and evaluate information, create something new, and communicate clearly. From understanding how to use the messaging app on your phone to coding a messaging app for a

phone, digital literacy covers a wide range of topics related to information and communication technologies. Libraries are actively tailoring programs to meet these needs at all ages and literacy levels.

- Becoming involved and embedded in e-learning programs and classrooms.
- Being embedded and involved can be achieved by adopting blended learning approaches by teaching both face-to-face sessions and following up with announcements to students through our learning management system (LMS), working closely with classes on specific assignments delivered online or digitally to provide meaningful reference services, or participating in learning technology/e-learning committees to better understand trends at your school.
- Actively looking to support e-learning initiatives within our schools in relevant ways.
- Reaching out to classes and teachers who are delivering content online and seeking ways to support these initiatives, such as increasing library content through the LMS or online forum for that assignment by having standard "plug-ins" such as a link to our provincial virtual chat program in individual courses for academic libraries.

The increase of e-learning initiatives in public schools and post-secondary institutions means libraries need to develop programs and services designed for digital literacy, i.e., programs that move beyond solo information delivery of a particular e-learning platform, by integrating and contextualizing e-learning in the broader digital literacy landscape, staff and students can begin to understand how these seemingly disparate parts are actually incredibly intertwined. As such, library staff needs to develop programs and services that effectively and iteratively educate and explore digital literacy issues for students and faculty at the microcosm of our schools, and the macrocosm of the digital world. To put it more concretely, school and academic libraries are in position to offer workshops, programs, and services that directly respond to privacy, collaboration, cognitive load, and other emerging and ongoing issues regarding digital technologies which can enhance and underpin classroom e-learning tool usage. Libraries are an ideal location for this kind of support to be centered because digital technologies in education are fundamentally about accessing, assessing and using information and library staff has the skills to support this activity. It is important, however, that libraries provide this support as part of an overall institutional digital strategy that spells out the goals and methods for achieving those goals and clearly

articulates the responsibilities of different parts of the organization for providing the necessary support. Students, faculty and staff need to know who is providing what kind of support so there is no confusion.

One of the best ways libraries can support e-learning initiatives at their schools is to be engaging critically with these practices in a reflective and relevant way. As library professionals, it's our responsibility to respond to these considerations in a critical and thoughtful manner that best reflects our organization, our goals, and our roles. Developing dynamic and proactive digital literacy programming, becoming involved and embedded in e-learning initiatives, and responding critically to emerging and ongoing e-learning programs within our schools will allow libraries and library professionals in educational intuitions to be allies in our changing pedagogies. As technology continues to change some parts of how we teach and learn, school libraries will need to respond in innovative and thoughtful ways to ensure that we continue to support the educational needs of our staff and students.

As e-learning spaces libraries should design the architecture of their buildings which are supportive to users, after procuring designers and reviewing designs for new places and spaces by continually developing and challenging their thinking through dialogue with the academics and students who will use those spaces. The library e-learning landscapes concepts should be designed keeping in view the: efficiency, effectiveness, expression and experimentation, within an academic frame of reference. Patterns of change in the research and learning landscape cover not only the institutions engaged in research and learning, but also encompass research and learning practices of individuals. E-learning might be one of the disruptive innovations in education. It now has a presence in most large corporations and in an ever-increasing number of college and university courses. Creating, managing and delivering content in an e-learning environment requires the conscious and planned collaboration of several sectors of a university's community. Faculty, IT staff, administration staff, architect, designer and librarians all have roles and responsibilities in content management, design and delivery of services to patrons; however, these sectors have generally worked relatively autonomously from one another.

Self-assessment Questions
1. What do you mean by libraries as learning landscapes? Describe.
2. How e-learning changed the libraries landscape? Discuss.

Activity

Search on the internet any USA academic library and enlist its activities and services to users.

UNIT NO.8:
VIRAL DESIGN: LEARNERS BUILDING BETTER ENVIRONMENTS TOGETHER

The places in which we live our lives are more than physical spaces; they are the context and the content of our experience. Today, simultaneous revolutions of mobility, connectivity, and identity are changing our experience of the world and, along with it, our relationship to place. Now, more than ever before, what we create will shape the way we live. Libraries and learning centers for learners and power house of knowledge, as librarians it is our responsibility to tie together this power to make human/learner's hopes and dreams into proven physical realities. This has been our core tenet since day one, and now, as the world changes faster than ever, we advance our shared potential through the built environment. In every library of future, new possibility is translated into new action. Librarian along with architect thinks beyond the building, beyond the site, beyond the grid, to design for people and for society.

We should at once realistic, holistic, and optimistic. We should create places that prove human potential. We must involve all the stack holders (teachers, students, researchers etc.) in developing concepts and ideas, and they will tell us which ideas are the best and should be replicated as we modernize our library buildings. An interesting trend has been unfolding in academic libraries. The library has been welcoming new neighbors. Specifically, programs that support student and faculty success such as math emporiums, writing centers, academic enrichment programs, and excellence-in-teaching centers, are now being given prominent real estate within the library. Before examining the opportunities and challenges of these synergies, it is important to place it in the larger context of the academic library's evolution and the significant moment this trend represents. Namely, that the arrival of new neighbors within the library heralds the emergence of the third generation of academic library design.

As we know in the first generation. The librarians were the Swiss Guards of the library, the first line of defense and the guardians of access. Patrons' access to the material was limited; therefore, study seats were focused on the individual's engagement with the source material, not one another. The second generation was the emergence of computers, the internet, and the resultant ubiquities of digitized information are the hallmarks of this generation. Libraries became technology-rich laboratories, testing new ways for students to work in groups, supported by a multi-media environment. The

second generation de-emphasized individual contemplative study, celebrated group work, and fetish zed technology. The third generation moves beyond this infatuation with technology and collaboration. Instead, the focus is shifting towards engagement—engagement with information (in its many forms) and engagement with one another (researcher, patrons, faculty, and students).

The third generation library integrates both group and individual study. Libraries are acknowledging the importance of academic collaboration, not just solitary reflection. Rejecting the wholly atomized layout of past libraries (organized around singular student desks or carrels), contemporary library design offers spatial diversity—dynamic spaces for collaboration as well as spaces for individual study. We are designing user-led library spaces. Libraries are making use of a series of playful table shapes to allow students to iterate their working space based on their needs. Rather than prescribing how students should interact by slicing valuable library space up into desks or providing row after row of computer, the third generation library allows users to define their own library experience by manipulating their environment. Through this process, students learn what configurations work best for the task at hand, and experience directly how the library contributes to their academic success. Patrons are enjoying a huge diversity of furniture, and not too much of it. Very often they are shoeless places. Libraries are becoming the center of motivation, celebration, exhibition, and connected to the planet with their Skype bars and screens. Most obvious libraries are full of children, students; researchers and you can't get them to leave. Patrons speak of their space, their learning, their innovation, their future. Yes we are living an era where something is remarkable happening and that is co-construction of library buildings, administrators are listening to learners, learners are participating in planning and designing of spaces. This sense of ownership is empowering the patrons and innovative ideas reshaping libraries future.

Self-assessment Questions
1. Why library administration involve community in planning library buildings? Discuss.
2. What is academic collaboration, and how libraries can benefit from this in designing spaces.

Activity

Visit any nearby university library and check. Is library providing skype and other social media services to its users?

UNIT NO. 9:
THE INTERIOR DESIGNER'S VIEW (B) FURNITURE FIT TO THE FUTURE (C) CONCLUSIONS

The topic of library interior design has come more to the forefront of conversation in recent years, as the nature of the library and the role of the library as a physical space continuously grows, changes and evolves. Good library design demonstrates agility and adaptability in the use of space. The possibilities of virtual learning environments, the ability to deliver library resources integrated within the unit of study, and the willingness of students to engage with blended environments have only begun to be explored. Library not only as a physical space, but also as a living, breathing organisms should be dynamic in design. Its space being flexible, as well as adaptable in ever-evolving fiscal climates can be used now and reconfigured in the future.

Library interior design less as an opportunity to make the most efficient use of the library physical space and more as an opportunity to imagine the greatest possibility for what the library physical space could be – as well as what it could mean for the community it serves, and what new opportunities and experiences it could afford its patrons who are ultimately paying for the spaces and services. Many libraries chose to place increased emphasis on open design layouts. Wide, open rooms with large windows were a common aesthetic feature that saves costs related to sectioning off spaces with walls that require more studs, electrical and data wiring and trim and paint. Some libraries took this to the extreme, such as the Glen Oaks Branch of the New York (Queens) Public Library, which tripled their total overall building size to add reading rooms on all three floors, as well as an extended exterior space which features a plaza and public reading garden. It is notable to realize also that maintenance and housekeeping costs are always lower with these more open designs.

Some libraries with uniquely historic buildings focused on restoration and refurbishment, taking old spaces and transforming them into something modern as historical buildings carry a certain level of priceless value to their communities. The Stapleton Branch of the New York Public Library chose to renovate their original Carnegie library building and update it by adding a 7,000 sq. ft. addition. The Corvallis-Benton County Library in Benton County, Oregon took a somewhat different approach; their library was originally an addition to the Benton Railroad Freight Depot. The character of the original space remained intact (elements like exposed brick

and woodwork) but modern elements were added to complement the original space. Other libraries located in highly environmentally conscious communities focused choosing to save money in the long run and more of the Earth's resources in the short term by centering on sustainability. They transformed their existing space in a LEED-certified facility with a green roof, solar energy and energy-efficient mechanical systems and light fixtures. The Hillsboro Public Library in Oregon managed to cut their energy budget by 20 per cent by installing an energy-efficient HVAC system, motion sensor LED lights and insulated glass windows. As long as a library's strategic plan affirms and emphasizes long-term savings as a goal, spending more money upfront on sustainable building design can be a win-win for librarians and their communities.

Finally, some libraries in the showcase chose to focus on adding collaborative creative workspaces to ramp up usage as a means for justifying redesign expenditures. The Northeastern University Libraries in Boston shifted shelf space to make room for a state-of-the-art media center equipped with 3D printing labs, an "innovation center" and audio/video production studios. The University of Iowa Libraries took a somewhat different approach, instead focusing on creating what they called a "study village", which consisted of 16 study rooms, a coffee shop and several large, open, quiet spaces where students could work collaboratively in groups.

Ultimately, each library's re-design focus was determined by the needs and fiscal expectations of their specific community. As the previous examples illustrate, the sky is the limit in terms of possibilities for altering a library's interior physical space. The challenge is allocating existing dollars and finding new monies when required. The sky is generally not the limit when it comes to what a library's community of users is willing to spend. The big change that will distinguish libraries and other pubic or institutional buildings from each other and the past will be the people themselves. Not only how they inhabit and use the space but how they choose to become involved with the design of these places and how their real rather than perceived needs, desires and identities are expressed.

Furniture fit to the future

While humans do all necessary actions for working, continuing their daily life, and meeting their social and cultural needs, they should be able to use their maximal body capacities in a physically comfortable way. This is, however, only possible when the tools and equipment they use are perfectly

designed. Otherwise, poor utility and work conditions arise. This, in turn, leads to physical and mental stresses occurring in the people involved in various interactions.

The furniture we currently use in libraries is a point of focus and let it consider where this may lead in the coming generation. The physical characteristics of individuals vary with factors including age, gender, nutritional status, genetic structure, *etc*. Therefore, it is necessary to consider the resulting diversity in the design process, and adjust the furniture dimensions accordingly. For that reason, a number of studies and reference texts nowadays are focused on the anthropometrical characteristics of user populations. It is also confirmed that being confined to awkward postures for specific task demands, at given situations or as influenced by poorly designed furniture over extended periods, provokes psycho-physiological stress and imposes negative effects on human mental and physical performance.

The furniture used in libraries and learning spaces is for people and for most part people need somewhere to put themselves (typically a seat) and somewhere to put things (shelves, tables) and do things (workstations). Good furniture is about 'people fit.' So, it is not surprising that designing usable and comfortable furniture has been the focal point of various academic and industrial projects over the last two decades. School and library furniture are decent examples in support of this matter. In some countries though, there have been attempts to design desks and chairs based on anthropometric data. In line with them, many other researchers have tried to establish theoretical recommendations, and some have also attempted to define the appropriate dimensions for such products and furniture. Choosing furniture for your library can be an exciting task, but it can also be a bit daunting. When making an investment in new furniture, you want to make sure you choose pieces that will meet the needs of your library and its users, and you also want to make sure the pieces are going to stand the test of time, not only for wear and tear, but also for style. Change is certain, and great flexibility in library and learning furniture is absolute key to future-proofing. For this process we first, consider the overall vision and goals for our space. Find the answers of following questions: What do we want the user experience to be? What do we want the final character of the space to be? What are all the activities we imagine happening here? Considering these broader questions before choosing library furniture will result in a more cohesive interior space. Once an overall vision has been established, we can then begin selecting furniture based on these additional key categories: Function, Aesthetics, Ergonomics and Durability.

Conclusion

Studies conducted worldwide described libraries and their spaces have an essential role in personal, societal and community learning. Most of libraries in worldwide has created and creating learning spaces that closely fit their community's needs. They have introduced many ideas about technology, learning, spaces themselves, and possible approaches to inform the development of new spaces. Creating the 21st library learning space currently remains a risky but rewarding activity. It requires a mindset that sees users as producers of new knowledge and understanding rather than consumers of information; a collaborative partner in designing the library building. Most libraries struggling enough with keeping their already-tight operating budgets afloat, let alone taking on an ambitious (and expensive) interior re-design small-scale projects like converting a single seating area into a more spacious study room or setting space aside for a collaborative workspace or makerspace-type area are low-cost options to explore. In short, the future library is a technology system, which through the activities of its staff and the environments that it creates provides access to knowledge and understanding and engages its community in the processes of learning so that new knowledge and understanding can be created in the community and beyond.

Self-assessment Questions
1. Enlist some important features of library furniture.
2. Why library interior design is important for reading? Discuss.
3. Are LED lights necessary in libraries? Describe.
4. What is the meaning of cohesive interior space?
5. Discuss the community role as a collaborative partner in designing the library building.

Activity

Visit any university library and evaluate the standards of furniture, lighting and interior design.