

INFORMATION COMMONS AT DR. D. Y. PATIL VIDYAPEETH, PUNE: A FEASIBILITY STUDY

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ABSTRACT

The present paper deals with the feasibility study carried out to suggest an Information Commons to Dr. D. Y. Patil Vidyapeeth, Pune. This paper is based on responses given by nine colleges affiliated to Dr. D. Y. Patil Vidyapeeth, Pune. By using Morgan table the sample i.e. 364 out of 6017 is adopted for the study. An appropriate questionnaire is prepared for the data collection. The researcher himself has circulated the questionnaire personally and collected it back after continuous visits. Hence, the response rate comes up to 99 percent. The data is analyzed and interpreted using various tables and diagrams, with appropriate justification and conclusion. 45% of students search information through various databases. Further 89 to 93 % students have expressed their opinion regarding various services and facilities they require through "Information Commons".

Keywords: Information Commons, Online education, Library services, Information retrieval, Private & Deemed University

Introduction

Information Commons is a new service model of the Indian academic library, with the development of computer technology, multimedia technology, network technology, modern communication technology, school teaching reform and the change of people's learning method.

Information Commons provides users a continuous service from the planned study to the final production, and it has a very good reference for the sustainable development and the extension of service of our country's libraries. Information Commons and open access constitute the practice of the libraries idea of Information share, and they are the natural extension of library services and the inevitable direction of innovation services. Before adapting any technology, colleges and universities must first understand what they are, what their missions are, who their faculty, students and researchers are and then use the appropriate technology to meet the needs.

While teaching and learning are the mainstays and the core of an education enterprise, the overall success of instructional programs depends upon a number of other services such as advice, counseling, library and professional development. Indeed the success of any academic program depends upon a library as well as science laboratories, media centers, and other support facilities and services. As online education continues to evolve, faculty and students expect that instructional resources will be available to anyone, any time and any place. Digital resources for teaching and learning pertinent to online education have been established in libraries. These resources include e-books, case-studies, simulations, quizzes, games, texts, PowerPoint presentation, assessment tools, and multimedia. Many of these resources exist in local college and university repositories and are part of Open Education Resources (OER) that includes organizations such as MERLOT, MIT's Open Courseware project and the creative commons. With the popularity of flipped classrooms, the posting of lectures and class presentations has become commonplace using college and university repositories, YouTube, Podcasting, and other free media websites. Now libraries must provide facilities to students and faculty who need to locate these materials.

Literature Review of Information Commons

Nowadays libraries are transforming into Information Commons, libraries are becoming hubs for assisting learners or students in developing their learning literacy. Libraries are transforming from quiet study areas to vibrant, social gathering places that serve as centers for promoting literacy among learners. Designing the perfect 21st-century Information Commons should take these three elements into consideration: physical commons, virtual commons, and sociocultural commons. As a result, designers must be aware of contemporary learning theories as the foundation for the commons. The analysis that follows digs deeper into these components. When planning and building a library for the twenty-first century with the goal of promoting good lifelong learning, it is necessary to investigate learning theories.

According to the learning theories mentioned above, meaningful learning requires social interaction at its core. As a result, educators have started talking about how modern technology affects kids. "Digital natives" is the term used to describe today's students. On the other hand, some educators believe that they are "digital immigrants," compelled by their ancestors' design to learn and synthesize knowledge digitally rather than being born with this capability (Bailey ,Tierney, 2008).

Some academics and researchers, on the other hand, think that virtual technology enhances learning since it enables students to quickly synthesize information using text, images, blogs, and low-cost connections with individuals all over the globe. (Selwyn, 2009; Tapscott, 2008).

The well-planned Information Commons, along with library services, houses a variety of student academic services including tutorial services, writing labs, and testing labs. The commons also includes different types of work areas, featuring group study areas, self-study areas, presentation rooms, and conference rooms. Students may also access technology support. Ultimately, however, an optimal Information Commons is envisioned as a hub of interactive learning and information exchange and its design helps to facilitate student engagement face-to-face, as well as through virtual social and research interchanges (Bailey ,Tierney, 2002; Beagle, 1999; Massis, 2010). The evolution of libraries at universities as they transform them into Information Commons can be observed in a variety of stages. However, the goal of striving to increase contact between academics, staff, and students continues to be a central idea for the changes taking place in most universities. While some colleges are able to secure funds to construct cutting-edge library structures that are robust in terms of space, technology, and sociocultural activities, some institutions are renovating older buildings in order to adhere to the commons principle. Through an integrated and collaborative service approach, information commons are regularly developed in university libraries to support and promote the goals of the parent

Different scholars have defined the concepts "Information Commons" as below.

According to Beagle, Information Commons is defined as "a cluster of network access points and associated IT tools situated in the context of physical, digital, human, and social resources organized in support of learning" (Beagle, 2006).

Another definition of Beagle States that "The Information Commons becomes a Learning Commons when its resources are organized in collaboration with learning initiatives sponsored by other academic units, or aligned with learning outcomes defined through a cooperative process" (Beagle, 2006)

From the above definition, it is clear that Information Commons services include book lending service, reference service, information exchange service, audio-visual education service, media production service, education, and training of information quality, and so on. Further these definitions convey the message of one-stop shopping of all the information needs of the user, through Information Commons.

Research problem

Presently a large amount of reading material is available through the internet. This type of reading materials includes e-books, e-journals, video talks, digital photographs, digital maps, etc. Hence the organization and management of the e-resources require particular types of arrangement and management, due to the large number of e-resources the reading habits of the users are changed and to cope with the exiting e-resources and change demands of the users it is necessary to transform the existing Library and Information Centre in Information Commons. Information Commons is the one-stop shopping for all the information needs of the users to preserve and provide the existing e-resources with technology support. It is necessary to design and develop Information Commons for any organization.

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The Learning Pyramid diagram of National Training Institute in Bethel, Maine, explains in detail Knowledge comprehension shown in figure number 1

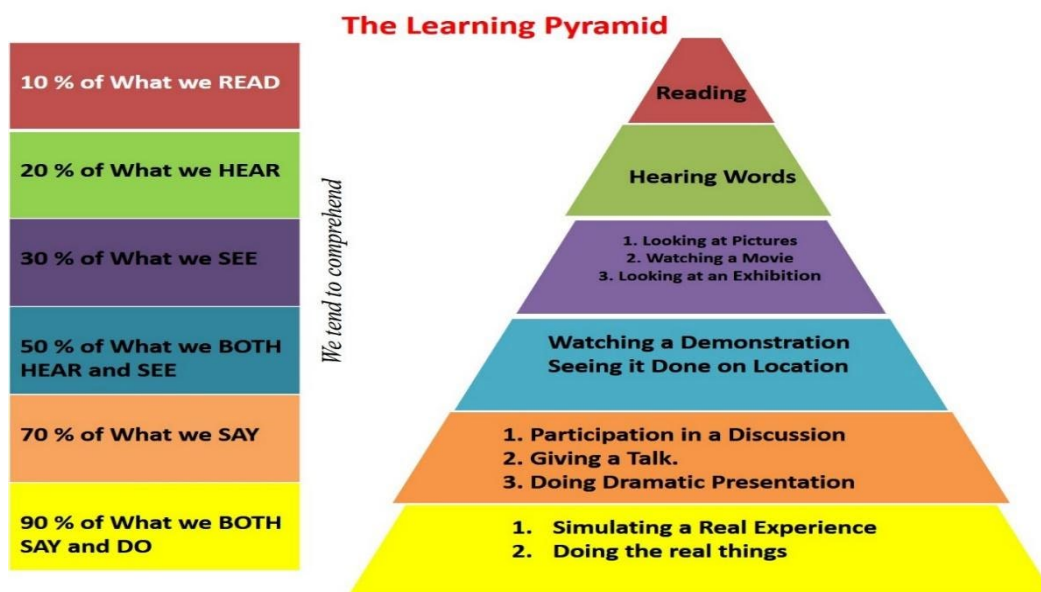


Figure Number 1: The Learning Pyramid diagram of National Training Institute in Bethel, Maine (Source:- Beagle, D. R., Bailey, D. R., & Tierney, B. (2006). The information commons handbook. Neal-Schuman)

The above diagram is self-explanatory, which represents that through today's libraries our user can comprehend only 10% knowledge. This means we are providing a very small portion of services and facilities to our users. If libraries provide them with facilities like "Simulating a Real experience" and "Doing the real Things" then they can understand 90% of knowledge. This figure indicates how libraries have to transform and it should provide multimedia types of resources to the users. This is possible through the multimedia equipped group learning room of Information Commons through which the student will get an opportunity to look at pictures, watch a movie, view a demonstration, visit to web-based exhibitions, give a dramatic presentation and also in Simulating a Real experiences.

Objective of the study

1. To study the concept of 'Information Commons'.
2. To identify the components of 'Information Commons' in detail.
3. To take an overview Information Commons' developed at selected universities at global level.
4. To know the user's perspective about 'Information Commons'.
5. To make suggestions for developing a 'Information Commons'.

Scope of study

This study is related on Dr. D. Y. Patil Vidyapeeth, Pune (DPU). To find out the current status and to develop information Commons, it is necessary to get feedback from students regarding Information Commons. To get the feedback a comprehensive questionnaire containing eleven questions was distributed among the 364 students, out of these 364 students 361 students returned the questionnaire. The researcher has used Morgan's table, the total strength of the student is 6017. After using the Morgan table the sample size is 364. Hence the researcher has distributed a questionnaire to 364 students.

DPU: brief profile Dr. D. Y. Patil Vidyapeeth, Pune (DPU) only established one institute. It has now multiplied in the 16 years. During the time, 9 other professional institutions were established and brought under the parent Institute's umbrella. In the fields of medical, dentistry, nursing, physiotherapy, optometry, biotechnology, management, Ayurved, Homeopathy, and distance learning, the 9 institutions of Dr. D. Y. Patil Vidyapeeth, Pune have developed a brand name "DPU." About 6017 students are taking quality education in these institutions. The Vidyapeeth's state-of-the-art facility and committed teachers set it apart from the competition. The MCI/DCI/INC/CCIM/CCH/AICTE/UGC, and other councils have recognized all of the programs provided by these institutes.

The University Grants Commission (UGC) has classified Dr. D. Y. Patil Vidyapeeth, Pune as a "Category-I Deemed to be University" under the UGC [Categorization of Universities (only) for Grant of Graded Autonomy] Regulations, 2018. The Dr. D. Y. Patil Vidyapeeth, Pune has been Re-accredited (3rd Cycle) by the

National Assessment and Accreditation Council (NAAC) with 'A++' Grade. The Dr. D. Y. Patil Vidyapeeth, Pune is an ISO 9001: 2015 and 14001:2015 Certified as also Green Education Campus. Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune; Dr. D. Y. Patil Dental College & Hospital, Pimpri, Pune; Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune and Dr. D. Y. Patil Homoeopathic Medical College and Research Centre, Pimpri, Pune has been accredited by National Accreditation Board for Hospitals & Healthcare Providers (NABH).

Under National Institutional Ranking Framework (NIRF) 2022, conducted by Ministry of Human Resource Development (MHRD), New Delhi, the Dr. D. Y. Patil Vidyapeeth, Pune has achieved rank 3rd in Dental Category, 17th in Medical Category, 41th in University Category and 76th in Overall Category in India.

The DPU features an outstanding central library. The entire space is about 5000 sq.mt, including reading rooms for students and professors. In fact, the large reading halls can hold up to 750 students. There are more than 62000 volumes in the library, as well as scholarly journals. It has subscriptions to the majority of national and international journals that undergraduate and post-graduate students and teachers need. In addition to the central library each Department has its own Departmental Library. The Central Library's Reading Room is accessible to students from 7 a.m. to 12 midnight, and they can use it whenever it is convenient for them. Students and teachers can use the Central Library's Wi-Fi internet service. Students may access information from any point, anywhere, at any time because the College and hostels are Wi-Fi enabled.

Secondary data analysis

For the present feasibility study regarding design and development of an Information Commons at DPU, the researcher received a filled in questionnaire of 361 students. These students included Undergraduates (59%), Postgraduates (39%) and Research scholars (2%). The detailed information is shown in table number one.

Sr. No	Institutes	Number of Students	Questionnaire Distributed (as per Morgan table)	Questionnaire Received	Response Rate
1	Medical	1612	98	97	98.97%
2	Dental	602	37	36	97.29%
3	Ayurveda	817	49	49	100%
4	Homoeopathic	626	37	37	100%
5	Biotechnology & Bioinformatics	659	41	40	97.56%
6	Global Business School	445	27	27	100%
7	Nursing	438	26	26	100%
8	Physiotherapy	604	36	36	100%
9	Optometry	214	13	13	100%
	Total	6017	364	361	99.17%

Table No.1: Response of students

Use of various applications

Online web browsers, Email, Total (blackboard), Word processing, Spreadsheet, Presentation, Graphics, Web Publishing, Statistics, Review class lectures (webcast), and CAD are some of the computer applications used in the classroom. This can be done via email or text messages. They make it possible to study at home. These computer applications assist and support students in obtaining online education.

The use of various applications for study and learning are discussed here. Total 11 options were given in the use of various applications and students were asked to tick mark the appropriate and multiple options which normally they use. The details are shown in the following table.

A p p l i c a t i o n s	E- m a i l	We b b r o w s e r	Pre s e n t a t i o n	W o r d P r o c e s s i n g	S p r e a d s h e e t	Rev i e w c l a s s l e c t u r e s (w e b c a s t)	G r a p h i c s	B l a c k b o a r d	St a t i s t i c s	W e b P u b l i s h i n g	C A D	N o t a p p l i c a b l e	O t h e r
R e s p o n s e	314	267	229	119	94	61	56	51	47	41	9	5	2
P e r c e n t a g e	87	74	63	33	26	17	16	14	13	11	2	1	1

Table No. 2: Use of various applications

From the above table it is observed that out of 361 students 87% (314) students are using E-mail facilities for their study and learning. Further it is noted that 74% (267) students are using a Web browser like Google, Yahoo and other search engines for getting relevant information for their information needs, about 63% i.e. 229 students use presentations for demonstrating their topics with respect to other applications like Word processing, Spreadsheet, Graphics, Web publishing, Webcast etc., it's a percentage between 33% and 2% percentage. From this data it is clear that as some of these applications are not frequently used, it is necessary to arrange training and awareness programs, so that the use of applications and the knowledge of the students be enhanced.

Use of online resources

Students can learn at their own pace using online resources. These resources give the freedom to create a schedule that works for everyone. Internet search engines (e.g., Google, Yahoo, Firefox), Library online catalog, E- Databases, Lexis / Nexis, ProQuest, Expanded academic, E-Journals, E-Reserves, E-Books, etc. all are useful online resources. As a result, using online resources allow for a more balanced combination of research and studies. Table number three is about the use of online resources.

Res o u r c e s	Intern e t s e a r c h e n g i n e s (e.g., Googl e, Yahoo)	E- d a t a b a s e s	E- B o o k s	E- J o u r n a l s	Lib r a r y O n l i n e C a t a l o g	E- R e s e r v e s	Ex p a n d e d A c a d e m i c	Pro Q u e s t	Le x i s / N e x i s	No t a p p l i c a b l e	O t h e r : (Sp e c i f y)

Res pons e	330	163	158	153	61	48	17	11	10	8	0
Perc enta ge	91	45	44	42	17	13	5	3	3	2	0

Table No.3: Use of online resources

From the response it is observed that 91% (330) students search information through search engine like Google, Yahoo or other type of search engines. This indicates that the student's choice for searching information is a search engine rather than any other resources. It reflects that users are well accustomed to the search engine than any other e-databases. Further, it is observed that 45% of users are searching their information through subscribed databases this reveals that Librarians have a great opportunity to conduct various awareness programs about these databases, so that their usage can be increased. Next to e-databases, e-books and e-journals are used and their percentage is 44% and 42% respectively. This shows that e-books and e-journals are increasingly used by the students. Most of the libraries have made their resources available through an online library catalogue. From the data received, it reflects that very few students i.e. 17% have used the library catalogue for their information needs.

Overall it is observed that the student's first choice to search information is a search engine rather than a library catalogue. This indicates that librarians need to adopt the skills and competencies of modern technology and implement it in their libraries, so that the students will come to the library, use their e-resources than going to the search engine directly.

Appropriate help from library

All students, faculty members, and researchers are given a warm welcome at the library. There are ten different types of library help to assist users with their studies and research. These various helps include help identifying articles and/or books for your research topic, help providing alternative access to missing or checked out items, or items we don't own, help with physically locating items in the building, help with questions about campus information and/or services, help with computer hardware and software problems or questions, etc.

Table number four is about ten appropriate help from the library, and the students were asked to tick mark any five out of ten.

	Help identifying articles and books for your research topic	Providing all the information you need	Providing services at the times you need it	Providing information that helps you answer your question	Providing accurate answers for factual questions	Help with physical locating items in the building	Help with computer hardware and software problems or questions	Help with questions about campus information and/or services	Providing brochures, on-line help, and signage	Help providing alternative access to missing or checked out items, or items we don't own	Not mentioned
Response	291	264	250	206	182	173	151	150	142	137	0
Percentage	81	73	69	57	50	48	42	42	39	38	0

Table No.4: Appropriate help from library

From the responses it is observed that 81% (291) students require help in identifying articles and books on their research topics. Student's second option was for getting all types of information from the library which is 73%. Further the response indicates that the students require services at the time when they are in need of it. These two points clearly underline the importance of resources and services provided by the library. 57% of students feel that there is a need of active reference desk through which they can get all sorts of help to get answers to their queries. Further, it is interesting to note that 48% of students require help in locating the print resources available in the library. 42% of students are in need of help with respect to the questions regarding campus information and services and also they require help in solving problems of their computer, hardware and software. By considering the overall responses to this question it is found that, while developing an Information Commons for DPU, the suggestions made by the users should be considered.

Help desk

A help desk is a resource that provides students and end-users with information and support about an institution's products and services. The primary purpose of a help desk is to troubleshoot problems and provide advice on items like computers, electrical equipment, food, software, multimedia, databases, and electronic resources. Toll-free numbers, websites, instant messaging, and email are all common ways for organizations to provide help and support to their users.

There is a need of help desk in Information Commons. The response is received to this help desk is shown in table number five.

	Needed	Not Needed	Not Mention	Total
Response	290	67	4	361
Percentage	80	19	1	100

Table No.5: Help desk

From the above table it is observed that 80% (290) students are in favour of having a help desk in the Information Commons. This indicates (betoken) that there is a need of help desk for all types of academic help to fulfill their information needs.

Comfortable seating

Comfortable seating areas with appropriate furniture facilities to motivate casual meetings, cafes with food and drink, group study rooms, and library services are all popular.

There is a comfortable seating area for learning, research and relaxation, which is shown in table number six.

	Needed	Not Needed	Not Mention	Total
Response	336	23	2	361
Percentage	93	6	1	100

Table No.6: Comfortable seating area

It is found that 93% (336) students require a comfortable sitting area for learning, research and study. Students have to spend more time in libraries, sometimes away from their homes or even hostels are far away from their colleges or universities, that's why comfortable seating and reading arrangements are required, so that the study, research and learning will be made with ease and comfort.

Group study rooms

The academic use of group study rooms is limited to currently enrolled students. Individual study is not permitted in group study rooms, which are reserved for groups of two or more students. Rooms may be reserved for a maximum period of two hours at a time, and each group is limited to one booking per day. With student-focused support services, the goal was to create group study rooms that were accessible, attractive, pleasant, convenient, and adaptable.

Group study rooms are well equipped with a computer, laptop and projectors. The response received regarding group study rooms is shown in table number seven.

	Needed	Not Needed	Not Mention	Total
Response	321	39	1	361
Percentage	89	11	0	100

Table No.7: Group study rooms

Response to this question indicates that 89% (321) students require these require a groups study room equipped with computer facility in libraries, so that any new information can be obtained easily. It is necessary to create separate group study rooms, so that students can discuss their research problems freely within their groups. They can also use the computer and projector facilities to prepare their presentations, and have discussion on their topics. This is a very important facility through which overall developments regarding communication presentations skills that can be enhanced in manifold ways.

Multimedia production areas

Text, audio, video, animation, and graphics are all examples of multimedia. With the creation of multimedia, the idea of a paperless society has become a reality. Multimedia enables the user to access information from a variety of sources on a single platform.

To know the requirements of students regarding on multimedia production areas, the response received to this multimedia production areas is shown in table number eight.

	Needed	Not Needed	Not Mention	Total
Response	295	60	6	361
Percentage	82	17	2	100

Table No.8: Multimedia production areas

The above table highlights how multimedia production areas is useful for the students. Out of 361 students 82% (295) are in favor of having multimedia production areas. Now a days it is necessary to show explain and present whatever the students are learning, for this purpose they require to use textual information along with audio and videos. For this purpose it is necessary that this type of facilities should be available in Information Commons then students will get the necessary help from expert and their learning and presentation skills will improve.

Scanning, printer and digitization facilities

This section provides users with resources and technical assistance in the areas of scanning, printing, and digitization for study and research. Students can use their student ID and password to access the printer and scanning machines, i.e. to know requirement of scanning, printer and digitization facilities in Information Commons. The response received to this Scanning, printer and digitization shown in table number nine is displayed below.

	Needed	Not Needed	Not Mention	Total
Response	337	24	0	361
Percentage	93	7	0	100

Table No.9: Scanning, printer and digitization facilities

From the above table is interpreted that Scanning, printer and digitization facilities should be handy to students for easy and effective recommendations from very high that is 93% (337) responded out of 361 students.

Space to watch academic videos

In libraries, one can find different type's videos. To watch these academic videos separate space is required. The response received regarding separate space to watch academic video shown in table number ten.

	Needed	Not Needed	Not Mention	Total
Response	300	60	1	361
Percentage	83	17	0	100

Table No.10: Space to watch academic videos

From the above table it is observed that out of 361 students 83% (300) require separate space to watch academic videos. A separate space for academic videos.

Gallery in library

Creators' messages are communicated by galleries so that artists can continue to do what they do best to create. A new or established collector's decision to invest in an artwork is a significant purchase, and the transaction process must be handled professionally. An organization or institution's collection of photos, trophies, pictures, and event albums. The gallery serves as a source of inspiration for all students who want to achieve their goals, i.e. is to find out the requirement of galleries. The response received regarding the Gallery is shown in table number eleven.

	Needed	Not Needed	Not Mention	Total
Response	302	55	4	361
Percentage	84	15	1	100

Table No.11: Gallery in library

From the above table is observed that out of 361 students 84% (302) students are willing to use special galleries as per the academic requirement of their interest and will be useful in motivation and presenting their area of interest.

Tools and services

Since ancient times, academic libraries have played an important role in the academic and social lives of all users. In research institutions, universities, and technical institutions around the world, there are a variety of tools for conducting studies and research. To better serve our students and researchers, we must implement a

variety of new tools and services in libraries that are required daily through information and communication technology. The use of modern tools and technologies in libraries will increase the number of users who use library services.

To know about requirement of various tools and services, respondents were asked to select to multiple options in the tools and services. The response for received this tools and services is shown in the following table number

twelve.

To ols and Ser vic es	Refer ence Book s	Print Cent er	PC work statio n	Ph oto co py Ma chi nes	Co lla bor ati ve Wo rk roo ms	Co mp uti ng / Re sea rch Sta ff	Ma c wo rks tati on	Ha nd out s an d bro ch ure s	Pu bli c iM acs (U SC Inf o Ki osk)	Ot her	No t Me nti on
Re spo nse	259	252	244	229	155	114	112	89	76	10	2
Per cen tag e	72	70	68	63	43	32	31	25	21	3	1

Table No.12: Tools and Services

The above table reflects that 72% (259) students responded to Reference books in the Information Commons. Whereas 70(252), 68 % (244), 63 % (229) respondents prefer to have a Print center, PC workstation and Photocopy Machines. Regarding other tools and services, it is found that 43% (155) students require Collaborative Workrooms, 32% of respondents require Computing and research staff in the Information Commons. From the above diagram it is clear that whenever you want to convert an existing Library into Information Commons. It is necessary to have Reference books, Print Centre, PC Workstation, Collaborative Workrooms and Computing and research staff in the Information Commons.

It is observed that different types of studies are conducted in various parts of the world about Information Commons. They have designed and developed the Information Commons according to their user's needs. After careful study of all these various studies the researcher, since working in DPU for the last twenty five years, thought of developing Information Commons for DPU. Hence the researcher designed a questionnaire to get the responses from students learning in different Institutions in DPU. From the responses received the researcher is planning to suggest an ideal model of an Information Commons to DPU.

Findings

From the above interpretation and discussion following are some of the major findings of the study are shown in the following tables.

Applications	Response	Percentage
E-mail	314	87
Web browser	267	74
Presentation	229	63

Table No.13: Response regarding applications

It is found that out of 361 students 87% (314) students are using E-mail facility for their study and learn. Further it is noted that 74% (267) students are using a Web browser like Google, Yahoo and other search engines for getting relevant information for their information needs, about 63% i.e. 229 students use power point presentations to explain their topics.

Information Search	Response	Percentage
Internet search engines (e.g., Google, Yahoo)	330	91
E-databases	163	45
E-Books	158	44
E-Journals	153	42

Table No.14: Information search trend

It is perceived that 91% (330) students search information through search engines like Google, Yahoo or other types of search engines. This indicates that the student's choice for searching information is a search engine rather than any other online databases. It reflects that users are more accustomed with search engines than any other e-resources. Further, it is observed that 45% of users are searching their information through subscribed databases. This reveals that Librarians have a great opportunity to conduct various awareness programs about these databases, so that their usage can be increased. Next to e-databases, e-books and e-journals are used and their percentage is 44% and 42% respectively. This shows that e-books and e-journals are increasingly used by the students.

Information need	Response	Percentage
Help identifying articles and/or books for your research topic	291	81
Providing all the information you need	264	73
Providing service at the times you need it	250	69
Providing information that helps you answer your question	206	57
Providing accurate answers for factual questions	182	50
Help with physically locating items in the building	173	48

Table No.15: Information need

It is noticed that 81% (291) students require help in identifying articles and books on their research topics. Student's second option for getting all types of information from the library is 73% (264). Further the response indicates that the students require services at the time when they are in need of it 69% (250). These two points clearly underline the importance of resources and services provided by the library. 57% (206) of students feel that there is a need for an active reference desk through which they can get all sorts of help to get answers to their queries 50% (182). Further it is interesting to note that 48% (173) of students require help in locating the print resources available in the library.

Facilities	Response	Percentage
Help Desk		
Needed	290	80
Comfortable Seating Area		
Needed	336	93
Group Study Rooms		
Needed	321	89
Multimedia Production Areas		
Needed	295	82
Scanning, Printer and Digitization facilities		
Needed	337	93
Space to Watch Academic Videos		
Needed	300	83
Gallery in Library		
Needed	302	84

Table No.16: Various facilities

It is noticed that 80% (290) students are in need of having a help desk in the Information Commons. This indicates (betoken) that there is a need for a help desk through which all types of academic help to fulfill their information needs will be provided. It is found that 93% (336) students require a comfortable sitting area for learning, research and study. It indicates that 89% (321) students require a group study room equipped with a

computer facility in libraries, so that any new information can be obtained easily. It indicates that the multimedia production area is useful for the students. It indicates that 82% (295) students are in favor of having multimedia production areas. It is interpreted that Scanning, printer and digitization facilities should be handy to students for easy and effective recommendations. 93% (337) responded out of 361 students. It is observed that out of 361 students 83% (300) are acceptable online education for teaching, learning, research and demonstration in education. It is observed that out of 361 students 84% (302) students are willing to use special galleries as per the academic requirement of their interest and will be useful in motivation and presenting their area of interest.

Tools and services	Response	Percentage
Reference Books	259	72
Print Center	252	70
PC workstation	244	68
Photocopy Machines	229	63

Table No.17: Tools and services

It is reflected that 72% (259) students require Reference books in the Information Commons. Whereas 70% (252), 68 % (244), 63% (229) respondents prefer to have Print center, PC workstation and Photocopy Machines require in the Information Commons.

Suggestions

The researcher derived a few suggestions, which are based on the findings of the present study.

- It is suggested that group study facilities should be created in the Information Commons, because more than 45% students prefer to work alone as well as in a group.
- It is recommended that library should organize frequently online orientations and online training regarding various databases, so that instead as searching information through like Google and Yahoo, they can search these various databases and students can gate the qualitative information.
- 81% of students require help in identifying articles and books in their research topics. Hence it is strongly suggested that libraries should provide services in Literature search, Database search and Review of literature, this can help researcher to save their valuable time and they can focus on their study and research topics rather than searching information of their topics.
- 80% of students are in favour of having a help desk in Information Commons, so it is necessary that student like help desk should be created in Information Commons, through which students can seek any type of academic help through Information Commons.
- It is suggested that workstations for small groups should be created in the Information Commons. Along with this it is necessary to create a multimedia production area, so that students can seek their online lectures in this study and research area.
- Students in these various colleges spend most of their time in the college campus. Hence it is necessary to create comfortable seating arrangements with modern furniture, so that students can focus on their study and research area topic.

Conclusion

The Information Commons is a physical facility specially built to organize work spaces and services delivery in an integrated digital environment. Through Information Commons users can access and use the available information to build their knowledge base. For effective use of an Information Commons, it requires functional integration of technology, service delivery, which is obtained through the questionnaire circulated among users. Nowadays it is necessary for some of the private and deemed universities to develop Information Commons, so that their users can utilize their valuable time to gain thorough knowledge in their respective fields. The findings of the study will be useful to design and develop an appropriate Information Commons at Dr. D. Y. Patil Vidyapeeth, Pune.

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