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EVALUATION OF ELECTRONIC LIBRARY USAGE AT THE FEDERAL POLYTECHNIC IDAH

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Abstract
This paper evaluate the level of use and services at electronic library of the Federal Polytechnic, Idah. Survey research methodology was adopted for the study, the population consist the students of the six schools that make up the institution were 500 of them patronizes the library daily. 250 of the population were randomly selected as sample, structured questionnaire was used to collect data for this study, and was analyzed with simple percentage and chi- square (x2). The study revealed that there is great relationship between the level of awareness of resources and services available with their usage. Likewise the hypothesis was rejected indicated that there is great relationship between utilization and extent of usage of the resources. Hypothesis 3, also was rejected because there is existing relationship between resources and purpose of using them. Respondent satisfaction upon the uses of the resources was established as the hypothesis was rejected. Furthermore, the use of the resources and problems encountered was clarify as the hypothesis 5 was rejected to affirm that there are serious constraints to the use of the facilities. The study therefore concluded that there was low level of usage, and cannot justify the huge expenses being expended on the resources. Finally the researcher made some recommendation which includes; creating more awareness strategy on the library resources, GNS course (use of library) should be made to be more ICT compliance etc.
Keywords: Electronic library, evaluation, ICT, patronage, users.

Introduction

The library landscape has indeed been altered and reshaped by the information and communication technology (ICT) across the globe. Great and vibrant libraries are now measured by the level of automations on real time basis, subscription to reputable online database as well as quality of collections. The libraries that are fully ICT driven are regarded as modern while those manually driven are termed traditional. Okogwu& Dike (2019) described that electronic

resources are those materials that require computer, or handheld mobile devices. They may be accessed remotely via the internet or locally. The concept of electronic resources encompasses the following: e-text or e-book, abstracting and indexing databases such as e- journal, locally loaded databases, e-library CD-ROMs, and websites, among others.

Alokiuk & Al-Amri (2021) opines that the library together with the information sector has undergone tremendous changes in recent years. These changes involve: the collection, and arrangement of information. Consequently, libraries can offer their services without conferment to geographical borders, advances in information and communication technologies have revolutionized the type, subject matter, and design likewise the perception of users of libraries. Hence, the progression of electronic libraries organized from the amalgamation of technology with conventional library tools satisfy the increasing information needs of users. Electronic library evaluation frameworks enable the evaluator to conduct a detailed and logical assessment. However, before designing such a framework, it is necessary to point out the key constituents that typify the scope of the electronic library environment. Three major components in the domain of a electronic library are users, content and technology (Igbo 2022). Service is a valuable parameter that can be investigated. However, it often falls under content. These three parameters should be examined in detail to develop an effective evaluation.

However, electronic library can be refers to as library with the same purposes, functions and goals as traditional library collection development and management, subject analysis, index creation provision of access, reference work and preservation. The terms or concept (online = digital + virtual + electronic library) means many things to many people, the terminology has not yet settled, many scholars have perceived (online = digital + virtual + electronic library in different ways and commutation. The term could be described as an emerging terminology with different views depending on one's perception of what it is. But the central ideas that the entire concept denote are: instant access to information resources, fast retrieval of information resource either online / offline or CD ROM based, availability of information resource in electronic formats and it often allows for multiple concurrent users (Alireza 2019).

Kato, *et al*. (2021) refers the term electronic library resources as information processed and digitally driven using hardware and software that can be accessed by electronic library users, through remote information provider network mounted locally by electronic library manager. Using ICT has revolutionized how the worldwide community uses information. Library members are no longer

limited to online tools designed to meet their needs despite the challenges faced by scholars and the research communities when accessing online information.

Alireza (2019) affirmed that the evaluation must carry these quality. Accuracy: --weather collection have accurate information in the subject area that the users can trust. Coverage: - adequacy of scope of the collection considering both breadth and depth. Efficiency: - This is the cost, it needed to be evaluated too. Satisfaction: - This is overall response to the digital library's collection evaluation.

It is therefore a matter of concern to note that, the level of patronage is low when comparing with the huge financial involvement in making thee-library facilities available. This could be due to nonchalant attitude and poor reading culture of the eligible users, this called for review of the general activities of electronic library and the available facilities. It is in light of this that this article intends to investigate and evaluate the electronic libraries services at the federal polytechnic, Idah's digital/e- library.

Objectives

1. To find out the level of Students awareness on the information services available in the Federal Polytechnic Idahs' digital library.
2. Determine how often the respondent uses the library.
3. Determine the purpose for which they use the library.
4. To find out the level of user satisfaction in using the library.
5. Discover the problems they encounter.

Research Hypotheses

1. There is no significant relationship between the level of awareness of resources/services available and their usage.
2. There is no significant relationship between utilization and extent of usage of the available resources.
3. There is no significant relationship between the resources and purpose of usage.
4. There is no significant relationship between respondent satisfaction and uses of the resources.
5. There is no significant relationship between exploitation of the resources and problems encountered.

Review of Related Literature

An Electronic library (colloquially referred to as a digital library) is a library in which collections are stored in electronic media formats (as opposed to print, microform, or multimedia) and accessible via computers. The electronic content

may be stored locally, or accessed remotely via computer networks. An electronic library is a type of information retrieval system. (Wikipedia2013).

Alokiuk & Al-amri (2021) averred that evaluation can be done at different stages of the development of a digital library. Four forms of evaluation are explained herein. They include formative, summative, iterative and comparative evaluations. Formative evaluation is commonly conducted during the initial stages of a project. For instance, before starting a digital library project, it is necessary to find out the information needs of the target users to determine whether or not a digital library should be established. Thus, a formative evaluation is akin to conducting a market survey before introducing a commodity. Summative evaluation is done at the end of a project to ascertain whether the original targets leading to the initiation of the project have been met or not. Therefore, the focus of this evaluation is the outcome of an initiative. Iterative evaluations encompass short-term appraisals that are performed in the course of a project. Comparative evaluations are complete appraisals performed using formats that can be contrasted across similar systems. In other words, they can be used as benchmarking processes to determine the value of a digital library (as "in-between" assessments that help to ensure that the project is on the right track).

Igbo (2022) posited that at present, most libraries all over the world are moving towards the digital mode. An electronic library can be defined as a collection of digital objects, such as text, images video or audio, which can be accessed through the internet or CD-ROM (compact disk read only memory).Kato *et al.*(2021*)* opined that the network is of great importance to libraries to tackle today's burning issues, such as knowledge overload, user diversity and financial crunch, whereby electronic library services subscription depends on consortia broader access to digital service at a consequently lower cost.

Alireza, (2019) asserted that today, the importance of digital libraries has become more evident in the publication and dissemination of specialized literature. Electronic libraries is the distributor of technological information sources to the environment, the main purpose of which is to provide information and knowledge required for users at cost reduction and usability. Electronic library are libraries in which a major proportion of the resources are available in machine –readable formats, rather than on paper or microform.

E–library is a sources that anyone can use to access a library, having the appropriate formats, without the person actually stepping physically into the library to read books, journals, etc. It allow for various purposes mostly using the internet and computer from the comfort of your home, school, office, etc. most institution of research and development usually have a combination of both the e-

library and physical library. This can be called a hybrid library. This implies that generally any library can be or have combination of the following physical, electronic or hybrid. Choudhury (2014) developed a conceptual model for the sustainability of electronic libraries. The model identifies three key components surrounding a electronic library—data/content, users, and information and communications technology—as well as the major factors in relation to the economic, social, and environmental sustainability of digital libraries. His model suggested specific criteria for examining sustainability, such as funding models, impact assessment, user- and context-specific design, and sustainable preservation models.

Kelly (2018) conducted a review of literature related to electronic library evaluation. She identified a variety of key themes in electronic library evaluation, ranging from usability testing and web statistics for data collection to altimetry, the reuse of electronic library materials, and cost–benefit analysis. Stiller & Petras (2018) reviewed evaluation studies of the European a collections and explored various evaluation criteria in electronic libraries based on a meta-analysis. Wikipedia (2014) stated that electronic libraries was first popularized by the NSF/ DARPA/NASA. Electronic libraries in 1994. These draw heavily on as we may think by vane var bush in 1945. This set out a vision not in terms of technology, but user experience.

Tiwari (2008) posited in his book that electronic library is a library in which a significant proportion of the resources are available in machine, readable format, accessible by means of computers. The digital content may be locally held or accessed remotely via computer networks. In libraries, the process of digitization began with the catalogue of books, moved to periodical indexes and abstracting services, then to periodicals and large reference works and finally to books publishing. Impact of digital collections is an access to digital information age the most distinguishing attribute of the information age.

Tyagi (2013) stated in his book that libraries can be classified into 3 types:

1. Paper /analog library (PL) the classical paper library with its card catalog.
2. Automated /hybrid library (AL) a computerized library catalog.
3. Electronic library a computerized library in which most of the information is digital.

No one questions or disputes the long and lasting contribution of existing classical libraries. The concept of the paper library and the various services it provides are established. The idea is that electronic library should provide all these and more. We use the term integrated services. In ELS to allude to that. These integrated services will add services that are made possible by use of the electronic

medium such as: varied search techniques resulting in focused results, faster provision of relevant resources, and access also to multimedia resources.

Malwad (2009), opined in his book that electronic libraries requires well-tested and proven information technologies including the multimedia kit, it gave the components of electronic libraries to includes the following. Local library system , with adequate PCs having LAN, local databases in machine readable form, CD- ROMs etc., provision to provide e- mail service, access to servers, to remote database etc. Networks, including the network of networks. Variety of system functions to coordinate, manage the entry and to retrieve data, well-trained man power.

We have different types of electronic resources these includes: e- journal, e-books, online databases, websites, CD ROM., diskettes etc. Harriet (2013) came out with some factors that affect the use of electronic resources in papers as follows – poor internet connectivity, frequent power failure, low level of ICT skills of students, lack of proper guidance on the use of e- resources, lack of consistence training and up- grading of students ICT skill, inadequate number of functional personal computers, lack of awareness of existence of specific e- resources, difficulties in downloading full textbooks and journals, difficulties in accessing secured database as a result of irregular subscription and lack of printing facilities etc..

Xie et al. (2020) averred that there are several theoretical modes and frameworks that can be used for electronic library evaluation. As an early effort, the electronic library- Reference Model has served as a framework for electronic library design and evaluation. The model defines multiple components in the electronic library, such as content, functionality, architecture and users. Electronic library evaluation is crucial to electronic library and enhancement without evaluation became a problem, the success of electronic library cannot be valued, the problems of a electronic library cannot be identified and most importantly, the life cycle of electronic library development cannot be sustained. Electronic library evaluation consist of the following main components: evaluation dimension criteria and measures. E-Library usability evaluation model to assess the effectiveness, efficiency, satisfaction and learnability of e-library. The model explained that evaluation method, effectiveness was measured by the proportion of correct answers. Learn ability was inferred from the correctness of the task completion and time spent. Satisfaction was assessed from the perspectives of users' reactions using a likert scale.

Alireza, R. (2019) asserted that many libraries have established electronic libraries. It is therefore necessary to evaluate to find out how effective, efficient

and satisfying the application according to the users. What obstacles they might face and the feedback given later can be a bench mark for improving the performance of the application so that it is better in the future. Evaluation is a fact finding evidence based value measuring, integrated in the management process of digital libraries. Evaluation will serve this three purposes: (1) Accountability i.e. evidence of resources spent on. (2) Effectiveness i.e. Understanding basic phenomena (information seeking satisfaction) (3) Impact i.e. increased learning, received as a result of the encounter with the electronic resources.

According to Agrey, *et* al. (2020) stressed that evaluation is to conduct regular appraisal to determine whether the intended objectives of the library developers as well as other stake holders who directly or indirectly involved with the issue of library. Evaluation is delineated as the methodical procedure of establishing the advantages, importance and usefulness of something. In the content of electronic library, evaluation can be regarded as the process of finding out whether the original objectives that led to the establishment of the system has been achieved. This process is often continued with an assessment.

Raj &Juse (2019) stressed that user's satisfaction is the combination of psychological and environmental circumstances that cause a person to truthfully say, I' am satisfied with the services of this library. It is the end feeling of a person after certain services has been rendered to him. Kato *et al*. (2020) affirmed that, the user satisfaction assessment and preservation is an essential part of library quality management. Within the electronic library background, satisfaction refers to feeling happy with the electronic library in helping to complete a task. With the advent of electronic services, quality of service has become crucial in assessing the efficacy of service delivery. Therefore this work serves as a contribution to knowledge. In the area of evaluating e- library services at the Federal Polytechnic Idah.

Methodology

The descriptive survey research design was adopted for this study. The level of the use of electronic resources was investigated. The population employed for the study was two hundred and fifty (250) targeted users randomly selected from about average of five hundred users that patronizes the library daily. A structured questionnaire was used only to collect data for the study. The completed questionnaires all (100%) were collected and analyzed using the simple Percentages and chi- square.

Result of Findings

Hypothesis 1

There is no significant relationship between the level of awareness of resources/services available and their usage.

Table 1. Ho1

Responses on the level of awareness of e- resources and services available

S/No	Variables	No of Resp	Highly Available	%	Available	%	No Idea	%
1	Browsing Services	250	150	60%	98	39%	02	1%
2	e-mail services	250	110	44%	120	48%	20	8%
3	Reference Services	250	144	4%	92	37%	44	18%
4	OPAC	250	50	20%	105	42%	95	38%
5	White Pages	250	25	10%	75	30%	150	60%
6	News Group	250	25	10%	80	32%	145	58%
7	User net	250	30	12%	80	32%	140	56%
	Average Total		**72**	**29%**	**93**	**31%**	**85**	**34%**

Calculated X2 =516.9
Critical table value = 21.0
Degree of freedom = 12
Level of significance @= 0.5
Decision =Rejected

The chi- square (x2) calculated value 516.9 is greater than chi- square (x2) critical table value 21.0. The null hypothesis is rejected. This indicated that there is significant relationship between the level of awareness of resources/ services available and their usage. Therefore, the result of finding shows that the level of awareness of available resources will definitely have positive impact on the usage. The more awareness users is having on the existing resources, the higher

Hypothesis 2

There is no significant relationship between utilization and extent of usage of the available resources.

Table 2. Ho_2
Responses on utilization and extent of usage of the available e- resources.

S/no	Variables	No of Respondents	Daily	%	Once a month	%	During exam/assign.	%
1	Scanner	250	30	12%	80	32%	140	56%
2	CD ROM	250	30	12%	60	24%	160	64%
3	OPAC	250	20	8%	95	38%	135	54%
4	Research work	250	44	18%	120	48%	86	34%
5	E –mail	250	40	16%	80	32%	130	52%
6	Browsing	250	80	32%	40	16%	130	52%
	Average Total		**41**	**16%**	**79**	**32%**	**130**	**52%**

Calculated x^2=307.7
Critical table value =25.0
Degree of freedom = 15
Level of significant @ = 0.05
Decision =Rejected.

The chi-square (x2) calculated value 307.7 is greater than chi- square(x2) critical table value 25.0. The null hypothesis is rejected. This means that there is significant relationship between the utilization of the resources as well as extent of usage. Result of finding here shows clearly that the time of the E-library usage concentrated more on exam and assignment period.

Hypothesis 3
There is no significant relationship between the resources and purpose of usage

Table 3 Ho3
Responses on the relationship of the available e- resources and purpose of usage.

S/no	Variables	No of Respondent	Yes	%	N0	%
1	To access research materials.	250	180	72%	70	28%
2	To access materials for completing notes	250	150	60%	100	40%
3	For homework assignment	250	210	84%	40	16%
4	Reading for pleasure	250	230	92%	20	8%
5	Access E-mail.	250	200	80%%	50	20%
	Average Total		**194**	**78**	**56**	**22%**

Calculated x^2= 85.1
Critical table value = 9.5
Degree of freedom = 4
Level of significant @ = 0.05
Decision =Rejected

The chi- square (x2) calculated value 85.1 is greater than chi- square (x2) critical table 9.5. The null hypotheses is rejected because there is significant relationship between the resources and purpose of its usage. The available resources is what will determine the purpose of its usage.

Hypothesis4
There is no significant relationship between respondent satisfaction and uses of the resources.

Table 4 Ho4
Responses on the respondents' satisfaction and uses of the e-resources.

S/no	Variable	No of Respondent	Very satisfied	%	Satisfied	%	Not Satisfied	%
1	Opening hours	250	30	12%	100	40%	120	48%
2	References services	250	120	48%	80	32%	50	20%
3	Interaction between inform. Managers and users	250	100	40%	90	36%	60	24%
4	Network availability	250	50	20%	80	32%	120	48%
5	Network speed	250	70	28%	110	44%	70	28%
	Average Total		**74**	**29%**	**92**	**37%**	**84**	**34%**

Calculated x2 = 132.3
Critical table value = 15.5
Degree of freedom = 8
Level of significance @ = 0.05
Decision = Rejected.

The chi- square (x2) calculated value of 132.3 is higher than chi- square (x2) critical table value. 15.5 Therefore the null hypotheses are rejected to proof that there is significant relationship between the respondent satisfaction and uses of the resources.

Hypothesis. 5
There is no significant relationship between exploitation of the resources and problems encountered

Table 5. Ho_5
Responses on problems encountered when using e- library resources.

S/no	Variables	No of resp.	Strongly agreed SA	%	Agreed A.	%	Disagree D.	%
1	Insufficient computers	250	110	44%	60	24%	80	32%
2	Low ICT skills of users	250	80	32%	95	38%	75	30%
3	Low internet Speed	250	200	80%	40	16%	10	4%
4	Poor power supply	250	180	72%	50	20%	20	8%
5	Restriction of the use of external Drive	250	150	60%	70	28%	30	12%
	Average total.		**144**	**58%**	**63**	**25%**	**43**	**17%**

Calculated x2 = 192.2
Critical table value = 15.5
Degree of freedom (df) = 8
Level of significance @ = 0.05
Decision = Rejected

The chi- square (x2) calculated value 192.2 is greater than chi-square (x2) critical table value 15.5 the null hypothesis is rejected. There is significant relationship between uses of the resources and problems encountered.

Discussion of Findings

From the data obtained and analyzed, the following summaries were made,

1. Hypothesis one was rejected, it was established that the level of awareness of the available resources has greater impact on its usage. The more awareness they have about availability of some resources, the more they are tempted to want to use them.

2. Hypothesis 2 was rejected, this indicated that there is significant relationship between utilization and extent of usage of the available resources. It was observed that the users made maximum use of the resources during examination/ assignment period at the expense of other valued leisure period that they could have judiciously utilized at the E-library.
3. Hypothesis 3, revealed and established that the users patronizes the library. For reasonable purpose. Due to the availability of the right electronic information sources.
4. Hypothesis 4, inferred that users enjoy, reasonable degree of satisfaction in using the library, which led to the rejection of the hypothesis.
5. Hypothesis 5, clearly indicated that the users encountered some problems in the process of using the- library e- information resources.

Conclusion

Library of nowadays, are being rated with the quality of electronic library at their domain. The patronage of users (staff and students) in the use of electronic library was evaluated. The study made use of questionnaire with250 users randomly selected at the polytechnic central library. From the results and discussion, it is obvious that there was low level of user's patronage to e-library. This could be connected to poor reading culture of an average African man/woman. We too belief in fire brigade approach to reading when there is relative high demand for it. Ironically the altitude of the user has not justify the huge financial expenses expend on e- resources subscription Note, the pervasiveness and inevitability of the application of electronic resources to the library services is incontrovertible. It has become a global standard and best practice.

Recommendations

Based on the conclusion of this study. It is therefore recommended that:

1. Effort must be intensify to create thorough awareness on the use of E- library to the fresher/new intake students so as to catch them young.
2. The teaching of the use of library (GNS) course must be made ICT compliance.
3. Students must be prevailed upon to have ICT skills. This will in turn facilitate efficient use of ICT gadgets –because of the dynamic nature of ICT,

4. Training and retraining programme should be organized for information managers. From time to time to refresh their ICT Knowledge.
5. Librarian should collaborate with authority concerned by convincing them to create the interest of library e.g. E-library in their mind, in other to lure them spending more money on the library.

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