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Gastroenterology International	Semiannual	6000	5500	469	430
Indian Journal of Anatomy	Quarterly	8500	8000	664	625
Indian Journal of Anesthesia and Analgesia	Bi-monthly	7500	7000	586	547
Indian Journal of Cancer Education and Research	Semiannual	9000	8500	703	664
Indian Journal of Communicable Diseases	Semiannual	8500	8000	664	625
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Journal of Orthopedic Education	Triannual	5500	5000	430	391
Journal of Pharmaceutical and Medicinal Chemistry	Semiannual	16500	16000	1289	1250
Journal of Practical Biochemistry and Biophysics	Semiannual	7000	6500	547	508
Journal of Radiology	Semiannual	8000	7500	625	586
New Indian Journal of Surgery	Bi-monthly	8000	7500	625	586
Ophthalmology and Allied Sciences	Triannual	6000	5500	469	430
Otolaryngology International	Semiannual	5500	5000	430	391
Pediatric Education and Research	Quarterly	7500	7000	586	547
Physiotherapy and Occupational Therapy Journal	Quarterly	9000	8500	703	664
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Indian Journal of Maternal-Fetal & Neonatal Medicine	Semiannual	9500	9000	742	703
Indian Journal of Obstetrics and Gynecology	Quarterly	9500	9000	742	703
Indian Journal of Emergency Medicine	Quarterly	12500	12000	977	938
Indian Journal of Trauma and Emergency Pediatrics	Quarterly	9500	9000	742	703
Journal of Emergency and Trauma Nursing	Semiannual	5500	5000	430	391
Indian Journal of Forensic Medicine and Pathology	Quarterly	16000	15500	1250	1211
Indian Journal of Forensic Odontology	Semiannual	5500	5000	430	391
Indian Journal of Legal Medicine	Semiannual	8500	8000	664	625
International Journal of Forensic Sciences	Semiannual	10000	9500	781	742
Journal of Forensic Chemistry and Toxicology	Semiannual	9500	9000	742	703
Community and Public Health Nursing	Triannual	5500	5000	430	391
Indian Journal of Surgical Nursing	Triannual	5500	5000	430	391
International Journal of Pediatric Nursing	Triannual	5500	5000	430	391
International Journal of Practical Nursing	Triannual	5500	5000	430	391
Journal of Gerontology and Geriatric Nursing	Semiannual	5500	5000	430	391
Journal of Nurse Midwifery and Maternal Health	Triannual	5500	5000	430	391
Journal of Psychiatric Nursing	Triannual	5500	5000	430	391
Indian Journal of Ancient Medicine and Yoga	Quarterly	8000	7500	625	586
Indian Journal of Law and Human Behavior	Semiannual	6000	5500	469	430
Indian Journal of Medical Psychiatry	Semiannual	8000	7500	625	586
Indian Journal of Biology	Semiannual	5500	5000	430	391
Indian Journal of Library and Information Science	Triannual	9500	9000	742	703
Indian Journal of Research in Anthropology	Semiannual	12500	12000	977	938
Indian Journal of Waste Management	Semiannual	9500	8500	742	664
International Journal of Political Science	Semiannual	6000	5500	450	413
Journal of Social Welfare and Management	Triannual	7500	7000	586	547
International Journal of Food, Nutrition & Dietetics	Triannual	5500	5000	430	391
Journal of Animal Feed Science and Technology	Semiannual	7800	7300	609	570
Journal of Food Additives and Contaminants	Semiannual	5000	4500	391	352
Journal of Food Technology and Engineering	Semiannual	5000	4500	391	352
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E-Information Search Pattern on Engineering and Technology among the Faculty Members in Coimbatore District

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Abstract

The study analyses that electronic information accessed by the faculty members at engineering and Technology Institutions in Coimbatore District. The study could be noticed that 26 per cent of the respondents are female and 74 per cent of them are male. It can be noticed that male respondents reported that 48% of them higher than female respondents. a large number of 263 (50.6%) of the respondents are "Highly Satisfied" with the lecturing materials followed by 257 (49.4%) for the respondents who are Satisfied" with e-resources offering lecturing materials. maximum number 251 (48.3%) of the respondents rated that information sought from E-Resources as "Excellent" while 205 (39.4%) of the respondents rated it as "Very Good" followed by 64 (12.3%) of the respondents who rated it as "Good".

Keywords: Electronic Information; Google; Faculty Members; E-Journals and E-Databases.

Introduction

User much more interest on using Internet for accessing scientific information in which global level publications. This study reveals that faculty of science respondents secured maximum level due to keen search and obtained information by scientific journals andelectronic publications. The maximum number of users are visited the library for preparing seminars, conferences and assignments. The Internet users are preferring Yahoo search engine and Google is next position in this study (Baskaran, 2011). The majority of the respondents are well aware of the various e-resources in their respective field and confidently use them regularly. The various patterns of use by the Professors and Associate Professors for instance. Assistant professors use the resources for study purpose. The faculty members also get to acquire the guidance and experience for accessing the scholarly journal from the Library staff and from the senior faculty members. It is however found that lack of training for accessing is an obstacle in proper and full utilization of them. The paper has conducted a survey on use and access to electronic resources through the search facilities provided by the publishers for full text articles (Baskaran and Kishore kumar, 2013). Usage of e-resources and services available in libraries of eleven degree colleges in Chandigarh. Bhatia analyzed the impediments that deter effective utilization of available online resources and suggested ways to make libraries digitally resourceful. The students expressed interest to get trained on effective utilization of e-resources as they are aware of the fact that Internet is a pivotal tool that facilitates learning. Furthermore, the students

are given a lot of assignments and they are largely dependent on e-resources for their completion (Jaspal Kaur Bhatia, 2011). E-Journals are the most preferred e-resource among the respondents. They seek the help of e-resources to perform their routine exercises, i.e. teaching, research, entertainment and communication. Some major problems faced by the respondents are slow speed of internet, difficulty in retrieving contents and poorly designed web sites (Chetan Sharma, Lakhpat Singh, Ritu Sharma, 2011). One of the studies explored that most of faculty members are access to e-journals at weekly 24 (44%). The faculty member and research scholars aware about UGC @ I nfonet accounted 103 (85.99%) and 17 (14.16) respondents are not aware this programme. The study observed that the faculty members who responded to the study, 70 (59.1%) learned through guidance from their teachers/guide 28 (56%). It is provide the highest proportion of faculty members 21 (42%) use their department for accessing the information, while research scholars 28 (40%) they were accessing their e-journals in their department itself (Baskaran, 2012). It reveals that academic staff were using many types of e-resources. They were also using the latest sources of information like e-groups, virtual conferences. Using the e-resources, their academic/ professional competency also improved. The teaching methodology also involved the e-resources uses and the students' ability was also affected in a positive manner by this methodology. Some problems were also explored in using e-resources. The majority of users were quite satisfied with using e-resources. (Sunil Bhatt, Madan Singh Rana, 2011). Electronic resources have become an integral part of the information needs of research scholars at Kurukshetra University. Further, it finds that e-resources can be good substitutes for conventional resources, if the access is fast, and more computer terminals are installed to provide fast access to e-resources. Google is the most widely used search engine for locating information electronically (Margam Madhusudhan, 2010). The study found that out of 120 respondents at the Faculty of Arts in the University of Kerala, 56.67% use internet for educational purposes and 19.16% for checking e-mail. Similarly, 49.2% respondents use e-resources predominantly for academic purposes, 27.5% for seminar presentations and 11.7% for project works. When inquired about their choice of search engine, most of the students and researchers preferred Google to Yahoo. It was also observed that most of the departments are not having adequate facility for using of e-resources (Sudhier K.G and Seethalekshmi, K.P., 2011). Data collection was made by directly administeringquestionnaire to the research scholars from four State Universities and one Central Deemed University in Tamilnadu. The study has been brought out among the research scholars have been intensively accessed the electronic resources for the purpose of their research work carry out in the South Universities in Tamilnadu. The research dealt with the purpose of visit the University Library, visit the University Library website, aware of electronic resources, how far internet fulfilling their research, Purpose of using the electronic resources, barriers and limitations while using the Electronic resources among the research scholars, ICT infrastructure and so on (Baskaran, 2018).

Hypotheses

H_1: There is no significance difference between Age-wise respondents and they accessed Electronic resources in the Engineering Institutions.

H_1: There is no significance difference between Qualification wise respondents and they accessed Electronic resources in the Engineering Institutions.

H_0: There is a significance difference between Designation wise respondents and they accessed Electronic resources in the Engineering Institutions.

H_0: There is a significance difference between Gender wise respondents and they accessed Lecture materials.

H_0: There is a significance difference between Designation of the respondents and they accessed Lecture materials.

H_1: There are no age wise respondents and they attended Seminar and Conferences.

Methodology

The study was found the rate of uniqueness of e-resources, degree of influence on teaching and research efficiency of e-resources, level of basic problems encountered while searching information on e-resources and preferred electronic resources to access engineering and technology related information. The questionnaire was personally distributed to respondents in the engineering institution in Coimbatore districts. Out of 600 questionnaires distributed, 520 (86%) were received back from the respondents.

Analysis and Discussion of the study

Gender of the Respondents

Table 1 observed that 26 per cent of the respondents are female and 74 per cent of them are male. It can be noticed that male respondents reported that 48% of them higher than female respondents

Table 1: Gender of the Respondents

Sl.No	Gender	Frequency	Percent
1.	Male	385	74
2.	Female	135	26
Total	520	100	

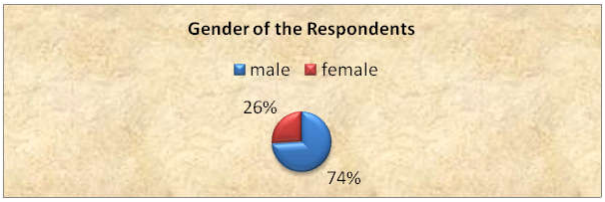

Fig. 1: Gender wise Respondents

Level of satisfaction while use Electronic resources

a. Lecturing Materials

The data shows from table 2, a large number of 263 (50.6%) of the respondents are "Highly Satisfied" with the lecturing materials followed by 257 (49.4%) for the respondents who are Satisfied" with e-resources offering lecturing materials.

b. Publish Paper in Journals

The data indicates that a maximum number of 291 (56.0%) of the respondents are "Highly Satisfied" in publishing paper in journals as against 229 (40.0%) of the respondents who are "Satisfied".

c. Preparing Articles for Seminar/Conference

The data reveals that a large number of respondents 326 (62.7%) of them are "Satisfied" in preparing articles for seminar/conference as against 194 (37.3%) of the respondent who are "Highly Satisfied".

d. Research and Development

The data interpreted indicated that a large number of respondents 448 (86.2%) of them are "Satisfied" in research and development as against 52 (10.0%) of the respondents stating "No comments" followed by 20 respondents (3.8%) of them who expressed that they are "Highly Satisfied" in research and development.

e. Project Work

The data explicates that a maximum number of respondents 290 (55.8%) of them are "Satisfied" in project work, 143 (27.5%) of the respondents are "Highly satisfied" 46 (8.8%)of the respondents are "Less satisfied" and 47 (7.9%) of the respondents have "No Comments".

f. Writing Books

The data explains that a large number of respondents 274 (52.7%)of them are "Satisfied" in writing books as against 93 (17.9%) of the respondents are "Less Satisfied" 84 (16.2%) of the respondents stating "No Comments" and 69 (13.3%) of the respondents are "Highly Satisfied" in writing books.

g. Exchange of Ideas

The data shows that majority of the respondents 223 (42.9%) of them are "Highly Satisfied" in exchanging of ideas as against 174 (33.9%) of the respondents who are "Satisfied", 82 (15.8%) of the respondents have "No Comments" and 41 (7.9%) of the respondents are "Less Satisfied" in exchanging ideas.

Table 2: Level of satisfaction while use Electronic resources

Sl. No	Electronic Resources	Highly Satisfied	Satisfied	Less Satisfied	Not Satisfied	No Comments	Total
1.	Lecturing materials	263 (50.6)	257 (49.4)	00	00	00	520 (100)
2.	Publishing paper in journals	291 (56.0)	229 (44.0)	00	00	00	520 (100)
3.	Preparing articles for seminar/conference	194 (37.3)	326 (62.7)	00	00	00	520 (100)
4	Research and development	20 (3.8)	448 (86.2)	00	00	52 (10.0)	520 (100)
5.	Project works	143 (27.5)	290 (55.8)	46 (8.8)	00	47 (7.9)	520 (100)
6.	Writing of books	69 (13.3)	274 (52.7)	93 (17.9)	00	84 (15.8)	520 (100)
7.	Exchanging of ideas	223 (42.9)	174 (33.5)	41 (7.9)	00	82 (15.8)	520 (100)

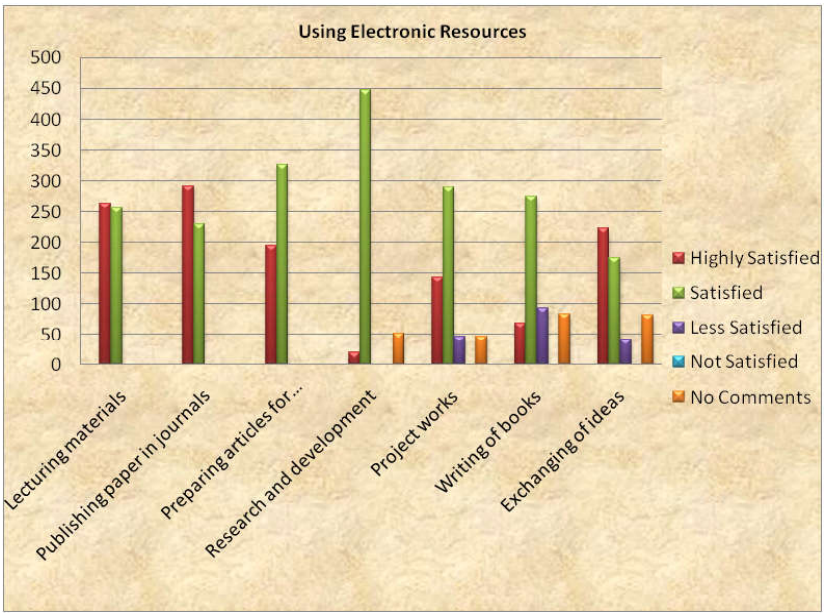

Fig. 2: Level of satisfaction while use Electronic resources

Electronic information access by the faculty members

Table 3: Electronic information access by the faculty members

Sl.No	Resources	Excellent	Very Good	Good	Very Poor	Poor	Total
1.	Electronic books	251(48.3)	205(39.4)	64(12.3)	00	00	520(100)
2.	Electronic journals	281(54.0)	207(39.8)	32(6.2)	00	00	520(100)
3.	Electronic databases	191(36.7)	247(47.5)	61(11.7)	21(4.0)	00	520(100)
4.	Electronic newsletter	144(27.7)	171(32.9)	98(18.8)	21(4.0)	86(16.5)	520(100)
5.	Other type of eresource	62(11.9)	161(31.0)	160(30.8)	21(4.0)	116(22.3)	520(100)

a. Electronic Books

Table 3 noticed that a maximum number 251 (48.3%) of the respondents rated that information sought from E-Resources as "Excellent" while 205 (39.4%) of the respondents rated it as "Very Good" followed by 64 (12.3%) of the respondents who rated it as "Good".

b. Electronic Journals

The data reveals that a large number of281 (54.0%) of the respondents rated that the information sought from E-resources is "Excellent" closely followed by 207 (39.8%) who rated as "Very Good" and 32 (6.2%) of the respondents rated it as"Good".

c. Electronic Database

The data shows that a majority of 247 (47.5%) of the respondents rated that the information sought from E-resources is "Very Good" while 191 (36.7%) of the respondents rated it as "Excellent". It has also been noticed that 61 (11.7%) of the respondents rated it as "Good" followed by 21 (4.0%) of the respondents who rated it as "Very Poor".

d. Electronic Newsletter

The data tells that a maximum number 171(32.9%) of the respondents rated that the information sought from electronic newsletters as "Very Good" while 144 (27.7%) of them rated it as "Excellent". It has also been noticed that 98 (18.8%) of the respondents rated it as "Good", 86 (16.5%) of the respondents as"Poor" followed by 21 (4.0%) of the respondents who rated it as "Very Poor"

f. Other Type of E-Resources

The data shows that a majority of 161 (31.0%) of the respondents rated that the information sought form E-resources is "Very Good" while 160 (30.8%) of them rated it as "Good" and very few number 116 (22.3%) of the respondents rated it as "Poor", 62 (11.9%) of the respondents as "Excellent" and 21 (4.0%) of the respondents rated it as "very poor."

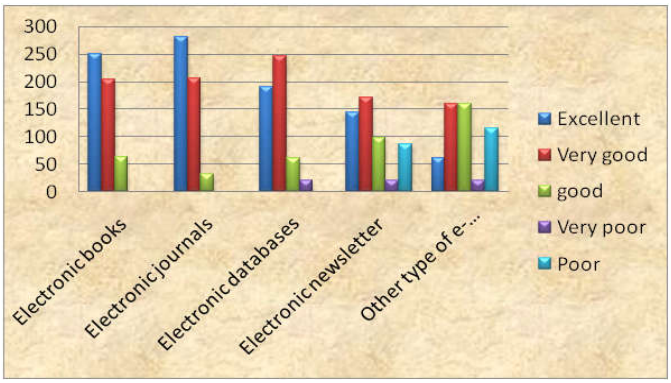

Fig. 3: Electronic information access by the faculty members

Age-wise respondents and they accessed Electronic resources

Table 4: Age-wise respondents and they accessed Electronic resources

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	7.395a	2	.025	.022b	.019	.026			
Likelihood Ratio	12.824	2	.002	.004b	.002	.005			
Fisher's Exact Test	9.761			.008b	.006	.010			
Linear-by-Linear Association	.423c	1	.515	.556b	.544	.569	.291	.315	.303b
N of Valid Cases	511								

Table 4 observed that Age-wise respondents and they accessed Electronic resources in the Engineering Institutions. It can be found from above the result that df value is .515 and significant .303 (> 0.05). Hence, the result found that *''Null Hypotheses is accepted to this study*". There is No significance difference between Age-wise respondents and they accessed Electronic resources in the Engineering Institutions.

Qualification wise respondents and they accessed Electronic resources

Table 5 observed that Qualification wise respondents and they accessed Electronic resources in the Engineering Institutions. It can be found from above the result that df value is .533 and significant .276 (> 0.05).Hence, the result found that *''Null Hypotheses is accepted to this study''*. There is No significance difference between Qualification wise respondents and they accessed Electronic resources in the Engineering Institutions.

Table 5: Qualification wise respondents and they accessed Electronic resources

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	52.660a	5	.000	.000b	.000	.000			
Likelihood Ratio	50.117	5	.000	.000b	.000	.000			
Fisher's Exact Test	39.787			.000b	.000	.000			
Linear-by-Linear Association	.448c	1	.503	.533b	.520	.546	.265	.288	.276b
N of Valid Cases	506								

Designation wise respondents and they accessed Electronic resources in the Engineering Institutions

Table 6 observed that Designation wise respondents and they accessed Electronic resources in the Engineering Institutions. It can be found from above the result that df value is 0.47 and significant .029 (< 0.05). Hence, the result found that *''Null Hypotheses is rejected to this study''*. There is a significance difference between Designation wise respondents and they accessed Electronic resources in the Engineering Institutions.

Gender wise respondents and they accessed Lecture materials

Table 7 observed that Gender wise respondents and they accessed Lecture materials. It can be found from above the result that df value is 0.000 and significant .000 (< 0.05). Hence, the result found that *''Null Hypotheses is rejected to this study''*. There is a significance difference between Gender wise respondents and they accessed Lecture materials.

Age wise respondents and they accessed Lecture materials

Table 8 observed that Age wise respondents and they accessed Lecture materials. It can be found from above the result that df value is 0.071 and significant .040 (< 0.05).Hence, the result found that *''Null Hypotheses is rejected to this study''*. There is a significance difference between Age wise respondents and they accessed Lecture materials.

Table 6: Designation wise respondents and they accessed Electronic resources

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	11.009a	2	.004	.004b	.003	.006			
Likelihood Ratio	15.786	2	.000	.001b	.000	.001			
Fisher's Exact Test	12.577			.002b	.001	.003			
Linear-by-Linear Association	4.127c	1	.042	.047b	.042	.052	.025	.033	.029b
N of Valid Cases	511								

Table 7: Gender wise respondents and they accessed Lecture materials

Chi-Square Testsd						
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	14.876a	1	.000	.000	.000	
Continuity Correctionb	14.114	1	.000			
Likelihood Ratio	15.015	1	.000	.000	.000	
Fisher's Exact Test				.000	.000	
Linear-by-Linear Association	14.847c	1	.000	.000	.000	.000
N of Valid Cases	520					

Table 8: Age wise respondents and they accessed Lecture materials

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	3.708a	2	.157	.165b	.156	.175			
Likelihood Ratio	3.716	2	.156	.165b	.156	.175			
Fisher's Exact Test	3.702			.165b	.156	.175			
Linear-by-Linear Association	3.390c	1	.066	.071b	.065	.078	.034	.045	.040b
N of Valid Cases	511								

Qualifications of the respondents and they accessed Lecture materials

Table 9 observed that qualification of the respondents and they accessed Lecture materials. It can be found from above the result that df value is .032 and significant .017 (< 0.05). Hence, the result found that *''Null Hypotheses is rejected to this study''*. There is significance difference between qualification of the respondents and they accessed Lecture materials.

Designation of the respondents and they accessed Lecture materials

Table 10 observed that Designation of the respondents and they accessed Lecture materials. It can be found from above the result that df value is .005 and significant .003 (< 0.05). Hence, the result found that *''Null Hypotheses is rejected to this study''*. There is a significance difference between Designation of the respondents and they accessed Lecture materials.

Age-wise respondents and they attended Seminar and Conferences

Table 11 observed that Age wise respondents and they attended Seminar and Conferences. It can be found from above the result that df value is .000 and significant .000 (< 0.05). Hence, the result found that *''Null Hypotheses is rejected to this study''*. There are no age wise respondents and they attended Seminar and Conferences.

Table 9: Qualifications of respondents and they accessed Lecture materials

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	80.828a	5	.000	.000b	.000	.000			
Likelihood Ratio	83.920	5	.000	.000b	.000	.000			
Fisher's Exact Test	83.006			.000b	.000	.000			
Linear-by-Linear Association	4.548c	1	.033	.032b	.027	.036	.013	.020	.017b
N of Valid Cases	515								

Table 10: Designation of the respondents and they accessed Lecture materials

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	8.954a	2	.011	.012b	.009	.015			
Likelihood Ratio	8.991	2	.011	.013b	.010	.016			
Fisher's Exact Test	8.954			.012b	.009	.015			
Linear-by-Linear Association	8.181c	1	.004	.005b	.004	.007	.002	.004	.003b
N of Valid Cases	520								

Table 11: Age wise respondents and they attended Seminar and Conferences

Chi-Square Tests									
				Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
					99% Confidence Interval		99% Confidence Interval		
	Value	df	Asymp. Sig (2-sided)	Sig.	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Sig.
Pearson Chi-Square	8.954a	2	.011	.012b	.009	.015			
Likelihood Ratio	8.991	2	.011	.013b	.010	.016			
Fisher's Exact Test	8.954			.012b	.009	.015			
Linear-by-Linear Association	8.181c	1	.004	.005b	.004	.007	.002	.004	.003b
N of Valid Cases	520								

Age-wise respondents and they used search engines

Table 12 observed that Age wise respondents and they used search engines. It can be found from above the result complete Mean Score, and Standard deviation of the study 4.6058 and .96735 respectively. The study observed that highest Mean Score and SD of 1). Google search engine used 1.3452 and .47628 respectively in the age group 25-35. 2). Yahoo searched engines used and observed highest Mean was 1.8476 and SD was .58476 in the age group 36-45.

Further, the study analyzed that various search engine used for searching the electronic resources by the faculty members in the Engineering institutions. The result found that there are 7 search engines are categorized on those 3. AltaVista, 4.bink, 5. ask, 6. mywebsearch, 7.dogpile and 8. Others, the highest means andSD are to be observed for 3) 3.9600 and .90137, 4). 4.5200, .81420 5).4.8384 and .81420 6). 2.6769, 1.35690 7). 5.0000, .30288 8). 4.5991 and 1.11119.

Table 12: Age-wise respondents and they used search engines

		Descriptive							
						95% Confidence Interval for Mean			
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Google	25-35	281	1.3452	.47628	.02841	1.2893	1.4011	1.00	2.00
	36-45	105	1.0000	.00000	.00000	1.0000	1.0000	1.00	1.00
	46-55	125	1.1360	.34417	.03078	1.0751	1.1969	1.00	2.00
	Total	511	1.2231	.41673	.01843	1.1869	1.2593	1.00	2.00
Yahoo	25-35	240	1.6833	.46615	.03009	1.6241	1.7426	1.00	2.00
	36-45	105	1.8476	.58476	.05707	1.7345	1.9608	1.00	3.00
	46-55	125	1.7840	.41317	.03696	1.7109	1.8571	1.00	2.00
	Total	470	1.7468	.48621	.02243	1.7027	1.7909	1.00	3.00
Altavista	25-35	200	3.9600	.90137	.06374	3.8343	4.0857	2.00	5.00
	36-45	99	3.7374	.87582	.08802	3.5627	3.9121	3.00	5.00
	46-55	109	3.7064	.77343	.07408	3.5596	3.8533	3.00	5.00
	Total	408	3.8382	.86896	.04302	3.7537	3.9228	2.00	5.00
Bink	25-35	200	4.5200	.81420	.05757	4.4065	4.6335	3.00	5.00
	36-45	99	4.8384	.36997	.03718	4.7646	4.9122	4.00	5.00
	46-55	109	4.7248	.44869	.04298	4.6396	4.8100	4.00	5.00
	Total	408	4.6520	.65493	.03242	4.5882	4.7157	3.00	5.00
Ask	25-35	233	2.9356	.70721	.04633	2.8443	3.0269	2.00	5.00
	36-45	89	3.3034	1.04886	.11118	3.0824	3.5243	2.00	5.00
	46-55	106	3.4151	1.08556	.10544	3.2060	3.6242	2.00	5.00
	Total	428	3.1308	.91395	.04418	3.0440	3.2177	2.00	5.00
Mywebsearch	25-35	260	2.6769	1.35690	.08415	2.5112	2.8426	1.00	5.00
	36-45	105	2.6190	.99403	.09701	2.4267	2.8114	1.00	5.00
	46-55	125	2.2480	.66788	.05974	2.1298	2.3662	1.00	3.00
	Total	490	2.5551	1.15383	.05212	2.4527	2.6575	1.00	5.00
Dogpile	25-35	200	5.0000	.00000	.00000	5.0000	5.0000	5.00	5.00
	36-45	99	4.8990	.30288	.03044	4.8386	4.9594	4.00	5.00
	46-55	109	4.8991	.30261	.02898	4.8416	4.9565	4.00	5.00
	Total	408	4.9485	.22123	.01095	4.9270	4.9701	4.00	5.00
others	25-35	227	4.5991	.97880	.06497	4.4711	4.7271	2.00	5.00
	36-45	105	4.7238	.74026	.07224	4.5806	4.8671	2.00	5.00
	46-55	117	4.5128	1.11119	.10273	4.3094	4.7163	2.00	5.00
	Total	449	4.6058	.96735	.04565	4.5161	4.6955	2.00	5.00

Conclusion

The study could be analyzed the use and observation by the respondents of the faculty members they were utilized the electronic Information in Coimbatore District. They study could be analyzed through testing of hypotheses. It could be found the first hypothesis tested that df value is .515 and significant .303 (> 0.05). 'Null Hypotheses is accepted to this study''. There is No significance difference between Age-wise respondents and they accessed Electronic resources in the Engineering Institutions. The Second hypothesis tested that result that df value is .533 and significant .276 (> 0.05). Hence, the result found that ''Null Hypotheses is accepted to this study''. There is No significance difference between Qualification wise respondents and they accessed Electronic resources in the Engineering Institutions. The analysis found and third hypothesis tested that that df value is 0.47 and significant .029 (< 0.05). Hence, the result found that ''Null Hypotheses is rejected to this study''. There is a significance difference between Designation wise respondents and they accessed Electronic resources in the Engineering Institutions. The fourth hypothesis tested that df value is 0.000 and significant .000 (< 0.05). Hence, the result found that ''Null Hypotheses is rejected to this study''. There is a significance difference between Gender wise respondents and they accessed Lecture materials. The fifth hypothesis tested that result that df value is 0.071 and significant .040 (< 0.05). Hence, the result found that ''Null Hypotheses is rejected to this study''. There is a significance difference between Age wise respondents and they accessed Lecture materials. The Sixth hypothesis tested that df value is .032 and significant .017 (< 0.05). Hence, the result found that ''Null Hypotheses is rejected to this study''. There is a significance difference between qualification of the respondents and they accessed Lecture materials. The Seventh hypothesis tested that df value is .005 and significant .003 (< 0.05). Hence, the result found that ''Null Hypotheses is rejected to this study''. There is a significance difference between Designation of the respondents and they accessed Lecture materials. The eighth hypothesis tested that df value is .000 and significant .000 (< 0.05).Hence, the result found that ''Null Hypotheses is rejected to this study''. There are no age wise respondents and they attended Seminar and Conferences.

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Proposed Plan for Developing Knowledge Management Practices in the Libraries and Information Centers of Bangladesh

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Abstract

In Bangladesh libraries and information centers (L/IC) have been facing serious obstacles for a successful implementation of knowledge management (KM) system [1]. Both the staff users and end users of these L/IC are also not conscious regarding the impact of knowledge management. As a result, they are not actively participating to make a successful knowledge management based platform [2]. The present study was designed to reveal problems of L/IC in relating to KM based activities and service in L/IC of Bangladesh. Finally, the study proposes a model with working plans for running the KM-based activities in L/IC successfully.

Keywords: Knowledge Management (KM); Knowledge Management Model; ICT; Libraries and Information Centers (L/IC).

Introduction

Information plays an intermediary link between knowledge and the observed phenomenon. Despite having some fundamental misunderstanding regarding knowledge and information, both have some sorts of complex conceptual relation like information supports knowledge, and bears 'useful knowledge'. While Stonier treat knowledge as organized information always keeps in human's head (as cited in Loughridge, 1999) information is the expression of knowledge and also called "useful knowledge" [3]. The acquisition, processing, sharing, and use of information within the organization is called Knowledge Management [4]. The processing of knowledge incorporates creating, gathering, organizing, diffusion, use, and exploitation of vital knowledge [5]. It adds values for the organization by utilizing knowledge and intellectual-based assets. It ensures the right information to the right people which makes the right decision [6,7].

In recent years libraries have been facing several challenges such as the expansion of the Internet may reduce the utilization of libraries, lack of recent information, inertia to use modern technology. As a result, Knowledge Management has come to an aid by capturing, storing, and disseminating needed knowledge for the getting competitive advantages of the libraries. Knowledge management has a good number of benefits for the librariessuch as ensures a free flow of concepts, encourages innovation, produce new products, services, and activities, increase user efficiency, minimizes the cost of operations, assist to take right decisions by escalating productivity [8].

Research Objectives

The main intention of this research is to chalk-out a model for KM based activities in libraries and information centers. In order to achieve this there are also some other objectives listed below:

- To find out shortcomings faced by libraries and information centers in rendering effective KM based activities and services;
- To devise a working plan for successful KM activities in L/IC of developing countries like Bangladesh.

Materials and Methods

The present study is basically based on the appraisal of different primary and secondary literature including thesis, reports, books, journal articles, conference proceedingsetc. Relevant literature was also collected through the Internet. For comprehending the real scenario of KM based activities in L/IC of Bangladesh, the authors have also visited few libraries and information centers in Bangladesh. The working experiences and suggestions of library professionals in relating to KM based activities have also assisted indirectly to figure out the problems they faced for fostering successful KM based activities in libraries and information centers (L/IC).

Results and Discussion

Problems of Knowledge Management Practices in the Libraries and Information Centers of Bangladesh

In the libraries and information centers of Bangladesh, the concept of knowledge management is not a newer one yet maximum libraries in this part of the worlddon't introduce to put knowledge management based activities and services into practice. The reasons for this backwardness are manifolds such as unawareness, negligence to use modern technology, lacking and cooperation, financial and other administrative problems. However, in this section we will try to find out some more realistic problems that obstruct the library professionals to initiate knowledge management practice in the libraries and information centers of Bangladesh:

1. For the purpose of getting greater throughput, it is very much essential to implement various linkage programs in libraries like the connection of information with information, information with activities and information with human resources. Maximum libraries and information centers think that these types of linkage program don't bear any sort of productivity for their libraries.

2. Staff motivation can boost higher productive forces in any organization. To get a maximum output from staff, libraries and information centers are not interested to introduce talent competition such as increasing incentives, remuneration for better performance, training opportunity, awarding prize/certificate etc. Maximum libraries think that these are the ineffective tools for library staff to become higher productive forces.

3. Despite the utmost importance of knowledge sharing culture in library and information center, it has not been developed likewise. Sharing tacit knowledge as well as explicit knowledge among staffs or users or both can play an active role in problem-solving and decision making also. Maximum library professionals can't play role in creating knowledge sharing culture in their libraries.

4. Libraries and information centers of Bangladesh doesn't support scientific knowledge level and ability among staff and users. Most of the libraries don't arrange lifelong education, training program, guidance service relating to knowledge resources, orientation program, seminars, workshop and symposium for increasing staff ability and level of their performance.

5. Most of the libraries are not aware in fostering various knowledge management activities like promoting knowledge exchange and sharing program, increasing staff and user eagerness and skills for learning, application of knowledge into operational activities of libraries, making library into a learning organization, developing ICT based library facilities and services etc.

6. Libraries and information centers of Bangladesh don't play better role for innovating new knowledge by carrying out various knowledge innovation-based activities like arranging group discussion and internal meeting, taking part scientific research process and productivity, organizing evidence-based library activities, application of diffusion and conversion of knowledge etc.

7. In most of the cases, libraries and information centers are not interested to offer knowledge management based activities using various ICT tools, components, and applications.

A Proposed Plan for Launching Successful KM Practices in the L/IC

The development of KM practices in libraries and information centers comprises six indicators as follows:

A. Human resource development
B. Creation of KM post and KM committee relating to KM activities
C. Creating an environment for innovation, exchange, study and application of knowledge
D. Organize libraries and information based program relating to KM activities
E. Coordinate knowledge innovation-based activities
F. Development of ICT based activities and services relating to KM

A. Human Resource Development

Human resource development is the process by which staffs' skills and working performance may be maximized. As a part of human resource development staffs should be given proper encouragement, guidance, and assistance etc. Encouragement program, the Efficiency-enhancing program for staffs, and Development of culture for the sharing of knowledge among staff and users are to be considered as three pillars for human resource development.

1. Encouragement Program

- The incentive for a good job done;
- Remuneration for extra work;
- Promotion yearly (Routine);
- Promotion based on ACR yearly;
- Promotion based on Actual performance.

2. Staff efficiency enhancing program

- Training program;
- Lifelong education;
- Working as a unit/team to a field;
- Developing knowledge resource;
- Proper guidance services;
- Staff quality improvement incentives.

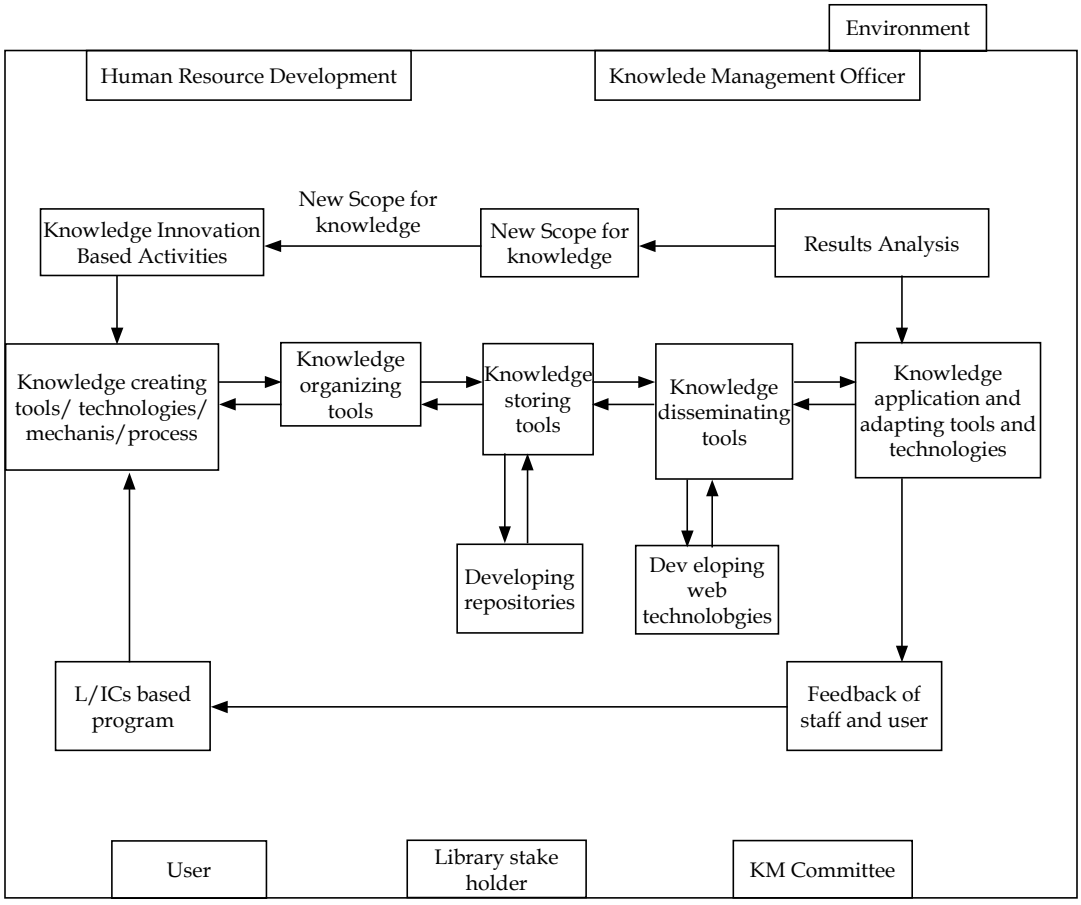

Fig. 1: Proposed model for the development of KM practices in the L/IC

3. Development of culture for the sharing of knowledge among staff and users

- Sharing tacit knowledge culture between staffs; staff and users; users
- Sharing explicit knowledge culture between staffs; staff and users; users

B. Creation of KM post and KM committee relating to KM activities

L/IC should create KM post and KM committee who will help in taking quick decision and solve the problem as and when arises. This section includes following two tasks:

- Creating a position for KM officer;
- Creating a committee relating to the activities of KM.

C. Creating an environment for innovation, exchange, study and application of knowledge

L/IC should create an environment that can ensure the practices for knowledge innovation, exchange, study, and proper application. This environment may be created in the following ways:

- Developing the sharing attitudes of staffs and users;
- Mapping the total process of knowledge generation, systematic management, storage and dissemination;
- Who will be the stakeholder should be pre-defined;
- Who will be the ultimate user of created knowledge should be well defined;
- Who will take the decision or how will it be minimized when any problem arises;
- Ensure the free flow of knowledge;
- Determine the chain of command, working capacity/ activities;
- Ensure the use of the latest technologies in L/IC;
- Make the positive impact of the sharing, learning, working and expectations habit of staff and user;
- Make a reciprocal bonding in work among staff;
- Inspire in using and getting the benefit of communities of practice, blog etc. sharing technology;
- Modernize information support;
- Exploration of existing knowledge structures, and recognition ofhow those structures relate to new information;
- Make proper communication with users and staffs and transfer knowledge.

D. Organize Libraries and information based program relating to KM activities

- Arrange an orientation program for beginners and make sure of its regular follow-up;
- Make the regular plans for organizing seminar/workshop/symposium and training etc. on the different contemporary issue and implement accordingly;
- Arrange various programs that relate to linking information with information, information with activities, and information with the man.

E. Coordinate knowledge innovation-based activities

L/IC should coordinate the knowledge innovation-based activities in the following ways:

- By carrying out research;
- By conducting the training program;
- By arranging a seminar, symposium, and workshop;
- By guiding research students, scholar, teacher etc;
- By synthesizing scientific literature preserved in repositories;
- By conducting a collaborative program;
- By conducting a group discussion/internal meeting;
- By consulting with specialists;
- By taking part in the scientific research process;
- By paying attention to diffusion and conversion to knowledge;
- By publishing journal/article,research report, newsletter etc;
- By conducting the bibliometric/scientomet-

ric study of literature;

- By citation analysis/indexing;
- By taking part resource sharing,networking or consortium, exchange program.

L/IC should coordinate knowledge innovation-based activities in the following areas:

- Knowledge internetworking;
- Quick knowledge flow;
- Digital collections, process,storage and dissemination of knowledge/information;
- Development and application of information resources;
- Construction of the digital /virtual library;
- Research and publication;
- Virtual reference service;

F. Development of ICT based activities and services relating to KM

ICT based activities and services can be developed by the following of ICT tools and applications:

1. Storing tools

- Data Acquisition/ Gathering Technologies;
- Institutional repositories;
- Database and archival management system.

2. Retrieval and Dissemination tools

- Virtual union catalog/OPAC;
- Dissemination/Retrieval Technologies;
- Internet;
- Online information discovery System;
- Federated Search System;

3. Creating Tools

- Metadata;
- Mentoring technologies;
- Citing Tools;
- Mentoring and apprentice technologies;

4. Organizing Tools

- Database Management System;
- Web content Management;
- Tagging and bookmarks;

5. Sharing & Guidance Tools

- Communities of Practices (CoPs) e.g. koha community;
- Groupware or mail group;
- Wikis;
- Library blog;
- Social Networking Sites;
- Electronic Research Guide;
- Web-based Reference Tool (e.g. virtual reference service).

Conclusion

The libraries and information centers (L/IC) of today's world is in a competitive position due to the rapidly growing information, diversified nature of the users' need and their satisfaction pattern. The libraries of all types have a common goal to satisfy users' need by providing different available services. For this, they have to manage their knowledge resources, human resources and application of ICT in providing library services successfully.

In some cases, the pattern of providing services, managing knowledge resources, knowledge innovation practices and application of ICT varies library to library irrespective of their nature, types, and sizes. As there is no standard to follow among the libraries of Bangladesh the scenario of KM practice is not at a satisfactory level. Therefore the present study was designed to reveal the problematic situation of KM practices and devised a successful KM model follow through.

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A Study on Awareness & Use of E-Resources by the Users in Environmental Information Systems (ENVIS) Center Libraries in South India

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Abstract

This paper presents the findings of the study onawareness and use of electronic resourcesamong the users of Environmental Information Systems (ENVIS) Center Libraries in South India. A total 563 number of users from the Students, faculty members, research scholar, Research Associates and Research scientists were selected and their response was obtained with the help of questionnaire. The findings show that majority of respondents (62.87%) visit the library every day, (74.33%) of respondents are Aware & Use electronic resources, (44.56%) respondents are spent less than 1 hour for accessing e-Resources and (30.48%) respondents spent more than 2 hours for accessing e-Resources, (54.36%)of respondents agreed that the e-Resources is helpful as for as access from remote areas is concerned. Again, 45.81% of respondents have strongly agreed access to information is very fast and efficient by accessing e-Resources; (50.09%) of respondents have agreed that they faced the problem of Lack of time to retrieve the huge information and (49.91%) of respondents have disagreed that lack of internet connectivity and slow download are major problem while access information resources and services. 69.88% respondents are satisfied with the electronic resources and 15.69% of respondents are Extremely Satisfied with the electronic resources.

Keywords: Library Resources; Eir's; Awareness; Usage; Envis; South India.

Introduction

The fast-growing array of electronic information sources and communication environment offers enormous benefits. Information is more near to users mind, and information technology forms the bridge between the ocean of information and user needs. It is highly effective and efficient to provide instant and comprehensive access to information to the users at their locations irrespective of time and space. Electronic Information Resources (EIR's) are increasingly important to all aspects and all levels of education and research. With the advent of World Wide Web, the EIRs have flourished in unprecedented way and have become the focus of research and academic activities in Universities, colleges and institutions in recent years. These

Electronic Information Resources (EIRs) provides quick and wider access information to the users by using tools and techniques which are best, easier and user-friendly such as Electronic Journals, Electronic Books, Databases, Blogs, Internet, OPAC, Patents, Standards, Dictionaries, Online Theses and Dissertations, and Consortia. The electronic documents can be stored, accessed, and delivered as and when required; therefore, the services of the libraries are not confined within the four walls but are integrated into local, regional, national, and international networks. Academic libraries too are now becoming hybrid libraries.

Review of Literature

A review of literature reveals that there is a large amount of literature available on the use of e-resources, but no in depth study has been done on the use of e-resources in Environmental Information Systems (ENVIS) Center Libraries under study. The present study is an attempt to clearly establish and exhibit the awareness & use of e-resources by academics in Environmental Information Systems (ENVIS) Center Libraries.

A study on the attitudes of undergraduate students and staff to the use of electronic learning was conducted by Yebowaah, F.A., & Plockey, F.D. (2017) found that 88.8% of the respondents were users of the Library and 65% were aware of the availability of e-resources in the Library. About 61 of respondents representing 76.3% indicated that they visit the Library to search for books for use while 17 respondents denoting 21.3% visit the Library in search of journals. Another study carriedout by Akpojotor, Lucky O (2016) implies that postgraduate library and information science students in Southern Nigeria are highly aware of electronic information resources. It also reported that postgraduate LIS students are skilled in the use of electronic information resources. Based on the findings the study concluded that electronic information resources are essential tools for empowering postgraduate students of library and information science in Southern Nigeria. On other hand Sohail & Shakil Ahmad (2017) study reveals that majority of the users of FNU libraries keep themselves abreast of developments in electronic resources, services and utilize them properly in the field of academic and research. The study indicates that that 92% faculty member and 82.22% students use e-resources for research purpose, where as 494% faculty members and 92.22% students stated that they used e-resources for finding significant information in the area of specialization, 52% faculty members and 97.77% students used it for keeping up-to-date in subject information. 60% faculty members and 86.66% students use it for getting current information. It is inferred that 43 (86%) of the faculty members and 86 (95.55%) students feel, e-resources are time saving, 38 (76%) faculty members and 81 (90%) students said that e-resources are easy to use. The Acheampong, E.K (2016) investigated student'sawareness onthe availability of e-resources in UPSA. Study revealed that UPSA students are fairly aware of electronic resources and they fairly used electronic resources to conduct their researches and to answer their assignments. It was further discovered that comparatively, electronic resources significance quite outweighs that of paper-form documents. Some challenges such as overcrowding of the library's electronic resources section by students due to inadequate number of computers and inadequate training on how to use e-resources were discovered.

Jebaraj (2018) conducted a study to determine the knowledge and use of e-Resources; users' skills in handling e-Resources; to reveal the factors which influence the effective use of e-Resources; problems faced by the respondents and their level of satisfactionregarding the use of e-Resources of central library in Alagappa University. On other hand Rafiq, Sadaf (2018) conducted a study on awareness and utilization of e-Resources by Medical Sciences Faculties. The results revealed that faculty members were well aware of e-resources through self-learning and discussion with friends/ colleagues. The most famous e-resources were e-books, e-journals and e-magazines in medical sciences faculty. They strongly recommended orientation and training programs to enhance their skills and improve e-resources services. Same similarity study done by Mawere & Sai (2018) described some basic insights in utilization of e-resources in universities of developing countries. Despite the younger generation being described as digital natives, it is, quite evident that their uptake of technological innovations especially in education is quite poor. The study recommend to both researchers and management institutions of higher learning to restructuring some basic infrastructure and find users problems and provide suitable assistance while effective utilization of e-resources and find solution for poor utilizations. Priyanka Manjari Behera (2018) carried out a study on awareness of N-LIST services, source of awareness, place of access, purpose of use, types of e resources used, frequency of use, problem faced

while accessing N-LIST. The results data indicates that majority of the students and faculty members are not aware about N-LIST e resources. Students of both the colleges access the e-books through the college library and faculty members access mainly e-journals from their department. Maximum number of the faculty members and students of both the colleges access N-LIST e resources occasionally only.

Objectives of the Study

The study the extent use of e-resources by the users of Environmental Information System (ENVIS) Center Libraries in South India.

Scope and limitations of the study

The limitation of the present study is consist to selected only 17 south Indian ENVIS center libraries out of 68 ENVIS Focal point centers, which has been engaged in state-of-the-art information acquisition, processing, storage, retrieval and dissemination of information, to support and promote research, development and innovative theoretical and practical thematically information in environmental information. The study focused on use of electronic library resources by ENVIS user's community in within the territorial jurisdiction of the South India.

Analysis and Findings of the Study:

The study utilized a descriptive survey method and employed a questionnaire as the data collection instrument. Questionnaire was divided into two sections; the first section collected demographic information such as gender, age and designation; the second section focused on the awareness and use of e-resources. Questionnaire was distributed personally to the respondents. 725 questionnaires distributed, and 563 were returned, making the response rate (77.65%).

Table 1: Demographic Characteristics of Respondents

Demography of respondents			
(N=563)	**Counts**	**Percentage**	
Gender	Male	333	(59.14)
	Female	230	(40.85)
Age	< 30	181	(32.14)
	31-40	232	(41.20)
	41-50	107	(19.00)
	51>	43	(8.02)
Designation	Faculty Members	116	(20.60)
	Students & Researchers	125	(22.20)
	Research Associates	213	(37.83)
	Research Scientists	109	(19.36)

Note: Number given in parenthesis represents the percentage

The data summarized in the table-1 demonstrates the demographic characteristics of respondents. It shows that out of 563 respondents, 59.14% are male respondents and 59.14% are female of respondents from Environmental Information Systems (ENVIS) Center Libraries. 41.20% of respondents areunder the age group of 31-40 years. 32.14% of respondents belong to the age group of below 30 years. 19.00% of respondents are under the age group of 41-50. 8.02% respondents comes under the age group of above 51 years.37.83%of respondents are Research Associates, 22.20% of respondents are Students & Researchers & 20.60% of respondents are Faculty Members. 19.36 of respondents are Research Scientists.

Table 2 shows that the frequency of use of e-Resources. Majority 354 (62.87%) of the respondents used e-Resources everyday followed by 93 (16.51%) of respondents using them atleast once in a Week whereas, 24 (4.28%) respondents use them occasionally used various e-Resources through various accessed platforms. Out of 563 total respondents, 135 (24.68%) of Research Associates, 78 (13.90%) of students, 76 (13.55%) faculty members and 65 (11.59%) of Research Scientist use e-Resources by daily.

Table 2: Frequency of Use of e-Resources

Respondents	Daily	Weekly	2-3 times a week	Fortnightly	Occasionally	Never
Faculty Members (n=116)	76 (13.49)	23 (4.08)	11 (1.96)	3 (0.53)	3 (0.53)	0 (0.00)
Students & Researchers (n=125)	78 (13.85)	17 (3.01)	19 (3.39)	5 (0.88)	5 (0.88)	1 (0.17)
Research Associates (n=213)	135 (24.68)	37 (6.57)	22 (3.92)	9 (1.59)	9 (1.59)	1 (0.17)
Research Scientists(n=109)	65 (11.54)	16 (2.85)	16 (2.84)	5 (0.88)	7 (1.24)	0 (0.00)
Total (n=563)	354 (62.87)	93 (16.51)	68 (12.07)	22 (3.90)	24 (4.26)	2 (0.35)

Note: Number given in parenthesis represents the percentage

Table 3: Awareness & Use of e-Resources among respondents
Note: Number given in parenthesis represents the percentage

Respondents	Level of Agreement	Types of e-Resources												
		a	b	c	D	E	F	g	h	i	j	k	l	m
Faculty Members	Aware	24	22	3	27	50	65	50	67	72	70	62	60	34
(n=116)		(4.28)	(3.92)	(6.42)	(4.81)	(8.91)	(11.59)	(8.91)	(11.94)	(12.83)	(12.48)	(1105)	(10.70)	(6.06)
	Aware & Use	92	93	76	89	65	34	63	45	11	26	24	22	82
		(16.40)	(16.58)	(13.55)	(15.86)	(11.59)	(6.06)	(11.23)	(8.02)	(1.96)	(4.63)	(4.28)	(3.92)	(14.62)
	Not Aware & Use	0	1	4	0	1	17	3	4	33	20	30	34	0
		(0.00)	(0.18)	(0.71)	(0.00)	(0.18)	(3.03)	(0.53)	(0.71)	(5.88)	(3.57)	(5.35)	(6.06)	(0.00)
Students & Researchers	Aware	31	31	46	43	66	77	66	59	88	75	74	75	46
		(5.53)	(5.53)	(8.20)	(7.66)	(11.76)	(13.73)	(11.76)	(10.52)	(15.69)	(13.37)	(13.19)	(13.37)	(8.20)
(n=124)	Aware & Use	93	93	78	81	57	32	57	60	7	32	24	20	77
		(16.58)	(16.58)	(13.90)	(14.44)	(10.16)	(5.70)	(10.16)	(10.70)	(1.25)	(5.70)	(4.28)	(3.57)	(13.73)
	Not Aware & Use	0	0	0	0	1	15	1	5	29	17	26	29	1
		(0.00)	(0.00)	(0.00)	(0.00)	(0.18)	(2.67)	(0.18)	(0.89)	(5.17)	(3.03)	(4.6)	(5.17)	(0.18)
	Aware	56	52	83	61	103	117	95	134	130	134	119	120	74
Research Associates		(9.98)	(9.27)	(14.80)	(10.87)	(18.36)	(20.86)	(16.93)	(23.89)	(23.17)	(23.89)	(21.21)	(21.39)	(13.19)
	Aware & Use	156	160	124	147	106	64	112	65	22	39	34	32	133
(n=212		(27.81)	(28.52)	(21.10)	(26.20)	(18.89)	(11.41)	(19.96)	(11.59)	(3.92)	(6.95)	(6.06)	(5.70)	(23.71)
	Not Aware & Use	0	0	5	4	3	31	5	13	60	39	59	60	5
		(0.00)	(0.00)	(0.89)	(0.71)	(0.53)	(5.53)	(0.89)	(2.32)	(10.70)	(6.95)	(10.52)	(10.70)	(0.89)
	Aware	33	28	35	30	57	48	57	56	55	54	44	45	37
Research Scientists		(3.88)	(4.99)	(6.24)	(5.35)	(10.16)	(8.56)	(10.16)	(9.98)	(9.80)	(9.63)	(7.84)	(8.02)	(6.60)
(n=109)	Aware & Use	76	81	68	78	50	50	45	43	12	28	30	22	64
		(13.55)	(14.44)	(12.12)	(13.90)	(8.91)	(8.91)	(8.02)	(7.66)	(2.14)	(4.99)	(5.35)	(3.92)	(11.41)
	Not Aware & Use	0	0	6	1	2	11	7	10	42	27	35	42	8
		(0.00)	(0.00)	(1.07)	(0.18)	(036)	(1.96)	(1.25)	(1.78)	(7.49)	(4.81)	(6.24)	(7.49)	(1.43)
	Aware	144	133	200	161	276	307	268	316	345	333	299	300	191
Total(n=561)		(25.67)	(23.71)	(35.65)	(28.70)	(49.20)	(54.72)	(47.77)	(56.33)	(61.50)	(59.36)	(53.30)	(53.48)	(34.05)
	Aware & Use	417	427	346	395	278	180	277	213	52	125	112	96	356
		(74.33)	(76.11)	(61.68)	(70.41)	(49.55)	(32.09)	(49.38)	(39.97)	(9.27)	(22.28)	(19.96)	(17.11)	(63.46)
	Not Aware & Use	00	1	15	5	7	74	16	32	164	103	150	165	14
		(0.00)	(0.18)	(2.67)	(0.89)	(1.25)	(13.19)	(2.85)	(5.70)	(29.23)	(18.36)	(26.74)	(29.41)	(2.50)
Mean		2.49	2.52	2.21	2.40	1.98	1.51	1.96	1.70	1.89	1.26	1.13	1.05	2.24

a. e-Books
b. e-Journals
c. e-Conference proceedings
d. e-Reports
e. e-Maps, globs & atlases
f. CD-ROM databases
g. Reference resources
h. e-Thesis and Dissertations (ETDs)
i. Library Consortia e-resources
j. Photographs and Slides
k. Audio-Visual resources
l. Rare collection archives
m. e-Government publications

The awareness level with respect to different types of e-resources among the users under study varies widely. Table 3 illustrates Awareness & Use of e-Resources among the respondents. It is clear from table highest 427 (76.11%), 417 (74.33) and 395 (70.41%) of respondents are aware & use of e-Journals, e-books, and e-Reports (annual, statistical, research, survey & technical). Followed by, 345 (61.50%), 333 (59.36%) and 316 (56.33%) of respondents are beingaware of Library Consortia e-resources and Photographs and Slides (experts & researcher presentations) and Electronic Thesis and Dissertations (ETDs). However 164 (29.23%) of respondents are Not Aware of & Use of Library Consortia e-resources in their respective libraries.

Table 4 shows that 44.56% respondents spent less than 1 hour for accessing e-Resources and 30.48% respondents spent More than 2 hours for accessing e-Resources. The analysis clearly indicates that the majority of the respondents spent Less than 1 hour for accessing e-Resources.

Table 4: Time Spent on Accessing e-Resources

Respondents	Duration of accessing e-Resources		
	Less than 1 hour	1 to 2 hours	More than 2 hours
Faculty Members (n=116)	57 (10.16%)	33 (5.88)	26 (4.63)
Students & Researchers (n=124)	61 (10.87)	23 (4.10)	40 (7.13)
Research Associates (n=212)	96 (17.11)	56 (9.98)	60 (10.70)
Research Scientists (n=109)	36 (6.42)	28 (4.99)	45 (8.02)
Total(n=561)	250 (44.56)	140 (24.96)	171 (30.48)

Note: Number given in parenthesis represents the percentage

There are several prominent benefits of accessing e-resources electronically. It not only provides access to hue base of information but also facilitate 24X7 accesses to all the information. Excellent search and retrieval features helps in getting the right resources at right time. Table 5 summarizes the perceived benefits that the respondents feels while accessing e-Resources for their teaching, research, study and other academic activities. From the analysis it is evident that majority 257 (45.81%), 252 (44.92%) of them are strongly agreed with that the access to information is very fast and efficient and canaccess resources from anytime, anywhere (24×7). Followed by (54.36%) of respondents agreed with the e-Resources ishelpful for them to access information from remote areas, than (56.33%) of them are agreed that e-Resources helps to access in multilingual languages, (50.98%) of respondents agreeing with e-Resources reduces the time & subscription cost of contents. It is also found that (22.28%) of respondents are uncertain with the benefit that e-Resources helps gets huge amount of information resources.

Table 5: Benefits of accessing e-Resources

Respondents	Benefits of e-Resources									
	Level of Agreement	**a**	**B**	**c**	**d**	**e**	**f**	**g**	**h**	**i**
Faculty Members (n=116)	Strongly Agree	43 (7.66)	58(10.34)	52(9.27)	48(8.56)	27(4.81)	30(5.35)	39(6.95)	41(7.31)	42(7.49)
	Agree	64(11.41)	44(7.84)	56(9.98)	54(9.63)	59(10.52)	45(8.02)	60(10.70)	60(10.70)	50(8.91)
	Uncertain	6(1.07)	11(1.96)	6(1.07)	13(2.23)	27(4.81)	39(6.95)	15(2.67)	12(2.14)	15(2.67)
	Disagree	1(0.18)	2(0.36)	2(0.36)	0(0.00)	1(0.18)	1(0.18)	1(0.18)	2(0.36)	8(1.43)
	Strongly Disagree	2(0.36)	1(0.18)	0(0.00)	1(0.18)	2(0.36)	1(0.18)	1(0.18)	1(0.18)	1(0.18)
Students & Researchers (n=124)	Strongly Agree	42(7.49)	57(10.16)	51(9.09)	58(10.34)	36(6.42)	32(5.70)	40(7.13)	41(7.31)	43(7.66)
	Agree	72(12.83)	57(10.16)	61(10.87)	52(9.27)	55(9.80)	57(10.16)	70(12.48)	63(11.23)	56(9.98)
	Uncertain	7(1.25)	7(1.25)	10(1.70)	12(2.14)	32(5.70)	34(6.06)	12(2.14)	19(3.39)	11(1.96)
	Disagree	3(0.53)	1(0.18)	0(0.00)	1(0.18)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	13(2.32)
	Strongly Disagree	0(0.00)	2(0.36)	2(0.36)	1(0.18)	1(0.18)	1(0.18)	2(0.36)	1(0.18)	1(0.18)
Research Associates (n=212	Strongly Agree	76(13.55)	92(16.40)	94(16.76)	98(17.47)	53(9.45)	71(12.66)	74(13.01)	76(13.55)	87(15.51)
	Agree	118(21.03)	108(19.25)	10618.39)	89(15.86)	107(19.07)	80(14.26)	121(21.57)	111(19.79)	90(16.04)
	Uncertain	18(3.2)	11(1.96)	8(1.43)	23(4.10)	50(8.91)	57(10.16)	17(3.03)	23(4.10)	21(3.74)
	Disagree	0(0.00)	0(0.00)	1(0.18)	2(0.36)	1(0.18)	2(0.36)	0(0.00)	1(0.18)	14(2.50)
	Strongly Disagree	0(0.00)	1(0.18)	3(0.53)	0(0.00)	1(0.18)	2(0.36)	1(0.18)	1(0.18)	0(0.00)
Research Scientists (n=109)	Strongly Agree	44(7.84)	45(8.02)	49(8.73)	53(9.45)	34(6.06)	36(6.42)	30(5.35)	43(7.66)	49(8.73)
	Agree	51(9.09)	60(10.70)	55(9.80)	48(8.56)	57(10.16)	45(8.02)	65(11.59)	52(9.27)	51(9.09)
	Uncertain	14(2.50)	4(0.71)	4(0.71)	5(0.89)	16(2.85)	27(4.81)	11(1.96)	11(1.96)	6(1.02)
	Disagree	0(0.00)	0(0.00)	0(0.00)	1(0.18)	1(0.18)	0(0.00)	2(0.36)	1(0.18)	2(0.36)
	Strongly Disagree	0(0.00)	0(0.00)	1(0.18)	2(0.36)	1(0.18)	1(0.18)	1(0.18)	2(0.36)	1(0.18)
Total(n=561)	Strongly Agree	205(36.54)	252(44.92)	246(43.85)	257(45.81)	150(26.74)	169(30.12)	182(32.44)	201(35.83)	221(39.39)
	Agree	305(54.36)	269(47.95)	278(49.55)	243(43.32)	278(49.55)	227(40.46)	316(56.33)	286(50.98)	247(44.03)
	Uncertain	45(8.02)	33(5.88)	28(4.99)	53(9.45)	125(22.28)	157(27.99)	55(9.80)	65(11.59)	53(9.45)
	Disagree	4(0.71)	3(0.53)	3(0.53)	4(0.71)	3(0.53)	3(0.53)	3(0.53)	4(0.71)	37(6.60)
	Strongly Disagree	2(0.36)	4(0.71)	6(1.07)	4(0.71)	5(0.89)	5(0.89)	5(0.89)	5(0.89)	3(0.53)
Mean		1.74	1.64	1.65	1.67	1.99	2.02	1.81	1.80	1.85

Note: Number given in parenthesis represents the percentage

a. It is helpful to access from remote areas
b. It is helpful to access resources from anytime, anywhere
c. Easy to search & retrieve required information
d. Access to information is very fast and efficient
e. To get huge amount of information resources
f. To get variety of information resources
g. To access in multilingual languages
h. It reduces the time & subscription cost of contents

Table 7: Problems in Accessing e-Resources

Respondents	Level of Agreement	a	B	C	d	e	f	g	h	i	j
Faculty Members (n=116)	Strongly Agree	4(0.71)	22(3.92)	60(10.70)	46(8.20)	1(0.00)	1(0.18)	32(5.70)	28(4.99)	2(0.36)	61(10.87)
	Agree	30(5.35)	36(6.42)	52(9.27)	31(5.53)	33(5.88)	14(2.50)	82(14.62)	31(5.53)	17(3.03)	54(9.63)
	Uncertain	32(5.70)	32(5.70)	2(0.36)	26(4.63)	23(4.10)	48(8.56)	2(0.36)	52(9.27)	29(5.17)	1(0.18)
	Disagree	38(6.77)	19(3.39)	2(0.36)	9(1.60)	45(8.02)	36(6.42)	0(0.00)	5(0.89)	43(7.66)	0(0.00)
	Strongly Disagree	12(2.14)	7(1.25)	0(0.00)	4(0.71)	14(2.50)	17(3.03)	0(0.00)	0(0.00)	25(4.46)	0(0.00)
Students & Researchers (n=124)	Strongly Agree	3(0.53)	21(3.74)	75(13.37)	44(7.84)	3(0.53)	1(0.18)	28(4.99)	33(5.88)	2(0.36)	57(10.16)
	Agree	19(3.39)	41(7.31)	42(7.49)	41(7.31)	31(5.53)	17(3.03)	94(16.76)	36(6.42)	12(2.14)	63(11.23)
	Uncertain	40(7.13)	22(3.92)	4(0.72)	25(4.45)	27(4.81)	49(8.73)	2(0.36)	46(8.20)	33(5.88)	2(0.36)
	Disagree	51(9.09)	26(4.63)	2(0.36)	9(1.60)	52(9.27)	40(7.13)	0(0.00)	9(1.60)	60(10.70)	2(0.36)
	Strongly Disagree	11(1.96)	14(2.50)	1(0.18)	5(0.89)	11(1.96)	17(3.03)	0(0.00)	0(0.00)	17(3.03)	0(0.00)
Research Associates (n=212	Strongly Agree	5(0.89)	41(7.31)	125(22.28)	74(13.19)	5(0.89)	5(0.89)	37(6.60)	54(9.63)	5(0.89)	104(18.54)
	Agree	39(6.95)	71(12.66)	80(14.26)	68(12.12)	48(8.56)	39(6.95)	164(29.23)	60(10.70)	20(3.57)	103(18.36)
	Uncertain	61(10.87)	70(12.48)	5(0.89)	43(7.66)	52(9.27)	75(13.37)	10(1.78)	85(15.15)	45(8.02)	4(0.71)
	Disagree	91(16.22)	18(3.21)	2(0.36)	21(3.74)	87(15.51)	77(13.73)	1(0.18)	13(2.32)	114(20.23)	1(0.18)
	Strongly Disagree	16(2.85)	12(2.14)	0(0.00)	6(1.07)	20(3.57)	16(2.85)	0(0.00)	0(0.00)	28(4.99)	0(0.00)
Research Scientists (n=109)	Strongly Agree	1(0.18)	26(4.63)	75(13.37)	42(7.49)	2(0.36)	2(0.36)	19(3.39)	21(3.74)	4(0.71)	48(8.56)
	Agree	10(1.78)	37(6.60)	34(6.06)	39(6.95)	26(4.63)	19(3.39)	89(15.86)	24(4.28)	10(1.78)	61(10.87)
	Uncertain	31(5.53)	22(3.92)	0(0.00)	20(3.57)	25(4.46)	32(5.70)	1(0.18)	57(10.16)	18(3.21)	0(0.00)
	Disagree	56(9.98)	14(2.50)	0(0.00)	4(0.71)	48(8.56)	43(7.66)	0(0.00)	7(1.25)	63(11.23)	0(0.00)
	Strongly Disagree	11(1.96)	10(1.78)	0(0.00)	4(0.71)	8(1.43)	13(2.32)	0(0.00)	0(0.00)	14(2.50)	0(0.00)
Total (n=561)	Strongly Agree	13(2.32)	110(19.61)	335(59.71)	206(36.72)	11 (1.96)	9 (1.60)	116(20.86)	136(24.24)	13(2.32)	270(48.13)
	Agree	98(17.47)	185(32.98)	208(37.08)	179(31.91)	138(24.60)	89 (15.86)	429(76.47)	151(26.92)	59(10.52)	281(50.09)
	Uncertain	164(29.23)	146(26.02)	11(1.96)	114(20.32)	127(22.64)	204(36.36)	15(2.67)	240(42.78)	125(22.28)	7(1.25)
	Disagree	236(42.07)	77(13.73)	6(1.07)	43(7.66)	232(41.35)	196(34.94)	1(0.18)	34 (6.06)	280(49.91)	3(0.53)
	Strongly Disagree	50(8.91)	43 (7.66)	1(0.18)	19(3.39)	53 (9.45)	63 (11.23)	0(0.00)	00(0.00)	84(14.97)	00(0.00)
Mean		3.38	2.57	1.45	2.09	3.32	3.38	1.82	3.31	3.65	1.54

Note: Number given in parenthesis represents the percentage

a. Assigned computers speed is very low

b. Available e-Resources may not adequate
c. Copy protected electronic contents
d. In consistency of document formats
e. Lack of availability of computers to access e-Resources
f. Lack of knowledge & expertise in search and retrieve
g. Lack of single window platforms to access e-Resources
h. Lack of skilled library professionals to assists
i. Lack of internet connectivity and slow downloading
j. Lack of time to retrieve the huge information

Though there are a number of benefits, quite a few problems are also associated with of accessing e-resources as well. Problems such as lack of information literacy and infrastructure unavailability are prominent It can be inferred from Table 7 that accessing e-Resources is not free from problems. From the table 7 it can be observed that 335 (59.71%) and 270 (48.13%) of respondents strongly agreed that the copy protected electronic contents and lack of time to retrieve the huge information respectively are major problems in accessing electronic information. Further 429 (76.47%) of respondents agreed the lack of single window platforms to access e-Resources, 240 (42.78%) of them are uncertain with skilled library professionals to assists. However 280 (49.91%), 84 (14.97%) of respondents have disagreed and strongly disagree that they faced the problem of Lack of internet connectivity and slow downloading.

The level of satisfaction with respect to accessing electronic resources is measured using a 5 point rating scale and is presented in Table 8. The table shows that 69.88% respondents have satisfied with the availability ofelectronic resources in their respective librariesand further 15.69% of respondents are Extremely Satisfied with the electronic resources, however onlyfew 4.63% of respondents have not at all satisfied with available e-Resources in libraries as well on internet.

Conclusion

Electronic resources are increasingly important to all aspects and all levels of education and research. With the changing environment, conventional resources are beingstreamlined with ICT touch. The hybrid library system is promoted by integrated with both print and electronic resources and services and are becoming essential part of all types of libraries. For effective utilization of e-Resources and services, some basic knowledge of computer, ICT, search skills and competencies are require to search and accessed in effectively and efficiently, but knowledge of e-resources is associated with user's attitude, practice and usage.

Theusers of Environmental Information Systems (ENVIS) Center Libraries are quite aware of e-resources available and use them for their learning, teaching and research benefits. Their perception towards these e-resources are encouraging as they have resource in their fingertip they can have right information at right time with less effort. Yet there are some problems as they

Table 8: Distribution overall satisfaction of electronic resources

Respondents	Overall Satisfaction				
	Extremely Satisfied	Satisfied	Uncertain	Not satisfied	Not at all satisfied
Faculty Members (n=116)	16 (2.85)	82 (14.62)	5 (0.89)	8 (1.43)	5 (0.89)
Students & Researchers (n=124)	17 (3.03)	85 (15.15)	8 (1.43)	7 (1.25)	7 (1.25)
Research Associates (n=212)	37 (6.60)	143 (25.49)	7 (1.25)	14 (2.50)	11 (1.96)
Research Scientists (n=109)	18 (3.21)	82 (14.62)	6 (1.07)	0 (0.00)	3 (0.53)
Total(n=561)	88 (15.69)	392 (69.88)	26 (4.63)	29 (5.17)	26 (4.63)

feel sometime uncomfortable with the Assigned computers speed is very low; Available e-Resources may not adequate; Copy protected electronic contents; In consistency of document formats; Lack of availability of computers to access e-Resources; Lack of knowledge & expertise in search and retrieve; Lack of single window platforms to access e-Resources; Lack of skilled library professionals to assists; Lack of internet connectivity and slow downloading; Lack of time to retrieve the huge information. The concerned department/People should think seriously to improve on these lacunas and provide a seamless access to information for their learning, teaching and researchactivities.

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Usage of Social Networking Sites among LIS Professionals of Graduate Colleges in Bangalore City: An Analytical Study

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Abstract

Human beings are social in nature it's a basic instinct of every individual, as technology advanced the same concept has been turned out in to human beings are socially active on networking sites to certain extent, some are more active and some are less but the core concept of 'socially active on Networking Sites' is more of less very true, which is endorsed by many studies and researches across the globe, people are day by day increasing the usage of web based social networking sites. This paper highlights the importance of social networking sites, its usage across professionals and its effect on academic activities along with merits and demerits has been discussed.

Keywords: Social Networking Sites; Information Science; Information Dissemination; LIS professionals; Information Sharing.

Introduction

People in the contemporary era have always been looking for connect and reconnect with each other with advancement of technology through social networking sites, now even relationship begin, grow up and ends in social networking sites, people in the digitization era has no longer need a personal handshake and face to face interaction. Usage of social networking sites have also grown in numbers like billion, as per the statics exposed by statista it has crossed 2 billion it is almost heading towards 3 billion(Acquisti, Alessandro & Ralph. 2006) [1] as mobile usage has been drastically increased.

The purpose of using these social networking sites is not just to connect with the people, it is beyond that with the advancement of technology and these have become part and parcel of day to day life. The library and information science is one of the profession which is heavily influenced by the social networking sites because of sharing of information and connecting people at different levels, so in this context how professionals effectively make use of this networking sites to enhance the professional value by incorporating new technologies and applications in the contemporary era is a great challenge and the task.

This paper is going to highlight the importance of social networking sites, how effectively professionals are using to reach out the users, usage level among professionals of graduate colleges of Bangalore city has been covered under the study.

Social networking Sites

The concept of social networking is basically an online service which provides platform to share interest and activities among the people; it offers unambiguous grouping of individuals and organizations together. This social networks provide rapid access and require crucial technology to generate and maintain web based techniques which act as communication tools to enable social interaction, most of the social networking sites are purely web based and working on internet, which are heavily used for interact, share and exchange of resources and it honestly encourage free flow of information and sharing beyond boundaries (Agarwal & Mital. 2009) [2].

People use social networking sites personally as well as professionally to communicate with others (Andrejevic & Mark. 2005) [3], professionals from LIS is largely making use of these social networking sites to generate consciousness, entertainment, making friends and to display of new arrivals closely followed by topic discussion and metadata linking, many blogs and forums has witnessed the professional discussions on advancement of information services (boyd, danah & Jeffrey. 2006) [4], especially young professionals are more enthusiastic to use social networking sites to create awareness on LIS profession, it is one of the easy and fastest way to reach out the users round the globe, professionals are very effectively using by creating groups to share and display new arrivals, create chat rooms to interact with active users and more than anything users are fond of using social networking sites which is very intensively helping in sharing of information resources (Brake & David. in press) [5].

People from urban background are very much aware of social networking sites and usage of these also very high (Guha, Saikat, Tang & Paul Francis. 2008) [6], now it is very compatible with mobile access people are having such a close associate with these web tools (Sameer & Patchin. 2008) [7], LIS professionals of graduate colleges in Bangalore city have marked maximum number of usage of social networking sites, the study is all about merits and demerits along with importance and impact of networking sites on LIS profession.

Objective of the study

Few points have been identified as objectives of the study which are as follows.

- To find out the role of social networking sites to create awareness among LIS professionals
- To know the opinion of professionals on networking sites
- To know the use and usage of networking sites among professionals
- To help LIS professionals to create user ambitious environment
- To enhance professional values and ethics

Limitations of the study

As the study is conducted in urban area of Bangalore especially the graduate colleges of the town has been covered under the study, LIS professionals of these colleges have making use of the social networking sites very effectively for creating awareness, sharing and exchange of information among them, so the study is restricted to 75 graduate colleges of Bangalore city.

Methodology of the study

A well structured questionnaire was designed and distributed to the LIS professionals of graduate colleges in Bangalore city, the collected data has been properly analyzed through statistical software (SPSS) package and presented in the paper.

Analysis of data and Interpretation

As study is conducted to know the usage and awareness of social networking sites among LIS professionals especially in the Bangalore university region, to collect the data a well structured questionnaire was distributed to gain primary data, which was collected, consolidated and represented in the form of tables and graphs.

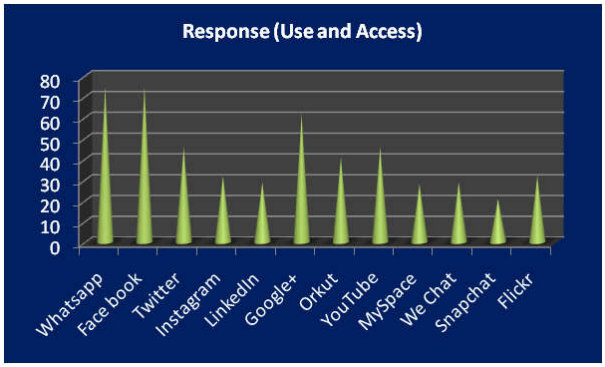
Most recurrently used and accessed Social Networking Sites

The most frequently used and accessed social networking sites are listed in the table which are almost having comparable importance in information sharing as well as disseminating, few among them had greater importance in LIS profession based on the response give by the professionals data has been evaluated and presented in the table.

Table 1: Shows the different types of Social Networking Sites and its use and access.

Social Networking Sites	Response (Use & Access)	Percentage (%)
Whatsapp	75	100%
Face book	75	100%
Twitter	46	61.33%
Instagram	32	42.66%
LinkedIn	29	38.66%
Google+	62	82.66%
Orkut	41	54.66%
YouTube	46	61.33%
MySpace	28	37.33%
We Chat	29	38.66%
Snapchat	21	28.0%
Flickr	32	42.66%

The table 1 and Graph 1 shows that, whats app & Face book usage and access are predominantly dominating among all the social networking sites, followed by Google + 82.66% twitter and you tube 61.33%, Instagram & Flickr 42.66%, then chased by We chat and LinkedIn 38.66%, MySpace & snap chat are used by few professionals, overall these are playing a magnificent role in information sharing and disseminating among library users and professionals.



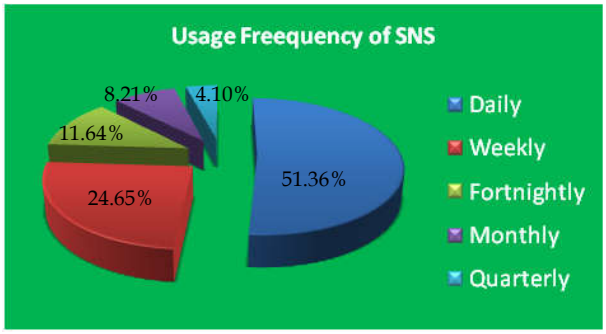
Graph 1: Shows the representation of social networking sites use and access.

Frequency of use of Social Networking Sites

Table 2: Shows the frequency of visit to the Social Networking Sites

Frequency of Usage	Responded	Percentage (%)
Daily	75	51.36%
Weekly	36	24.65%
Fortnightly	17	11.64%
Monthly	12	8.21%
Quarterly	6	4.10%

Table 2 and Graph 2 shows that most of the professionals using social networking sites very frequently especially some are using daily which shows that these sites are playing vital role in information sharing and disseminating purpose 24.65% of the respondents have visited weekly and 11.64% used fortnightly 8.21% professionals used monthly and only 4.10% used quarterly which means professionals using social networking sites very frequently.



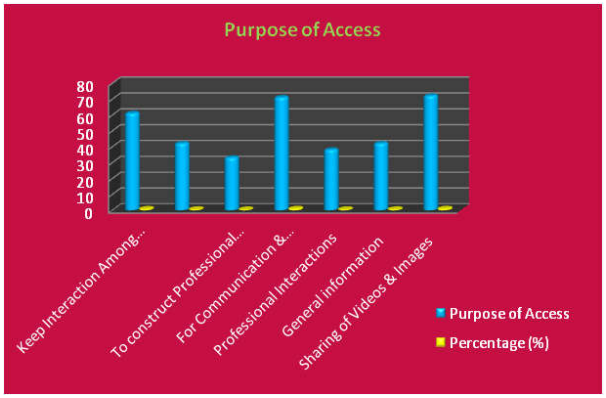
Graph 2: Shows the Pie representation of frequency of accessing of social Networking Sites

Purpose of usage and access to Social Networking Sites

Table 3: Shows the Purpose of visit to the Social Networking Sites

Purpose	Responded	Percentage (%)
Keep Interaction Among Professional friends	61	81.33%
Dissemination of information for current update	42	56.0%
To construct Professional Array	33	44.0%
For Communication & chatting	71	94.66%
Professional Interactions	38	50.66%
General information	42	56.0%
Sharing of Videos & Images	72	96.0%

It can be observed from the table 3 and graph 3 that, LIS professionals use these social networking sites for different purposes, majority (96.0%) of the users use these sites for sharing of videos and images, to keep interaction among themselves 81.33% of professionals using SNS, for communication and chatting 94.66% are using, for general information sharing and dissemination 56.0% off professionals are using and only 50.66% of professionals are using for interaction of professional issues interestingly 44.0% of professionals use these sites for creating network or array of LIS professionals, so these sites are very intensively used by the professionals for different purpose.



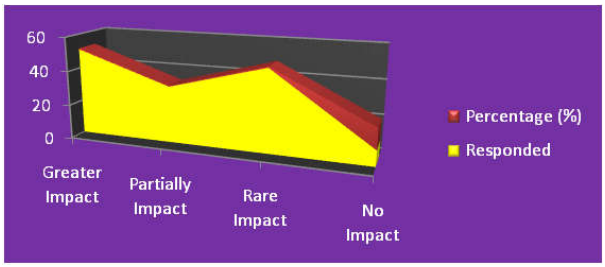
Graph 3: Shows the representation of purpose of accessing of Social Networking Sites

Impact of Social Networking Sites on LIS profession

Table 4: Shows the impact of social networking sites on LIS Profession

Impact	Responded	Percentage (%)
Greater Impact	51	68.0%
Partially Impact	33	44.0%
Rare Impact	48	64.0%
No Impact	9	12.05

From the table 4 and Graph 4 it can be observed that, social networking sites are having greater impact on library and information science profession especially when it comes to the matter of information sharing and disseminating among professionals and its users, some social networking sites are having greater impact (68.0%), few are partially impact (44.0%), and some SNS are rare impact (64.0%) only few social networking sites have no impact on (12.05%), on LIS profession, so it can be observed from the study that, half of the social networking sites have greater impact on LIS and its users.



Graph 4: Shows the impact of social networking sites on LIS Profession

Major Findings of the study

The entire study is constrained to Bangalore city graduate colleges LIS professional's response towards social networking sites, all most all the professionals are very active in these sites in one way or other and these sites also have greater impact on LIS profession, few are identified as major findings of the study and they are as follows.

- Young Library professionals have more fantasy towards social networking sites
- 81.33% of the time professionals use these sites for personal or professional issues
- 56.0% of professionals use Whatsapp and Facebook every hour once followed by Twitter as well as google + and other social networking sites
- 50% of the professionals use social networking sites for professional use
- 71% of the professionals use social networking sites for general and chat purpose
- 44.0% of professionals use SNS to create professional array among Bangalore University affiliated colleges
- Most interesting thing is that, in feedback of the questionnaire many have responded in a positive manner i.e., if SNS have sincerely used for professional activity it will be a tremendous response from users, unfortunately it is not happening.
- Dependency on social networking sites has been increased it is curse for younger generation because of non professional use and share of personal information.

Conclusion

Social Networking Sites are playing a predominant role in sharing of information among young generation people, professionals from Library and Information Science has to use these sites for professional issues, which will greatly impact on profession as well as users, unfortunately it is not happening people use these sites for personal communication and entertainment, particularly Librarians of graduate colleges in Bangalore urban area almost all aware about these social networking sites and accessing regularly but they are not making best out of it.

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Review Article

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Electronic Information Sources: An Emerging Issues for Libraries

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Abstract

ICT applications in libraries have made drastic changes in the library housekeeping activities, specifically with the electronic information sources. In the present Information age, Electronic Information Sources gain lot of popularity and compatibility both in terms of usage and information dissemination. In the light of these facts, how to manage or organize the e-resources in libraries and various issues concern to the development of e-resource collection have been discussed in this paper.

Keywords: Electronic Information Resources; E-books; E-journals; Information Technology.

Introduction

The libraries today are reorienting their collections and their collection development policies in the light of e-resources. Not only are the collections changing so are the role of librarians. Today the library collections are different from the way they were a decade or two ago. This is so because of the ability to deliver information to remote users electronically, but then this requires drastic changes in the services pattern, staffing, budgeting and planning. The changes in technology combined with shifting styles of teaching and learning in higher education and expectations of the society at large, have merged to make academic libraries something quite different from what they were even as recently as the 1980s.

Electronic delivery of information requires delivery platforms, equipment, software, substantial user support & time to access various services & products that producers offer. Few users have time, energy, inclination or funds to handle all these activities effectively. Librarians can & should undertake these tasks; if we do not do it someone else will do it. [1]

Definitional Analysis

E-Resources

According to AACR2, 2005 Update, an electronic resource is: "Material (data and/or program(s)) encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet)." This definition does not include electronic resources that do not require the use of a computer, for example, music compact discs and videodiscs. [2]

E-resources are those electronic resources, which deliver a collection of data, it may be e-journals, image collection, multimedia products and

numerical, graphical or time based. It may be have an aim to provide access as a commercially or non-commercial (open access) available till that has been published with an aim to being marketed. The electronic resources may be delivered on CD-ROM or made available access through website/ portals via internet or intranet mode.

According to Barker, there are three types of documents used in digital resources, namely Static, Dynamic and Living.

- Static - Static e-resources are the most basic, they contain unchanging information and never change their form (such as traditional online data)
- Dynamic - Dynamic e-resources are also containing unchanging information but also able to change their external form, the way embedded material is presented to users (such as multimedia CD-ROMs).
- Living - Living e–resources are able to change both their form (outward appearance) and these embedded information (such as information contain on the web.)

E-Resources can be disseminate to the library user community as part of the library service in many way which includes; E-Databases, E-Journals, E-Magazines, E-Books/Wiki Books/E-Audios/E-Musics, E-News, E-Images, Data/GIS, Digital Library Projects, Electronic Exhibitions, E-Subject Guides, E-Newsletter, E-White Papers, E-Conference Proceedings, E-Reports, E-Studies, E-Interesting Development, E-Directories, Web Search Tools on a choice of topic of the users interest.

Why to adopt Electronic Information resources

Electronic publishing has led to new era of communications and information sharing .It creates opportunities for users as well as authors and publishers to share the unpublished knowledge to the world as well as a target user community through electronic information gateway. Many of the electronic books or electronic publishers' web site freely permit and encourage readers to provide feedback on works, often directly to the author rather than to the publisher. Nevertheless users may establish their own accounts, charge services. User can access the restricted access to content by paying through credit cards or pay by prearranged payment method, which enables to have requested material delivered directly to them by fax, e-mail, etc.

Today, libraries of all kinds have been spending larger and larger shares of their budgets to adopt or gain access to electronic resources from publishers and vendors. This is due the fact that e-resources have enabled libraries to improve services in a variety of ways. E-resources are equipped with powerful search-and-retrieval tools that allow users to perform literature searches more effectively and efficiently. Moreover, since most relevant e-resources are now available through the web, users can have desktop access to them around the clock. Users can navigate directly from indexing databases to the full text of an article and can even follow further links from there. Nevertheless, the emergence of e-books and e-journals followed the widespread adoption and use of electronic mail, list servers and discussion groups to disseminate information quickly to large audiences [3].

The myths about Electronic Information -resources especially e-journals (Hazel WoodWord, 1997) are:

- E-journals provide better access to journal articles.
- Academics & researchers read journals at their office desks.
- Readers want e-journals.
- E-journals are quick & convenient to access.
- Readers know & care who publishes a journal.
- Readers want page integrity.
- E-journals will bypass libraries & make them redundant.
- E- Journals will save libraries money.
- Storage & dissemination of e-journals is inexpensive or free.
- Publishers care about readers.
- E-journals will save papers.
- E-journals will save publisher's money.
- E-journals will make subscription agents redundant.
- Only recent issues of e-journals are required.
- All scholarly journals will be available electronically in a few years.
- E-journals are always more current than their print counter parts.
- E-journals provide all graphic materials of their print counter parts.
- E-journals are always accessible.
- All readers have equal access to required computer at any time.

- E-journals will save library staff time & effort in handling journals.

Selection of Electronic Information resources

Selection is not a new term to librarian and staff as they have been doing it since long back the libraries started acquiring printed material. However libraries are now focusing to adopt e-resources information technology approaching towards the e-resources rather than printed materials as technology developed. In fact, the emergence of Internet, particularly, the www (World Wide Web) has a triggered proliferation of web based full text online resources as a new media of information delivery. As the web has grown, not just in popularity and use, but also in content, librarians are trying to meet the needs of the user and identify new resources, such as online databases, web based resources, collections in digital library, e-books, e-journals etc. The selection process should be done in relevant with the demands of the users, committee, focus group, user's recommendation etc. Apart from this, it should take into consideration the following steps;

- Recognize library needs;
- Categorize content and scope of the e-resources;
- Assess the quality of that particular resource and search capabilities;
- Estimate the cost of the e-resources;
- Check sort of access either subscription based or web based when acquiring;
- Evaluate the systems and technical support required to access the e-resources;
- Analysis licensing agreements to avoid future conflicts with publisher or supplier;
- Evaluate application software and installation, updated sporadically or in regular schedule; and
- Confirm the facilities for educational support and training to achieve maximum utilization by the users.

Evaluation of Electronic Information Resources

Evaluation of resources assumes a greater importance due to the large e-resources such as e-journals, database, e-text, etc available on the net. Authority, Audience, Scope, Time Coverage, Geographic coverage, Currency, Update, Language, Publications, Record format, Availability format, etc are some responsible criteria for evaluation of e-resources. Moreover, extensiveness of the content, accessibility, quality of technical support, cost, conditions of licensing agreement are also other responsible factors which should taken into account while procurement/subscription of e-resources.

While evaluating the e-resources the following points should be considered

- To identify the electronic version have the retrospective data (as mostly electronic resources do not include data prior to some year);
- To determine particular source of information of e-resources offer any special features which are not available in other print version;
- To check the content of the e-resources with relevant to the users as well as to the collection as a whole;
- To check whether the information is often updated or not;
- To determine the e-resources have affordable price or not though offered diverse pricing system by the publishers;
- To identify the method of accessing of e-resources available;
- To identify the e-resources needed to maintain and redesign the library website identified;
- To check the staffing needs for training of recruiting with the existing technology.

Develop of Electronic Information Sources collection

The various issues involved in developing a good Electronic collection are as follows:

1. How access can best be provided: Providing access to the latest electronic resources is the key to a good electronic environment, this may be due to ownership or from some remote source. The important factors to provide effective access are:

2. Infrastructure: Not only the availability of computers in libraries for the users to access e-journals but also their configuration is important. Timings of the library, staff assistance, as also the speed of Internet, download facility and option to copy the information on CD or take print outs etc. make the purpose of electronic resources.

3. Technical infrastructure: In a digital information service system, infrastructure such as software, hardware, internet facilities and other physical equipments are required to provide easier, faster and complete access to information. Therefore, libraries in the digital age need to enhance and upgrade current technical infrastructure, which is essentially required to provide access to e-resources to the user community of the library.

4. Inadequate library fund: Most of the libraries have inadequate fund for the procurement of e-resources. In these cases, access to e-resources through library consortia will reduce the financial burden among the library in acquiring the electronic resources.

5. Cost analysis: The main advantage of having e-resources is that there can be savings from storage costs, and some e-resources are available more quickly than print. In this transition period selectors need to consider carefully what is gained and what is given up with print and electronic version of the same title. Form purpose and source of access will vary considerably among the categories of full text. Decision should be made on title-to-title basis depending upon the needs of each library's users. Funds must go to "access, just-in-time collection building, document-delivery, and online publishing ventures."

6. Developing selection criteria: There are various ways of providing access to the users. Every library has to make its individual choice depending upon the budget available, content of the source and also the requirement of its users. Some of the ways of providing access are:

Publishers: Many journal publishers provide access to their titles as a package.

Aggregators: Many libraries have cut costs by replacing some print subscriptions with electronic full-text databases of journals supplied by aggregators. Aggregators of electronic collections and services may include document delivery services as well as integration of full text electronic documents into a common interface. Examples of aggregator databases are JSTOR, ProQuest, EBSCO etc.

7. Preservation: Though the e-resources are enabling information to be created, manipulated, disseminated and located with increasing ease, preserving access to this information posses a great challenge. Unless, preservation of digital information is actively taken, the information will become inaccessible due to changing technology platform and media instability.

8. Lack of professional skills: inefficiency among the library professionals in handling the e-resources, will result in reduce in usage and dissemination of information to the end user. Electronic information handling require both professional and computer technical skills to handle the information in digital format. Library professionals must be abreast with the latest technological developments and skills which are require for working in today's rapidly changing digital environment.

9. Lack of cooperation of staff members: There is a need of proper coordination among the computer professionals and library professionals to provide effective service in a digital environment. Computer professional's helps in troubleshooting the problems associated with the computer hardware and software. As such, the library staff must have proper coordination among the computer experts and must be technically competent in troubleshooting the user queries in accessing the e-resources with a user-friendly-approach.

Conclusion

Information & communication Technology has dramatically changed the nature of Librarian's work and the various services offered by the libraries. With the rapid advancement in computer technology along with information technology, libraries and information centers have been blessed with electronic materials and therefore libraries are gradually changing from traditional library to electronic libraries by procuring and providing access electronic information resources. Libraries nowadays require updating with latest computer hardware and softwares infrastructure, which are essentially required to provide access to the e- resources both in offline and online mode. Librarians will have to be flexible enough to continue changing, adapting to change as they have done over the past decades, but more rapidly and more creatively. In order to meet the ever increasing demand of the user community in a digital environment, libraries have to develop ways to manage access to materials available in electronic format and to effectively share them mush as they have shared print resources for over a century through inter library lending.

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Review Article

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Digital Library Management: A Study

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Abstract

This paper discus on challenges and opportunities of digital library management. In the developing countries, digital libraries are an implementation of innovations. Technologies for Knowledge formation and management in future, and basic concepts, process, services, challenges and opportunities in the role of librarians in digital library management, In this digital era librarian facing many challenges in managing digital libraries, librarian manage the collection, preservation of data and others. The librarians play a vital role in digital library management, so librarians having a knowledge and skills in digital library management.

Keywords: Digital Library; Management; Digital Library Management; Multimedia; Librarians.

Introduction

Digital Library basically stores information mainly in electronic format (e-form) to disseminate a broader user communities. In academic libraries changing their activity of print media to digital media. The digital library is also called e-library (or) electronic library, Information are store in electronic format and provide access through computer. In this digital era many resources are published in electronic format. So that libraries have challenges to organize the effective way.

Traditional Library and Digital Library

Traditional library: Traditional library is most printed media, manuscripts etc., the main function in traditional libraries collections of information resources, organization of information resources and dissemination of information resources. It is a physical boundary

Digital library: Digital library or electronic library is machine readable format and online resources. Digital Libraries consists mostly electronic components, digital technology is the combination of traditional library and multimedia collections, a digital library is a computer based system for acquiring, storing, organizing, searching and distribution digital format for the users, Digital libraries are based on internet services. infrastructure, digitalization, access, staffing, funding and budgeting is the main design and management of Digital Libraries.

- Access information are high speed
- Learning procedures is formal and informal
- Easily access the rare collection and expansive collections
- Digital library is a digital document such as audio, video, image and numeric multimedia components

- Information are stored in less space
- Access any time, any place, any one

Need for the Digital Library

1. Computer
2. Software
3. Network
4. Storage devices
5. Scanner
6. Printer

Definition

Digital Library Federation defines Digital Libraries as an organization that provides the resources. Including the specialized staff to a select, structure, offer intellectual access, to interpret, distribute, preserve the integrity of an ensure. The persistence of over time collections of digital works are readily and economically available for use by a defined community or set of communities.

According to Yerkey and Jorgensin, digital libraries are electronic libraries in which large numbers of geographically distributed users can access the contents of large and diverse repositories of electronic objects in the form of text, images, maps, sounds, videos, catalogues, government, scientist and other data stored in hypertext, hypermedia and multimedia compositions like CD-ROMs, Online databases etc.

Review of Literature

1. R.K. Sharma and K.R. Vishwanadhan (2001) digital libraries development and challenges authors says digital libraries are depend up on internet and intranet connection. Conversion for traditional library to digital library facing many problems in library professionals. digital libraries based on knowledge about digital resources.

2. Sarojadevi K, Padmamma S. and R.H. Walmiki (2016) this article explained Digital Resource Management Strategies: Study on Selected All India Radio Media Libraries of Karnataka gradual development in All India Radio in digital library management. It is a positive development in AIR resource management. 56% of AIR for maintained the digital resources and 72% of AIR libraries preserve their digital resource

Objectives

- To capture, store, manipulate and distribute information
- To digitize the documents to preservation
- To support library functioning such as circulation, social control, acquisition control, stock maintenance and other official works
- To have a large number of data bases in CD ROM's
- To provide need based and retrospective
- To introduce and provide new services
- To improve cost effectiveness

Characteristics

1. Internet facility to transfer the information
2. Digitization
3. Information supply
4. Share the information

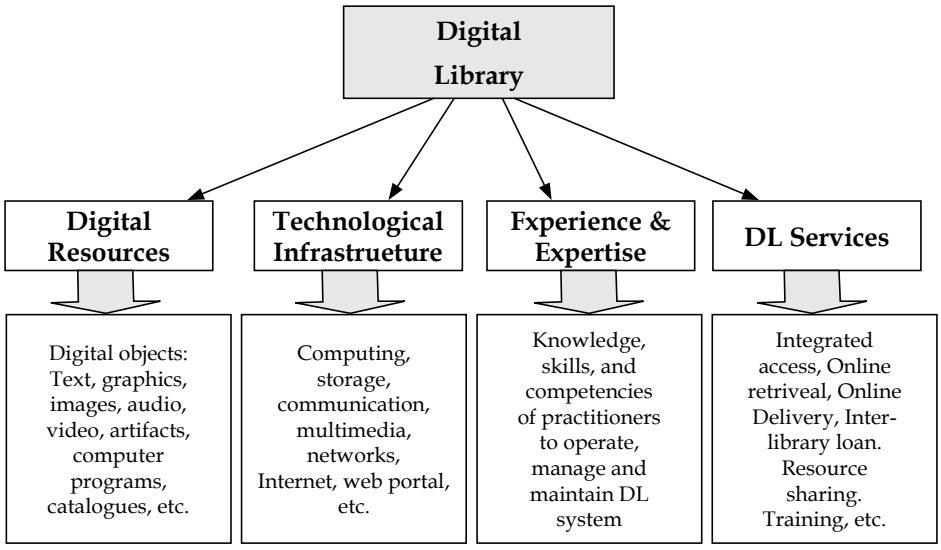
Digital Library with Five Laws

1. Books are for use
2. Every reader his or her book
3. Every book its reader
4. Save the time of the reader
5. Library is a growing organism

In digital era books are for use is new conception in the current environment is E- books are for reading, second law of library science is Every reader his or her book its change in Every listener her iTunes, the third law of library science Every books it's a reader in Every blog its reader, in fourth law of library science save the time of the reader is change in save the time of the listener, finally the fifth law of library science, Library is growing a organism.

Digital Library Management

Library professionals mange some problems in digital library management, they are cost, copyright and training, this problems must not be availed the library professionals mange all the problems and successfully manage a digital libraries and they are use new technology and tools.



Digital Resources: Design and Management

1. Fund
2. Information resource development
3. Information resources
4. Staff
5. Space, furniture, electronic components
6. Accessing information

Challenges for Librarians

1. Funding
2. Access control
3. Digital information retrieval
4. Library professionals cum Electronic knowledge
5. Intellectual Property Rights
6. Preservation for information resources

Opportunities

In digital libraries librarian facing many challenges but opportunities are very important in librarians. Users access the information is very fact and convenient way.

Access: Frequently used information can be saved electronic format for immediate access.

Intellectual: Intellectual control with new finding and supporting.

Bibliographical: Links are provided to access the bibliographical information

Duplication: Duplication of digital resources is very easy

Timely access

Physical storage spaces saved

Librarians Role in Digital library

Now a days libraries are moving traditional library to digital library. Libraries having a multimedia collections - they are image, photo, text, sound and other digital resources of information, this type of multimedia collections handling is not a easy task. The digital librarians requires specialized digital knowledge and professional skills. Library professionals having knowledge about electronic information service, search co-ordination, and manage the archives, storage, access, reference services. The librarians are working in digital environment as well as skill and knowledge.

Conclusion

In new technology libraries are changing in print format to digital format, and libraries are improve in information resource knowledge. Library provide access the information resources in digital format. This type of digital libraries create many opportunities and challenges for library professionals. This article explain opportunities and challenges for forming and maintaining a digital

libraries. The library professionals facing some problems like funds, copy right. So the Library professionals aware the intellectual property in creating digital resources

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