

Impact of Ict Applications Among Library Professionals in Challenging Digital Environment : A Study in Universities of Tamilnadu



Library Science

KEYWORDS : ICT, DESIDOC, ACRL, OPAC, DIS

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ABSTRACT

The information technology explosion and its application in every aspect of life have changed the entire scenario of present world. Major changes in the information environment have transformed the role of librarians in to those of information managers. This research is an attempt to give an outline of the problems of digital libraries and the changing role of information managers. Digital information system (DIS) management refers to the overall competencies, knowledge, know-how skills and attitudes necessary to create, store analyze, organize, retrieve and disseminate digital information(text, images, sounds) in the digital libraries or any type of information.

INTRODUCTION

In the changing scenario of information environment the library professionals have to be more interactive, collaborative and dynamic so that information can be made available to all those who seek it regardless of physical boundaries, formats and time constraints. The emerging trends in digital technologies and their applicability to information handling activities added new challenges to library professionals. This research is an attempt to give an outline of problems regarding digital libraries and changing role of information managers.

Challenges of Library Professionals in Digital Era:

Because of the technology evolution most of the libraries have automated, this automation is really difficult to adapt for the existing library professionals. This has changed the way the library professionals function because previously they used to do all the transactions and other functions of library manually. In contrary to those who have evolved in the digital library environment prefer to learn modern techno ides. Most of the libraries have not updated their curriculum according to the modern advancement. So this has become a major challenge for the existing library professionals.

Review of Literature:

The university libraries of India have gone through tremendous changes, change in traditional document delivery services, from print to electronic and have come about quickly and they have undergone significant transformations in effectively delivering electronic resources to the academic community.

In the modern digital information environment, a well-defined mechanism is needed to organize, store and access information. A library portal is highly beneficial for this as well as for web enabled information services. Most of the libraries are adding e-resources to their collection.

Job competencies for the technologically oriented librarian consists of two major streams: those that focus on the knowledge base (professional skills) and those that focus on attributes or attitudes (personal characteristics)

Necessity is the mother of invention. The emerging global digital libraries or worldwide digital information centers generate the need for creating a new job-title "digital librarian" to manage their digital knowledge resources. Digital librarians are required different sets of skills, like attitudes, values, professional education and training to transform into that of a digital librarian

Need for the study

To identify the basic skills required for the librarian and to know how the library professionals have transformed themselves according to the changes that have occurred in the era of digitalization. It is important for the existing and the new entrants to know the skills and competencies required for working in the digital environment. As well as to find the opinion of the library professionals on the training programs and whether they are

useful enough to meet the needs of the digital environment.

It is needed to know whether the libraries have adapted the new technologies. It is required for the library professionals to know the technology courses which will help them to meet the requirements of digital environments because most of the experienced professionals were not used to some of the new technologies that have come up in the recent years. This study is conducted in order to provide them with the information regarding all the dilemmas that they are facing.

Objective

The following are the objectives of this study:

- To find out the major skills required for library professionals
- To identify the impact of modern technology in library services
- To review the problems faced by the librarian in the digital era
- To identify the major challenges for a librarian to work smoothly in a cyber environment
- To know the attitude of the library professionals towards ICT
- To know about the usage of IT resources in the University Libraries

Hypotheses: the following are the Hypotheses of this study:

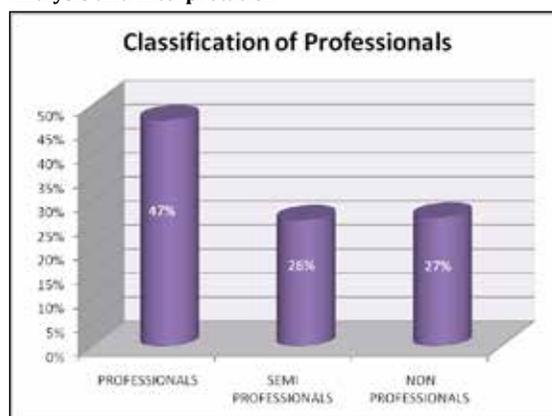
The opinions of the library professionals regarding the basic skills required for a librarian does not differ with their gender.

The attitude of library professionals towards the ICT is same across the gender.

Sampling method

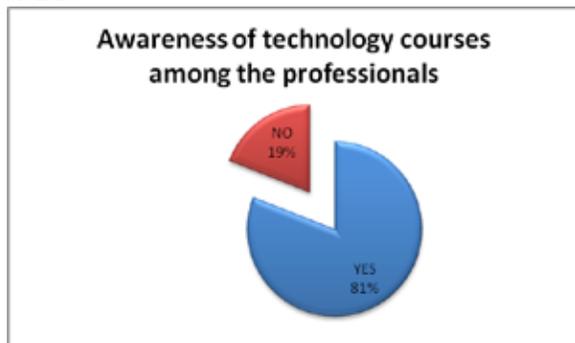
The sampling method used for this study is the non-probability and convenience sampling method. Because the sample selected for the study are the Library Professionals (librarian, Deputy Librarian, Assistant Librarian, Technical Librarian, Library Professors and Library Assistants etc.) in the selected Universities of Tamilnadu.

Analysis and Interpretation



If we can observe the above chart the total percentage of professionals across all the universities under this research is 47%, semi professionals is 26% and non professionals is 27%. So we can infer that the percentage of semi and non professionals together is 53% which is higher than the percentage of professionals 47%.

Classification of technology course learned by the professionals



So from the above pie chart we can say that the respondents in this research are aware of the technology courses those have emerged because of the technology evolution.

Classification of satisfaction regarding ICT infrastructure in the libraries

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very much satisfied	118	70.2	70.2	70.2
	satisfied partially satisfied	43	25.6	25.6	95.8
	not at all satisfied	7	4.2	4.2	100.0
	Total	168	100.0	100.0	

The above table 5.36 shows the descriptive statistics of the satisfaction of respondents under the study towards the ICT infrastructure available in their respective libraries. From the table we can infer that 70.24% of respondents were very much satisfied with the ICT infrastructure in their libraries and only 4.17% of respondents were not satisfied.

Descriptive statistics: Classification of the opinion of the respondents for the challenges faced by them and the skills required for a professional to meet the Digital environment.

The data has been collected for the knowledge and ICT acquisition and tabulated as follows but totally there are 5 different types of categories namely Strongly Agree, Agree, Neutral, Disagree and Highly Disagree. So here for the research purpose I have considered strongly agree and agree as Agree, Disagree and Highly Disagree as Disagree and tabulated as below.

	Agree	Neutral	Disagree
outdated LIS curriculum	76%	7%	17%
lack of professional accreditations	76%	11%	13%
lack of support from higher authority	70%	13%	17%
budget constrains	71%	11%	17%
lack of IT training	61%	16%	23%

lack of support	51%	21%	27%
lack of faculty interests	45%	18%	38%
lack of students interest	36%	17%	46%
lack of self improvement prospects	23%	20%	57%
age concern	18%	17%	65%
inferiority to learn new ideas	20%	14%	67%
interpersonal skills	97%	2%	1%
managerial skills	98%	1%	1%
ability to embrace changes	96%	1%	3%
ability to trouble shoot new technologies	98%	1%	2%
ability to easily learn new technologies	97%	1%	2%
critical point of view	94%	4%	2%
ability to keep up wit new ideas in librarianship	95%	2%	2%
organizational and evaluation skills	96%	2%	2%

So if you consider the responses that are tabulated in the percentages we can infer that

98% of the respondents have agreed that managerial skills are the foremost skills for a librarian. 98% of the respondents have agreed that ability to trouble shoot new technologies is one of the challenges that they are facing. 97% of the respondents have agreed that interpersonal skills are also required for a librarian. 96% of the respondents have agreed that ability to embrace changes is also one of the challenges that they are facing. 96% of the respondents have agreed that organizational and evaluation skills are also required skills for a librarian. 57% of the respondents have disagreed that lack of self improvement prospects is their challenge.

And if we consider the same responses across the gender the results are as follows,

	Agree		neutral		Disagree	
	Male	Female	Male	Female	Male	Female
outdated LIS curriculum	76%	76%	5%	11%	19%	13%
lack of professional accreditations	73%	81%	12%	10%	15%	10%
lack of support from higher authority	70%	71%	13%	11%	17%	18%
budget constrains	69%	76%	10%	13%	21%	11%
lack of IT training	62%	60%	16%	16%	22%	24%
lack of support	50%	53%	24%	18%	26%	29%
lack of faculty interests	42%	48%	19%	16%	39%	35%
lack of students interest	37%	35%	17%	18%	46%	47%
lack of self improvement prospects	20%	27%	20%	21%	60%	52%
age concern	14%	24%	15%	19%	71%	56%

inferiority to learn new ideas	16%	26%	13%	15%	71%	60%
interpersonal skills	96%	98%	2%	2%	2%	0%
managerial skills	97%	100%	2%	0%	1%	0%
ability to embrace changes	96%	95%	1%	2%	3%	3%
ability to trouble shoot new technologies	96%	100%	1%	0%	3%	0%
ability to easily learn new technologies	96%	98%	1%	2%	3%	0%
critical point of view	93%	95%	5%	2%	2%	3%
ability to keep up wit new ideas in librarianship	94%	97%	3%	2%	2%	2%
organizational and evaluation skills	94%	98%	4%	0%	2%	2%

If we observe the above table we can say that there is no significant difference between the responses of male and female respondents so we can say that the above mentioned statements holds good across the two genders also.

Classification of the outcomes of training programs

To know the outcomes of training and development programs better we have collected the data by giving some rankings to the expected outcomes and the responses have been tabulated.

Outcomes of Training Programmes	Rank 1		Rank 2		Rank 3		Rank 4		Rank 5	
	Male	Female								
training help for knowledge development	47	36	23	11	25	11	7	2	4	2
library development	19	2	33	17	40	24	8	14	6	5
career development	32	19	34	21	28	14	9	7	3	1
networking with library professionals	6	3	10	9	11	12	57	24	22	14
networking with publishers	3	4	6	3	2	1	25	14	70	40

To understand the above table better we have converted the responses of all the above rankings in to percentages and it has been tabulated.

Outcomes of Training Programmes	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
training help for knowledge development	49%	20%	21%	5%	4%
library development	13%	30%	38%	13%	7%
career development	30%	33%	25%	10%	2%
networking with library professionals	5%	11%	14%	48%	21%
networking with publishers	4%	5%	2%	23%	65%

So the highest responses in every given outcome has been highlighted in the above table from that we can infer that

Outcome of the Training and Development	Rank Given
training help for knowledge development	1
career development	2
library development	3
networking with library professionals	4
networking with publishers	5

The data has been collected to know the uses and the advantages of using ICT in the libraries and the responses according to the gender wise have been tabulated.

	Male		Female	
	Agree	Disagree	Agree	Disagree
ICT enables most effective ways of resource sharing	103	3	60	2
ict helps in making specific inforamtion available	100	6	55	7
ict will not appreciately reduce the number of library staff	81	25	47	15
card catalogue can be modified more easily than OPAC through ict	91	15	57	5
online databases provide more uptodate informations	97	9	53	9
data retrieved though print resources is authentic	88	18	49	13
each year ICT offers more efficient ways to carryout library operations	84	22	50	12
computer creates health and environmental problems	58	48	39	23
data storage on computer is highly riskyin the library	27	79	20	42
extensive use of ict has created job fears amonst librarians	34	72	16	46
automated acquisition is not feasible for librarias	31	75	14	48
changes occurring due to ICT application are out of control of librarians	25	81	16	46

For our understanding the both agreed responses that is males and females as added and converted in to percentages and has been tabulated to know their preference

	Agree	Disagree
ICT enables most effective ways of resource sharing	97%	3%
ict helps in making specific inforamtion available	92%	8%
ict will not appreciately reduce the number of library staff	76%	24%
card catalogue can be modified more easily than OPAC through ict	88%	12%
online databases provide more uptodate informations	89%	11%
data retrieved though print resources is authentic	82%	18%
each year ICT offers more efficient ways to carryout library operations	80%	20%
computer creates health and environmental problems	58%	42%
data storage on computer is highly riskyin the library	28%	72%
extensive use of ict has created job fears amonst librarians	30%	70%
automated acquisition is not feasible for librarias	27%	73%
changes occurring due to ICT application are out of control of librarians	24%	76%

So from the above table we can infer that 97% of the respondents have agreed that ICT enables most effective ways of resource sharing.

92% of the respondents have agreed that ICT helps in making specific information available.

89% of the respondents have agreed that online databases provide more up to date information's.

70% of the respondents have disagreed that extensive use of ICT has created job fears amongst librarians.

To know whether there is any difference of opinions from males to females we have converted the responses into percentages as gender wise and tabulated.

	Male		Female	
	Agree	Disagree	Agree	Disagree
ICT enables most effective ways of resource sharing	97%	3%	97%	3%
ICT helps in making specific information available	94%	6%	89%	11%
ICT will not appreciably reduce the number of library staff	76%	24%	76%	24%
Card catalogue can be modified more easily than OPAC through ICT	86%	14%	92%	8%
Online databases provide more up-to-date information	92%	8%	85%	15%
Data retrieved through print resources is authentic	83%	17%	79%	21%
Each year ICT offers more efficient ways to carry out library operations	79%	21%	81%	19%
Computer creates health and environmental problems	55%	45%	63%	37%
Data storage on computer is highly risky in the library	25%	75%	32%	68%
Extensive use of ICT has created job fears amongst librarians	32%	68%	26%	74%
Automated acquisition is not feasible for librarians	29%	71%	23%	77%
Changes occurring due to ICT application are out of control of librarians	24%	76%	26%	74%

If we observe the above table carefully there is no significant difference of opinions between males and females and it has been almost identical.

Findings

- 98% of the respondents have agreed that managerial skills are the foremost skills for a librarian.
- 98% of the respondents have agreed that ability to trouble shoot new technologies is one of the challenges that they are facing.
- 97% of the respondents have agreed that interpersonal skills are also required for a librarian.
- 96% of the respondents have agreed that ability to embrace changes is also one of the challenges that they are facing.

- 96% of the respondents have agreed that organizational and evaluation skills are also required skills for a librarian.
- 95% of the respondents have agreed that ability to keep up with new ideas in librarianship is also the challenges that they are facing. 94% of the respondents have agreed that critical point of view is also the required skill for a librarian and ICT enables most effective ways of resource sharing. 97% of the respondents have agreed that 92% of the respondents have agreed that ICT helps in making specific information available. The respondents have agreed that they need IT training in order to meet the digital environment. 67% of the respondents have disagreed that they are feeling inferiority to learn new technologies. 65% of the respondents have disagreed that age is a concern to meet the digital environment. 57% of the respondents have disagreed that lack of self improvement prospects is their challenge.
- 80% of the respondents have agreed that each year ICT offers more efficient ways to carry out library operations. 76% of the respondents have agreed that ICT will not reduce the number of library staff. 76% of the respondents have disagreed that changes occurring due to ICT application are out of control of librarians. 73% of the respondents have disagreed that automated acquisition is not feasible for librarians. 72% of the respondents have disagreed that data storage on computer is highly risky in the library. 70% of the respondents have disagreed that extensive use of ICT has created job fears amongst librarians.

Conclusion

The research concludes that the librarians are gradually adapting themselves to the digitalization; even in this modern era also they think that managerial skills are the first and foremost skills that a librarian should have. The professionals who are having more experience are willing to learn new technologies by enrolling in some technological courses since they are interested but prior to this digitalization they are not aware of all these technologies that have evolved within in a short span of time. ICT enables most significant way of information sharing, up to date information and it offers efficient way of operations to librarians. They study reveals that university libraries are switching over from print to electronic information resources and highlight the role of library professional in the digital environment and requirement of skills like managerial, technical and assessment skills. The research says that even though the temporary professionals are having significant experience they are earning fewer salaries in comparison with the permanent professionals. The precise role of the librarian depends upon the organization structure and knowledge needs. And this evolution of digitalization has changed the role of a library professional to knowledge professional.

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