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Human Resource Aspect in Digital Library Era

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Abstract: ***Information Communication Technology abbreviated as ICT, is undergoing latest advancement. Library and information professionals need to adopt these changes by enhancing their skills and knowledge to meet the user's needs. This can be possible by learning and implementing new ICT skills and knowledge through training & development, participating in conferences, seminar, workshop, self learning or any other medical of learning. Now the librarian in this digital era has to be proactive in implementing new tools and technological advancement in the library. This present article focuses the roles and functions of a librarian in this digital era, including information retrieval, navigation and browsing. This paper also summaries the skills, proficiencies, ability and competencies about professional and technological aspects that library professional staff should possess in order to meet the current and future needs of users. It will also help them to not only to survive in a rapidly changing technological environment but also enhance their professional and personal development.***
Keywords: Human Resource Development, Digital Library, Training and Development, Digital Competencies, Agencies of HRD, Information and Communication Technology (ICT)

I. INTRODUCTION

Today we are living in information society which is driven by the modern ICT tools and techniques. The result of the information society has also affected library and information section and as result new concept such as electronic library, digital library, virtual library and library without walls, etc. has emerged. Now, the traditional libraries are replaced with e-libraries and library services are transformed to e-services. On the other hand the role of library professionals are also changing from traditional librarian to e-librarian, cybrarian, digital librarian, information processor, information manager & consultant, knowledge manger & consultant, etc. Libraries & information centers are well equipped with latest technology to provide the right information to right users in right form and on right time. Information and Communication Technology (ICT) has revolutionized the information storage and retrieve activities in the libraries and information centers during the past few years. Two major components control the whole performance of library & information services i.e. document (print & non-print) and manpower (library professionals and end users). To cope with rapid changes of ICT, library and information professionals should have to equip themselves with latest ICT tools and technological advancement. Hence, it is it indeed a necessary to upgrade the skills of library staffs. Each and every organization/institution has to make plan and polices for training and development of library services such as on job training, orientation, education, Continuous Education Programme (CEP), motivation, awards & rewards etc. to enhance the knowledge & skills of the library staffs.

A. Digital Library: Meaning and Elements

A digital library is a collection of documents, reading material, objects in a digital format. In other words it is networked collection of digital reading material and objects. Nevertheless, Smith (2001) defined a "digital library as an organized and focused collection of digital objects, including text, images, video and audio, with the methods of access and retrieval and for the selection, creation, organization, maintenance and sharing of collection".

Digital libraries can be defined as electronic libraries, virtual library. In electronic libraries uses can locate, access and retrieve information from remote place. Also from different geographically location can also access the contents of electronic library. Information Technology denotes a library in which holding are in machine readable form. In other words, it a properly organized set of links of information on the Internet that enables an end user to locate relevant information while accessing the internet or a web.

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Following are some of the Common elements and important features which characterize digital libraries:

1) Digital library is comprises of many entities.
2) Digital library needs ICT to connect many entities.
3) Digital library is based on technology
4) Digital library are to be used by individuals working along.
5) Digital library are proving universal access of information and content to end user through digital and e-content platform.
6) Digital libraries are offering all service and products that traditional libraries offer.

B. Advantages of the Digital Library

A digital library comprises a bundles of advantages for both library professionals as well end users. Digital library is not bonded to a particular building or a location but it is expanded all over the word through digital connections. The main advantage of digital library is that the user can get all required and relevant information/content in digital form on their screen with help of the Internet.

1) Digital library has no physical barriers
2) Content of digital library can be accessed from anywhere in the world.
3) Digital library is available round the clock.
4) Multiple users can access and retrieve the same information at the same time
5) No degradation in quality of content
6) Multiple duplication or copy of Original document can be copied to any number
7) Digital library contains huge amount of the information compare to tradition library
8) For a long term, the maintenance cost of digital library is lower comparing with a traditional library

C. Limitations of Digital Library

1) Electronic materials degrades promptly
2) Obsolete rate is higher in electronic materials
3) Digital library violates copyright Act
4) Its initial investment cost is very high.
5) As technology upgrades, data in digital format may become inaccessible.
6) End users need a device to access data if not physically present in the library

II. HUMAN RESOURCE DEVELOPMENT

"Human Resource" or "manpower" is the most significant resource for the any nation. If it is not properly developed, it cannot be put to proper use. According to management guru Peter Drucker "The most valuable asset of a 21st century institution will be its knowledgeable workers and their productivity. In an organization staff development and staff training are parts of the bigger concept of human resource development (HRD)". Human Resource Development (HRD), is a activity or a tool to improve the performance of the staff members of an organization/institution.

With advent of ICT in libraries, HRD is considered to be the most important component in the library. Managerial and operative are the main functions of HRD. Operative functions include employment, development of employee, compensation to the staff, integration among staff and maintenance of personnel. It is the most powerful tool for any organization's success. Training and development of staff is regarded as one of the most important and effective function of HRD. To provide best services to the users in this cutting edge, training and development is the main weapon, which will develop and enhance the skills and competencies and will make staff into a well-trained workforce. This skilled, well trained work force will provide efficient and effective services in modern library and Information centers. In addition, now a day libraries require staff with IT skills to perform a wide range of functions.

The HRD concept was first introduced by Leonard Nadler in 1969 in a conference in US *"He defined HRD as those learning experience which are organized, for a specific time, and designed to bring about the possibility of behavioral change". T V* Rao has described "HRD in organizational context as a process by which the employees of an organization are helped in a continuous way to acquire or sharpen capabilities required to perform various functions associated with their present or their expected future roles; developed their general capabilities as individuals, discover and exploit their own and inner potentials for their own and organizational developmental purposes; develop an organisational culture in which supervisor subordinates relationships; teamwork and collaboration among sub-units are strong and contribute to professional well being, motivation and pride of employees."

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All the people who are working for an organization/institution is called as Human Resource. It is collective terms for all staff members who are working for the same organization to achieve its objectives and goals. Human resource is connected with the administrative department for hiring, evaluation, promotion, termination, etc of the staff. Some of the large and independent libraries have their own human resources department for library staff. Also some of the libraries rely on the parent organization for such HRD services. In India, most of libraries are depending on HR section for HRD activities of the particular organization/institution.

Human Resource Development (HRD) is a process of to enhance potentialities such as knowledge, skills and capabilities of manpower/staff resources of through education, training, continuous education programme, continuous development activities, counseling, performance evaluation, self- appraisals, awards/rewards, etc. Training and development plays a vital role to boost academic and professional capabilities of human resource. In libraries and information centre, ICT training and development activities not only focus to improve professional knowledge but also upgrade the ICT skills abilities, capabilities and competencies in a complex digital environment.

Following are HRD activities:

1) Unbiased job opportunity programmes;
2) Human Resource Planning (HRP)
3) Activities from recruitment to retirement
4) Staff Selection and orientation
5) Career development Services
6) Counseling to staff services
7) Performance evaluation and training & development;
8) Compensation and benefit
9) Safety and health aspect
10) Maintaining the Employee relation
11) Work allocation, job rotation and re-scheduling;

There are many library functions, services, products which has changed from past to present with advent of ICT. Some of them are web based integrated library management system, E-document delivery systems, web OPAC, laser printer, consortia, e- reading materials and so on.

III. HRD AND DIGITAL LIBRARIES

The present booming in electronic environment and digital era is not only changeling for commercial industry but also for library and information sector is facing many issues such as finance, investment, skilled staff, security, end users services, open access library system, library hours, life span of print materials etc.

With advancement of technological advancement, the libraries are now moving towards the digital and e-resources, which are relatively less expensive and more helpful for easy access.

There are three stages in development of digital libraries - infantile, adolescent, and adult as stated by Yedla, Venkata Rao & Sinha, Manoj. (2008), “In the development process of digital libraries, there is an interrelationship between the capabilities of library professional and the level of development of digital libraries.

The infantile libraries are portrayed as experimental, opportunistic organizations that are set apart from traditional library services. The adolescent digital library, having acquired core competencies, focuses on integrating digital materials into the library’s collections and on developing and supporting with core funding the requisite policies, technical capabilities, and professional skills to sustain its services.”

New technologies in the library and information science field has created new opportunities and entire functions of digital library are now in digital form. Here, Human Resource Development (HRD) plays a key role for providing effective services to the end users with optimum utilization of resources.

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Trivedi, D. R. (2017) has presented the Difference between Traditional and Digital Library, which is given below:

Traditional Library	**Digital Library**
1. Library staff performs their duties in the acquisition section, cataloguing Section, classification section, periodical section as well as different sections as per need.	1. To provide easy access to information to users available in various electronic formats.
2. To identify and recognize different methods to procure books in library economically and qualitatively.	2. To identify the user's needs and procure the information resources for the users.
3. To acquire books, periodicals, journals through proper vendors and as recommended by users and the management authorities.	3. To procure e-Books and online journals and other digital publication to the users as per needs.
4. To circulate publisher catalogues among the faculties for the recommendations of books based on need.	4. To subscribe to online journals, e-books, databases and provide internet facility for the utilization of resources to gain knowledge.
5. To communicate with the teaching faculty to recommend different titles, print journals required for the syllabus.	5. To automate the library with library software and provide faster access and reference service to the users.
6. To prepare the budget for the purchase of different resources and types of equipment in libraries.	6. To provide OPAC service with networking facilities to the users and help in resource sharing.
7. To record properly acquired resources both print and digital.	7. To develop library website for getting information from different locations by giving links to resources.
8. Process the material for access by catalogues and classify books, and prepare index terms and organize a collection for effective use.	8. Libraries should have digital library software to access the digital contents subscribed and analyzed by the library.
9. To provide indexing; abstracting; reference service; information services etc.	9. To provide access to back issues of online journals to the users.
10. To provide information from the traditional sources including access to digital resources.	10. Learn skills to maintain the digital library in addition to technical.
11. To provide current awareness services as well as Selective Disseminate services to the users using different resources.	11. Library staff has knowledge of hardware and software to provide digital, electronic, and virtual services using digital collections to the users.

Source : Trivedi, D. R. (2017). A Critical Review on Conventional and Modern Library Services. *International Journal of Research in Library Science*, 3(1), 145-149.

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IV. DIGITAL COMPETENCIES FOR LIBRARIANS

Following are essential and must have digital competencies for librarians and information professional in this digital era:

Sr. No.	Type of Technology	Name of Technology
1	Bibliography tools & Standards and database	Bibliographies Standards
		Citation Management tools
2	Hardware (basic skills of IT)	Hardware (system)
		Storage Devices
3	Latest Technology	Instructions technology
		Information systems
		Artificial Intelligence
		Cloud Computing
4	Networking (Communication & Networking Technologies)	Networking
		Networking Protocols
5	Search skills	Navigational
		Search strategy
6	Security	Security Competencies
		Security Surveillance
7	Services	Library services
		E-resource competencies
		Information Services
		IPR
8	Software	Operating Systems
		Application software
		IMLS – library Software
		Institutional repository
		Databases Managements
		Open source ILS – Library Systems
9	Image editing tools	Image editing tools
10	Knowledge of Web based tools & technologies	Web technology
		Content Managements Systems
11	the awareness of Open Educational Resources and E-learning tools and technologies	
12	Web 2.0 and Library 2.0	awareness of use of social media Multimedia Tools

V. TRAINING PROGRAMS

Training and development is one of the main component of HRD. In library and information science also training and development plays a crucial role for enhancement and improvement of core competencies and skills. With rapid upgrading in ICT tools and technology, library sections need a frequently training programme to keep abreast the library professionals. There are numerous ways for training programmes for library professionals such as through seminars, conference, workshops, refresher courses, orientation programmes, conventions, and short-term courses.

This can be further divided into two sections, one is theoretical aspect and another is practical aspect. Theatrical aspects just keep updated about latest advancement in the ICT field and current updated in library sector. It includes refresher courses, seminars, conferences, conventions and symposia. Another aspect is practical it includes on job training, workshops, specialized training programmes. Theses all are meant to fulfill the training needs of the working library professionals. They are of short duration with focus on a single micro topic of ICT tools and technology advancement. Hence, there is need to develop a such a training programme which covers both practical aspect and theoretical approach with modern technological applications for the working library professionals.

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A. Key Areas of Training

There are many areas of training for library professional but with the advancement of Information and Communication Technology developments and its applications to libraries. The library professional needs training on basic Computer and Networking, library automation, library e-service and products including following major heading.

1) Hardware and Storage Devices
2) Operating Systems and Application Software
3) Image Editing Tools
4) Integrated Library Management Systems and Institutional Repository
5) Instructional Technology
6) Bibliographic standards
7) Networking tools and techniques
8) Navigational tools and Search Strategy
9) Security Surveillances competencies
10) e- Library services, E-resource competencies, e-database management
11) Web tools and Technology
12) Information Systems and Information Services
13) Networking Protocols
14) Content Management Systems
15) Bibliographic/ Citation Management Tools
16) Cloud Computing, copyright and patents, plagiarism tools
17) Web 2.0 (Podcasting, Blogging, Tagging, Curating with RSS, Social bookmarking, Social networking, Social media, Web content voting)
18) Web.3.0 (Semantic Web, Artificial Intelligence, Graphics, Ubiquity)

B. Agencies for Imparting Training for Human Resource Development

There are various professional organizations, universities, school/department of library and information science, specialized agencies organization/institution in India, which are frequently organizing training and development programmes for library and information professional on application of ICT in library & information activities. It keeps the abreast for new development in the field. It also covers the practical aspect of subject and gives them a live demonstration for utilization of ICT tools and technologies with modern electronic gadgets.

The major one are NISCAIR (National Institute of Science Communication and Information Resources, INFLIBNET (Information and Library Network), DELNET (Developing Library Network), Management Libraries Network (MANLIBNET), Indian Council of Social Science research (ICSSR), National Social Science Documentation Centre (NASSDOC), ADINET (Advance Information Network of Libraries in Gujarat), Defense Scientific Information and Documentation Centre (DESIDOC), Documentation Research Training Centre (DRTC), National Archives of India (NAI), Professional Associations (such as ILA, IASLIC, SIS, IATLIS), Refresher Courses and Academic Staff Colleges (ASC) – UGC. Also various university libraries and colleges at regional level and national level are organization knowledge enhancement and skill development programmes.

VI. CONCLUSION

It can be summarized here that with the advent of ICT and advancement of technology, LIS professionals need to upgrade their skills and knowledge. HRD plays a vital role to enhance the skills and competencies among LIS professionals through training and development programme.

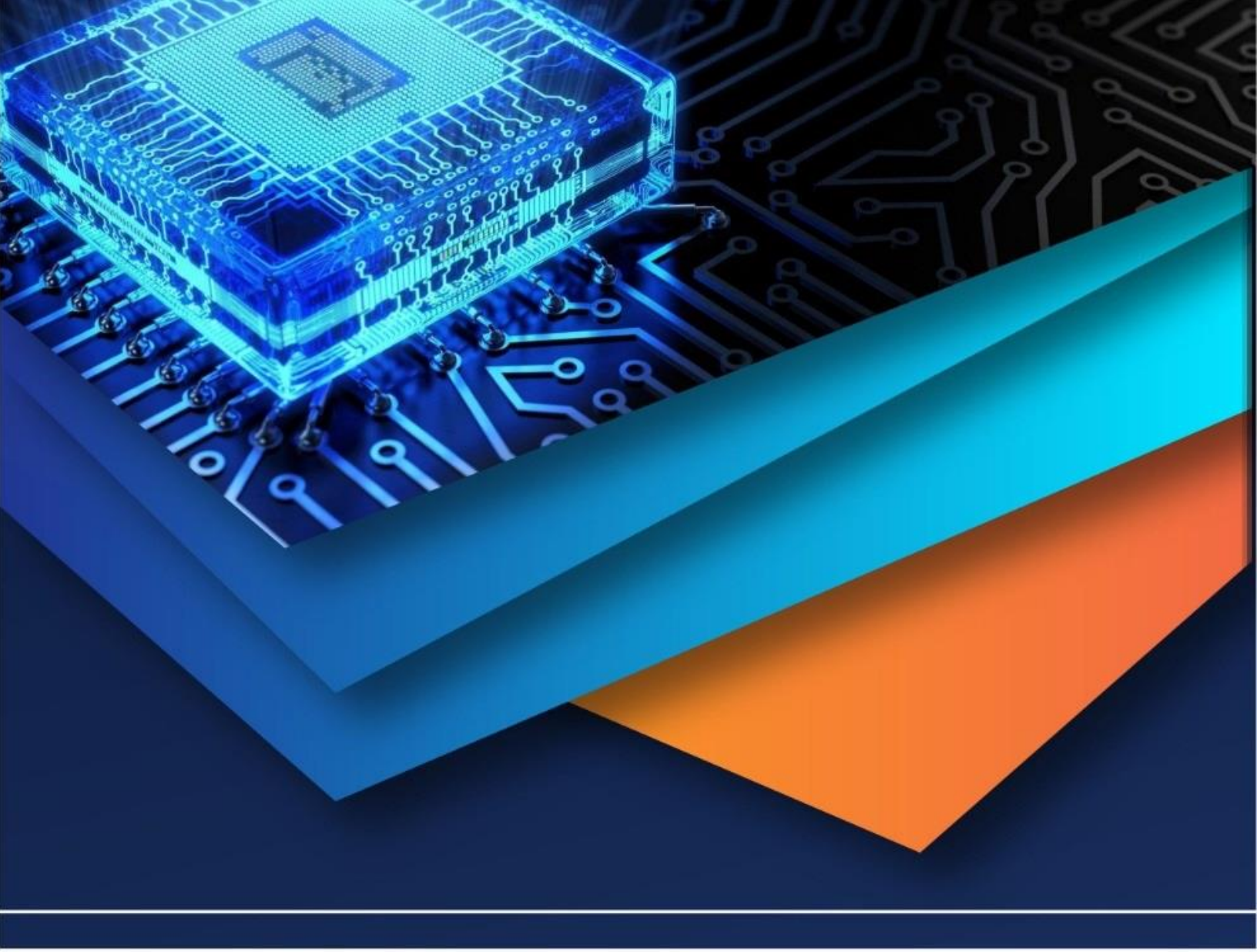
There is an urgent need for organizing more topic/skill specific training among LIS professionals to upgrade their skills for the advanced technology era. Also more institutions/organization should pro-actively take action in this regard. Training and development activities at micro level i.e. at school and college with help of university/higher institution/organization/association are also need of the hour.

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