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DEVELOPING DIGITAL LITERACY SKILLS: A FUTURE OF LIS PROFESSIONALS

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**"Digital Landscape Re-invention and Re-engineering of
Libraries: Issues and Challenges"**

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**Organised by
Maharashtra University and College Librarians Association
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New Delhi
2021**

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A/40-41, Flat no. 201, Ansal Building
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Developing Digital Literacy Skills: A Future of LIS Professionals

Mr. Sagar B. Khatale*

Librarian, K.J. Somaiya Bharatiya Sanskriti Peetham,
Somaiya Vidyavihar University, Mumbai-77

Prof. (Dr.) Ashish Raut

Librarian, Shri Shivaji College of Arts, Commerce and Science,

Miss. Ujwala V. Deorankar

Librarian Tai Golwalkar Mahavidyalaya, Ramtek

ABSTRACT: With the emergence of knowledge economy and the universal nature of information available in virtual and digital format leads the information professionals to equip with these forms and formats and literate themselves to adopt these new technological changes. The Traditional skills are no longer adequate for those who want to be effective professionals in the new electronic era. To provide effective services to their patrons, LIS professionals need to be competent in emerging areas such as library automation, database search and retrieval techniques, multimedia application, networking, design and development of library websites and digital library, and content development and management. There is need to enhance the literacy level of LIS professionals about digital resources they used. It is appropriate to intensify to what extent the LIS professionals possess sufficient knowledge of new digital technology which is essential for effective management of libraries. It's a need of the hour to find solutions to improve the quality of library services and the Digital Literacy skills of staff working in library and information Centers.

KEYWORDS: Digital Literacy, LIS Professionals, Digital Literacy Skills

1. Introduction

The ever growing digital information and its diverse sources on the web are producing new challenges for recognizing and accessing authentic information. Digital technology has changed the way we communicate, play and learn and opens a new ways and doors of using information virtually. Communicating and collaborating on content can be facilitated through variety of online platforms. With all this new opportunities, new requirements and responsibilities are arising for everybody. One needs to understand how to evaluate and look at the authenticity and validity of the information available. Literacy of digital devices and contents is the necessity of this new era of information. Constraints in acquiring the effective use of new information and communication technologies emerge the necessity of digital literacy and the skills to sustain in new digital era.

Digital Literacy is all about using technology confidently, creatively and critically to meet the demands and challenges of living, learning and working in a digital society, but its more than that, being a digitally literate person means having capability of communicating in all connected areas, can able to search, navigate and locate information in digital environment. It is basic skills that include effective use and reproduction of digital media, information processing and retrieval, active participation in social networks for creation and sharing of knowledge and exhaustive professional computing skills. After finding required information, it is necessary to apply the critical thinking skills to check the relevancy of information to our research needs. Digitally literate person can organize, manage and curate the required information in a systematic way that one can find the required information with ease. Another digital literacy skill is being able to create, construct and generate digital artifacts and digital identity like developing an online presentation, writing digital assignments, making a video about specific research area, etc. As a part of being a professional in a digital world also require the ability to communicate, connect and collaborate with others to share information or to be involved in group projects one need to do all the things using a variety of technologies and not just technology of today but with new things too with always adopting and changing. Being a flexible and capable in digital literacy is a great thing like key to success. Digital Literacy is the amalgamation of the two terms digital and literacy. Digital information is a systematic and symbolic representation of the data and facts and literacy refers to the ability to read for knowledge, write coherently and think critically.

2. Definitions

Paul Gilster who introduced the concept of digital literacy in his book *Digital Literacy*, defined that *"The ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers"* (Gilster, 1997). Cornell University defines Digital Literacy as 'the ability to find, evaluate, utilize, share and create content using information technologies and the internet'. Digital Literacy skills are those that enhance a user's ability to navigate, locate, read, organize, interpret, share, evaluate, and create texts, images, and sounds with digital tools in a digital environment (Kady and Vadeboncoeur, 2017). It is an extension of information literacy. It deals with electronic and digital information resources. It is necessary for the correct use of various digital platforms. It is also a person's ability to perform tasks effectively in a digital environment. Digitally literate humans are likely to be economically secure, as many jobs require a working knowledge of computers and internet to perform the basic tasks. Literacy

about digital resources includes knowledge, skills, and behavior involving the effective use of digital devices such as smartphones, tablets, laptops and desktop PCs for purposes of effective use of digital information.

Qualities of Digitally Literate Person:

American Library Association in 2012 stated the following features of digitally literate person (Ganaie, 2013):

- a) Possesses the variety of skills – technical and cognitive – required to find, understand, evaluate, create, and communicate digital information in a wide variety of formats;
- b) Is able to use diverse technologies appropriately and effectively to retrieve information, interpret results, and judge the quality of that information;
- c) Understands the relationship between technology, life-long learning, personal privacy, and stewardship of information;
- d) Uses these skills and the appropriate technology to communicate and collaborate with peers, colleagues, family, and on occasion, the general public; and
- e) Uses these skills to actively participate in civic society and contribute to a vibrant, informed, and engaged community.

Significance and Importance of Digital Literacy:

In the present technological era, enormous amount of information is generated in every discipline. To meet the growing challenges posed by the rapid production of information, libraries adopt digital innovation with the help of information and communication technologies to accelerate the process of information processing, organization, storage, retrieval and dissemination.

Over the past decade computer and other communication technologies have revolutionized human society. The digital revolution has given birth to digital libraries and electronic material with the increasing development in the World Wide Web results fast transforming library services and librarians roles. Libraries all over the world have been faced with the evolving technological advancement, globalization, and digitization of information. These have led to library automation, digital and virtual libraries. There are various types of information resources exist in different locations, modes, formats, channels in the form of e- resources like online journals, e-books, databases, organizational websites, Institutional

Repositories etc. in different subjects. Use of these technological information resources in the library and information centers is the need of the time, so it is must for LIS professionals to literate themselves and learn these digital advancements to be more equipped for resource sharing, social networking, surfing the net, instant messaging and blogging and host of others digital oriented activities to provide effective library services to the patrons. Digital literacy helps LIS professionals to develop their skills that can improve their overall job performance and standard of living.

Indian Approach to Digital Literacy with Special Reference to LIS Profession

Application of Information and Communication Technology (ICT) in Library and information centers in India has shift the role of libraries from the storehouse's of books to knowledge base service oriented institutions mainly concerned with the effective access of information available in various formats. Academic Libraries associated with higher education in India are acquiring the benefits of the initiatives taken by University Grant Commission in the form of Information and Library Network (INFLIBNET).

Inflibnet

INFLIBNET is an autonomous inter-university centre initiated by University Grants Commission in March 1991. Inflibnet is the main advertiser of the application of digital revolution in India. It has launched many educational programs in India to promote digital contents. Some of the programs are INDCAT, UGC-INFONET, N-LIST, Shodhasindhu, Shodhganga, Shodhagangotri, Shodh Shuddhi, OJS, SOUL, etc.

Early initiatives are taken by Indian government to promote digital literacy and skills among LIS professionals with the programs like SWAYAM.

Swayam

Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) is the mission of Government of India under "Digital India" initiative to provide a wholesome platform and portal for online courses to achieve the principles of educational policy i.e. access, equity and quality. SWAYAM covers all higher education, high school education and skill sector courses. It is the product which is made in India for hosting the Massive Open Online Courses (MOOCs). The major objective of this platform is to provide finest teaching-learning resources to each and all.

Nine National coordinators have been appointed to produce and delivered the best quality content. They are:

1. AICTE (All India Council for Technical Education)
2. For self-paced and international courses
3. NPTEL (National Programme on Technology Enhanced Learning)
4. For Engineering
5. UGC (University Grants Commission)
6. For non-technical post-graduation education
7. CEC (Consortium for Educational Communication)
8. For under-graduate education
9. NCERT (National Council of Educational Research and Training)
10. For school education
11. NIOS (National Institute of Open Schooling)
12. For school education
13. IGNOU (Indira Gandhi National Open University)
14. For out-of-school students
15. IIMB (Indian Institute of Management, Bangalore)
16. For management studies
17. NITTTR (National Institute of Technical Teachers Training and Research)

For Teacher Training programme

SWAYAM by Numbers

Table 1: SWAYAM by numbers

Sr. No.	Particulars	Numbers
1.	Partnering Institutes	203
2.	Completed Courses	2748
3.	Student Enrollment	1,25,41,992
4.	Exam Registrations	9,15,538
5.	Successful Certification	6,54,664

The basic demand of the every profession is to get professional education with technological advancement and SWAYAM provides a great platform to professionals of Library and Information Science to learn digital technology through various

online courses from various national coordinators. So far various courses are taught on this online national platform and these are:

Table 2: Library and Information Science Courses on SWAYAM Platform

Sr. No.	Name of the Course
1.	Document Processing and Organization
2.	Information Sources and Library Services
3.	Database and Content Organization
4.	Library Automation and Digitization
5.	Information Storage and Retrieval
6.	Information and Communication Technology for Libraries
7.	Management of Libraries and Information Centres and knowledge Centres
8.	Information Sources System and Services
9.	Digital Library
10.	Knowledge Society
11.	Emerging Trends and Technologies in Library and Information Services

These are the initiative by the Indian government to educate LIS professionals to sustain in new digital era of digital information and to achieve the mission of creating India as knowledge based country. As a center of information and as a heart of any institution, Libraries or Library professionals must literate themselves with the new digital technology to cope up with the digital requirements of the stakeholders. Librarians can literate themselves by various digital literacy skills.

Skills of Digitaly Literate Lis Professionals:

Advancements in information services have gone far beyond in the last few years. The diversified changes are happen in information processing and servicing industry. The core role of information specialist is changing from information gatekeeper to information provider and these changes offer great opportunities for progressive librarianship to reach out far beyond the boundaries of their buildings and web portals, and to engage with an increasingly literate body of information customers.

Library and Information Science (LIS) Professionals can develop the variety of skills and qualities to come up with effective and efficient services to cater the needs of information seekers. They must educate themselves to adopt various

digital information skills to sustain in current digital world. Some of the skills are as follows:

1) Computing Skills (Hardware and Software)

a. Using digital devices

LIS professionals must use devices like laptop, desktop, tablet computers, mobile phones, storage devices like pen drive, flash drive, input devices like key board, scanners etc. to effectively facilitate the information needs of patrons.

b. Operating system software and application software

Systematic and operational operating of system and application software is a need of the hour. Librarians should also grasp these technological advancements to cope up with the demand of information. System software is used to provide a platform to smooth functioning of other software's. They include operating systems like Linux, macOS, Microsoft Windows, etc. Application software is a program specially designed for the end users. It includes educational software's like Encyclopedia, Dictionaries, word processing software's like MS Word, Notepad, Spreadsheet software's like MS Excel, Database software's like oracle, MS access, etc.

c. Downloading and installing educational software

Proper selection of required software is again a professional skill which requires knowledge of demanded information. Information catalyst must have computing skills like downloading and installing educational software's from the web.

2) Skills of creating online information

a. Creation of e-content

E-content means electronic content which includes audio-video, text, graphics, animation, images, etc. in electronic form. Information professionals can create their own e-content using above forms. They can create educational videos with quality audio and video output, can create attractive power point presentation for their teaching learning, they can use vi-

sual graphics and animation to show the collection and other library activities to their patrons.

b. Starting and managing an online discussion

Online discussions can enhance the attitude of learning and can serve as central learning hub for online learning community. Librarians must have the ability to start their own message threads or can leave their responses on other posts of online discussions. Thus they can openly swap their ideas and views to expand their knowledge and views.

c. Creating and writing a web page

A web page is a hypertext document connected to World Wide Web. Library educators can create their own web pages and facilitate end users of information by creating or collecting required information from a web. They can also comment their views on other web pages.

d. Creating own digital learning material

Digital learning materials are published in digital format. With the accurate and effective use of digital media, digital professionals can create their own learning material digitally like e-textbooks, e-workbooks, videos, e-tests, etc. is some of examples.

3) Skills of organizing online information

a. Creating website

LIS professionals can create their own library website using content management software's like Joomla, Drupal, wordpress, HubSpot, Sitecore, etc. where they can display and advertise the library activity, can provide easy and hassle free access to information which improves productivity with your own internet identity i.e. your website.

b. Creation of institutional digital repository

Information curators can create their own Institutional Digital Repository (IDR) to opens the wholesome outputs of the institutions in front of the worldwide audience. IDR facilitates the development of e-content with storing of digital teaching materials and provide access to digital material

with a location to support information seekers endeavours. DSpace, Fedora, EPrints, Greenstone, etc. are some of the IDR software's.

4) Skills in finding online information

a. Browsing databases

The major objective of the LIS professionals is to find the required information. The databases which are associated with library are more focused on scholarly books and articles. Librarians can use their professional skills to browse databases using various searching options like advanced search, federated search, Boolean operators (AND, OR, NOT), discovery service, etc. to find the accurate and appropriate information.

b. Evaluating useful online learning resources

LIS professionals can connect people and technology with information in context of research needs. Evaluation of online learning resources is the core part of information management. One must check the accuracy, objectivity, reliability and credibility of online learning resources.

c. Looking for online professional development opportunities

Many LIS courses are available on the platform like Swayam. Swayam is an initial IT platform made in India for hosting the Massive Open Online Courses. Library professionals can join these courses to stay themselves updated and to know the new trends in the profession.

5) Skills of communicating and sharing online information

a. Sharing through social media

Digital media is very rapid in nature and most commonly use in digital community. Librarians can share the created or collected information using these social platforms which includes Facebook, Twitter, WhatsApp, Linked in, Instagram, YouTube, Telegram, etc.

b. Sharing by email

Email is still one of the effective and most commonly used platform of document exchange on the internet in modern communication. Librarians must develop the ability to share document using email.

c. Audio-Video conferencing

One of the effective ways to communicate online is audio-video conferencing. Librarians can share the required information through these types of conferences.

d. Chat Rooms and forums

This is the place on the web where professionals can communicate and share their interests with others. A forum is a type of website that allows professionals to start a discussion, post questions or can contribute to various discussions.

Other Digital Literacy Initiatives in India:

1) National Digital Literacy Mission (NDLM)

NDLM is a mission of Indian government with a vision to literate at least one person from each house with crucial digital literacy skills. The target of the government is to educate more than 250 million individuals over the next few years. The main aim of the mission is to help the adults with low technological literacy and develop their skills to meet the needs of an increasingly digital world. NDLM is a platform of digital literacy awareness and education that will help rural communities to stand in global digital economy.

The various stakeholders for the Mission are:

- a) Government of India, working to extend the vision of a digital India by promoting e-governance and transform India into a connected knowledge economy.
- b) Corporate partners, who through their sustained efforts with NDLM have been harnessing collective energies to bring down the divisive digital wall.
- c) Implementation partners, who are empowering communities with capacity building and training programs through digital means.

2) Code Unnati

'Unnati' is a Sanskrit word that means prosperity, empowerment or development and the initiative delivers on all three aspects. Code Unnati is a mission of digital literacy and IT skills development. It is an initiative aimed at promoting digital inclusion in India. It is launched in June 2017 with integration of the Digital Literacy curriculum within primary to higher secondary curriculum and imparts

skills in next-gen technologies among the 21st century youth allowing employment opportunities.

3. Conclusion

Library and information centers have become major medium for communicating knowledge available in varied forms and formats. Libraries are adopting the new changes emerge with information and communication technology. Application of ICT in Libraries has changed the working pattern of Library professionals. Librarians play a role of mediator between information and its users. They are the main information locators and play a very important role in exploring online web based resources available on internet. In view of these new roles of Library and Information professionals, it is assumed that the academic world of knowledge will achieve new heights and they will surely assist for the creation of the community of digitally literate scholars that definitely support India to achieve the goal of creating a complete knowledge base society.

References:

1. Bansode, S. Y., & Viswe, R. R. (2017). ICT literacy among library professionals working in the university libraries in Maharashtra, India: A study. *DESIDOC Journal of Library and Information Technology*, 37(5), 353–359. <https://doi.org/10.14429/djlit.37.11723>
2. Code Unnati (<https://codeunnati.org/>)
3. Cordell, R. M. (2013). Information Literacy and Digital Literacy: Competing or complementary ? *Communications in Information Literacy*, 7(2), 126–136.
4. Digital Literacy. (2020, March 3) in *Wikipedia*. https://en.wikipedia.org/wiki/Digital_literacy
5. Donaldson, C., & Alker, Z. (2019). Digital Literacy. *Journal of Victorian Culture*, 24(3), 329–330. <https://doi.org/10.1093/jvcult/vcz026>
6. Emiri, O. T. (2017). Digital Literacy Skills Among Librarians in University Libraries In the 21st Century in Edo And Delta States, Nigeria. *International Journal of Library and Information Services*, 6(1), 37–52. <https://doi.org/10.4018/ijlis.2017010103>
7. Ganaie, Shabir. (2013). Role of University Libraries in Promoting Digital Literacy: Indian Perspective.
8. Gilster, P. (1997). Digital literacy. New York: Wiley.

9. Jaeger, P. T., Bertot, J. C., Thompson, K. M., Katz, S. M., & Decoster, E. J. (2012). The Intersection of Public Policy and Public Access: Digital Divides, Digital Literacy, Digital Inclusion, and Public Libraries. *Public Library Quarterly*, 31(1), 1-20. <https://doi.org/10.1080/01616846.2012.654728>
10. Kady, H. R. & Vadeboncoeur, J. A. (2017). Digital Literacy. Salem Press Encyclopedia.
11. Martzoukou, K., & Elliott, J. (2016). The development of digital literacy and inclusion skills of public librarians. *Communications in Information Literacy*, 10(1), 99-115. <https://doi.org/10.15760/comminfolit.2016.10.1.17>
12. Mondal, G. & Majumder, P. (2019). Impact of 'swayam' towards academic achievement. 6. 592-599.
13. NASSCOM Foundation. (2020, February 20). National Digital Literacy Mission. <https://nasscomfoundation.org/national-digital-literacy-mission/>
14. Soyemi, O., Ojo, A., & Abolarin, M. (2018). Digital literacy skills and MOOC participation among lecturers in a private University in Nigeria. *Library Philosophy and Practice*, 2018.
15. Spires, H. A., Medlock, P. C., & Kerkhoff, S. N. (2018). Digital Literacy for the 21st Century. January, 12-21. <https://doi.org/10.4018/978-1-5225-7659-4.ch002>