LIS WOMEN PROFESSIONALS' SKILLS ENHANCEMENT THROUGH ONLINE COURSE OR E-TRAINING

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Abstract: Due to the rapid technological change every working professional need to show their best to get promotions. To do so, they need to continuously upgrade their skills and knowledge but they do not get much more time if they are married, because they need to devote their time to fulfill family and social commitments. Online courses or e-training is the best solution for these working professionals, as they can continue their education without leaving their existing jobs. As it is flexible learning, there is no restriction on time and place of study. The fees are also affordable to these working professionals. This study revealed that a working married women with children who found Online learning framework more compatible with their multiple tasks; household chores, education, family, relatives and community at large. The findings showed that Online courses helped women to circumvent constraints of time, space, resources and socio-economic barriers thereby significantly contributing to their empowerment.

Keywords: Online courses, ICT, management, working LIS Professionals, household, learner women.

1.0 Introduction

In 21st century, the role of librarians in the digital era, remain fundamentally unchanged, though become thoroughly diverse in front of the networked digital information. Nowadays, collections are digital, spaces are for people along with and/or instead of books, access is virtual, bibliographic information is metadata, reference services are learning commons, orientation and instructions have converted into information literacy and librarianship have become embedded into disciplines and environments. Fast pacing technology and growing access have empowered the users but at the same time, divert them to seek support from librarian to overcome the information advancement. The librarians are facing challenges for both, their self-learning and teaching to hi-tech users. The expectations are to run the traditional librarianship of acquisition, technical processing, storage and retrieval with the latest tool but also likely to train, teach and guide the overburden information users. 21st century learning skills and abilities mainly based on philosophies of collaboration, communication, and creativity. The organisations intend to introduce new services and functions i.e. Research data services (RDS), digital scholarship and ICT operations are presuming existing library staff to take over instead of hiring new one and thus casting more demand for the CPD (Hotline, 2014). Continuously, developing pedagogical and professional skill are the only option left for the librarians, to acquire knowledge ahead of their users, to sustain the lifespan of library programs.

It is, therefore pertinent on the part of the Librarians to acquire new skills required for developing and managing the digital libraries. The Librarians and library and information professionals are required to acquire such knowledge and skills as the library is one of the highly IT influenced service profession. And the empowerment of library and information professionals with IT skills is aimed at providing services that are expected of, from the clientele in the new environment.

This study unveils the facts about professional development courses that working library professionals have a positive attitude towards professional skills development activities special the young library professionals to enhance their technical and technological skills.. Librarians are also utilizing their time for skills development during official timing. Library professionals are considering the professional development courses beneficial to update and upgrade their existing knowledge. The most prominent development activity is the trainings on information technology, digital library and library automation.

Working professionals do not get much more time if they are married, because they need to devote their time to fulfill family and social commitments. Online learning or e-training is the best solution for these working professionals, as they can continue their further education without leaving their existing jobs. As it is flexible

learning, there is no restriction on time and place of study. The fees are also affordable to these working professionals. The extensive use of Information and Communication Technology (ICT) in delivering online education increased quality of online education in all phases of learning. The online degrees are equivalent and at par with the degrees getting from universities and colleges and they are recognized and accepted world-wide for higher education or employment

The enhancement of skill of library professional through online learning or e-training may be an attractive and fruitful way for the skills development of library staffs. In the web based library environment the library employees can learn new development in digital area and various skills themselves by taking advantages of online training even by staying at their working place. In a webbased environment, the skilled manpower may become virtual slacker, who generally use to surf the net, write e-mail or indulge in other internet related activities during their duty hours which are not related to their jobs.

Historically, women have been locked in positions of high technical skills while men have had access to longer career ladders that have allowed them to permeate all hierarchical levels of an organization.

In general, the male librarians have the greater the mobility, the higher the likelihood of attaining administrative posts than women librarians. However, recent studies have reported that even when men and women have experienced similar mobility patterns, men have benefited from their mobility while women have not.

2.0 Objectives:
Main objective of this study is to explore the different problems facing by women working LIS professionals. So the various objectives can be stated as follow:

I. To explore the existing scenario of professional's skills development programmmes of LIS professionals in India.
II. To explore the different issues facing by LIS women professionals to acquire skills from off line mode of West Bengal.
III. Meeting the challenges through the technology flexible learning system full fill the skill gap of working LIS women.
IV. To assess the impact of Online skills development program on working women.
V. To make some suggestion and conclusion.

3.0 Professional Skills for Library Professionals
Professional skills can be thought of as flexible knowledge and skills that allow the library professional to function in a variety of environments and to produce a variety of value-added, customized information services that cannot be easily duplicated by others.

a) **Information technology skills**:
I. Hardware, software and networking skills
II. Presentation skills
III. Library automation
IV. Database creation
V. Internet use
VI. Scanning technique
VII. Content management
VIII. Digitization
IX. Web based services
b) **Information literacy**
c) **Information resource management**
d) **E resource management**
e) **Knowledge management.**

3.1 The primary reasons for the need of professional skills are given below:
o Continuing professional development is an essential part of the modern library information professional's successful career planning & prospects; The library and information science (LIS) professionals with better personal, professional and technological skills have great opportunities and bright future in the modern libraries;
o Application of new ICT into the libraries immediately requires improvement of different kinds of skills and knowledge in library information science professionals; and

o   Continuous staff training on emerging technologies is essential to learn, improve and develop various kinds of professional skills, knowledge and competencies. Some of the unique competencies of the library and information science professionals are as such

o   **Strategies of Skill development for Library & Information Professionals**

Strategies are usually the measures, approach, and scheme, plan of action, schedule, blueprint, master plan or game plan adopted by organizations, institutions, governments or individuals in order to carry out any action for the purpose of accomplishing tasks.

Several authors have suggested various methods that can be used by Library and Information Professionals LIPs to improve their skills. The following the avenues can be exploited by LIPs for Skills development;

(i)   Enrolling for regular or short courses online through the Massive Online Open Course (MOOC) platform or course era.

(ii)   Participating in specialized training programs/workshops on emerging areas librarianship of interest organized by local, national, regional and international library associations

(iii)   Formal training programs (full-time or part-time) in recognized and accredited educational institutions

(iv)   Applying for grants/scholarship opportunities such as the full-bright scholarship program and the others.

(v)   Attending seminars, symposia, public lectures, roundtables and other for a where performance can be enhanced. Seminars, workshops, conferences roundtables etc. Should be organized by different sections of NLA and opportunity should be given to the LIPs to participate in capacity trainings outside the library.

(vi)   LIPs should be highly encouraged to develop their professional skills by participating in advanced studies, research programmes, etc.

(vii)   In-house training programs should be vigorously pursued by library and information centers.

5.0 Different Skills development Programmes for LIS Professionals

- Due to various courses, new skills, abilities, knowledge and expertise enhanced. Numerous changes in IT, software and hardware, professional skill development courses covered that gap to perform well in professional career. Most importantly IT skills, managerial assistances, communication and research skills were very necessary to tackle the library operations and to meet the needs of the users.
- Distance Education/e-learning
- Web based tutorials (YouTube, Webinar)
- Professional talks
- Networking with other professionals
- Symposia
- e-discussion group among professionals
- Refresher courses
- Sabbatical/ exchange programmes
- Personal Training/Self study

6.0 Benefits of Skill development programmes of LIS professionals

- It enhances with up-to-date knowledge and latest developments in the field of LIS Education to keep abreast with the latest developments. ICT use in library this course helps LIS professionals to acquire skills in using the latest strategies, models, and techniques in teaching.

- It equips with ever-increasing digital skills and competencies to manage hyper-connected, knowledge environment to best prepare future LIS professionals for the 21st Century, a world where the only constant they know is change.

- It improves the scientific temper to be followed in their actions and thoughts.

- It upgrades the knowledge and abilities in organizing seminars, conferences, symposium, workshops, etc.

- It increases the competency in motivating and providing guidance and counseling for prospective LIS professionals.

- It enables to contribute and participate in the construction and revision work of curriculum construction, preparation, and revision of textbook, etc.

- It upgrades competencies in doing a continuous and comprehensive evaluation, criterion and norm-referenced evaluation, electronic/on-line evaluation of the students learning.

- .It strengthen and upgrade their abilities in playing numerous roles like a guide, educator, trainer, resource person, counselor, facilitator, researcher, community leader to help prospective LIS professionals to become an intellectual, skillful and value-based LIS professionals and citizen in this rapidly changing world.

Benefits of Training:

- Training is a significant tool for employee development. Training has assumed great importance because of exceptional rate of change in the internal and external organizational environment. The importance/benefits of trained personnel towards organizational development are as follows;

- They enhance existing skills and knowledge can be enhanced or updated, enabling people to further improve proven strengths and improve in confidence, capability and competence. They acquire new skills and knowledge. They can respond and adapt to the changing technology well.

- They can show higher performance by making optimum and best utilization of the materials, tools, equipment's and other resources provided to them.

- They can cope up with changes happening around them. personally coping with change

- They collaborate between the different groups of the employees as a method to accomplish tasks and achieve objectives

- They will be more effective in satisfying customers" needs and will improve their knowledge about the product and services for improving the productivity of the organization

- They improve their knowledge the new learning methods, their skills, abilities to perform task and their attitude towards the organization and improves the behavior of the employees

- They improve speed and promptness of the customer service

- They do not require tight control and supervision as they are well aware of how to perform a job

- They minimize wastages of resources in the organization and work both efficiently and effectively

7.0 VARIOUS AGENCIES IN PROVIDING LIFELONG LEARNING FOR LIS PROFESSIONALS IN INDIA

In addition to Department of Library & Information Science of different universities and Institutions, some other organizations have also been working for the skill enhancement of library professionals in India.

7.1Technological Skill Enhancement Programmes for the Library and Information Science Professionals in India by given below agencies:

- **INFLIBNET** also regularly organizes SOUL Training Programme & ILMS Training Programme for the working library professional, for making them technologically skilled so that they can use the soul package in their respective libraries in a proper way and face no problems.
- **PLANNER** is another important activity of INFLIBNET to make the library professional of NE India conscious about the advance application of technology in the library automation and networking. This type of seminar can play a principal role in promoting skilled manpower in LIS sector. PLANNER 2007 is going to be held at Gauhati University on coming 7-8 December.
- **Central Reference Library, Kolkata** has been organizing an **Apprenticeship programmes** for the library and information science students. In this one-month duration training programme a group of LIS students, each batch generally containing five students representing from different India universities, are practically trained to work in a real library environment and to use software packages i.e. LIBSYS, GIST etc. This type of 'earn & learn' training is very beneficial both for the students and the Library & Information Science profession itself.
- **Indian Association for Special Libraries & Information Centers (IASLIC)** is also working for improving the technical efficiency of the library and information professionals.
- **NISCAIR** organizes different IT related short-term courses for enhancing skills among the professionals whole the year. CSIR-NIScPR conducts training in the field of science communication, library automation, digital repositories, open journal systems software, website development etc. During these training programmes participants are mainly trained in open source software like Linux, Koha, Dspace, OJS,

Joomla etc. Skill Training in Library Automation and Digitization conducted during 25 October - 05 November 2021.Skill Training in Library Automation and Institutional Repositories for Library Professionals conducted during 25 October - 18 November 2021.

- **NISSAT** encourages and supports variety of skill development programmes for the library and information professionals on CDS/ISIS, WINISIS, TQM, Internet and web design etc
- **DESIDOC and NASSDOC**, two national documentation centers also arrange different short-term training programmes for the professionals to acquaint them with the latest advancement in information & communication technology and its application to the library & information centers.
- **NIRD o**rganized a six-day workshop on the topic 'Information resource management using IT' for the library professional at NIRD, NE Regional Centre in Guwahati and practically trained them how to use the GREENSTONE and KOHA software packages in the library housekeeping operations. They supplied these software packages free of cost to the participants to motivate them towards using this technology in their libraries.
- **Trust of Assam in collaboration with National Library of India and RRRLF, Kolkata** organized a four-day national workshop-cum-training programme on preservation and digital conservation methods of the printed documents and manuscripts for the library professionals and the archivists. These types of practical-oriented skill enhancement programmes are very necessary and prolific for the library staffs, which can introduce them with advanced technology and refresh and retrained them with various technological skills.

Institute	LIS Course
Tata Energy Research Institute (TERI),	For LIS professionals, it has organized **International Conferences on Digital Libraries in 2004, 2006 and 2008.** The duration of these conferences was three days each. The major **objective** of the conference is to enhance the understanding and sharing views amongst LIS professionals about the various aspects related to Digital Library. Besides the International Conferences, TERI has also organized three day National Workshop on Building Digital Archive using Advanced Features of Green Stone Digital Library (GSDL) to train and Capacity Building of LIS Professionals in developing and setting up Digital Libraries using Open Source Software.
Indian Institute of Technology (IITs)	Their involvement in promoting and improving knowledge and skills of LIS professionals through short term courses is appreciable and in this series **IIT, Kharagpur** had **conducted a three day National Workshop on Information Management in Digital Libraries and IIT Madras a National Workshop on LIS Teachers and the Digital Future**. The main **objective** of the workshops is to Strengthened academic collaboration and strategic alliance in the digital library development initiative in India.
National Informatics Centre (NIC),	NIC conducts various Training courses for LIS professionals (beginners and experts) to orient and enhance their knowledge about the various Biomedical Information Retrieval Programmes and also organized workshop on E-publishing and digitization.
National Institute of Health and Family Welfare (NIHFW),	A five days Training Course of IT Application in Libraries and Information Management to enhance the knowledge and skills of LIS professional in using Latest Information Technologies.
Institute of Health Management and Research (IHMR), Jaipur	Organized a National Workshop on Building digital Libraries using GSDL and Dspace to orient and train LIS professional regarding building digital repositories by using Open Source softwares. The Library Professionals get benefited and acquainted with various aspects related to developing digital repositories.
National Institute of Fashion Technology (NIFT), New	For LIS professionals, the institute organized three day National Conference on Changing information Landscape: Impact of ICT, and a three day International Conference on Building Knowledge Repository: Cross Sectoral Collaboration.

Delhi	
JP Institute of Information Technology (JIIT), NOIDA, UP	It organized a two day National Workshop on Building Digital Libraries and International Symposium on Emerging Trends and Technologies in Libraries and Information Services for strengthening skills and knowledge of LIS Professionals.
Delhi College of Engineering, New Delhi	To update the knowledge of LIS professional in the area of information literacy, it has organized a one day seminar on Sensitization Workshop on Information Literacy.
Centre for Science and Environment, New Delhi	In the area of Library and Information Science, CSE organized a four day Training Course on Managing Information Resources in the Digital Age.
MS Ramaiah Institute of Technology, Bangalore	To promote and orient to the librarians in developing digital libraries, it has organized a three day National Workshop on Developing Digital Libraries using Dspace Open software.
Central Drug Research Institute (CDRI), Lucknow	In the area of LIS, it has organized two day National Seminar and Convention on Library Legislation and Development.
National Institute of Science Communication and Information Resources (NISCAIR), New Delhi	It has been conducting regular course on Associate-ship in Information Science which is equivalent to MLIS. Beside this course, NISCAIR is running other courses to build core **competencies in LIS** Professionals on the current issues. Few courses are: l **Library Automation and Resource Sharing. l Patent Drafting. l WINISIS. l Recent Trends in Library and Information Science**.
Defence Scientific Information & Documentation Centre (DESIDOC), New Delhi	It has organized following short term courses to build the capacity of LIS professionals in the concerned areas: l Accessing information and Data commutation; l Multimedia Application in R& D; l Total Quality Management in Libraries; l Multimedia and Digital Library; l Library Network, Databases and Information Management System Devices; l E- Publishing Technical Communication; l Multimedia, Web Designing and Digital library system; l Multimedia Imaging and Digital library; l Library Automation and Services; l Digital Library and Institutional Repository; l Current Trends in Digital Information Management; and l Multimedia Technology.

7.2 Academic Staff College under University Grants Commission (UGC)

The UGC in India established ASCs within the administration of a university to impart the skill development programmes for teachers and practitioners. The Orientation Courses and the Refresher Courses are the two streams organized by the ASCs., and for the LIS practitioners as well as for educators' number of general and theme-based programmes are organized by them which will help in empowering the participants to acquire the necessary knowledge and skills in teaching, research and practice**. An attendance to skill development programme has attracted many professionals in their respective areas and has become one of the very popular beneficial promotional activities.**

8.0 Barriers of Off line courses/training for working women professionals:

    Issues related to acquiring skills from offline mode in West Bengal are discussed below:

- **Geographical distance**: In many cases, interested librarian cannot attend the courses in time for long distances. Sometimes it is not possible for them to attend training courses, even though they are interested to learn from eminent resource persons.

- **Limited seats:** As our training center has limited seats, sometimes interested participants have to wait for a long time to get chance in a nearer HRDC. Very often willing librarian do not get chance to attend the course in time.

- **Inappropriate Course Time:** Schedules of such courses are often not appropriate for few interested in service librarians because sometimes they cannot take part for their busy schedule and academic activities. Unsurprisingly, they have to wait for next opportunities.

- **Institutional problems:** Sometimes institute also become a strand to pursue training as institute often ignore young librarians to give 'no objection certificate' in time and as a result, they fail to join a course.

- **Excessive administrative control by the academic head**: Various organizations are suffering due to lack of healthy relationship between Librarians and head of the institution. Academic heads often exercise their power in pressuring librarians to fulfill academic duties only and stay away from participating in skills development programmes.

- **Problem relating to obtaining permission for higher studies**: Another important issue is obtaining permission for higher studies from head of the institution. Although there are rules of having leaves for doing higher studies but unfortunately head of the institution, higher education department often shows less interest in this regard. Even they make unnecessary delay to give the permission for such leaves. Librarians have to do the different courses such as OP, RC and STC for their promotion which are compulsory but unfortunately these courses are viewed as optional and the head of the institution shows minimal interest to give such permission.

- **Problem relating to obtaining permission for attending /presenting paper in national and international seminar or conference offline**: Problems for obtaining permission for attending or presenting papers in different seminars and conferences etc is another serious issue. Librarians also need to attend or present paper in different seminars of national and international for widening the horizon of knowledge but sometimes it becomes difficult to get the permission to attend or present the papers in these seminars or conferences. However these are very necessary for carrier improvement, promotion, academic and knowledge enhancement purposes also.

- **Shortage of leave:** Colleges do not provide extra leave. So librarian cannot attend the course outside the state. They do not have P.day or Onduty. Teachers get **Only 2 days are given as on duty before and after the tenure of course**. So, librarian have to take leave from his own account to attend a outstate training

- **Individual problems**: Mother LIS Professionals' participation in the in-service training courses is very minimal. A mother educator has to look after her baby and household works side by side of her work. She faces many barriers such as long distance of training sites, lack of security in training centers, and also family pressure not to attend the training courses. Very few training center provides accommodation for the caretaker of baby in training centers, so for the tenure of training, mother librarian have to arrange different accommodation outside HRDC, maintenance of both is quite a tough job for a mother. Additionally, single male member of families have lots of responsibility. If he became absent in his family for a long period suffer different problems. Household works, different official works etc. Similarly, aged librarians suffer different problems in travelling and sitting long duration in learning sessions.

- **Expensive offline courses:** High Course Fees, travelling expenses and accommodation charges of offline courses also adds more to these problems.

9.0 Meeting the issues faced by women LIS professionals

The above issues can be solved by technology enabled flexible learning system (TeFL). The TeFL system because of its inbuilt learner friendly feature and flexibility has the potential to enable the learners to deal with the challenging and difficult task of acquiring skills. Through flexible learning methodology and with the help of Information and Communication Technology (ICT), virtual laboratory and virtual workshop a large number of persons can be trained / retrained with a specific skill. The existing work force can also take advantage of re-training or upskilling through the TeFL. Online education offers great opportunity for working professionals as they cannot leave their jobs to pursue higher education. Online education offers them a variety of courses to choose from and this can help in finding new career options for them.

Recently Government of India has allowed Open and Distance Universities to start online degree programs in the form of e-learning and virtual learning. Taking the advantage of this many renowned open universities in India like IGNOU, SMU, KSOU, etc have started various online programs in various faculties. Because of several advantages

and benefits of e-learning and virtual learning, online degree courses have attracted many professionals, housewives and students to complete their education from various academic interests without affecting their working hours and family commitments. With competition getting steeper and spiraling costs of university education, online master degree or PhD program is the only viable option. From last few years many universities have started various MBA programs in varied specialization, Masters programs in IT and computer Science, Engineering and Technology. The rapid and effective use of Information and Communication Technology in distance education improved overall distance education with online learning and virtual learning. Many universities in India have started their programs in Distance mode and running via online and e-learning platform.

Thus open and distance universities with online learning facility through e-learning and virtual learning, made it easy for working professionals to continue their further Skill development while working without sacrificing their jobs and high salaries. This convenient learning environment will help more and more working professionals to develop their skills.

This will also help to achieve the 2020 mission set by APJ Abdul Kalam, we need to increase the enrollment in higher education

A developed India by year 2020, or even earlier, is not a dream. It need not be a mere vision in the minds of many Indians. It is a mission we can all take up - and succeed." – Mission 2020 by A P J Abdul Kalam.

10.0 Existing scenario of online professional development of LIS professionals in India:

Faculty Induction Programme

UGC has developed Faculty Induction Programme (FIP) for all the newly recruited teachers. The objectives of the FIP is to familiarise the teachers with the structure, functioning, rules, regulations etc; understand their roles and responsibilities; explore pedagogical processes and recognise the importance of self-development and nurturing ethics and values in higher education. For this purpose, UGC has prepared a Framework on Faculty Induction Programme and will be uploaded on website shortly. UGC has organised **workshops Training of Teachers (ToT)** at Pune, Ahmedabad, Pondicherry and Sonepat. About 640 teachers have been trained for imparting the Teacher Induction Programme. Guidelines for Teacher Induction Programme **"Guru Dakshta"** were launched by Hon'ble Minister of Human Resource Development on 26.12.2019.

Guru Dakshta-Faculty Induction Programme (FIP) One of the mandates set by the University Grants Commission is the development and implementation of a high quality Faculty Induction programme (FIP) for newly recruited faculty to improve their teaching and management skills, adjust to the culture of higher education institutions and better understand their professional responsibilities in higher education institutions. The Commission has thus, designed a formal systematic Faculty Induction Programme (FIP)-Guru Dakshta for transition of newly recruited faculty into the teaching profession. As per the guidelines, it is mandatory for all newly recruited faculty members to go through the FIP within **one year** of their joining service and implementing the FIP will be the responsibility of the UGCHuman Resource Development Centres (HRDCs). HRDCs at present are conducting Orientation Programmes for teachers to achieve desired goals of imparting basic skills and sensitivities which a teacher needs for effective class-room teaching and making himself/herself sufficient and keeping abreast of new knowledge. The entry-level Assistant Professors (Level 10) is eligible for promotion under the Career Advancement Scheme (CAS) through two successive levels (Level 11 and Level 12), provided they have; i. Attended one Orientation Course of 21 days' duration on teaching methodology; and ii. Completed one Refresher/Research Methodology Course.

No. of Beneficiaries under Guru Dakshta-Faculty Induction Programme for 2019-20, 2020-21

Number of Universities	Beneficiaries	
	2019-20	2020-21
33	12580	3818

Annual Refresher Progamme in Teaching (ARPIT) A unique initiative of online professional development of in-service teachers' of higher education' using MOOCs platform SWAYAM-Annual Refresher Progamme in Teaching (ARPIT) was launched by MHRD on 13th November, 2018. The ARPIT is 40 hour programme with 20 hours of video content offered in a highly flexible format which can be done at one's own pace and time. The progrmme has built-in assessment exercises and activities as part of the academic progression in the course. At the end of the course, there is a provision for terminal assessment which can be either online of written examination. It has been decided by the UGC that successful completion of the courses offered under the ARPIT programme with 40 hour of instruction material with a proctored examination will be treated as equivalent to one Refresher Course for the purposes of career Advancemen.It was claimed that 15 lakh higher education faculty would be trained using the MOOCs platform- the SWAYAM portal. In the first phase, 71 discipline- specific universities and institutes were notified as national resource centres (NRCs) and were tasked to prepare online training material with a focus on

latest developments in the discipline, new and emerging trends, pedagogical improvements and methodologies for transacting the revised curriculum (MHRD 2019). The training materials were uploaded and made available to any in- service teacher, irrespective of their subject and seniority on registration. More than 50,000 teachers registered in these courses but only 5,478 appeared in the terminal assessment (Banchariya 2019),which is about 10% of the total.Currently, SWAYAM offers several courses for the certificate, diploma, undergraduate, and postgraduate learners as well as refresher programmes/faculty development programmes for teaching, equivalent and other self-paced learners. This platform provides an opportunity to learn something new with its freely accessible material, video tutorials and to update professional knowledge

Emerging Trends & Technologies in Library & Information Services (ETTLIS)

The course has been designed and developed at IIT Delhi and has been named as Emerging Trends & Technologies in Library & Information Services (ETTLIS) and is being offered through the SWAYAM platform

the ARPIT Program has about 1,42,718 enrolments in 48 courses running through National Resource Centres (NRCs), identified with a focus on the latest developments in the various disciplines, new & emerging trends, pedagogical improvements, etc. A total of 2980 learners were enrolled in ETTLIS and out of this, 1784 learners have completed their assessments. The ARPIT courses are open to the global community with the contents available through Videos, PPTs, Text, and Assignments through different week-wise modules. Weightage has been given for both continuous assessments and term-end examinations conducted through National Testing Agency through online test centres throughout India. One needs to score at least 50 per cent overall to obtain the certificate. However, there is flexibility for learners to join the course for the purpose of professional upgradation only without appearing for the evaluation1To fulfill this purpose, the ETTLIS coordinated with relevant resource persons from industry, academia and LIS profession and developed the Video and Text contents.

The course may help to improve the managerial, communication, presentation, customer services, commitment, evaluation, assessment and soft skills of the professionals. So the purpose of this ARPIT-MOOCs is to expose learners regarding emerging trends and technologies in library and information services like Library Automation, Digitalization, KM, ERM, QR Code, RFID, Reference Management, Disruptive Technologies, Virtual Reference Services, Content Management, Profiling System, Discovery Services, Web 2.0 & 3.0 based Services, Use of Social Media, Rankings, Remote Login, Cloud Computing, Scientometrics, Altmetrics, Mobile-based Library Services, Internet of Things, Augmented and Virtual Reality Tools, Semantics, Artificial Intelligence and

Library professionals have great opportunities and bright career prospects as long as they continue to improve their professional and technological competencies.

The course help to improve the Managerial, Presentation, User Services, Commitment, Assessment and Soft Skills of the Professionals using Videos and Text and it will have about 20 hours of video contents from domain experts and about 20 hours of non-video contents. The duration will be 16 weeks and the course is treated as equivalent to one Refresher Course as per the UGC.70% weightage will be for Term End Exam, to be conducted by NTA and 30% for Internal Assessments. Discussion Forum will be available to answer the queries. Certificate and Marksheet will be issued after successful completion of the course as per the ARPIT requirements.

11.0 Online learning services

11.1. Academic Earth   http://academicearth.org/

The site offers 750+ free courses, consisting mostly of video lectures, from Carnegie Mellon, Columbia, Cornell, Dartmouth, Johns Hopkins, MIT, New York University, Notre Dame, Oxford (UK), Princeton, Stanford and UC Berkeley. The catalogue offers a broad spectrum of academic subjects, but is far from complete. e. In addition, some of the links no longer work, so the site maintenance clearly has some issues. Most video lectures are hosted by YouTube or iTunes U.

11.2. Alison   https://alison.com/

Alison is a free online educational platform that focuses primarily on professional skills. Alison currently offers 1,000 free online courses, nearly 13 million students and 2 million alumni from 195 countries. Alison's publishers are situated in Australia and the United Kingdom as well. The quality of the courses on offer varies enormously. It's wise to check the quality of the demo before you decide on a course. Even if you are not paying it is a waste of time to follow a course that's below standard.

11.3. Coursera   https://www.coursera.org/

The site offers 1,910 courses in almost any academic subject, published by 145 universities from around the world. You can enroll in timed classes, which take from 4 to 12weeks. You can audit a class for free or buy verified

certificates to provide proof of participation, which can be shared via LinkedIn. The use of well-administered discussion boards makes learning lively and congenial. There's a Coursera iOS and Android app, so you can learn and follow classes on the go.

11.4. edX5   https://www.edx.org/

The site offers 650+ courses in a great variety of academic subjects, published by 100 universities, global schools, nonprofit organizations and corporations. As with Coursera, you can enroll in timed classes, which take from 4 to 12 weeks. You can audit a class for free or buy verified certificates to provide proof of participation, which can be shared via LinkedIn. edX also has an iOS and Android app. It offers almost the same experience as Coursera, but has not so big a catalogue

11.5. Canvas Network   https://www.canvas.net/

Canvas Network has a small portfolio, but hosts some interesting courses.Lifelong learning and professional development for educators go hand in hand with Canvas Network's open,online courses,taught by experts and instutions worldwide.

11.6. Khan Academy   https://www.khanacademy.org/

Khan Academy offers courses in a variety of academic subjects, with an emphasis on maths, science and computing. All courses are produced in-house. It has a video library of over 9,000 videos.

11.7. At Open Universities Australia   https://www.open2study.com/

 Offers 49 courses by Australian universities, vocational institutes and businesses.

11.8.OpenLearn http://www.open.edu/openlearn/

Open Learn offers free learning from The Open University (UK), on an assortment of subjects

11.9. Open Learning   https://www.openlearning.com/

 Open Learning is a global platform, with a Facebook-like interface and chat function, so learning becomes really interactive.

 11.10. Udemy   https://www.udemy.com/

Udemy not all classes are free, average costs are between €20 and €50 per course. The site allows experts to create and share online courses, usually without any formal accreditation or affiliation. What these courses may lack in prestige, they often make up for in usefulness

Benefits of online workshops
- Online workshop conferencing tools contribute to their professional development (PD) and the Web-based workshop help them clarify automation concepts, installation Koha; helped them to develop multiple ways of thinking, and give them opportunities to learn about innovations in practice, new resources and skills.
- These workshops give them more comfort by learning together in a virtual environment than offline one as anybody can take part from his own place.
- They get enough opportunities to easily connect with the experts of high magnitudes through the live video sessions.
- They can have more discussions with their colleagues and reflection more on teaching and issues after the workshop in online platform without thinking much about time (e.g. evening, night etc.) and duration.
- They become confidence in using online platform and thereby become positive about their gains in facility with computer technology, making new acquaintances, learning about the development of thinking, expanding their knowledge base, and other areas.
- These workshops are valuable in increasing their technological competence, overcoming a fear of technology, and improving typing skills, since the workshop explicated new ways of integrating technology into teaching practice.

12.Advantages to the working professionals to learn online courses

Online skills development programme is a contingent solution to keep the education on-going

- **Affordability:** Online study material is affordable for all the faculties than the Offline. Especially for the working women LIS professionals, who face individual problems in offline mode.
- **Flexibility of time**: Online learning platforms are like a boon for those people who have time issues in pursuing offline courses. Due to the flexibility of time working professional can also attend the course with other works. The flexibility of online learning fits in with the demands of busy personal and professional lives.
- **Bridge the Skills gap**- Online learning is really helpful to bridge the skills gap between the male working LIS professionals and the female working LIS professionals.

61 | P a g e

- **Economic-** Cost-saving is the obvious advantages of online training and can attend the session in the comfort of their home. They do not need to go to study centers to attend contact sessions. They can save much on travelling costs. They can save their money and utilize their time, and there is no travelling involved. Also, if they miss the training, there is a chance they can access it through recorded videos, archives, or sharing tools for future reference. Staying at home and attending a training session in their room helps them to absorb more knowledge at ease.

- **Quality of content and study material:** They do not need to wait for Study material to receive. They receive up to date Web-based resources on the Internet for downloading from IGNOU's site (www.ignou.org) in MS-Word and HTML formats/SMU/KSOU websites as there are various videos and pdf available which are well prepared by the subject experts. They receive lectures from "experts in the field" and "experts from across the **world**." **with** technological and media resources e.g., video/audio podcasts. Availability of courses, procedures of the University, eligibility conditions, admission processes, fees payment and prospectus etc are in website. They get all information about the confirmation of admission accompanied by the fee receipt.

- **Self pace of leaning-** They can learn the content online, recorded video lectures which are more systematically, designed using multimedia components and instructional approaches with interactivity to learn according to their own pace of learning. As the lectures are being recorded, the learners can watch and listen it later on according to their convenient.

- **Time saver-** They can submit the assignments online. They can even give the examinations online. Simple initial assignments allowed them the time to become familiar with and gain confidence and thus prepared the way for future intellectual challenges unencumbered by technology related anxiety. They can do their work at home without wasting the time in travel.

- **Personal safety**: The security, safety and comfort of being able to take part from home also helps learners especially female and aged learners, not to bother about personal safety. Online education makes anyone feel free to learn.

- **Other benefits:** They can receive the experts' lectures online from different institution of other state and can view offline from the websites and digital libraries. Online interactive chat with peer group, faculty and external experts.
  - ✓ They can communicate and collaborate with subject experts and their batch-mates via discussion forum, video conferencing, blogging, emailing and voice chat. Such interactions occur in several dimensions. Not only participants engage with the content and with technology but they also interacted with fellow learners, the instructor, and the researcher from around the world.
  - ✓ Web 2.0 + tools and more developed technologies enable learners and teachers to use smoother experiences for online discussions.
  - ✓ Use of social networking sites which are available on major mobile and i-pad devices, made the learning more enhanced and available at any time.
  - ✓ Moreover, online platform helps in the case of immediate feedback of online test and quizzes.
  - ✓ To get chance as a Senior basis but online provides the equity in training that is needed for individuals to have equal opportunities at becoming highly qualified teachers in a highly specialized field.
  - ✓ Because of the large number and variety of online professional development learning opportunities available, practitioners are likely to find a match for their specific needs, abilities, subject interests, and technical requirements
  - ✓

These are few advantage of online learning and such listless benefits of the online learning helping in gaining popularity among the teachers and the learners in higher education recently.

13. Impact of Online Skill development programmes on working women
The following were responses of Working LIS professionals on the impact of Online Skill development programmes on women;
- earning a further degree improved working women's skill
- women do not have to stay on campus for studies to earn degrees

- Online model's flexibility allowed women to study at their own pace and time so it helps to reduce stress level and improve productivity
- enabled women to mix education with other commitments especially household tasks, family and work
- enhanced their promotional opportunities
- increased women's career opportunities

13.1 Case Study: Synchronous mode Online RC(HRDC)

I attended Online RC(HRDC) Sagar

Advantages of Online RC(HRDC)

It was more convenient for me in terms of organising my time. I am a busy working mother of one daughter and so time is precious. I prefer to study in my home with care of my daughte. I live with her and I could not commit to attend classes long time. This option worked best for me as I could manage my family life and study life well. I did not have adequate time and software to practice requisite skills at home during courses. because there are a lot of feed back in every day RC HRDC. I have published one research articles in a Peer-Reviewed journals." **(j.k,college librarian)**

I get discussion opportunities with peers and the instructor so we discuss learning content with peers and share resources in class .I also was able to ask questions in class so felt brave and relax to ask questions or answer questions. and receive the feedback from the instructor right away in synchronous.I access to various learning resources self learning materials.I saw the slides clearly and hear the teacher's lecture clearly.

Challenges of online RC(HRDC)

It has a timetable all participants are "present" at the same time.

Sometimes I couldn't follow the speedy lecture and I was not able to follow the practical class and practice.I missed the learning content or assignment information due to the slow internet speed. Noise made by some participant do not actively participate the class who do not turn off the mic. They chat about things that are not relevant to the learning content. I was not familiar with using the software.Feel tired due to focus on the electronic device for a long time.

I completed "ICT application in teaching" under NIEPA FDP, New Delhi on 19.09.22 to 23.09.22 in **Synchronous mode.** In this course did not require "No Objection Certificate" and also free course.

I enhanced teaching competencies in online Learning and blended Learning and learnt technology use in Education Designing Online and Blended Learning courses .I acquired the skills to use Moodle platform, how to prepare e-content, Management of E-content etc.

13.2 Case study: Asynchronous mode

I enrolled cloud computing in cousera but did not continue

"This class was a challenge for me. I did not have a lot of time to complete the assignments and I had a hard time finding and understanding many of the assignments. Sometimes, I spent more time understanding what   I   should   have   to   do   than   working   on   the   assignments."

"The course was content lean(thin). Lots of busy work, very little content, (No)discussion board dominated and was not helpful at all."

14.0 Conclusion:

To cope with the changing paradigm, LIS professionals have to possess required knowledge and skill through distance or online mode to apply it in real field situation. They are preparing to tackle problems in academic libraries, improvement of technical and technological skills, management skills and refresh the existing knowledge, abilities and expertise. The findings showed that online learning or e-training helped women to circumvent constraints of time, space, resources and socio-economic barriers thereby significantly contributing to their empowerment.

It is found that there is high demand of working professionals to peruse their further Skill development through online mode. They are happy with video conference features in online mode. They enjoyed attending an online session because it saved on commute time and they learn how to integrate online tool /technique in the Library

Science Field an outcome that was a considerable material convenience. Noise disturbances and internet connectivity was vital during the online classes.

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