

Summer 5-18-2019

E-learning in LIS Education in India: Status and Efforts for Improvement

ANkit Mishra
ankitdrdo1163@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>

 Part of the [Library and Information Science Commons](#)

Mishra, ANkit, "E-learning in LIS Education in India: Status and Efforts for Improvement" (2019). *Library Philosophy and Practice (e-journal)*. 2996.

<https://digitalcommons.unl.edu/libphilprac/2996>

E-learning in LIS Education in India: Status and Efforts for Improvement

The paper portrays the need for e-learning condition in LIS training and major an e-learning system for LIS training all through the world.

May 15, 2019

Author: [Mr. Ankit Mishra] *

Acknowledgement

The accomplishment of this research paper benefits of the help and direction from my dear sir—Dr. Ravindra Kumar. He is always happy and willing to help me solve the confusions and direct me approach to the final result of the research paper. On top of that, Dr. Kumar is an easy-going and open-minded person, whom is also a good friend to me. Without his encouragement, I would not finish this final work in my master study. Thank you very much, Guruji! I call him ‘Guruji’ because he is great inspiration for me.

Furthermore, I would like to show my grateful feeling to Prof. (Dr.) M. P. Singh, Head Department of Library and Information Science, Babasaheb Bheemrao Ambedkar (a central) University, Lucknow, who once taught me and was my project supervisor in the 1th semester. Prof. Singh is a warm-hearted and discipline-keeping person, with whose supervision I accomplish my master study in time. He is always patient to help me out with questions in terms of LIS and its rules. Thank you very much, Sir!

And more important to me in the pursuit of this research paper than the members of my family. I would like to thank my parents, whose love and guidance are with me in whatever I pursue. They are the ultimate role models. Most importantly, I wish to thank my loving and supportive Brother, Mr Aditya Mishra.

Abbreviation

ICT	Information Communication and Technology
CBT	Computer primarily based training
CD-ROM	Compact Disc-Read Only Memory
TISS	Tata Institute of Social Sciences
CBSE	Central Board of Secondary Education
NIOS	National Institute of Open Schooling
IGNOU	Indira Gandhi National Open University
NPSSE	National Programme on Schools Standard and Evaluation
NKN	National Knowledge Network
NDL	National Digital Library
NAD	National Academic Depository

Content

1. Title Page	1
2. Acknowledgement	2
3. Abbreviation	3
4. Abstract	5
5. Index term	5
6. Introduction	5-6
7. Objective of the study	7
8. Evaluation of E-learning	7
9. History of LIS education	8
10. E-learning courseware in India	8-9
11. Government initiatives towards E-learning	9-12
• Swayam	
• SwamPrabha	
• National Academic Depository	
• National Knowledge Network	
• National Digital Library	
12. Blended Learning	12
13. Benefits of Blended learning	12-13
• Flexibility	
• Efficiency	
• Cost-effectiveness	
• Extended reach	
14. Digital identity	13
15. Findings	13
16. Originality/Value	13
17. Conclusion	13-14
18. References	14

E-learning in LIS Education in India: Status and Efforts for Improvement

Mr. Ankit Mishra*
Library & information Assistant
Amity University, Jaipur

ABSTRACT

The paper portrays the need for e-learning condition in LIS training and major an e-learning system for LIS training all through the world. It features the significant difficulties to look before the LIS experts to adapt up to the changing essence of the e-learning condition for LIS training. It likewise proposes a few suggestions to survive and confront difficulties. A short history of e-learning is given which is trailed by the activities which the legislature has taken to give instruction through advanced mode. The organizations which are giving e-learning courseware are examined alongside the portrayal of LIS courses which they are giving. Government is likewise taking a few activities for giving instruction through electronic mode. A portion of these activities incorporates the presentation of Swayam, SwayamPrabha, National Academic Depository, and National Digital Library. It is additionally recommended that there ought to be an arrangement of mixed learning for library and Information science training rather than absolutely giving instruction through electronic mode in light of the fact that the conventional strategy for giving instruction vis-à-vis is more powerful than the electronic mode.

INDEX TERMS: LIS education, E-learning, Blended learning, LIS open courseware

1. INTRODUCTION

History has been observer to a few social and monetary upheavals. Beginning with horticulture, jumping out at modern thus the innovative, these unrests have adjusted the essence of humankind. What's more, presently, the advanced insurgency is rethinking the pace of advancement hole unnumerable roads to redesign society, culture, and ways of life.

Digitization as an improvement made its beginning route back. Anyway the pace was hence progressive and furthermore the progressions concerned in this manner refined, that it went for all intents and purposes ignored. Early computerized activities were in the principle to protect records, produce in-house working environment the board frameworks, procedure of information, and so on it's over the past couple of years that the advanced insurgency has opened a whole new prospect of chances reshaping the extent of improvement. From the web to AI and AI, rising advancements have gave new open doors for social and monetary remodel. India, the snappiest developing economy inside the world, has experienced a whole change with the quick take-up of computerized advances. Reasonable partner degreed associated advancements turned into a basic a piece of organizations, governments, and networks. It's profoundly affected the strategy person's turn with each other, explicit their emotions, share thoughts, and deal with their wellbeing and accounts. The IT transformation has given a major jump forward to India economy and demonstrated to be a help for the Indian youth as a

generator of business and income. Crossing through periods of Indian youth relocating abroad for work pursued by worldwide IT goliaths putting resources into India and occupation coming back to India, the economy is currently in the period of new businesses and advancements.

“India’s digital story is one of the digital empowerment and digital inclusion for digital transformation based on technology that is affordable, inclusive and equitable. The digital India programme is generating pathways to a future powered by technology and achieving a high growth of our digital economy to reach a level of trillion dollars by 2025.”

The computerized upheavals have now contacted numerous zones of significance to the normal man. The best model is the versatile insurgency, with pretty much every Indian, industrialist or a rickshaw-puller, an understudy or a housewife, owning a cell phone. Numerous administrations are currently accessible through an advanced stage where before one needed to go physically or remain in lines. Identification and visa administrations, railroad appointments, withdrawal of money – have all been digitized. The administration has, on its part, started numerous projects to encourage this upheaval. Adhaar was the primary real activity of the administration to streamline taxpayer supported organizations through Direct Benefit Transfer and the JAM trinity. Computerized instalments are presently conceivable through applications like BHEEM and Rupay charge cards, e-sign has been acquainted with encourage advanced mark on reports; Jeevan pramaan had made life simpler for the old who would now be able to get check of life through computerized life declaration to draw their annuities. Normal Service Centers, advanced homerooms and e-medical clinics have empowered access to administrations in country and remote zones.

This proceeding with wave of advanced change has penetrated each feature of business and life however like some other innovation, this likewise has accompanied extensive difficulties as phony, online fakes and cyberbullying. The legislature has taken a few cyber-security measures to guarantee vigorous information conveyance framework in different segment like banking, protection, and so forth.

The adventure to digitization has been one of comprehensive development, moving India into a worldwide economy. It is an insurgency that has contacted the lives of the basic man in practically all viewpoints and holds the possibility to totally rethink the human experience, incomprehensibly streamlining, upgrading and advancing lives. Capable conduct clubbed with advanced insight on part of the associations and residents is what is required to guarantee that the advantages of computerized advances exceed the expenses.

2. OBJECTIVES OF THE STUDY

- To analyse the status of e-learning in LIS education in India.
- To find out measures for improvisation in e-learning in India.

3. EVOLUTION OF E-LEARNING

The utilization of PCs in instruction was begun during the 1960s and misrepresented in 1990s. In 1990' the e-learning code was prepared with interactive media framework alternatives, solid applications that were intended to satisfy the preparation need for a measure of your time, typically numerous weeks. This courseware was conjointly alluded to as 'intelligent sight and sound framework or workstation principally based instruct (Phillips, 1997).

The creating code utilized at the time was high-ticket in change the learning anyway it become more affordable to refresh the courseware because of the presentation of the overall net in mid-1990, be that as it may, these hyperlinked web don't have rich media framework choices on account of confined data measure available all through the sum. Afterward, with the ascent data measure in the mid-2000s, expanded the sight and sound framework abilities of the web (Phillips, MHz Naught and Kennedy, 2012).

The word e-learning was utilized for the essential time in CBT (Computer principally based preparing) frameworks workshop in Ia in October 1999 that typically implies that "a gratitude to learn bolstered the work of most recent advances allowing access to on the web, intuitive and by and large tweaked instructing through the web or diverse electronic media (Intranet, extranet, intelligent TV, CD-ROM, and so on.) In this manner on create capabilities though the strategy for taking in is independent from time and place".³ Distance course was begun rich sooner than the starting of web, Isaac Pitman began giving instructing to their understudies on shorthand for up their composition speed during the 1840s through separation mode. The researchers needed to send finished assignments to him through the mail framework. Instruments and procedures of e-learning were expanded when the presentation of workstation and web inside the late twentieth century. With the presentation of waterproof in 1980sthe individuals will have PCs at their home and it made the strategy for learning gathering bottomless simpler (Roberta Gogos, 2017).

In synchronous e-learning, the understudy is in direct contact with the instructor at the season of learning. The researcher will have a timeframe language with the educator or instructor, the person will probably get his inquiry replied continuously, synchronous learning is done through video-conferencing, internet talking or moment electronic correspondence. In offbeat learning, the understudy will learn though the person is disconnected. In offbeat learning correspondence likely could be done through messages, messages declare on network gatherings. the higher way of e-learning is that the blend of synchronous and no concurrent learning because of offbeat learning the researcher will have a sentiment of disconnection, be that as it may, will learn without anyone else pace and accessibility of your time. Through synchronous learning, the understudy will get prompt encourage once required (Epinosis, 2017).

4. HISTORY OF LIS EDUCATION

Library and Information science training in India was begun in 1911 after the activity which Maharaja Sayajirao III (Gaekwad of Baroda) has taken by welcoming W.A. Borden (a devotee of Melvil Dewey) to Baroda. W.A. Borden began transient preparing program in library science

in 1911 at Central Library, Baroda. As a Don Dickinson, another supporter of Melvil Dewey began three months understudy program at Punjab University in 1915 (Satiya, 1993). In 1929 an endorsement course was begun by Dr. Ranganathan at Madras library affiliation, which was taken over by University of Madras. This course was later in 1937 changed over to Post Graduate Diploma course in library science. The primary undeniable division of library science was set up at Delhi University in 1946. The principal Master in Library science was likewise begun at Delhi University in 1951 which was initially begun as a PG Diploma Course in 1947 (Mangla, 1998). Aligarh Muslim University was the first to begin the Bachelor in Library science in 1951.

Administration of India has taken numerous activities for the improvement of library instruction. The Working Group of the Planning Commission on the modernization of library administrations and informatics (1985-90) prescribed setting up of a National Center for Education and Research in LIS and furthermore recommended for arrangement of gifts to LIS schools (Kumar and Sharma, 1973). A Committee on National Policy on Library and Information System (CONPOLIS) was set up in 1985; its report suggested the utilization of Information Technology in LIS instruction and foundation of an accreditation organization for the upkeep of gauges. National Knowledge Commission (NKC) was comprised in 2005 which suggested the foundation of well-prepared establishments for the advancement of LIS instruction. The primary council for educational modules improvement was Kaula Committee comprised in 1990. Another Committee comprised for educational programs advancement was Karisidappa board of trustees (2000), this council suggested for correction of educational modules (Joshi, 2010).

5. E-LEARNING COURSEWARE IN INDIA

Numerous colleges and universities have received electronic mode for giving separation training. Books, schedule and other course materials are accessible online for the understudies. A few establishments have made them accessible openly while in certain foundations it is encoded. These are a portion of the e-learning courseware accessible for Library and data science instruction in India.

- Tata Institute of Social Sciences (TISS) LIS courseware-
Tata Institute of Social Sciences is providing Master in library and information science (M.Lib.I.Sc.) through electronic mode.
- Uttar Pradesh Rajarshi Tandon Open University
LIS open courseware is available for offering Bachelor in Library and Information Science (B.Lib.I.Sc) from this university.
- Netaji Subhas Open University
This university is also providing LIS open courseware for Bachelor in Library and Information Science (B.Lib.I.Sc).
- Central Board of Secondary Education (CBSE)
CBSE is providing LIS courseware at senior secondary level.
- National Institute of Open Schooling (NIOS)
NIOS is also offering LIS courseware at senior secondary level.
- Krishna Kanta Handiqui State Open University

This university is providing LIS courseware for Diploma in Library and Information Science (DLISc).

- Madhya Pradesh Bhoj Open University
LIS open courseware for Master in library and information science (M.Lib.I.Sc) is offered by this university.
- VardhamanMahaveer Open University, Kota
This university is offering Certificate programme in digital libraries, DLISc, Bliscand M.Lib.I.sc through open courseware.
- Indira Gandhi National Open University (IGNOU)- egyankosh
IGNOU is providing Certificate in ICT applications in library (CICTAL), B.Lib.I.Sc, M.Lib.I.Sc and Post Graduate Diploma in Library Automation and Networking (PGDLAN)
- eGPathshala - This open courseware is also offering M.Lib.I.Sc.

6. GOVERNMENT CREATIVITIES TOWARDS E-LEARNING

Presently the legislature additionally has accentuation towards digitizing practically every one of the administrations gave to clients. In the field of training additionally, the government is trying endeavours to give instruction through e-mode.

Government has presented a few projects for development in instruction at school level likewise which incorporates presentation of Saransh for upgrading discussion among schools and guardians and to help guardians for the improvement in their ward's training, National Program on Schools Standard and Evaluation (NPSSE) otherwise called Shalasiddhiwas acquainted with improve the exhibition of schools by giving them a lot of benchmarks to assess their exhibition, Shala Darpan venture was created to cover 1099 Kendriya Vidyalayas to profit the administrations identified with School Management framework to guardians, understudies, and networks. E-Pathshala was acquainted by NCERT with dispersing the instructive e-assets including course readings, sound, video, and periodicals to understudies, instructors, teachers and guardians through its site and portable application. I-share for India has the goal of making a pool of instructive assets for schools and instructors. GIS mapping of schools is likewise begun to give them widespread access inside a sensible separation of any residence which will help in better arranging and use of accessible assets.

(Service of Human Resource Development, 2016).

The previous President of India Pranab Mukherjee on the event of Guru Purnima propelled four noteworthy computerized activities to push e-instruction. Swayam, SwayamPrabha, National Academic Depository, National Knowledge Network (NKN), and NDL. These digitize activities are operational under the Union Ministry of Human Resource and Development.

- **Swayam:** It associate indigenously designed huge open on-line course (MOOC) and might be accessed by anyone, anyplace at any time. It aims to bridge the digital divide for college kids in e-education. The courses hosted on SWAYAM square measure in four quadrants –

- i. Video lecture,
- ii. Specially ready written language that may be downloaded/printed
- iii. Self-assessment tests through tests and quizzes and
- iv. A web discussion forum for clearing the doubts.

Steps are taken to counterpoint the training expertise by mistreatment audio-video and multi-media and state of the art pedagogy / technology. Courses delivered through SWAYAM square measure on the market freed from value to the learners, but learners wanting a SWAYAM certificate ought to register for the ultimate proctored exams that come back at a fee and attend in-person at selected centres on fixed dates. Eligibility for the certificate are proclaimed on the course page and learners can get certificates providing this criteria is matched. Universities/colleges approving credit transfer for these courses will use the marks/certificate obtained in these courses for identical.

Along with other courses it is also offering courses in library and information science which includes:

- i. Digital Library
 - ii. Management of libraries and Information Centres and Knowledge Centres
 - iii. Information and Communication Technology for Libraries
 - iv. Information sources and library services
 - v. Information Sources System and Services
- **SwamPrabha:** The SWAYAM PRABHA may be a cluster of thirty two DTH channels dedicated to video of high-quality instructional programmes on 24X7 basis victimization the GSAT-15 satellite. Every day, there'll be new content for a minimum of (4) hours which might be perennial five additional times during a day, permitting the scholars to settle on the time of their convenience. The channels are uplinked from BISAG, Gandhinagar. The contents are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS. The INFLIBNET Centre maintains the online portal.

The DTH Channels shall cowl the following:

- a) Higher Education: Curriculum-based course contents at post-graduate and undergraduate level covering various disciplines like arts, science, commerce, humanistic discipline, social sciences and humanities, engineering, technology, law, medicine, agriculture, etc. All courses would be certification-ready in their elaborate providing through SWAYAM, the platform being developed for providing MOOCs courses.
- b) college education (9-12 levels): modules for teacher's coaching yet as teaching and learning aids for youngsters of Republic of India facilitate to assist} them perceive the topics higher and additionally help them in making ready for competitive examinations for admissions to skilled degree programmes.

- c) Curriculum based courses which will meet the wants of life-long learners of Republic of Indian voters in India and abroad.
 - d) Assist students (class eleventh & 12th) steel oneself for competitive exams. Or offering MOOCs courses.
 - e) School education (9-12 levels): modules for teacher's training as well as teaching and learning aids for children of India to help them understand the subjects better and also help them in preparing for competitive examinations for admissions to professional degree programmes.
 - f) Curriculum-based courses that can meet the needs of life-long learners of Indian citizens in India and abroad.
 - g) Assist students (class 11th & 12th) prepare for competitive exams.
- **National Academic Depository:** Indian pedagogy system could be a giant and growing system with roughly fifty five college boards, 359 state universities, 123 deemed universities, forty seven central universities and 260 non-public universities. Excluding these, there are 107 different establishments like IISc/IITs/IIMs/NITs/IISERs/IITs/NITIE and twelve different centrally funded establishments. These establishments issue educational awards to students as well as degrees, diplomas and certificates beside mark sheets and analysis reports. Excluding these, establishments beneath varied Ministries/Departments and different talent based mostly establishments conjointly dispense certificates, sheepskins and advanced diploma.

The individuals who are moving into work or following higher investigations need a respectable, true and helpful component for access, retrieval and validation of such educational awards. Retrieval of recent educational records maintained in paper type is cumbersome. Educational records maintained in paper type are liable to hazards like spoilage and forgery. Students typically face difficulties in getting copies of their certificates/mark-sheets whenever they're lost or destroyed. Maintaining educational awards during a digital installation would modify academic establishments, students and employers on-line access/retrieval/verification of digitized educational awards and shall eliminate deceitful practices like shaping of certificates and mark-sheets. The Government has already created dematerialization of monetary securities to confirm the mercantilism of monetary securities perfect and clear. It had enabled mercantilism and transfer of shares electronically while not involving physical share certificates and transfer deeds, so eliminating the paper work concerned in scrip-based mercantilism and share transfer system. Identical is effectively replicated in respect of educational awards as these are even a lot of vital guarantors of the longer term than money securities.

Maintaining educational awards in associate degree electronic installation would supply profit to academic establishments, students and employers by facultative online access {of academic of academic} awards which can eliminate the requirement for persons to approach educational establishments for getting transcripts of such awards or marks-sheets for verification. It might conjointly eliminate deceitful practices like shaping of certificates and mark-sheets, by facilitating online verifications thence. The

National educational installation aims at making certain a reputable and convenient mechanism for on-line lodging, verification and authentication of {the academic, the tutorial, the academic} awards issued by varied educational establishments.

- **National Knowledge Network:** National Knowledge Network (NKN) is a State-of-the-craftsmanship system to advance coordinated effort and trade of learning among instructive and inquire about the foundation. A portion of the NKN empowered application are: Virtual Class Rooms, Collaborative research bunches over NKN (shut client gathering), NDL, NPTEL, different Grids (like Cancer Grid, Brain Grid. Environmental Change Grid) and so forth as on October 2018, 1672 Edge connects to organizations have been charged and made operational under NKN the nation over which incorporates 388 connections relocated from NMEICT to NKN. 497 locale connects to NIC.
- **National Digital Library:** It is an enormous online library containing 6.5 million books. It gives free access to numerous books in English and Indian dialects. As indicated by an MHRD official, these activities were taken with the expectation of augmentation in Gross Enrolment Ratio in advanced education from 24.5 to 30 by 2020.8 (Makkar, 2017).

7. BLENDED LEARNING

Mixed learning might be an approach of getting the hang of amid which online training is given moreover to antiquated up close and personal procedure. As indicated by on-line Learning pool blending learning proposes that to "Incorporate on-line with antiquated up close and personal class exercises in an exceedingly arranged, instructionally significant manner". Blended learning might be a course wherever 30-70% of the guidance is conveyed on the web anyway this quantitative connection is considered as an accommodating rule and not basically possible in each blending learning design.

E-Learning has a few advantages however at the indistinguishable time, it moreover has numerous downsides.

One in all the most significant disadvantages is that the nonappearance of up close and personal connection among understudies and instructor. The communication may be done through video-conferencing and online classes anyway despite everything it takes issue from genuine eye to eye cooperation. Up close and personal collaboration is extraordinarily essential for powerful learning and controlling. It'll be higher to switch e-learning with blending learning.

8. BENEFITS OF BLENDED LEARNING

As indicated by US Dept. of Education, 2010 "In investigations differentiating mixes of on the web and up close and personal guidance with ordinary up close and personal classes, mixed guidance has been progressively compelling." According to Jennifer Patterson (2016) mixed learning has following advantages:

- i. **Flexibility:** Blended learning provides flexibility in presentation of learning materials. Complex topics can be presented or discussed at the classroom while the easy topics can be made available online according to the availability of time of the teacher.
- ii. **Efficiency:** With the assistance of mixed learning, the effectiveness of the learning can be expanded and can be made accessible to the increasingly more number of individuals. The online accessible material and the advanced resources can be re-utilized with no restriction and consequently can be caused accessible to a wide group of onlookers and they too can likewise make up for lost time effectively on the off chance that they had joined later.
- iii. **Cost-effectiveness:** At the point when occasions are sorted out on the web, they can spare the cash of both the members and the asset people by killing their movement costs. They can connect with one another without being available at a similar spot.
- iv. **Extended Reach:** With the assistance of mixed learning, the training time of the study hall can be diminished. By digitizing the quality substance given by the distinctive subject specialists, it very well may be given to more individuals at less expense. The specialists can offer more classes or can give more directions and preparing.

9. DIGITAL IDENTITY

Under advanced India program, different activities have been attempted towards giving computerized personalities, making a computerized foundation, empowering advanced conveyance of administrations and advancing business and enterprising open doors that have changed India into a carefully enabled society while acquiring critical change the lives of residents.

10. FINDINGS

The paper talks about client's recognition about ICT and E-learning recognizes issues identified with E-learning advancement and prescribes a few proposals for powerful execution of e-learning. Discoveries additionally uncover that clients of LIS training might want to utilize e-learning alongside conventional learning techniques. Instructive policymakers need to think about the client's discernment, for powerful usage of E-learning in LIS (Library and Information Science) training. Results likewise demonstrate that the accessibility of e-content alongside print assets is required for instructing learning purposes. The substance can be spread/furnished with the utilization of E-Learning with the joining of the neighbourhood and bought in assets.

11. ORIGINALITY/VALUE

Paper gives clients feeling and discernment; that could be useful for scholarly society. This paper will be profitable for strategy producers, educators, teachers, teachers and makers identified with e-learning frameworks in.

12. CONCLUSION

With the developing pattern of web and versatile use, India is walking ahead through E-learning. The various sources like PCs, workstations, and cell phones and so on are being used by the distinctive class of electronic students. Quite, E-learning has turned into an aid for the specific fragments of the general public including adolescents. The legislature of India is additionally finding a way to empower online instruction. Notwithstanding, there are various advantages of customary 'chalk and talk' technique, it might be proposed, not to surrender

conventional strategies completely. We should, preferably, empower an environment of 'mixed learning' so as to get advantages of conventional just as current strategies for learning. Furthermore, library science training ought to be no exemption!

13. REFERENCES

- i. Ministry of Human Resource Development (2016). Major ICT Initiatives. Retrieved May 15, 2019 from mhrd.gov.in › School Education.
- ii. The Indian express (2017). Internet users in India to stand at 829 million by 2021: CISCO. Retrieved on May 15, 2019 from <http://indianexpress.com/article/technology/tech-news-technology/internet-users-in-india-to-double-by-2021-says-cisco-4696154/>
- iii. E-Learning Fundamentals. Retrieved October 7, 2107 from www.leerbeleving.nl/wbts/1/history_of_elearning.html
- iv. Roberta Gogos (2013). A brief history of eLearning. Retrieved May 15, 2019 from www.efrontlearning.com/blog/2013/08/a-brief-history-of-elearning-infographic.html
- v. Teach Thought Staff. The Definition of Blended Learning. Retrieved on May 15, 2019 from <http://www.teachthought.com/learning/the-definition-of-blended-learning/>
- vi. Blended learning toolkit. What is Blended learning? Retrieved on May 15, 2019 from <https://blended.online.ucf.edu/about/what-is-blended-learning/>
- vii. Joshi, M. K. (2010). Library and Information Science education in India: Some government initiatives. DESIDOC journal of Library and information technology, 30. Retrieved may 15, 2019, from <https://publications.drdo.gov.in/ojs/index.php/djlit>
- viii. <https://ndl.iitkgp.ac.in/>
- ix. <https://www.swayamprabha.gov.in/index.php/about>
- x. <http://www.nad.gov.in/about.html>
- xi. Patterson, Jennifer (2016). The 7 Most Important Benefits of Blended Learning. Retrieved may 15, 2019 from <https://www.knowledgewave.com/blog/benefits-of-blended-learning>
- xii. <https://unacademy.com/lesson/general-knowledge-capsule-part-2/GB552UXN>
- xiii. <https://www.iastoppers.com/9th-10th-july-2017-current-affairs-analysis-iastoppers/>
- xiv. <http://bankersdaily.in/e-education-digital-initiative/>