

Lockdown Period and Information Sources

Dr. Prakash Bhairu Bilawar

Abstract— Due to wide spread of frantic Corona-COVID-19 virus in the World, resulted into enormous human deaths, GDP at the lowest rate and disturbance in human life cycle. The present paper showcases the briefing about Corona- Covid-19 virus, lockdown period and the compilation of online/live academic/learning programs/activities rendered by different universities, colleges and associations/institutions during the lockdown period which served as information sources, to engage students and teachers/faculties in their teaching, learning and extension processes in India with more emphasis on Library & Information Science online events. The result shows that during the period of lockdown 377 numbers of webinars followed by FDP (36), Workshop (26), Quiz (19), Training (7) and STC (3) etc. online events were held on different subjects/themes by different institutions. The increasing quantum of webinar shows that webinar event is most popular against the other online events. Point to note that no any Workshop, Virtual meeting and Short term course were arranged under the caption- 'Covid-19/Corona, Lockdown' except one training program. It also focuses on the role of different institutions/publishers/vendors in providing remote e-services for the benefit of academicians/researchers at par with lockdown episode with the care of library in post lockdown period. The situation directs for 'digital citizenship' amongst the academicians. Further the paper explores title/topic/theme of webinar and other online event titles against the different subjects that can be useful for further planning and suggesting of new webinar title and its theme.

Index Terms— Lockdown, Webinar, Information, Research, Library, Sources, Covid-19, Topic, Pandemic, Work and Home etc

I. INTRODUCTION

It is observed that in India along with other corporate and government offices, educational institutes too were remain closed to avoid increasing affection of corona virus in the lockdown tenure. Libraries with their reading hall/ study rooms were also closed hence no physical access to the print collection and circulation was observed. As a result the concept of 'work from home' provides a proper way to manage the home time into use of quality time. Then onwards several academic institutions/groups/associations started various online programs like webinars, FDP, workshops, quiz/puzzle competition and trainings etc. on number of topics/disciplines. The curious mind of the academicians - researchers, teachers and librarians etc. took forward to utilize

this tenure in an effective way by participating in these online programs and combat the COVID-19 pandemic. However there is drastic change in all services/work including library services before and after the lockdown period.

II. REVIEW OF LITERATURE:

As the central theme of this paper is restrict with compilation tasks it is necessary to know the earlier research work. Halpern, J [1] in his paper offer compilation techniques that are useful for pedagogically effective bilingual learners' dictionaries and addressed specific issues like sense ordering, the logical interrelatedness of senses, the semantic transparency and morphological productivity of Chinese characters, lexical categories, headword selection criteria, and the treatment of multiword expressions that can help in increasing learner usability, and comparison with other dictionaries. O'Callaghan [2] investigated the practices of manuscript compilation of two manuscript from Bodleian Library and realized that both possess a "significant shape," even though one (Rawl.poet.31) was produced by a professional scribe in a short span of time as a commercial enterprise, and the other (Don.c.54) was compiled by its owner (an amateur scribe) over the course of three decades. Sarab & others [3] examined the problems and inconsistencies in the interpolation of English Transliterated names of Persian language researchers in citation databases and proposed that the compilation of a list of names document based on the frequency of written form in valid databases is a solution to resolve this problem. Sturgeon [4] in his study present a fully automated method of identifying and representing complex text reuse patterns/and the results evaluated by comparison to a manually compiled reference work. The resultant data are integrated into a widely used and publicly available online database system with browse, search, and visualization functionality. These results are then aggregated to create a model of text reuse relationships at a corpus level, revealing patterns of systematic reuse among groups of texts. Hafdahl [5] compiled 200 methodological articles about research synthesis published in 2014, all grouped by type of contribution and assigned descriptive keywords. More than 5300 articles, book chapters, and other types of work from 2004 to 2008 and 2014 have been added to the archive component for building of parent bibliographic compilation task. Masui & others [6] in their conference paper proposes a process of the data compilation on a new environment called Unified Research Management System (URMS) useful for the scientific collaboration in science discipline.

From the review, it is clear that no such compilation research work on covid-19 and the use of information sources had been made in past, hence undertaken the present study.

Manuscript received June 05, 2020

Dr. Prakash Bhairu Bilawar, Assistant Librarian (Selection Grade), Barr. Balasaheb Khardekar Knowledge Resource Center, Shivaji University, Kolhapur, Maharashtra, India

III. COVID-19:

This deadly virus covers almost 192 countries since its emergence in China (Wuhan) last December 2019. Like other countries in India, Indian Council of Medical Research (ICMR), Bharat biotech etc. are working for the development of vaccine of this novel virus.

3.1 Lockdown:

As stated by the medical experts, and experienced by us the lockdown is the best solution to avoid the wide spread of virus amongst the human being. In India, on the following periods, nationwide lockdown situation was implemented. Also to combat this epidemic, one day 'Janata Curfew' was observed on 22-03-2020.

Lockdown 1: 25-03-2020 to 14-04-2020 (21 days);

Lockdown 2: 15-04-2020 to 03-05-2020 (19 days);

Lockdown 3: 04-05-2020 to 17-05-2020 (14 days);

Lockdown 4: 18-05-2020 to 31-05-2020 (14 days);

Lockdown 5: 01-06-2020 to 30-06-2020 (30 days).

The emergency services of medical stores, hospitals, vegetables, grocery shops including milk products are remain opened during the whole lockdown period. Prior to execution of lockdown 3.0 time the GOI (Government of India) has classified all the districts of the state in 3 zones according to the number of affected people in the area and medical facilities viz. Green, Orange and Red then some sorts of relaxation in terms of opening of certain shops, services, factories in the allotted time was given to these zones. Also containment zones/hotspot centers and one more 'Buffer' zone are identified where drastic patients are noted. During this Lockdown third stage, central government had agreed and enacted on the move of starting of special trains (Shramik), buses, boats (Vandematram, Samudrasetu) and even airplane facility for the migrant laborers, students and travelers who stuck in other state/district/country to drop them at their native places. To fight against this crisis, Government has requested for financial assistance as a relief fund that will be useful for betterment of patients and then announced – 'Atmanirbhar Bharat' a smart financial package for boosting economic growth of the country in all the sectors. Further with the implementation of lockdown 5.0, some sorts of phased relaxation as phase I-III were issued as 'Unlock 1.0' and mandatory compulsion of lockdown at containment zones.

3.2 Precaution:

Following major precocious measures are undertaken to limit the constant growth of novel Corona pandemic as per the recommendation of medical sources/advisers-

- Washing of hands with sanitizer, soapy water etc. at regular intervals of time
- Use of masks (N-95) and hand gloves
- Social distancing
- Use of Aarogya Setu app
- Medical tools like PPE (Personal Protective Equipment) kit, testing labs, ventilator, oxygen cylinder etc. for the infected patients
- Home and institutional quarantine for the symptoms of corona patients

- Identification of hotspots, survey to crowded area and medical inspection of the citizens
- Sanitization of road, building, surrounding areas etc.

3.3 Impact:

The major impact against this corona lockdown are enlisted below-

- Declined economic cycle
- Reduction rate in unemployment
- No direct physical communication/interaction
- Restriction in travelling/places of importance
- Live with available life resources like food, water and cloth etc.
- Limited production of sanitizer, mask and other medical accessories etc.

IV. INFORMATION SOURCES- ACADEMIC, LEARNING AND EXTENSION ACTIVITIES IN LOCKDOWN PERIOD:

Against the dangerous impact of this virus, the HEIs (higher educational institutions) like universities, colleges, training centers like ASC/HRDC etc., associations and other come forward with innovative academic online programs and plans that make the best use of home leisure time in to academic and extension work with the motto 'access/research never stop'. Due to this academicians are engaged with these information sources activities and they are familiar with the online learning methods/tools, techniques and interaction that will be useful in their professional/personal development and may use himself as an 'available resource' for the teaching community/society. Certain associations/groups are also organized such novel online events.

The notice about the publicity of the event was made through whatsapp, e-mail, social network platforms with the registration and webinar / meeting joining hyper link/ID/number/password, date-time etc. The invited resource person/expert may be of Indian/foreign origin. After completion of this course they provide participant's digital/e-certificate after submitting online feedback and in some programs participant's online poll/score at their registered e-mail address with/without registration fees. The online academic activities conducted by these HEIs and others are compiled and presented in the following Tables 1-4 with the targeted academic task fulfilled by the academicians under 'work from home' as suggested. Only the programs having academic values/work and are in English language are considered here.

4.1 Methodology Adopted:

To know the online events information, several Whatsapp groups viz. Library-2020, LIS webinar alert, MUCLA-Maharashtra, MUCLA Kolhapur, FAMT warriors, SUCLA, SUK teachers, University teachers, KRC teachers Maharashtra and UGC NTA CBSE NET SET KOHA etc., forwarded e-mail alerts and Telegram channel - LIS research scholars forum etc. are browsed daily during the lockdown period from 25th March 2020 up to 1st June 2020, then noted these event details in different categories and compiled the required data/information. As per the notification/subject of the event the academic tasks are divided into 7 groups like Webinar, FDP, Quiz, Workshops, Training, STC and other

academic tasks. The data pertaining to these groups are mapped with three major broad subjects viz- LIS (Library & Information Science), Covid-19/Corona-Lockdown and Other, against its related theme/topic and drawn conclusion.

Further for the webinar group only, the LIS subject has been categorized into 9 sub areas to know the findings in LIS domain.

Table 1: Webinars Details: Broad Subject: [I] Library & Information Science (LIS)

Academic, Learning and Extension Activities:		
<i>A) Webinar/Webinar Lecture Series/ Webinar-cum-Group Discussion/ Live Lecture Series/E-Conference/Conclave etc.</i>		
LIS Areas		Theme topic/sub-topic
1. Digital (Institutional E-Content/E-Learning Advanced Library Services)	Library: IR & Repository)	<ul style="list-style-type: none"> ▪ Creating Drupal site using Bitnami; Emerging technologies and next generation libraries; Library technology in digital era; Access and impact of information and research in digital content; Digital content creation: Digitilization technologies; Digital transformation of libraries and education; Search engine optimization for digital libraries & library website; Digital library; Digital transformation of libraries with Pearson library; Digital Marketing; Digital preservation. ▪ Institutional repository; How to create IR by using DSpace on Windows Platform; IR using DSpace. ▪ E-learning with Coursera platform; Effective use of e-learning platforms and ICT tools for enhanced and qualitative learning & library services; E-learning : Content creation and content repository; Swayam: An e-learning platform; Webinar on Swayam: E-Learning; Digital learning & innovations in libraries; Utilizing digital resources for e-content development & designing; E-content creation and E-Learning through MOOCs; Awareness of MOOC in current scenario; Need of e-content development in education; Moodle applications: A knowledge resource center perspective; Design, develop and deliver online courses through ‘Moodle’ platform: An online hands-on training; Introduction to Moodle for Librarians. ▪ INFEED and Cloud computing; Digital learning through NDLI; NDLI; Accessing & contributing digital resources in NDLI; Awareness program on NDLI for Shasun Jain college for Women; Re-engineering challenges to opportunities for managing smart academic libraries; Changing time, Changing Libraries; Library carpentry through ‘OpenRefine’; Reinventing Library and information services to met the emergencies and exigencies; Future Libraries; Libraries of the future; Library: Beyond Books and Buildings; Library as a new online learning platform-An integrated approach etc. [40]
2. ICT E-Resources, Automation, Portal	& Library: Social Media, Website and	<ul style="list-style-type: none"> ▪ Open education and resources: Challenge & support; Effective use of e-resources for teaching, learning & research; E-library/E-resources; Access to e-knowledge resources. ▪ Social media & cyber law; Social media tools for Library & Information service. ▪ Webinar on KOHA; SOUL 3.0 software; Working with Koha; Library Automation by using Open Source Library Management Software KOHA; Koha & Best book buddies for libraries; E-granthalaya; Library automation webinar; RFID webinar. ▪ Redesigning library website; Enhancing user delight in academic libraries through library portal; Building web portal using open source CMS: Drupal; How to create library portal in single window; How to create a websites with Google tools; Google drive for creating databases and small applets; Designing, developing and commissioning a website in compliance with Government norms: A Practical Approach. ▪ Various ICT initiatives by INFLIBNET center and their usability for academic community; Artificial intelligence; Cloud computing: An overview; Introduction to Corel ERM tools; Working with Microsoft tools: PowerPoint, Excel and Infographics; Creation of online quiz with auto certificate creation etc. [27]
3. Research: Metrics and Tools; Library	Methodology, & Library	<ul style="list-style-type: none"> ▪ Research Methodology, refine your research planning skills using Scopus, ScienceDirect & Mendeley; Literature review: The backbone of research; How to write literature review; Analysis and interpretation of data; Tips for formulating good questionnaire; Sampling techniques; Research proposal writing for funded research projects and doctoral studies; Trends in research: Challenges and issues; Fundamentals of effective scientific writing: Manuscripts and grants; Presentation skills for researchers. ▪ Enhancing research visibility through academic social networks; Embrace research integrity, avoid scientific misconduct and enhance scholarly research. ▪ Discover Emerald journals for your research; Enhancing research effectiveness using Scopus, Sciencedirect and Mendeley; Mendeley: Searching & referencing tool for scientific writing; Effective use of Zotero software in research; Reference management software for students, researchers and academics; Reference management tools;

Lockdown Period and Information Sources

Effective usage of reference management tools by research scholars and faculty members.

- New media metrics (Altimetrics) vs Citation: A comparison; Academic integrity and quality measuring tools in research & publication; Introduction to Dataverse for data sharing; Data analysis by SPSS: A journey from objective to results; Changing landscape in research; Smart tools for enhancing the research skills; Bibliometrix-Biblioshiny; Promoting academic research through web resources; Research Data Management; Data Analytics; Research metrics; Research workflows, research metrics and excellence; Role of Metrics and Altimetrics on research & society; Enhancing visibility of researchers through social platforms; Google Scholar for Research; Reach out to research; How to use MS-Word reference tool for research; Smart tools for teaching & research; Writing research articles using LATEX.
 - Role of library in research information management system; Open data and role of libraries; Useful tools for LIS and research etc. [41]
4. Copyright & Publication: Ethics, IPR, Plagiarism, Research Writing & Publication
- Ethics in academic writing; Research and publishing Ethics; Ethical & quality aspects of research in present era; Research ethics in e-environment; Quality of research and publication ethics; Effective research writing & ethics in publications with new tools and techniques; Publication ethics and UGC-CARE list.
 - A basic introduction to copyright; Copyright in the classroom; Copyright issues in online teaching & learning.
 - IPR and e-content development; IPR: Procedures & policies; Necessity and usage of IPR in Commerce; Intellectual property management: With special reference to patent, copyright and trademark under digital economy & post covid management; IPR and its career opportunities; IPR & plagiarism in research; IPR and Entrepreneurship; IPR protection and the role of Library; Intellectual property rights, role of WIPO in preservation of intellectual property in educational research; Intertwining research with Intellectual Property Rights for Value Enhancement.
 - How to improve your academic reputation by avoiding plagiarism; Online resources for research and plagiarism; Introduction to PDS & ShodhShuddhi; Citation management to avoid blame of plagiarism; Copyright and Plagiarism from the Librarians perspective: A pragmatic view; Plagiarism: Issues & challenges.
 - How to write and publish paper in Scopus journal; Scholarly communications; Library and scholarly communication services; Research writing and enhancing visibility; Enhancing 'research interest' of research publications; Obstacles and guidelines for publishing papers in journals: Copyright laws, licensing of e-content and fair use of open educational resources; Review article writing using MS-word add-in and publication; Academic publishing: excellence in research and role of librarians; IRINS; Now and next: Web decay and Internet archive; Patent your invention to generate value for research; Cyber crime prevention and protection etc. [38]
5. LIS Professionals & Development : Librarianship, Role of LIS Professionals & Association
- Academic libraries and Librarianship: A synoptic view; Librarianship development through best practices; Practical Librarianship; Five strategies for effective law librarianship.
 - LIS Professionals: Challenges and opportunities in changing environment; Trends in LIS profession: Challenges & Opportunities; Leadership and management in education; Leadership innovation and creativity; Stress Management for Library professionals; A journey towards managed learning environment: Role of Academia and Librarians; Role of personality development in achieving personal and professional success; Changing role of Libraries and Librarians; Role of libraries in higher education; Teachers role in LMS & Virtual classroom; Recent library trends and role of librarians; Changing role of libraries: Librarians as resource auditors.
 - Challenges, issues and opportunities for health science libraries/librarians; Technology skills for the modern librarians; Smart library strategies: A practical paradigm for Librarians; Challenge to Change - A Dynamic outlook; Skills to scale up in LIS profession: Expectations of industry; Visuals in personal branding: protocols in online domain; Connecting Dots with Kenyan expertise; Importance of getting Book Expertise; Dressing for library success: e-resources alignment for early career librarian; Personal branding in digital world: A professional asset; Reimagining library leadership in digital transformation ; Smart skills for online teaching.
 - CAS rules and process as per 7th pay recommendation; Scientific scholarship, digital archiving and beyond-RRI experience; Traits of successful career in LIS profession; Continuous professional development (CPD) opportunities for Librarians; Status of Librarian in UGC regulation 2018; E-career guidance program.
 - Role of Library Association in Development of Libraries etc. [35]

6. Information Literacy: Skills, Library Services, Sources & Searches
- Information literacy to fight epidemics; Importance of information literacy skills during pandemic situation; Information literacy and Media during Covid-19; 21st century information skills; Developing good reading habits; Inculcating ‘Reading’ as a healthy habit; Creativity and innovation in Marketing; Marketing of reading; Crowded canteens and empty libraries-creative solution; Too much information; Promoting reading among communities through public libraries.
 - Smart Libraries: A practical approach; Libraries towards excellence; IIM Ahmadabad Library and its services; Introduction to ETDs & Shodhganga/Shodhgangotri; Improving access to scholarly content and services: Authorization and authentication for library subscriptions; E-Journals: From Dusk to dawn; The routes of open access: An overview; Web scale discovery services; Library services and information sources for faculty and students provided through library and information centers; Library services for faculty and students in an academic online environment; Reading Advisory Service; UGC initiatives on marketing of library resources services and products; Preservation and access to Indian cultural heritage.
 - Inculcating smart searching tools and techniques for information retrieval on internet; Awareness program on patent information searching & drafting; Search strategies and search engines; Search engines and Meta search engines; Information search and dissemination; Federated access management in India etc. [30]
7. NAAC & Libraries: Awareness, Preparation & Best Practices
- NAAC accreditation and college Libraries; NAAC assessment and accreditation process for affiliated/constituent colleges; NAAC awareness program for affiliated colleges; Understanding NAAC Accreditation process- an expert opinion.
 - NAAC preparation; Preparing Libraries for NAAC and NBA: A case study approach; Getting ready for NAAC; A review of the new NAAC methodology: From AQAR to PTV; NAAC and E-resource management for libraries.
 - Best and innovative practices in library; NAAC: Best Practices in Affiliated/Autonomous College Libraries; Benchmarking; Outcome based education-Roadmap to e-learning & accreditation etc. [13]
8. Covid-19 & Libraries: Issues & Challenge, Impact, Lockdown
- Role of libraries and LIS professionals during pandemic period; Post covid-19 library management; Preparedness in reopening academic library in prevailing Covid-19 environment; School libraries: Issues and challenges during Covid-19; Up skilling Librarians in the age of Covid-19; Libraries in new normal: Challenges & strategies for post covid-19 pandemic situation; Covid-19 as opportunity: from crisis management to future-proofing the library; Library & its services ‘post covid-19’; Supporting academic libraries in the Covid-19 era; Covid-19 and role of library: present and future; Covid-19 pandemic: Challenges before rural college libraries; Role of Knowledge Resource Center of HEI’s in Post Covid-19; Post covid-19: Challenges and opportunities for libraries and library professionals; Transforming the agricultural knowledge resource centers to meet the post Covid-19 challenges; Reimagining the libraries for the 21st Century: Learning from the Covid-19 crisis; Information dissemination during and after covid-19 pandemic: Perspectives from India and Sri Lanka; Supporting information during the Pandemic.
 - Pandemic covid-19 impact on the sphere of sports, libraries and national political issues; Impact of Covid-19 on Libraries.
 - Opening library after lockdown: A discussion; Resuming library services post lockdown: Challenges and recommendations; Post lock down: Development of standard operating procedures for Libraries; Best practices and innovative services during national Lockdown: Trends, issues and challenges for Academic Institutions and Libraries; Importance of libraries in lockdown; University Library services in Kenya during the covid 19 pandemic etc. [25]
9. Library Science Education: Library System & Library Management
- Status and reforms in library & information science education in India; New ways of approaches in university teaching: exploring challenges and possibilities; Library & information science in the context of changing environment; Public library system in Maharashtra.
 - Lighter side of Library Management; The importance of a physical library in today’s era; Library as a learning resource center; Disaster management in libraries-An integrated approach to disaster management of library collections: Digital and physical; Role of libraries in increasing ranking of institution; Extension activities in academic libraries; Academic libraries and national education policy; Collection Development in India etc. [12]
-

Table 2: Webinars Details: Broad Subject: [II] Covid-19/Corona, Lockdown:

Theme topic/sub-topic: Issues, Challenges, Impact, Lockdown, Post Covid and Measures etc.

- Current perspectives of Microbial disease 2020; Combating infertility: an embryologist's approach; Recent trends in virology: COVID 19; Digital era and pandemic situation; Hygienic awareness in covid-19 pandemic; Topical pharma and personal care products in covid-19 crisis.
- Challenges of new role and planning for tomorrow: India's fight against Covid-19; Covid-19: Online learning and empowering oneself; Multidimensional perspectives of navigating with Covid-19; Challenges and opportunities in chemical research in perspective of Covid-19; Covid-19 Pandemic: Transforming challenges in to opportunities; Covid-19 Pandemic: The Challenges of today & tomorrow; Education world after Corona; Challenges and opportunities before Indian economy due to pandemic covid 19.
- When rhetoric meets reality: Digital accessibility, persons with disabilities and covid-19; Covid-19: Livelihood of Persons with Disabilities in India; Racial discrimination in times of Covid-19 in India; Defining a new paradigm in India Russia relations in the era of Covid-19; Lets's overcome corona crisis with positively; Post covid geopolitics and global order.
- Impact of covid-19 in India: Issues, challenges & opportunities; Covid-19: Impact on society; Impact of covid-19 on financial sector; Impact of Covid 19 on Academics and societal life: Role of social media; Socio-economic and ecological impact of corona crisis.
- Research and innovation in the post –covid era; Covid-19 the new paradigm; Academia and industry post covid; Collection of cultural resources and documentation during and post covid-19; War against Covid-19: An alarm to mankind; A webinar on Stress busting for students during covid-19; Glamorous or Gloomy Future: GLAM Institutions (Galleries, Libraries, Archives, Museums) post covid-19; IT: In service of Indians for rebooting life and livelihood during and after COVID times.
- Mental health challenges and solutions: Lockdown & post lockdown times; Covid-19 lockdown: A challenge or an opportunity; Exercise and diet during quarantine & lockdown; Social distancing: Rethinking teaching learning; Maintaining social distance-Issues & Challenges; Covid infodemic and Media; Happiness is a state mind during & post lockdown; Strategies & challenges in higher education during Covid-19 lockdown period in India with reference to World etc. [41]

Table 3: Webinars Details: Broad Subject: [III] Other:

Theme topic/sub-topic: Higher education system, Subject & its further activities/services etc.

- Now and next: Enabling inclusion and accessibility for students with disabilities in higher education; Zoom for advance online education; Importance of concentration in e-learning; The new normal in education-strategies to enable a smooth transition; Understanding student-centric methods and techniques for effective teaching; Exam from home & evaluation from home; Digital teaching learning: Embracing change and transformation; Embracing the future: Transitions in higher education; Education GenNext: Why and How?; Application of Chanakya Niti in Modern Education; Towards excellence in higher education in 21st Century: Challenges and Opportunities; Teacher and social responsibility; Opportunities and new techniques for teachers; Role of Teachers in teaching, learning and curriculum enrichment with Modern Technology; Effective use of technology tools in academics; Tools and guidelines for effective online teaching; Paradoxical betweenness in academic endeavors and research metrics; Enhancing quality and visibility of research output of faculty and researchers; Importance of Psychology in education and role of the teacher; Value education; Habit of reading amongst the youth of India; Key Skills on Resume; Importance of soft skills for a placement; Employment opportunities for fresher; Right to information act.
- Recent trends in computer science research; Do's and don'ts cyber hygiene; Cyber security and information management system; Importance of Cyber Law for Women; Cyber security, cyber forensics and intellectual property right's; Webinar on graphic designing; Blockchain Demystified; Zero budget digital marketing; 3 virtual tools for stress free work environment; IPR for revenue generation; Role of engineers in upcoming industrial revolution; Short film making; Essence of managing TIME: Holistic development of LIFE; Unlocking young minds: Gen next; Media takes a new dive: Careers & opportunities; Aatmanirbharta: Concepts & Feasibility; Atmanirbhar Bharat: A dawn of new economic reforms; Role of engineer in Industry 4.0 scenario; AI & Machine Learning; Machine learning module; Augmented reality and virtual reality; Antenna Design through Simulation; Responsible use of Medicines; Sustainable development: A biological and socio economical perspective; Sustainable environment development: Current scenario, issues and challenges; Biodiversity and its conservation; History of Eco criticism; Identifying unhealthy relationship; Smart tools for Lawyers & law students; Education and industry 2020; Smart manufacturing by leveraging industry 4.0; Wetland diversity and its conservation; Life of an architect; Drug Discovery; Food forensics; Information visualization using Tableau; Understanding Anger and its triggers activities to manage anger; Evolution Atrophied; Spring of life; Managing/Imagining social change; How to maintain emotional resilience & balance during stressful times; Psychology of emotional intelligence; Race and Gender; Gendering space; Dr. B. R. Ambedkar; Paritap Ke Panch Kshan-Ek Vishleshan; Trauma Studies; Words for Humanity; Literature of the subaltern; Future of Marathi and opportunities in social media etc. [75]

Table 4: FDP, Quiz, Workshops, Training, Other Academic Activities Details

Academic, Learning and Extension Activities: B) FDP (Faculty Development Program)		
Broad Subjects (3)		
I] LIS: Topic/Sub-topic	II] Subject Specific: Topic/Sub-topic	
<ul style="list-style-type: none"> ▪ Modern teaching, evaluation and research methods; Creation, preservation and dissemination of e-content (2 weeks); Effective ways to develop e-content for teaching learning (10 days); Day to day IT tools & techniques for library professionals; Imbibing skills for today's Librarianship: Techniques & tools; Research Methodology; Multi-Disciplinary approach to quality enhancement in higher education; Enhancing the research visibility: Role of libraries and social networks; Digital resources and learning; Libraries response to covid 19: enhanced online library services; Joomla and FDP on DRUPAL etc. [12] 	<ul style="list-style-type: none"> ▪ Psychometrics and scale construction in Social sciences; Statistical analysis of quantitative data using advance excel for research scholars; 7 Days text reading workshop on Meghadoot; Soft computing and multi-objective optimization; Advanced teaching tools, techniques and methodologies for outcome based education; Innovation, Entrepreneurship and its relevance to Industry 4.0 practices in the post covid -19 situation; Scilab; Renewable energy source: A way ahead; Basics of 'R' programming and Physics in daily life etc. [10] 	
III] General/Common to all Subjects: Topic/Sub-topic		
<ul style="list-style-type: none"> ▪ E-content development in teaching; Advance educational techniques in Science & Humanities; Institutional bench marking of best practices; Let's relearn: New tools for higher education teacher; Online teaching methods & its Management; Online learning tools post covid-19; ICT based tools and its applications in teaching-learning process; Evolution from offline to online teaching; Managing online classes and Co-creating MOOCS 2.0 (2 weeks); Empowerment through Digital Technology and E-Learning; ICT tools for effective teaching learning and administration; Outcome based education: A step towards excellence; Research Methodology and Data Analysis etc. [14] 		
Academic, Learning and Extension Activities: C) Quiz/Quiz Series		
Broad Subjects (3)		
I] LIS: Topic/Sub-topic	II] Covid-19/Corona: Topic/Sub-topic	III] Other Subject: Topic/Sub-topic
<ul style="list-style-type: none"> ▪ NDLI; Quiz on Information Resources; Research Methodology; E-resources and Library & Information Science Quiz etc. [5] 	<ul style="list-style-type: none"> ▪ Awareness and Precautions Measures Against COVID-19 Pandemic etc. [1] 	<ul style="list-style-type: none"> ▪ Quiz on General Knowledge; Celebration of important day/Personality; Covid-19: Impact on global economy; Cyber security; Word quiz; History of India; Nature; Machine learning basics; Personality 4 future ...; Getting a job & going beyond...; Facing interviews, sustain and excel in a job; Academic quiz and Mech Buzz etc. [13]
Academic, Learning and Extension Activities: D) Workshop, Virtual Meeting (Demonstration)		
Broad Subjects (2)		
I] LIS: Topic/Sub-topic	<ul style="list-style-type: none"> ▪ Five days online workshop on e-content development; Copyright dilemma in academics; Developing educational videos content: Hands on session; KOHA workshop & Certification program; Google applications and their use in libraries; Awareness of intellectual property rights: A need of the hour and IPR & CAS etc. [7] 	
II] Other Subject: Topic/Sub-topic	<ul style="list-style-type: none"> ▪ MS-office and social media security; Online workshop on IQAC, documentation and NAAC; Work smarter with Google applications; Facilitating online learning; Swachhta action plan; Conversations during tough times; Educating for peace; Cultural humility; Anger as a force for change; Let's talk about hate; Being true to self while empowering others; How to make research better and matter too; Emerging trends and future computing technologies (11 days); How to make sanitizer at home; Creating video lectures using OBS studio; Online course design, develop and delivery; Free online course on human values; Neat hand writing skill development and Health & happiness workshop etc. [19] 	
Academic, Learning and Extension Activities: E) Training		
Broad Subjects (2)		
I] LIS: Topic/Sub-topic	<ul style="list-style-type: none"> ▪ Current trends and ethical aspects in Scientific writing; Training on Indian Citation Index; Online user awareness training for Web of science and Endnote; One week online training program on recent trends in academic writing; RUSA web based software application; Mobile Base smart e-content development for online teaching and Library software live training etc. [6] 	
II] Covid-19/Corona	<ul style="list-style-type: none"> ▪ Information, precautions and preventive measures for COVID-19 etc. [1] 	
Academic, Learning and Extension Activities: F) Online Short Term Course		

Broad Subjects (1)

I] LIS: Topic/Sub-topic	
<ul style="list-style-type: none"> ▪ Issues and solutions in Research Methodology; E-content Development and Scientometric analysis using open source software's etc. [3] 	
Academic, Learning and Extension Activities: G] Other	
Name of Academic, Learning and Extension Activities	Subjects
<ul style="list-style-type: none"> ▪ Development of curriculum based e-content module; Video Lectures and Self instructional material 	Respective Discipline
<ul style="list-style-type: none"> ▪ Availability of lecture notes, submission of home assignments/internal test, checking and gradation through Moodle link 	Respective Discipline
<ul style="list-style-type: none"> ▪ Preparation of Question bank for paper setting 	Respective Discipline
<ul style="list-style-type: none"> ▪ Online Internship 	Respective Discipline
<ul style="list-style-type: none"> ▪ Online guidance to PG, Research students and Checking of chapters 	Respective Discipline
<ul style="list-style-type: none"> ▪ Development, hosting of online Questionnaire and its response analysis 	Respective Research Area/Project/Subject
<ul style="list-style-type: none"> ▪ Online reading of e-newspaper of different editions/states/languages; Book-Reviews (Vacchan-Katta) and Book Discussion 	General
<ul style="list-style-type: none"> ▪ Other Online events like – Competition: Article writing competition; Project competition; Covid equipment competition; Idea making competition; Film making competition and Essay writing competition etc. 	General

Majority of the listed webinars are of national level and of one day duration (approx. 30 minutes to 3 hours). Depending upon the theme and networking system, the quantum of participants and language of webinar varies. The participants were enjoyed these live events due to its interactive applications. Again few scholars/groups are requested to contribute a paper in the forthcoming publication of editorial book.

5 RESULTS AND DISCUSSION: MAJOR FINDINGS:

The major findings of this compilation research work is stated below-

- Total numbers of online webinars organized in all stated 3 broad subjects during the lockdown period are 377; out of which in 'LIS subject', total 261 webinars are held, sub-classified in LIS areas like Research (41), Digital Library (40), Copyright & Publication (38), LIS professionals & Development (35), Information Literacy (30), ICT & Library (27), Covid-19 & Libraries (25), NAAC & Libraries (13) and Library Science Education (12). Thus it shows that Research methodology LIS area has maximum number of webinars and in Library science education minimum number of webinars.
- From the above Table 1, it is clear that almost all the latest areas related to LIS subject/headings are covered in mentioned online events. The areas not covered in LIS subject are viz. Classification, Cataloguing, Ontology, Archeology, System analysis, Network & Metadata, Multimedia, Information systems & their services; Human resource management, Financial management and Evaluation of information sources etc.
- Further from the analysis it is revealed that, 41 webinars were arranged under the caption- 'Covid-19/Corona, Lockdown' with major focus on topic like issues, challenges, impact and measures of covid-19 (pre & post) situation. In the 'Other' category 75 webinars were arranged on several disciplines like higher education system, health literacy, use of ICT, Social science and literature areas.
- Under online FDP activity, total 36 FDPs were held against the subjects like General/common subjects (14) followed by LIS (12) and Subject specific (10) FDPs.
- Point to note that no any Workshop, Virtual meeting and Short term course were arranged in the caption- 'Covid-19/Corona, Lockdown', this may be because of new terminology and research result yet to explore on it.
- Under the 'Quiz' caption, it is noticed that LIS domain has 5 quizzes and in other subject it was 13. However it was observed that most of the HEIs undertaken lot of quiz programs on 'Covid-19' so all the quiz programs are merged under one generic title as- 'Awareness and Precautions Measures Against COVID-19 Pandemic'.
- Like online quiz, total 26 numbers of Workshops, virtual meeting were held, out of which 19 in 'other' subject followed by 7 in LIS subject.
- Total number of trainings in LIS subject are 6 and 1 in 'Covid-19/Corona, Lockdown' heading. Further 3 online Short term courses were held in LIS subject only.
- The activities viz. development of e-content, examination/research work and research guidance etc. were carried out in the respective discipline along with general activities like online reading of e-newspaper and participation in different online competitions by the stakeholders of HEIs.
- From the Table 5 below, it dwells that most of the institution/publisher/vendor is provided remote services to their users during the lockdown occurrences.
- Very few online events release the print/online proceedings in terms of journal/book chapter publication of their event for wider publicity. Hence there is less scope for the participants (authors) to expose their research publication at the global level.

6. SERVICES BY INSTITUTION/PUBLISHER/VENDOR DURING LOCKDOWN PERIOD:

Apart from the above, some major institutions/publishers/agencies/vendors provide following free remote electronic resource services for the benefit of the scientist, academicians and public to strengthen their research tasks and to utilize the lockdown period for reading and extension work (Table 5) for a short period after users registration request.

Table 5: Services by Institution/Publisher/Vendor

Institution/Publisher/Vendor	Services
American Society for Microbiology (ASM) INFLIBNET center	COVID-19/SARS-CoV-2 Research Published Across ASM Journals; The ASM COVID-19 Research Registry [Latest research article on Covid-19]. e-Shodh Sindhu Webinar series: Awareness session of different publishers; Off-campus (Remote) access to online resources through INFED platform ; Free resources from publishers in COVID-19 situation.
National Digital Library of India (NDLI) AICTE	Study at home; Covid-19 Research Repository; Featured collections [E-Resources, Videos; Data sets etc.] Coursera's Coronavirus Response Initiative (Online teaching at campuses); AICTE-NEAT (National Educational Alliance for Technology)- Free E-Content For Engineering And Polytechnic Subjects.
Cambridge University Press Springer-Nature	Cambridge Core: Free textbooks (e-books); Educational resources for schools. Access COVID-19 Content across Journals, Books, and More-Free access to articles, book chapters; COVID-19 Response; Access covid- 19 datasets etc.
ACM Digital Library Proquest SIAM American Institute of Physics (AIP)	Open access to ACM Digital Library. Corona virus research database. Siam epidemiology collection; Covid -19: Auto industry update. AIP responds to COVID-19; Scitation e-resources.
Annual review Jstor IFLA	Coronavirus Information Hub. JSTOR resources during COVID-19 (Free e-resources). COVID-19 and the Global Library Field; Resource Sharing during COVID-19 (RSCVD); IFLA and COVID-19 etc.
Elsevier Sage	Novel Coronavirus Information Center. Free access to eTextbooks, LMS (Learning Management System) resources and articles in SAGE Journals and SAGE Knowledge; Coronavirus (COVID-19) Research etc.
TIFR	CovidGyan.

The quantum of providing e-resources from different publishers, vendors are at different locations and varied hence exact figure was excluded to mention. Some of the state high schools/institutes/couching classes are also delivered a special online lecture cum demonstration couching courses and mock test/series especially for 10th and 12th students' regularly on YouTube/other platform so that students don't miss out their valuable time and be engaged in their study and home work. While others are developed their in-house apps for lecture and home work submissions. Also some people shared a link of well known books, play etc. to make true use of the lockdown period.

6.1 Initiatives by UGC etc.:

To support 'Work from home' culture for the academic task of the faculty/student and to make best and productive use of lockdown challenging period, UGC circulated a letter dated 25/03/2020 for use of 10 ICT initiatives of MHRD/UGC to ensure uninterrupted teaching and learning activities for the academic fraternity viz. Swayam online courses, UG/PG MOOCs, e-PG Pathshala, e-content courseware in UG subjects, Swayamprabha, CEC-UGC YouTube channel, National Digital Library, Shodhganga, E-ShodhSindhu and Vidwan etc. Again the ASC/HRDC of different universities organizes online FDP, workshop as online courses with regular orientation/refresher course. Apart from the above listed online information sources, the DIKSHA E-Learning Platform/Diksha Mobile App., E-Balbharati/Ebalbharati App., NROER (National Repository of Open Educational Resources) and Global Digital Library etc. such ICT tools also supports 'learning from home' visualization.

7 ICT FACILITY- APPS FOR ONLINE EVENT:

The webinars and other above listed courses/events are hosted online through following web platforms/apps/software. Depending upon the number of participants, length of meeting for the online event these platforms has free/paid norms.

- Adobe Connect; Airmeeet; AnyMeeting; Cisco Webex; ClickMeeting; Facebook live; Google Meet/Classroom/Hangouts;

GoToWebinar/GoToMeeting; Jitsi Meet; Microsoft Teams (MS Teams); Moodle; Skype; Telegram; Youtube Channel and Zoom etc.

Uninterrupted, continues and fast internet connectivity is the major channel to access the online meetings along with other ICT infrastructure like computer, laptop, smart phone, ipod, power supply etc. While time to time role of organizers (host), resource person should be operational with free technical barrier in such live sessions.

7.1 Merits over the Online Learning:

The advantages over the online learning tools are enlisted below-

- No physical gathering so the cost of travelling, breakfast-lunch-dinner, accommodation, felicitation, printing of seminar/conference outcome, advertisement (publicity), group photograph etc. are meticulously lower down
- Live chat from their doorstep
- No advance booking for the conference hall, ICT infrastructure physically
- Quantum of participant is high as compared to physical meetings

8 LIBRARY CARE AFTER POST LOCKDOWN:

As of time not any fruitful guidelines in terms of SOP (standard operating procedures) are released by the government regarding precocious measures for library work after lockdown period. Hence following suggestive measures are recommended for re-opening of library in post lockdown period-

- Regular periodic cleaning/sanitizing of the library; Sanitization of all sections of the entire library, for the print books specify the sanitization period (one week/3 days) then ready for use and provision of hand sanitizers stand/material at the entrance.
- Use of Thermal Scanner/Infrared thermometer to check users temperature be provided at the entrance
- Avoid common gathering especially at toilet block, lunch/meeting room, newspaper reading stands etc.; Avoid close contact between the library user, prefer e-mode answering and Prefer E-Library meetings
- Reading hall seating arrangement at par with social distancing
- Library staff/reader should come with face mask and hand gloves
- Returned book should be sanitized
- Avoid sharing of office stationary, air conditioning at the work place
- Fumigation of ICT tools like PC, printer etc. and furniture's like key-lock, gate, door handles etc. at regular time intervals
- No over-crowding of students at a single section/area, so limit opening schedule of all the sections then at par with allocate duties of the library staff.
- Provide waiting furniture at the crowded area especially at circulation counter to follow the social distancing parameters.
- Updated notices/circulars on library website for timing, staff concerned and services after reopening of library
- Health check of Library staff/ readers on regular basis through health center of HEIs
- Online communication to book publisher/suppliers/vendors for purchasing of reading materials/equipments etc. and payment by e-mode
- Close/avoid use of elevators for a time
- No handshake, Prefer- 'Namaste'

CONCLUSION:

During this Corona crisis, the lockdown episode teaches us that the routine, professional and research tasks be done in online mode under 'work from home' maxim through the digital transformation. It also teaches that positive attitude, faith and hard work etc. are important life tools to fight against the critical situation whenever arise in life. Thus the situation directs for 'digital citizenship' amongst the academicians. In future there will be much more scope for such online events with the dawn of technology and need. Hence it is suggested that library should provide tailor made services during covid-19 lockdown period to the users.

REFERENCES

- [1] Halpern, J (2016). Compilation techniques for pedagogically effective bilingual learners' dictionaries, *International Journal of Lexicography*, 29 (3), 323-338.
- [2] O'Callaghan M. (2017). Collecting verse: "Significant shape" and the paper-book in the early seventeenth century, *Huntington Library Quarterly*, 80 (2), 309-324.
- [3] Sarab, A.M & others (March 2018). Examining the problems and inconsistencies in the interpolation of English Transliterated names of Persian language researchers in citation databases. *Library Philosophy and Practice*, 1, 1-8.
- [4] Sturgeon, D (2018). Unsupervised identification of text reuse in early Chinese literature *Digital Scholarship in the Humanities*, 33 (3), 670-684.
- [5] Hafdahl, A. R (2019). Article alert: 200 items from 2014, grouped and indexed. *Research Synthesis Methods*, 10 (2), 287-302.
- [6] Masui, H (2019 July 7-11). Data compilation procedure of the nuclear reaction data on the unified research management system, *Proceedings of 8th International Congress on Advanced Applied Informatics*, Japan: Toyama International Conference Center Toyama.
- [7] Abale, Mahesh & Charak. Kuldip S (2020). *Covid-19: The Preventive Protocol for Educational Institutions*. New Delhi: EduPedia Publications (P) Ltd.
- [8] LIS world. Retrieved from <https://www.lisworld.in/2020/05/live-webinar-on-importance-of.html> (accessed on 30/05/ 2020)



Dr. Prakash B. Bilawar is presently working as 'Assistant University Librarian' (Selection Grade) at B. B. K. Library, Shivaji University, Kolhapur, Maharashtra since 2005 to the present date and involved as the 'Contributory teacher' for B. Lib. & Inf. Sci./M.Lib. & Inf. Sci Course at Dept. of Lib. & Inf. Sci., Shivaji University, Kolhapur. Dr. Bilawar qualified NET exam in year 2002 and Ph.D degree from Shivaji University, Kolhapur in 2015. His area of interest is ICT, Information Sources and Services. Dr. Bilawar has attended 32 regional and national level Seminars/ Conferences/ workshops at the various places and 37 Research Publications and two book on his credit.