MOOCS A PARADIGM SHIFT IN INDIAN EDUCATION SYSTEM: A SPECIAL EMPHASIS ON HOW THE LIBRARIANS CAN ACTS AS FACILITATOR

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Abstract : *This research paper examines the role of librarians as facilitators in India's New Digital Education System, with a focus on the National Education Policy 2020. The policy emphasizes the importance of technology in education and aims to expand access to digital resources, including massive open online courses (MOOCs), to learners across the country. The study reviews various MOOCs platforms, including Open University, Iversity, ALISON, Open Learning, Coursera, Udacity, and Edx, among others. Additionally, the paper highlights the MOOCs platforms developed and implemented by the Government of India and private companies, including SWAYAM, NPTEL, Diksha, Upgrad, Simplilearn, and Greatlearn.*

The research highlights the critical role of librarians in assisting faculty members and students in selecting relevant MOOCs courses and resources, integrating them into the curriculum, and providing guidance on information literacy skills. The paper concludes that librarians must serve as facilitators to ensure that students receive optimal benefits from MOOCs platforms and digital resources, enabling them to achieve the desired educational outcomes in the New Digital Education System in India.

Keywords : *MOOCs, higher education,SWAYAM, NPTEL, Massive open online courses.*

Introduction :

New Education Policy 2020 and Role of Libraries :

The New Education Policy 2020 was approved by the Union Cabinet on July 29, 2020. The NEP 2020 aims to transform India's education system to make it more holistic, multidisciplinary, and future-oriented with a vision to provide quality education to all students, regardless of their socio-economic background, and develop a vibrant knowledge society in the country. The policy's mission is to transform the education system to meet the needs of the 21st century by promoting critical thinking, creativity, and problem-solving skills among students. The policy targets a Gross Enrolment Ratio (GER) of 50% in higher education by 2035 and aligns with the United Nations' Sustainable Development Goal 4 (SDG4) of ensuring inclusive and equitable education for all by 2030. As part of this mission, the policy emphasizes the importance of digital resources and open educational resources (OERs) which are made available through Massive Open Online Courses (MOOCs). To support the integration of digital technology into the education system, the National Digital Education Architecture (NDEAR) has been proposed to provide a framework for the creation

and delivery of digital education content. MOOCs can play an important role in this framework by providing access to high-quality educational content from top universities , institutions and experts across the country and world. The National Research Foundation (NRF) has also been proposed to support research and innovation in the country, with a focus on interdisciplinary research. Libraries and librarians can play a vital role in this endeavor by providing access to digital resources such as e-books, journals, and databases which can be used to support the development of MOOCs and other forms of online education. The new education policy also recognizes the active involvement of Libraries to collaborate with other departments and organizations to support interdisciplinary research and community engagement initiatives and foster a culture of learning and innovation in the new education system. National Education Policy 2020

1. MOOCs : An overview :

The term MOOCs (Massive Open Online Courses) was first coined by David Cornier of the University of Prince Edward Island and Bryan Alexander of the National Institute for Technology in Liberal Education (Faizul & V, 2015, 82-29). The term " Massive" represents the availability of course contents to 'n' number of students enrolled or registered for a particular course across the world and accessed via the Internet. The four basic elements of MOOCs are defined below (Balaji, 2016, 17)

- **Massive** : MOOCs are designed for 'n' number of participants and if the number of participants increases no additional efforts are needed to conduct the course .
- **Open** : Courses under MOOCs can be free or can be charged based on the policy of the developer.
- **Online** : The course(s) is delivered through Internet
- **Course :** A full course is offered including designing of learning goals; availability of course contents and assessment of learners through quizzes, formative assessment, and summative examination for certification purposes

1. Review of Literature :

As there are many numbers of articles available on MOOCs, a review of closely related articles is discussed here

Mahajan,Gupta & Singh (2019) have discussed the potentiality of MOOCs courses in continuing medical education programs and programs for improving soft skills and research skills for faculty members in the medical field. It also highlights the MOOCs application in medical education and assesses the feasibility of developing MOOCs in India. Gul, Mahajan & et.al (2018) have identified various issues and challenges faced by MOOCs and discussed the benefits of Open education to all by overcoming the barriers of time, space, which are pronounced in the traditional education system. Spring (2016) has discussed the important aspects of MOOCs in health education and highlighted the role of health librarians to collaborate in the development and delivery of health MOOCs. Faizul & Senthil(2015) have reviewed the popular and widely used MOOCs platforms in distance learning around the world and studied related to MOOCs in India. The paper concludes that MOOCs and online education have enormous potential to promote and ensure social cohesion and sustainable

progress. Kumar & Mishra(2015) have described history, advantages, and challenges of MOOCs. They have assessed the key features and emergence of new technologies in the MOOCs sector. Mune(2015) have briefly introduced the current state of MOOCs in higher education, explored the need of MOOCs for the students and discussed the possible best practices should be adopted or possessed as Librarian to serve the emerging student population. Gore(2014) has briefly discussed the advent of MOOCs and the role of Librarian in the global higher education landscape. Author have reviewed the issues and challenges for Libraries in the emergence of MOOCs and the role that a librarian could undertake within the research, production and presentation of MOOCs.

2.1 Types of MOOCs :

1.1. C- MOOCs : C-MOOCs stands for Connectivist Massive Open Online courses. The main focus in C-MOOCs is on creation and generation of knowledge. Haber (2013) describes it, "in a cMOOC environment the participants in the course act as both teachers and students, sharing information and engaging in a joint teaching and learning experience through intense interaction facilitated by technology." The cMOOC is not a central repository of knowledge, but a primary conduit that connects a diverse network of learners (Blair & Monske, 2016)

1.2. X-MOOCs : X-MOOCs stands for Extended Massive Open Online Courses that merely focus on knowledge duplication. X-MOOCs work more like a traditional course structure comprising lecture, instruction, discussion etc specifically defined in the form recorded video presentations, quizzes and self test assessment on proprietary specialist software platforms owned by independent firms. X-MOOCs are associated mostly with the three largest platform providers edX, Udacity, and Coursera (Faizul & V, 2015, 82-89).

2. Popular MOOCs Platforms :

Following MOOCs platforms are available for distance learners free of cost world wide

1.1. ALISON :

1.1.1. It is the world's largest free learning platforms for education and skill development
1.1.2. It was founded in Galway, Ireland in 2007 by Mike Feerick, CEO
1.1.3. It provides free high quality resources that will be helpful for working employees, students to gain certified workplace skills
1.1.4. The mission of ALISON is to enable people anywhere in the world, to learn and get certified new skills among hundreds of free courses to adopt from business & enterprise, languages, personal development and IT using their free, interactive multimedia (*Our Values, Story and History*, n.d.)

1.2. COURSERA :

1.2.1. It is a US based massive open online course provider founded in 2012 by Stanford University Computer Science Professors Andrew Ng and Daphne Koller (*Coursera*, n.d.)
1.2.2. It is considered to be the largest MOOC provider in the world

1.2.3. It collaborates with top universities and the organisations in the world to offer free courses for anyone with a mission to make world class education accessible to distance learners.

1.3. EdX :

1.3.1. Edx is a non-profit MOOC platform that was founded in 2012 by Harvard University and the Massachusetts Institute of Technology (MIT).

1.3.2. The platform offers a wide range of courses from universities and institutions around the world, covering topics such as computer science, engineering, business, humanities, and more.

1.3.3. The unique features of edX is that it offers courses that are taught by some of the most renowned experts in their respective fields, including Nobel laureates and MacArthur "Genius" Grant recipients.

1.3.4. EdX is a well-respected and reputable MOOC platform that provides learners with access to high-quality educational resources from some of the world's top universities and institutions.

1.4. Iversity (https://iversity.org) :

1.4.1. Iversity is a MOOC platform that was founded in 2013 and is based in Berlin, Germany. The platform offers courses from universities and institutions around the world in a variety of subjects, including business, design, computer science, and more.

1.4.2. One of the unique features of Iversity is its focus on providing courses that are specifically designed for professionals and lifelong learners. The platform offers courses that are taught by industry experts and practitioners, providing learners with real-world knowledge and skills that can be immediately applied in their careers.

1.4.3. Iversity also offers a range of professional development courses and certification programs that can help learners to advance their careers and develop new skills.

1.4.4. Iversity courses are typically free to audit, but learners can also choose to pay a fee to receive a certificate of completion or to access additional features and resources.

1.4.5. It is a well-respected and innovative MOOC platform that provides learners with access to high-quality educational resources and professional development opportunities.

1.5. Udacity (https://www.udacity.com/) :

1.5.1. Udacity is an online learning platform that offers courses, programs, and credentials in various fields of study, such as data science, programming, artificial intelligence, machine learning, and more.

1.5.2. The platform was founded in 2011 by Sebastian Thrun, David Stavens, and Mike Sokolsky, with the mission to democratize education and make high-quality, career-focused learning accessible to everyone, regardless of their background or location.

1.5.3. The courses are designed to be highly interactive and project-based, allowing students to gain practical skills and hands-on experience working on real-world problems.

1.5.4. Udacity offers both free and paid courses, and students can earn certificates and credentials upon completion of their studies.

2. India's Massive Open Online Courses Platforms :

2.1. SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) :

2.1.1. **SWAYAM** is an online learning platform initiated by the Government of India to provide free and open access to online courses, covering various disciplines and levels of study. The platform offers courses from primary school level to postgraduate and beyond, and the courses are delivered in a variety of formats, such as video lectures, reading material, quizzes, and assignments.

2.1.2. It aims to bridge the digital divide in India and provide quality education to all by leveraging technology. The courses on SWAYAM are designed and developed by the best faculty members from top institutions in India and abroad, including the Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), and other leading universities.

2.1.3. SWAYAM courses are available to anyone who wishes to enroll and participate, including students, professionals, and lifelong learners. Learners can access the courses online and learn at their own pace and convenience, without the need to attend physical classes.

2.1.4. SWAYAM offers certification for the courses, which are recognized by various academic institutions and employers in India. The certification is based on a rigorous evaluation process that includes online assignments, quizzes, and exams. The platform also offers personalized support to learners in the form of discussion forums, doubt clearing sessions, and mentoring services.

2.1.5. SWAYAM is a valuable initiative that aims to democratize education and provide quality learning opportunities to millions of learners across India, helping to promote lifelong learning and advance the country's education sector.

2.2. NPTEL (National Programme on Technology Enhanced Learning) :

2.2.1. NPTEL (National Programme on Technology Enhanced Learning) is an online learning platform initiated by the Government of India in affiliation with All India Council of Technical Education (AICTE) to provide free and open access to online courses in engineering, science, and humanities. The platform offers courses from top institutions in India, including the Indian Institutes of Technology (IITs) and the Indian Institutes of Science Education and Research (IISERs).

2.2.2. NPTEL aims to enhance the quality of engineering education in India and promote the use of technology in education. The platform offers courses that cover a wide range of topics, including core engineering subjects, such as computer science, electrical engineering, mechanical engineering, and civil engineering, as well as interdisciplinary topics, such as data science, artificial intelligence, and management.

2.2.3. NPTEL courses are developed and taught by top faculty members from the participating institutions, who are experts in their respective fields. The courses are

designed to be highly interactive and project-based, allowing learners to gain practical skills and hands-on experience working on real-world problems

2.2.4. NPTEL is a valuable initiative that aims to provide quality education and promote lifelong learning in India, helping to advance the country's education sector and contribute to its economic and social development.

There are several MOOC platforms in India initiated by private universities that offer online courses and programs to students and learners across India. Some of the notable platforms are:

2.3. UpGrad : UpGrad is a popular online learning platform that offers courses and programs in various fields, including data science, management, technology, and more. The platform is founded by Ronnie Screwvala and Mayank Kumar, and it partners with leading universities and institutions in India and abroad to offer high-quality, industry-relevant education to students and professionals (Ref.: https://www.upgrad.com/)

2.4. Simplilearn : Simplilearn is an online learning platform that provides courses and programs in various fields, including digital marketing, cybersecurity, data science, cloud computing, and more. The platform is founded by Krishna Kumar and it partners with leading universities and institutions to offer courses that are designed to be highly interactive and project-based, allowing learners to gain practical skills and hands-on experience.
(Ref.: https://www.simplilearn.com/)

2.5. Great Learning : Great Learning is an online learning platform that provides courses and programs in various fields, including data science, artificial intelligence, management, and more. The platform is founded by Mohan Lakhamraju and it partners with leading universities and institutions to offer courses that are designed to be highly interactive and career-focused, helping learners to acquire in-demand skills and advance their careers.

3. Covid-19 Pandemic impact on Education System :

The COVID-19 pandemic had a significant impact on the education system globally, with many schools and universities having shut down and moved to remote learning. This created unprecedented challenges for students, teachers, and institutions as they adapted to new ways of teaching and learning in a rapidly changing environment. MOOCs platforms played a crucial role in providing assistance during the pandemic situation, offering a lifeline for students and teachers who had to quickly adapt to remote learning. The Ministry of Education, Government of India, took several initiatives after the post-COVID-19 pandemic to enhance the quality of education in the New Education Policy 2020. Some of the major initiatives were :

3.1. National Digital Education Architecture (NDEAR) : NDEAR is a platform that aims to create a digital infrastructure for education in India. It will enable the integration of various digital education platforms, such as S**WAYAM, DIKSHA, and**

e-PATHSHALA, to provide a seamless and integrated learning experience to students and learners across India.

3.2. One-Class-One-Channe : One-Class-One-Channel is an initiative aimed at providing access to quality education to students in remote areas of India. Under this initiative, the Ministry of Education will provide one class with a dedicated TV channel in each state, which will broadcast educational content to students in remote areas.

3.3. National Repository of Open Educational Resources (NROER) : NROER is a digital platform that provides access to a wide range of open educational resources, including e-books, videos, and audio files, to teachers, students, and learners across India. It aims to promote the use of open educational resources in education and enhance the quality of education in India.

4. Advantages and Limitations of MOOCs :

The Covid-19 pandemic had paved the way for a hybrid model in education, combined digital and traditional methods of teaching and learning. Emergence of ITs in education sector via MOOCs platforms have provides following advantages:

4.1. Accessible : MOOCs are available to anyone with an internet connection, making education accessible to people who may not have access to traditional educational opportunities.

4.2. Flexibility : MOOCs platforms offer learners the flexibility to learn at their own pace and on their own schedule, which is especially important during the pandemic when many learners are facing disruptions to their daily routines.

4.3. Cost-effectiveness : MOOCs platforms provide cost-effective options for learning, which is especially important during the pandemic when many families are facing financial hardships. Many MOOCs platforms offer free or low-cost courses, making it possible for learners to continue their education without incurring significant expenses.

4.4. Skill Development : MOOCs platforms provide learners with access to courses and resources that help them develop new skills, which is essential during the pandemic when many workers are facing job losses or reduced hours. These courses help learners acquire new skills and knowledge that are relevant to the changing job market.

MOOCs (Massive Open Online Courses) have gained popularity over the years as a way for people to access education and learn new skills from the comfort of their own homes. However, like any educational tool, MOOCs have their limitations. Some of the most common limitations of MOOCs:

4.4.1. **Limited interaction with instructors :** MOOCs are designed to be self-paced and self-directed, which means that students may have limited opportunities to interact with instructors and get feedback on their work.

4.4.2. **Limited interaction with peers :** MOOCs may also have limited opportunities for students to interact with their peers, which can make it challenging to build a sense of community and support.

4.4.3. **Limited credentialing :** While some MOOCs offer certificates of completion or other forms of credentialing, these credentials may not be recognized by employers or educational institutions.

4.4.4. **Limited course offerings** : MOOCs may not offer courses in every subject area, and the courses that are available may not be as comprehensive as those offered by traditional universities.

4.4.5. **Limited motivation :** Without the structure and accountability of a traditional classroom setting, some students may struggle to stay motivated and engaged in their coursework.

4.4.6. **Limited access to resources :** While MOOCs are designed to be accessible to anyone with an internet connection, not all students may have access to the technology or resources needed to fully participate in the course.

5. Role of Librarian in Online e-Learning Education System :

Librarians play a critical role in e-learning system. Some of the key roles and responsibilities of librarians are identified as a Consultant, Content Manager, Information Desseminator, , Technical Support to the peers and target audience, research supporters.

5.1. As Consultant : Librarians can act as consultants to faculty members and students, providing guidance on how to access and use online resources. They can also advise on issues related to copyright, plagiarism, and ethical use of information. By providing consultation services, librarians can ensure that the online education system is aligned with best practices in information literacy and academic integrity.

5.2. Content manager : Librarians can manage the online resources available in the education system, curating and organizing materials in ways that are easy to access and use. They can also collaborate with faculty members to identify and acquire relevant online resources that support the curriculum. By managing content effectively, librarians can ensure that learners have access to high-quality materials that support their learning goals.

5.3. Content Desseminator : Librarians can disseminate information about the resources available in the online education system to learners and faculty members. They can create instructional materials and tutorials that teach learners how to use the system effectively. By disseminating information about the resources and tools available, librarians can promote engagement and ensure that learners are able to take full advantage of the system's capabilities.

5.4. Technical Support : Librarians can provide technical support to learners who may face technical issues while accessing online resources or participating in online courses. They can also help learners troubleshoot common technical problems and provide guidance on how to use different online tools and platforms.

5.5. Research Supporter : Librarians can support learners in conducting research for their assignments and projects. They can provide guidance on how to search for relevant sources, evaluate sources, and cite sources properly.

Librarians can be valuable contributors to online education systems, serving as consultants, content managers, and content disseminators. By leveraging their

expertise in information literacy and their knowledge of online resources, librarians can help ensure that learners have access to high-quality materials and are able to use the system effectively to support their learning goals.

6. Tools and Technical Skills for Librarian in Digital Education System :

In today's digital educational system, librarians can possess a range of tools and technical skills to effectively support online learning. Some of the essential tools and skills that librarians must possess

6.1. Knowledge of online resources : Librarians should have a good understanding of the online resources available for supporting online learning, such as e-books, online journals, and databases

6.2. Information literacy skills : Librarians should possess information literacy skills and be able to teach learners how to effectively search for, evaluate, and use information online.

6.3. Technical skills : Librarians should be proficient in using the online platforms and tools used for online learning, such as learning management systems, video conferencing tools, and content management systems.

6.4. Collaboration skills : Librarians should possess strong collaboration skills and be able to work effectively with faculty members and other stakeholders to support online learning.

6.5. Communication skills : Librarians should be able to communicate effectively with learners and faculty members using various online communication channels, such as email, chat, and discussion forums.

7. Challenges for Librarian in Digital Education System :

Following are the challenges faced by the Librarian while providing online e-learning services to the students, faculties and research scholars in Higher Education System in India.

7.1. Budget constraints : With limited budgets, libraries need to prioritize their spending on online resources and tools that are most effective for supporting online learning.

7.2. Information overload : With so many online resources available, learners and faculty members may struggle to find the most relevant and useful materials for their learning needs.

7.3. Maintaining engagement : With online learning, there is a risk of learners becoming disengaged and not participating fully in the learning process. Libraries need to find ways to promote engagement and motivate learners to actively participate in online learning activities.

7.4. Copyright infringement : Being as Content Manager, Librarian must ensure that the content used in the MOOCs platform does not infringe on any copyright laws. They must obtain permission to use copyrighted materials and give credit to the original authors.

7.5. Intellectual property rights : Librarians must ensure that any original content they create, such as videos or written material, is protected by intellectual property rights.

7.6. **Privacy:** Librarians must ensure that any personal data collected from learners, such as their email addresses or other personal information, is collected and used in compliance with applicable data privacy laws.

7.7. **Accessibility :** Librarians must ensure that the MOOCs platform is accessible to all learners, including those with disabilities, in compliance with accessibility laws.

7.8. **Online safety :** Librarians must ensure that the MOOCs platform is safe and secure for learners to use, and that appropriate measures are taken to protect against cyber threats such as hacking, phishing, or identity theft.

8. Marketing and Content Visibility of Online Courses on MOOCs platform :

Librarians can play a key role in ensuring MOOCs accessibility and visibility and selecting the target audience while designing a course on a MOOCs platform. Following are the prerequisites :

8.1. **Design courses with accessibility in mind** : Librarians can assist the faculty members in designing courses that are accessible to learners with disabilities, such as providing captions and transcripts for videos, using alternative text for images, and designing courses that are compatible with screen readers.

8.2. **Optimize course visibility** : Librarians can optimize the visibility of their courses by using effective titles, descriptions, and keywords, and by promoting their courses on social media, academic networks, and other relevant channels.

8.3. **Target the right audience** : Librarians can target the right audience by defining the course objectives, learning outcomes, and prerequisites clearly, and by selecting appropriate course materials and instructional methods that suit the target audience's learning needs.

9. Open-Source software for MOOC course Creation & Implementation :

Librarian as a content creator plays a very significant role in course content creation on MOOCs platforms. They must be aware of different software packages available in the open source domain. List of some used software packages are as follows

8.4. **Open edX :** Open edX is an open-source platform for creating and delivering online courses. It was developed by edX and is used by many educational institutions to create MOOCs. **(https://open.edx.org)**

8.5. **Moodle :** Moodle is a widely used open-source learning management system (LMS) that can be used to create and deliver online courses. It has a range of features and plugins that can be used to create MOOCs.
(https://moodle.org)

8.6. **Canvas :** Canvas is an open-source learning management system that can be used to create and deliver online courses. It has a range of features and tools that can be used to create MOOCs.
(https://www.instructure.com/canvas)

8.7. **Sakai :** Sakai is an open-source learning management system that can be used to create and deliver online courses. It has a range of features and tools that can be used to create MOOCs. (https://www.sakailms.org)

8.8. **Claroline :** Claroline is an open-source learning management system that can be used to create and deliver online courses. It has a range of features and tools that can be used to create MOOCs.
(https://www.claroline.net)

8.9. **ILIAS :** ILIAS is an open-source learning management system that can be used to create and deliver online courses. It has a range of features and tools that can be used to create MOOCs. (https://www.ilias.de/en/)

Conclusion :

MOOCs have made a significant contribution to the digital education system by providing a seamless and integrated learning experience with flexibility and cost effectiveness that helped to acquire new skills and knowledge for the masses. The Higher Education System observed the paradigm shift from traditional classroom teaching to Open Educational Resources made available across the web to all at any time, anywhere for lifelong learning with the aim for self directed education. Libraries and Librarians play a critical role in the e-learning system. Librarians can be valuable contributors to online education systems, serving as consultants, content managers, and content disseminators. By leveraging their expertise in information literacy and their knowledge of online resources, librarians can help to ensure that learners have access to high-quality materials and are able to use the system effectively to support their learning goals.

References :

- Balaji, V. (2016). MOOCs Definition. In M. Patru (Ed.), *Making Sense of MOOCs : A Guide for Policy- Makers in Developing Countries* (p. 98). UNESCO and Commonwealth of Learning. https://unesdoc.unesco.org/
- Blair, K. L., & Monske, E. A. (Eds.). (2016). *Handbook of Research on Writing and Composing in the Age of MOOCs*. IGI Global. 10.4018/978-1-5225-1718-4
- *Coursera*. (n.d.). Wikipedia. Retrieved September 18, 2022, from https://en.wikipedia.org/wiki/Coursera
- Faizul, N., & V, S. (2015, March). MOOCs: Changing Trend Towards Open Distance Learning with Special Reference to India. *Desidoc Journal of Library & Information Technology*, *35*(2), 82-89. 10.14429/djlit.35.2.8191
- Gore, H. (2014, Feb 14). Massive Open Online Courses (MOOCs) and Their Impact on Academic Library Services: Exploring Issues and Challenges. *New Review of Academic Librarianship*, *20*(1), 4-28. https://dx.doi.org/10.1080/13614533.2013.851609
- Kumar, A., Dibanjyoti, D., & Singh, V. K. (2022, Jan). Problems and Prospects of Implementing MOOCs (Massive Open Online Courses) in North-East India in LIS Perspective. *DESIDOC Journal of Library & Information Technology*, *42*(1), 11-17. 10.14429/djlit.42.1.17084

- L, A., & R.S., G. P. (2016). The MOOCs: Origin, characterisation, principal problems and challenges in Higher Education. *Journal of e-Learning and Knowledge Society*, *12*(1), 65-76. https://www.je-lks.org/ojs/index.php/Je-LKS_EN/article/view/1093/548
- Mahajan, R., Gupta, P., & Singh, T. (2019, 6). Massive Open Online Courses: Concept and Implications. *Indian Pediatrics*, *56*(6), 489-495. 10.1007/s13312-019-1575-6
- Ministry of Education, Government of India. (2022). National Education Policy 2020. Retrieved from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- Mune, C. (2015, April 24 April 2015). Massive Open Online Librarianship: Emerging Practices in Response to MOOCs. *Journal of Library & Information Services in Distance Learning*, *9*(1-2), 89-100. 10.1080/1533290X.2014.946350
- *Our Values, Story and History*. (n.d.). Alison. Retrieved September 18, 2022, from https://alison.com/about/our-story
- Spring, H. (2016). Teaching and Learning in Action. *Health Information and Libraries Journal*, (33), 84-88. 10.1111/hir.12134