

Akhil Bhartiya Shiksha Samagam

**Report on
Session 12: Digital Empowerment and Capacity
Building**



JULY 2023

GOVERNMENT OF INDIA

Akhil Bhartiya Shiksha Samagam

Session 12: Digital Empowerment and Capacity Building

Introduction

Delhi, Pragati Maidan, July 30, 2023 – On the momentous occasion of the 3rd Anniversary of the announcement of the National Education Policy (NEP) 2020, a two-day Akhil Bhartiya Shiksha Samagam 2023 was organized at Pragati Maidan from July 29 to July 30, 2023. The event, which encompassed all aspects of education, including school, higher education, and skill development, featured a significant thematic session titled "Digital Empowerment and Capacity Building."

The education landscape in India is witnessing a transformative shift in line with the Digital India mission, aiming to provide empowering learning experiences for students and shaping the country's future workforce and economy. The widespread integration of Artificial Intelligence into various sectors is expected to cause a significant churn in the labor market, affecting approximately 23% of jobs in the next five years (WEF, The Future of Jobs Report, 2023).

The National Education Policy (NEP) of 2020 emphasizes the extensive use of technology in education, including language barrier removal, increased access for Divyang students, and improved educational planning and management. NEP encourages the adoption of technology platforms like SWAYAM/DIKSHA for online teacher training to efficiently train a large number of teachers within a short period. It also recommends the extensive use of technology to regulate the education sector, promoting efficiency and transparency with a faceless and transparent technology intervention approach.

Chapter 23 of NEP 2020 underscores the integration of digital technology across all education levels. One of its key suggestions is the establishment of the National Educational Technology Forum (NETF) to enhance intellectual and institutional capacities in educational technology. NEP advocates the proliferation of online education through digital public infrastructure, online teaching, platform tools, digital repositories, virtual labs, blended learning methods, and a strong focus on teacher training.

Educational institutions play a crucial role in preparing students for the workforce by providing access to opportunities for decent and productive employment. Equipping learners with digital skills empower them to break free from poverty and contribute effectively to the country's progress.

The resource person of the session shown in the table below

S. No.	Activity	Chair/Panelists
1.	Introduction by Chair	Prof. V Kamakoti, Director, IIT Madras
2.	Panellist/Speaker 1	Prof. Nageshwar Rao, VC, IGNOU
3.	Panellist/Speaker 2	Prof. R Balasubramanian, Capacity Building
4.	Panellist/Speaker 3	Shri Raghav Gupta, India Head, Courseera
5.	Panellist/Speaker 4	Mr Shankar Maruwada, CEO- EkStep
6.	Panellist/Speaker 5	Ms M. F Febin, Head, L& T Edutech
7.	Session In-Charge	Gaurav Singh, Director of Educational Technology, GOI
8.	Session In-Charge	Md. Asim Khan, YP
9.	Rapporteurs	1. Ankita Singh, PhD. Scholar NIEPA 2. Renu Hembram, PhD. Scholar NIEPA

Issues

The session addresses several critical issues, which are outlined as follows:

- Digital Divide:** While the integration of digital technology in education shows great potential, there is a significant digital divide in India. Many students, particularly those from rural and underserved areas, lack access to reliable internet connectivity and necessary digital devices. This hinders their ability to fully participate in online learning and benefit from the digital education revolution.
- Teacher Training and Capacity Building:** The successful implementation of digital education depends heavily on well-trained teachers who can effectively use technology in their classrooms. There is a need for comprehensive and ongoing teacher training

programs to equip educators with the necessary skills and confidence to integrate digital tools in their teaching practices.

- **Quality Assurance and Content:** With the proliferation of online courses and digital platforms, ensuring the quality of content and pedagogy becomes crucial. There is a need for robust quality assurance mechanisms to evaluate and maintain high standards in online education, providing learners with valuable and impactful learning experiences.
- **Inclusivity and Accessibility:** Digital education must be inclusive and accessible to all learners, including those with disabilities and diverse backgrounds. Efforts should be made to design platforms and content that accommodate different learning styles and ensure equitable access for everyone.
- **Industry Alignment and Employability:** To maximize the impact of digital education, courses and programs should be aligned with industry demands and emerging skill requirements. This will enhance learners' employability and contribute to the country's economic growth.
- **Data Security and Privacy:** With the increased use of digital platforms, the protection of learners' data and privacy becomes a critical concern. Proper data security measures should be implemented to safeguard sensitive information and build trust among users.
- **Integration with Formal Education:** While online learning platforms offer valuable resources, there is a need to integrate them more effectively with formal education systems. Collaborative efforts between digital platforms and educational institutions can lead to the recognition and accreditation of online courses, ensuring seamless transitions for learners.
- **Lifelong Learning:** The focus should not only be on formal education but also on promoting lifelong learning. Efforts should be made to encourage a culture of continuous skill development and adaptability to keep up with the ever-changing digital landscape.

- **Digital Literacy:** Before fully embracing digital education, there is a need to promote digital literacy among learners and educators. Digital literacy initiatives will empower individuals with the necessary skills to navigate and utilize digital resources effectively.
- **Monitoring and Evaluation:** There should be a robust monitoring and evaluation mechanism in place to assess the effectiveness and impact of digital education initiatives. This will help identify areas of improvement and refine strategies accordingly.

Addressing these issues will be crucial in ensuring that digital education in India truly empowers learners, bridges the gap between technology and education, and contributes to the country's progress and development.

Discussion

Gaurav Singh, the Director of Educational Technology in the Department of Higher and School Education, commenced the event by introducing the esteemed panellists and outlining the structure of the program. He emphasized the theme of digital empowerment and capacity building, underscoring its importance in the current educational landscape. He first introduced the chair Prof. V Kamakoti, the Director of IIT Madras. Mr. Singh highlighted Prof. Kamakoti's impressive tenure in IIT- Madaras, started in 2012, and his subsequent appointment as Director in 2022. Additionally, he acknowledged Prof. Kamakoti's numerous accolades, including the DRDO Academic Excellence Award, the Indian Electronics and Semiconductor Association Techno Visionary Award, the 'Abdul Kalam Technology Innovation National Fellowship,' the ACCS Lifetime Achievement Award, the IBM Faculty Award, and the VASVIK Industrial Research Award. Next on the list was Prof. Nageshwar Rao, the Vice-Chancellor of IGNOU. Mr. Singh praise Prof. Rao's dedication to producing skilled graduates for the nation, emphasizing IGNOU's pivotal role as an institution responsible for skill sector graduates and broadcasting educational content in multiple languages. The third panellist introduced was Shri Raghav Gupta, India Head of Coursera. Mr. Singh praised Coursera as a leading beacon in promoting digital education. Mr. Shankar Maruwada, CEO of EkStep, was then presented to the audience. Mr. Singh touched upon the challenges posed by data security in digital education and noted Mr. Maruwada's involvement as a founding member of Aadhar Card, a secure and unique identification system for individuals. He also acknowledged Mr. Maruwada's contributions to the architecture of Indian digital education. The next panellist to be introduced

was Prof. R Balasubramanian, an expert in Capacity Building. Mr. Singh highlighted Prof. Balasubramanian's background as a medical doctor working in the social sector, bridging the gap between micro and macro perspectives. Finally, Mr. Singh introduced Ms. M. F. Febin, the Head of L&T Edutech. He praised her as the first female Post Graduate Engineer Trainee (PGET) in 1994 and applauded her over 25 years of dedicated service with L&T – Construction Division.

The event promised to be an enriching discussion, with each panellist bringing unique expertise and perspectives to the theme of digital empowerment and capacity building in education.

The session delved into the various initiatives undertaken by the Government of India to leverage digital education and build capacities for both students and teachers. The panellists highlighted the pivotal role played by digital technology in advancing the goals set forth in NEP 2020, particularly the establishment of the National Educational Technology Forum (NETF) to enhance educational technology.

The NEP 2020 emphasized the need for widespread adoption of online education to ensure equitable access to quality education through digital platforms and public infrastructure. It underscored the significance of creating digital repositories, virtual labs, simulations, exploring blended learning methods, and focusing on comprehensive teacher training.

During the session, the panellists discussed key initiatives that have shown promising results in achieving digital empowerment in education, including:

Chair- Prof. V Kamakoti, Director, IIT Madras

Prof. V Kamakoti, the esteemed Director of IIT Madras, took on the crucial role of chairing the entire session, setting the stage for a significant and transformative discussion. With a firm belief in the potential of digital technology to revolutionize education, he emphasized that this session would be a game-changer for the country. In his opening remarks, Prof. Kamakoti underscored the profound impact of integrating digital technology into the education sector, highlighting that it presents an entirely different paradigm. He emphasized how digital technology holds the key to bringing back thousands of skilled engineers and manpower into the industry, making it an indispensable enabler for progress.

To further stimulate thoughtful dialogue, Prof. Kamakoti posed five vital questions to the panellists, each of which held immense significance in shaping the future of digital education. The first question centered around the importance of digital platforms in value addition and capacity building, recognizing their potential to enhance learning experiences and skill development.

The second question delved into the adequacy of the National Digital Infrastructure in supporting the broader digital education ecosystem, addressing concerns related to connectivity, accessibility, and inclusivity. The third question focused on the potential of transformative technologies like Virtual Reality (VR), Artificial Intelligence (AI), and Gaming in revolutionizing pedagogy. Prof. Kamakoti pondered whether these innovations alone are sufficient or if further advancements are necessary to optimize the learning process. Next, he inquired about the role of internet accessibility in bridging the gap between learners and the courses they require. Understanding the pivotal role of the internet in today's interconnected world, Prof. Kamakoti sought to explore its impact on democratizing education.

Finally, the discussion turned to the effectiveness of existing guidelines and the need for potential changes in reskilling individuals and upgrading infrastructure for digital education. Prof. Kamakoti highlighted the importance of adaptability and flexibility to ensure that digital education remains relevant and responsive to evolving needs. With Prof. V Kamakoti's insightful questions as a catalyst, the panellists engaged in a thought-provoking exchange, shedding light on the challenges and opportunities presented by the digital transformation in education. The session promised to pave the way for innovative solutions that would shape the future of education in the digital age.

Panellist 1: Prof. Nageshwar Rao, VC IGNOU

The Vice Chancellor of IGNOU, Prof. Nageshwar Rao, began his presentation titled "Digital Empowerment and Capacity Building" by highlighting some significant digital interventions introduced by the government in higher education. Among these initiatives were SWAYAM, SAMARTH, SWAYAM Prabha, Virtual Labs, and NDLI.

SWAYAM, also known as India MOOCs, was launched in 2017, even before the announcement of NEP2020. This platform offers over 3000 unique courses, and its impact has been tremendous, with a total enrollment of 3.52 crores and an impressive 19.98 lakh certificates issued and still counting. The diverse range of courses on SWAYAM follows a 4-quadrant

approach, ensuring comprehensive coverage of various subjects and disciplines. Moreover, to enhance accessibility, 894 courses on SWAYAM have been translated into 12 regional languages.

SWAYAM Prabha, another vital initiative, was launched with more than 1 lakh videos across various subjects in 2017. The platform has expanded exponentially, and as of 2023, it now boasts over 60+ channels, further enriching the repository of educational content available to learners.

By effectively implementing these measures and building on the success of existing initiatives like SWAYAM and SWAYAM Prabha, India can empower its learners, bridge the digital divide, and foster a skilled and knowledgeable workforce ready to thrive in the digital age. Additionally, this will contribute significantly to the nation's growth and development while advancing India's position in the global knowledge economy.

Panellist 2- Prof. Balasubramanian, Capacity Building Commission

Prof. Balasubramanian, Capacity Building Commission began his discussion on digital empowerment and education in India, while making significant strides, still face certain limitations. One critical aspect that requires attention is the capacity-building of teachers to effectively integrate digital learning into their classrooms. India, known as "*Viswa Guru*," boasts the world's largest syllabus, but to truly harness its potential, it must focus on transforming the behaviour of both learners and public servants.

The *Karamyogi* Mission serves as a pivotal opportunity to revolutionize the learner's mindset and approach to education. By instilling a *KaramYogi* spirit, learners can be empowered to take charge of their learning journey actively. This transformation goes beyond traditional academic knowledge and encompasses essential life skills, adaptability, and critical thinking. Moreover, for digital empowerment to be truly effective, it is imperative to shift the behaviour of public servants, breaking away from working in isolated silos. Collaborative efforts and a cohesive approach to digitalization can unlock a plethora of opportunities, enabling efficient public service delivery and a seamless integration of digital tools across various sectors.

By implementing these measures, India can unlock the full potential of digital empowerment and education, transforming learners into proactive *KaramYogis* and fostering a collaborative environment among public servants. This integrated and comprehensive approach will position

India as a leading force in the global knowledge economy, driving innovation, growth, and sustainable development.

Panellist 3- Shri Raghav Gupta, MD India & APAC Coursera

Shri Raghav Gupta, MD India of Coursera began his discussion on the title “Innovation without Boundation”. Coursera, a renowned online learning platform, has established partnerships with 185+ top universities and 115+ industry partners worldwide. In India, it collaborates with 17 top universities and 8 industry partners. The inception of MOOCs (Massive Open Online Course) in 2012 was driven by the vision of creating a comprehensive catalog of world-class content and credentials in stackable formats, catering to lifelong learners. Globally, Coursera has created an ecosystem of lifelong learning, with 12.9 crores registered learners, served over 7300 institutions, and partnered with more than 300 educators. Remarkably, India holds the second rank in terms of the number of users registered on Coursera, and it is poised to become the first by the year's end.

Indian universities have significantly contributed to this vision of '*Bharat as Vishwaguru,*' as their content has reached 8.4 lakh learners across 190 countries, resulting in 10 lakh course enrollments. This international outreach showcases India's expertise and knowledge on a global stage. The demand for online learning in India has experienced tremendous growth, with user registrations surging from 5.1 million in 2019 to 21 million in 2023. Concurrently, course enrollments rose from 9.3 million in 2019 to an impressive 51 million in 2023, reflecting the widespread acceptance and effectiveness of online education.

The transitioning of India's curriculum has been aided by innovative tools such as Chat GPT (language model) and Virtual Reality (VR), effectively integrating educator expertise with technology. Top universities and colleges are embracing cutting-edge curricula, empowered by the National Education Policy (NEP) and the National Curriculum Framework (NCrF). The impact of Coursera in India is significant, with over 1,100 Higher Education Institutions (HEIs) leveraging the platform, again reinforced by the support of NEP and NCrF.

Panellist 4- Shri Shankar Maruwada, CEO- EKSTep Foundation

During the panel discussion, Shri Shankar Maruwada, the CEO of EKSTep Foundation, highlighted the fundamental problem in our education system, which is the lack of focus on learning during the foundational years. He emphasized the need to teach learners how to learn,

as this approach would contribute to the creation of *Nipun Bharat* (an empowered and skilled India). One of the solutions discussed was the implementation of Digital Public Infrastructure, a concept mentioned in the National Education Policy (NEP) of 2020. This infrastructure involves a single solution that can be adapted and utilized by multiple stakeholders. For instance, Aadhar, a unique identification system, is effectively used for various government services and banking operations.

By addressing the foundational learning gap and promoting innovative, inclusive, and secure digital solutions, the education system can progress towards a more empowered and knowledge-driven Nipun Bharat.

Panellist 5- Ms. Febin M.F, Head College Connect Business, L&T Edutech

Ms. Febin M.F., the Head of College Connect Business at L&T Edutech, delivered a compelling presentation titled "Digital Empowerment & Capacity Building in Education." Her talk shed light on the transformative impact of digital empowerment on students, enabling them to access information and resources, communicate, collaborate, solve problems creatively, and think critically and independently. Ms. Febin highlighted a report by the World Economic Forum, indicating that by 2025, 85% of jobs will require some level of digital skills, emphasizing the growing significance of digital competence in the workforce. Over the past five years, the number of children using the internet for educational purposes has seen a remarkable 50% increase, underscoring the growing reliance on technology in education. Leveraging technology in higher education can lead to improved access, equity, and quality, providing learners with enhanced learning opportunities and experiences.

Ms. Febin emphasized that, on average, a child spends more than seven hours a day using digital devices, reinforcing the need to ensure responsible and constructive digital engagement to harness the full potential of technology in education. Aligning with the National Education Policy 2020 (NEP 2020), L&T Edutech is committed to realizing a digitally empowered Indian higher education system.

Moving forward, L&T Edutech's commitment to fostering digital learning in the Indian education landscape is crucial for creating a digitally empowered generation. By continuing to leverage technology, aligning with industry demands, and supporting government initiatives, L&T Edutech can contribute significantly to India's journey towards becoming a global leader in digital education and skill development.

Expected Outcomes

The session on digital empowerment and capacity building in relation to the National Education Policy 2020 (NEP 2020) yield the following expected outcomes:

- ❖ **Policy Alignment:** The insights and discussions from the session provide valuable inputs on how to align digital empowerment initiatives with the goals and objectives of NEP 2020. This alignment will ensure that digital technologies are effectively integrated into the education system to foster a learner-centric, flexible, and holistic learning environment.
- ❖ **Technology Integration in Curriculum:** Emphasize on the need for incorporating digital literacy and skills in the curriculum. This integration will enable learners to acquire the necessary digital competencies from an early stage, aligning with NEP 2020's vision of creating digitally empowered citizens.
- ❖ **Industry Relevance:** Industry-aligned curriculum and skill development programs will contribute to making the education system more responsive to the demands of the job market. This alignment with industry requirements is a key focus of NEP 2020, ensuring that learners are better prepared for future employment opportunities.
- ❖ **Teacher Capacity Building:** The emphasis on teacher training and development, will lead to better-equipped educators who can effectively integrate digital tools and pedagogies into their teaching practices. This capacity building aligns with NEP 2020's focus on enhancing the professional development of teachers.
- ❖ **Digital Inclusion:** The collaboration between educational institutions, government initiatives, and online learning platforms, will promote digital inclusion, ensuring that quality education reaches all segments of society, irrespective of their location or economic background. This aligns with NEP 2020's goal of promoting equitable access to education.
- ❖ **Real-world Learning:** The provision of real-world projects, mentorship from industry professionals, and access to practical case studies, will help learners apply their

knowledge and skills in real-life scenarios. This experiential learning approach aligns with NEP 2020's emphasis on promoting critical thinking and problem-solving abilities.

- ❖ **International Recognition:** The success of digital empowerment initiatives discussed by the panellists, combined with the alignment with NEP 2020's objectives, is expected to position India as a leading player in the global education landscape. This recognition will attract learners and collaborations from around the world, fostering international engagement in the digital education space.

Overall, the session is expected to generate actionable strategies, policies, and collaborations that support NEP 2020's vision of creating a digitally empowered Indian education system. By harnessing the potential of digital technologies and capacity building, the session will pave the way for a transformative and inclusive education ecosystem, preparing learners to thrive in the digital age and contribute to the nation's growth and development.

Way Forward

The way forward for the session is divided into three main parts, focusing on the roles of the Government, Academic Institutions, and Private Organizations.

Government:

- ❖ **Enhancing Course Diversity:** The government should continue supporting platforms like SWAYAM to expand the range of courses offered, catering to diverse interests and career aspirations of learners.
- ❖ **Quality Assurance:** Emphasize the importance of maintaining high standards of content quality and delivery on digital education platforms to ensure valuable and effective learning experiences.
- ❖ **Feedback and Improvement:** Regularly collect feedback from learners and educators to identify areas of improvement and enhance the features of digital education platforms.

- ❖ **Promoting Inclusivity:** Bridge the digital divide by investing in robust digital infrastructure and internet connectivity in rural and underserved areas, ensuring equal access to quality education.
- ❖ **Promotion and Awareness:** Create widespread awareness about digital education platforms among students, teachers, and educational institutions to encourage active participation and engagement.
- ❖ **Integration with Formal Education:** Foster collaboration between digital platforms and formal educational institutions to recognize and accredit online courses, ensuring seamless transitions for learners.
- ❖ **Industry-Relevant Courses:** Collaborate with industries to develop courses aligned with emerging skill demands, enhancing learners' employability and contributing to economic growth.

Academic Institutes:

- ❖ **Teacher Training and Development:** Institutes should invest in comprehensive and ongoing teacher training programs to equip educators with the necessary skills to integrate digital tools effectively in their teaching practices.
- ❖ **Curriculum Reforms:** Continuously evaluate and update the curriculum to align with digital advancements, preparing students to thrive in a technology-driven world.
- ❖ **Promote Collaborative Ecosystems:** Foster partnerships with the government and industry stakeholders to create a dynamic learning ecosystem, promoting knowledge-sharing and innovation in digital education.
- ❖ **Digital Infrastructure:** Institutes should invest in robust digital infrastructure and internet connectivity, ensuring students have seamless access to digital resources.
- ❖ **Emphasize Lifelong Learning:** Encourage a culture of lifelong learning among students and faculty, promoting continuous skill development and adaptability in a rapidly changing digital landscape.

- ❖ **Promote Digital Literacy:** Institutes should launch digital literacy campaigns to empower students and faculty with the necessary skills to engage effectively with online learning platforms.
- ❖ **Incentivize Innovation:** Encourage innovative approaches to digital education through incentives and recognition, fostering a culture of positive change and advancement.

Private Organizations:

- ❖ **Blended Learning Approaches:** Private organizations in the education sector should adopt blended learning approaches, combining online and offline resources to create holistic and immersive learning experiences.
- ❖ **Skill Development Programs:** Offer skill development programs for both learners and educators, equipping them with the necessary digital competencies to thrive in the digital age.
- ❖ **Industry-Aligned Curriculum:** Develop curriculum and certification courses aligned with industry requirements to ensure learners are job-ready and possess relevant skills.
- ❖ **Real-World Projects and Case Studies:** Provide access to real-world projects and case studies, bridging the gap between theoretical knowledge and practical application.
- ❖ **Mentorship and Guidance:** Offer mentorship and guidance from industry professionals, providing learners with valuable insights and exposure to real-world challenges.
- ❖ **Collaboration with Government Initiatives:** Private organizations should partner with government initiatives aimed at promoting digital inclusion and expanding access to quality education.
- ❖ **Partnerships with Universities and Institutions:** Collaborate with universities and educational institutions to expand the reach of programs and cater to a wider audience, fostering a diverse and inclusive learning environment.

Conclusion:

In conclusion, the thematic session 12 “Digital Empowerment and Capacity Building” highlights the significance and potential of digital empowerment in education. Various key stakeholders, such as government initiatives, online learning platforms like Coursera, and institutions like L&T Edutech, have been instrumental in driving digital transformation in education. The advent of MOOCs and platforms like SWAYAM and SWAYAM Prabha has revolutionized learning accessibility, making high-quality educational content available to millions of learners, both in India and globally.

The focus on capacity-building for educators, the integration of technology in the curriculum, and the emphasis on lifelong learning are critical components for harnessing the benefits of digital empowerment fully. The increased demand for online learning in India and the growing number of digitally empowered students reflect the positive impact of these efforts. Furthermore, the collaboration between industry, academia, and government institutions, as well as the emphasis on industry-relevant skills and certifications, is essential for ensuring learners' employability in the digital era.

Moving forward, it is imperative to sustain and strengthen these initiatives, promote digital literacy, and address the digital divide to ensure equitable access to quality education. Continuous investment in teacher training, innovative pedagogical approaches, and state-of-the-art digital infrastructure will be pivotal in realizing the vision of a digitally empowered Indian education system.

As we embrace the opportunities presented by digital empowerment, India can further solidify its position as a global leader in the knowledge economy. By fostering a culture of lifelong learning and leveraging technology to drive educational excellence, India can empower its learners to become adaptable, creative, and critical thinkers, ready to tackle the challenges of the future. Ultimately, digital empowerment in education is not just a transformative trend; it is a fundamental enabler for India's socio-economic growth and prosperity.

Akhil Bhartiya Shiksha Samagam



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