

The Role of Technology in Teacher Training Implementing NEP 2020 Vision

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Abstract: *The National Education Policy (NEP) 2020 envisions a transformative shift in teacher education through the integration of technology in training programs. This research paper critically examines the role of technology in pre-service and in-service teacher training, analyzing its impact on professional development, pedagogical innovation, and overall teaching quality. Using secondary data from government reports, policy documents, academic studies, and global best practices, the study explores various technology-driven initiatives such as DIKSHA (Digital Infrastructure for Knowledge Sharing), SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds), NISHTHA (National Initiative for School Heads' and Teachers' Holistic Advancement), and other digital learning platforms aimed at empowering educators.*

The findings indicate that technology enhances personalized learning, remote access to training, collaboration, and upskilling through digital tools such as AI-based learning analytics, virtual simulations, and interactive e-learning modules. These advancements allow teachers to improve their instructional methods, assessment strategies, and subject expertise. However, the research also highlights key challenges, including unequal access to digital resources, lack of adequate training, infrastructure gaps, and resistance to technological adaptation. While urban areas benefit from advanced EdTech solutions, rural and underserved regions struggle with poor internet connectivity and limited digital literacy among educators.

This paper concludes that while NEP 2020 provides a strong framework for technology-driven teacher training, its successful implementation requires policy support, capacity-building programs, digital infrastructure development, and equitable access to resources. Future research should focus on evaluating the long-term effectiveness of these initiatives and addressing the digital divide to ensure inclusive and effective teacher education in India..

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