

Future of learning

Usman Ahmad | 01st May 2025



Digital transformation in education offers numerous advantages, including increased accessibility, particularly in remote areas, and the potential to address disparities in educational quality. It promotes the use of online learning platforms and digital resources, aligning with the preferences of digital-native learners.

In the educational context, digital transformation entails a fundamental reconfiguration of teaching and learning processes to address the needs of digital-native learners. This transformation encompasses both the practical dimensions—such as the acquisition of digital knowledge and technical skills—and the broader cultural shift towards ‘being digital,’ which involves cultivating appropriate competencies, mindsets, and attitudes toward digital engagement.

The digital transformation of education necessitates a comprehensive focus on both teacher professional development and the structural reorganization of educational institutions. As the primary agents in student learning, teachers must be adequately prepared to adopt and implement innovative pedagogical methodologies suited to the needs of digitally native learners in an increasingly digitalized environment. This shift should support learners in establishing individualized learning trajectories, facilitated through the effective integration of technological tools.

Pakistan is currently experiencing a significant transformation in its educational landscape, characterized by the rapid expansion of online learning. The conventional education system — centred on physical classrooms and printed textbooks — has long faced numerous challenges, including limited access to education in remote regions, pronounced disparities in educational quality between urban and rural areas, and inadequate resources for effective instruction.

In response to these persistent issues, the country has witnessed a growing shift towards digital education. The increasing adoption of online learning platforms and initiatives represents a promising and potentially transformative approach to addressing these systemic challenges.

It's time to develop/design digital educational technologies, and that digital technologies will be leveraged as a common good to support the

achievement of SDG 4 – Education 2030 and to build shared futures of education beyond 2030.

According to the Statista, 2025, by February 2025, there were 5.56 billion internet users worldwide, accounting for 67.9 percent of the global population. Of this total, 5.24 billion individuals, or 63.9 percent of the global population, were active social media users.

Among these users, students represent a significant demographic that increasingly utilizes these platforms to stay informed about the latest developments and to establish social connections. The population of Pakistan stood at 253 million in January 2025, out of total 36.38 percent of population lived in urban, whereas 62.62 percent lived in rural areas.

According to Digital Pakistan, by January 2025, there were 190 million active cellular mobile users, this figure equivalent to 75.2 percent of the total population. There were 116 million individuals using the internet at the start of 2025, and the internet penetration rate stood at 45.7 percent.

LinkedIn is a business and employment-oriented social network indicates 15.0 million members in early 2025 and X had 1.99 million users for the same period. According to Digital Pakistan, by January 2025, there were 66.9 million social media user identities, equating to 26.4 percent of the total population while 137 million people in Pakistan did not use the internet means 54.3 percent of the population remained “offline”.

According to PSLM (2019-20), at national level, 32 percent of children (age 5-16 year) are out of school. According to World Bank-2022, 77 percent of children in Pakistan have “learning poverty” at late primary age are not proficient in reading, adjusted for the out-of-school children.

The provision of internet facilities, and time flexibility that online education allows, will give working children time to educate themselves.

Proper formation and implementation of any programmes would even educate adults — the dream of 100 per cent literacy could come true.

In May 2023, Pakistan's Ministry of Federal Education and Professional Training's approved National Distance Education Strategy (NDES) unanimously across Pakistan's provinces. Early childhood education is fundamental in shaping a child's learning capabilities. The government should prioritise the expansion of access to pre-primary education, ensuring that children develop literacy skills prior to their entry into primary school.

Sustainable development is inherently multidimensional, encompassing social, environmental, and economic spheres. PIDE explained that access to the internet should be treated as a fundamental right. In this context, the integration of digital transformation within education is imperative and must be guided by several key drivers.

These include the effective utilization of technology, particularly in online and hybrid learning modalities, which align with the high levels of digital engagement and preference for autonomous learning among digital-native students. Moreover, the implementation of innovative pedagogical approaches—such as experiential and problem-based learning—should be prioritised to foster the acquisition and practical application of knowledge and skills in addressing real-world challenges.

The development of both soft skills (e.g., communication, collaboration, and adaptability) and hard skills (e.g., technological proficiency and analytical thinking) is essential to prepare learners as active, informed citizens and capable professionals.

Social media exerts both beneficial and detrimental influences. On the positive side, it facilitates enhanced communication, promotes information dissemination, expands educational opportunities, and fosters networking. However, it is also associated with adverse effects

such as addiction, cyberbullying, decreased attention span, and the spread of misinformation.

Therefore, it is imperative that students engage with social media in a responsible and balanced manner to mitigate its negative consequences while maximizing its advantages. Additionally, the active involvement of parents and educators is essential in guiding students toward the responsible and informed use of social media platforms.

From the perspectives of educators, the question being raised -whether educators can play the role of friend, philosopher, and guide effectively through the online learning platform? No longer gauge how your audience is responding, and nor can you use your body language or gestures to hook their attention. Face-to-face engagement fosters dynamic discussions, collaborative projects, and interpersonal connections that contribute to a holistic educational experience.

To achieve the target of trillion-dollar economy by 2035, there is a pressing need to develop and implement comprehensive regulatory frameworks to ensure the quality and accreditation of online courses, thereby promoting transparency and accountability within the digital education sector. The establishment of rigorous quality assurance mechanisms and standardized accreditation criteria is essential for maintaining educational standards and protecting the interests of learners.

Moreover, the effective integration of online learning is contingent upon the ability of educators and academic institutions to adapt to digital pedagogical approaches.

To support this transition, it is imperative that policymakers prioritise investments in digital infrastructure, with a focus on enhancing internet connectivity and broadening access to technological resources nationwide. The use of e-learning platforms, digital classrooms and

mobile-based learning applications can effectively bridge the educational divide, particularly in remote areas.

It is essential to promote public-private partnerships to expand digital literacy initiatives. Emphasizing early childhood education and promoting responsible technology use are also crucial for successful digital transformation.

Education policies should be coherent, transparent, and well-funded. Strengthening governance mechanisms, mitigating corruption and increasing education budgets will contribute to the establishment of a more efficient digital educational system.

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