

# How will 5G impact the education sector?

**It can improve digital collaboration, create personalised learning experiences and boost on-the-go learning, among other benefits**

VIKRAM CHAUDHARY

WHILE THE INDIAN educational landscape sped into digitalisation during Covid-19, the pandemic also brought the digital divide to the forefront. But experts say that more people today have access to internet connectivity than access to a bricks-and-mortar school, and that's with 4G.

5G, or fifth-generation wireless technology, will only help improve that access, by improving digital collaboration, helping create personalised learning experiences and boosting on-the-go learning, among other benefits.

## Online universities

"Education will one of the most benefited industries with 5G," said Ajit Chauhan, chairman, Amity University Online. "The concept of 'online university' will be aided by 5G as it will enable millions of students to access education at their fingertips, hugely improving learning outcomes. Online universities can enable learners to access higher education anytime, anywhere."

Vijay Patil, the chancellor & president of the DY Patil University, Navi Mumbai, added 5G will help the formation of 'digital university'. "5G will make remote learning more interactive, and make educational regulations more student-friendly," he said. "As an avid patron, I believe it will go a long way in making education accessible and student-friendly across the world."

## Connecting remote areas

Ashok Pandey, lead mentor, Crimson Education Management, a consultancy, said 5G is a vehicle to take education to the most inaccessible areas. "4G performance is patchy if we see the country as a whole," he said. "The penetration, affordability and quality of 5G will determine its impact on education. Students will love downloads with no latency, listening to experts without buffering, and connecting with the world speedily."

Sonica Bajaj, partner, KPMG in India, said that in India where there are 3.6 teachers for 100 students, edtech solutions can help democratise education. "Lack of broadband has inhibited digital adoption in remote areas, but 5G-enabled technologies like fixed wireline access (FWA) can connect remote areas at a significantly less cost."

But there are challenges. "To enhance broadband reach, in areas where fibre can't be laid, the availability of sufficient spectrum and high-cost access devices such as outdoor CPEs could be an inhibitor

in wide-scale adoption of FWA," she said. "Also, given the past experience of low availability of smartphones per students (surveys indicate only 18% rural kids have had full access to smart devices for education), online education has been a challenge for rural India."

## 5G skilling

During the pandemic, millions of students remotely learnt new skills. But those with unequal access to digital devices, internet connectivity and reli-

able electricity were the worst hit. A Coursera spokesperson said reports suggest the talent demand-supply gap would continue to widen with the advent of 5G and allied technologies' rollout. "For India to realise the full potential of new-age technologies, a focus on large-scale skilling is critical. IIT Roorkee's Postgraduate Certificate in 5G Technologies and IoT is a great resource for professionals who want to understand aspects of advanced communication systems and

develop the software and hardware skills needed to implement them."

According to the learning portal ITLH, 5G will enable more effective learning methods. "Digital textbooks will allow instant access to content. 5G will enable the usage of advanced e-learning tools and services, which students can use to learn at their own pace," said Alex George, chairman & managing director, ITLH. "With its ability to provide seamless connectivity, 5G can potentially be a one-for-all solution for deploying e-learning tools for students and teachers."

Maninder Singh Bajwa, the CEO & founder of the edtech platform iSuela said that with 5G, technologies like augmented reality will become commonplace. "Near-real learning experiences in the virtual world can enable students to learn some of the most complex topics with ease—for instance, observing the exact 3D model of the human heart or the working of a dam or the production of hydroelectricity. Interactivity will enhance the learning experience way more than just watching a video."

## Are we reading too much?

Experts said that with the existing significant gap in digital infrastructure, 5G is the best hope for the country to achieve the planned

digital inclusion. "With the current fibreisation rate of 35%, as against the required rate of 55%, India has an uphill task of upgrading its digital infrastructure. In such a scenario, 5G-enabled FWA is a cost-effective solution that can shorten the time-to-market and enable mass scale adoption," said Bajaj. "But there are three concerns: One, economic feasibility of edtech programmes need to be ascertained through government-sponsored

initiatives such that it attracts private players to bring in the required network technologies, devices and content to make it a success. Two, a push towards digital literacy is required to train teachers and students to use digital tools.

Three, there is a need to develop vernacular content to increase the relevance of the content to the masses."

Chauhan added we are not reading too much into 5G benefiting the education sector. "It's not a pipe dream," he said. "As in the case of online payments, we quickly adapt to new ideas. The industry has a critical infrastructure level tool to solve the things that need to be fixed after a decade, thanks to 5G."

Pandey said: "While 5G is welcome, the contribution of physical classrooms in transforming education shouldn't be lost in the euphoria of speed-driven technology."

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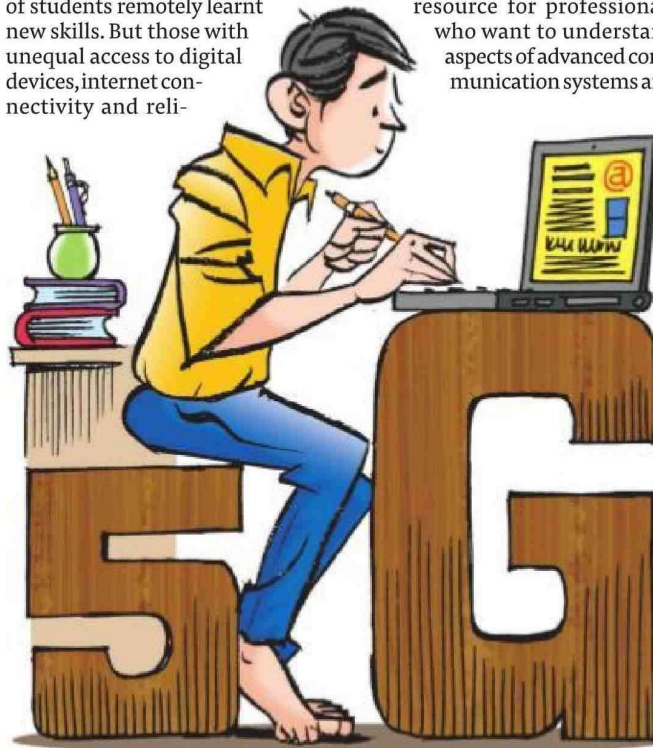


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