

Digital learning: the future of education

Divya Choudary

The need to integrate technology with education has been acknowledged by experts in the field of education. However, most schools in the country haven't progressed beyond setting up computer labs, A V rooms, and adding a computer period to the time table. But technology can be used to further knowledge in ways beyond this token acknowledgement. With schools and teachers not finding the time to use technology optimally a ready market has opened up for many private entrepreneurs. What is the role such companies see for themselves in education? What do they hope to achieve? How well informed are they of the Indian education sector? *Teacher Plus* talks to Sameer Bora, Executive Vice President-R&D, Next Education India Pvt. Ltd., a company that provides technology based education solutions.

What is the Next philosophy of education? What would you say is the role of technology in a 21st century school program?

The Next philosophy is based on our NEXT learning model, a proprietary model designed by our team of eminent educators for 21st century learners. This takes children on a pathway, starting with **New** model **Exploration** **eXpression** to **Test**.

The role of technology is manifold. Technology plays the role of taking the classroom and the students into the next century. It aims to replace the traditional chalk-and-talk system with one where the teacher is a catalyst for higher learning.

When moving from textbooks, teachers often find that the organization and the structure that textbooks provide is lost among the digital information overload. How would you answer a teacher's concern of not having time for technology because of the curriculum they follow? Or the concern that the students will face an information overload?

This is a very valid concern and that is why Next has avoided the library approach. Instead, Next has designed its content keeping in mind the curriculum, textbook, number of hours available to schools, and applied instructional design principles to the mix. That results in lesson plan-based content design. Teachers can straightaway use the lesson plans as they are in their classrooms. We also give the staff the flexibility to change these as per specific requirements.

Could you describe the thought process that goes into the creation of Next resources for teachers and students?

Resource creation starts with an in-house NEXT learning model. A team of eminent educationists build the outline based on their experience and latest developments in education across the world. A team of instructional designers then makes sure that these will work in a school setup. Post that, our in-house team finalizes the content. These are then tested on focus groups to ensure that the content is effective in various settings.

Next Education has been in the field of education and technology for around six years. How tangible do you feel has been the change in the efforts to integrate technology in education in the country over this period? What do you think it would take for India to leapfrog China in terms of literacy?

We have seen tremendous change over the last six years. Today, every school understands the need for augmenting teachers and physical resources with digital resources. Schools are moving towards whole-scale technology integration with School ERP systems and digital labs for subjects like maths and science.

For us to leapfrog China in literacy rate, we need to push for ICT enablement in schools at very early stages. Human beings learn best when exposed to a stimulant at an early age, so the right time to lay the foundation is when a child is in the age group of 2-8. Then there is the need to develop from basic literacy to basic employability.

What would digital literacy mean in the Indian context? What regional factors do we need to consider when we talk about digital literacy among the teachers? How do you see digital content in education evolving to cater to the users of different languages?

Digital literacy is more than just the ability to operate a computer. Digital literacy is the confidence to take on an electronic interface, be it an app, a computer, a smartphone, or a tablet. Literacy is on the rise partly due to more intuitive interfaces and apps, and the widespread availability of such machines. An ATM or a ticket kiosk are examples of a digital interface.

Next Education has spent vast amounts of time in solving this particular problem. Digital content and technology need to be customized to local languages for strong absorption by students who are not comfortable in English. This is reinforced using localized content and familiar surroundings. For example, our content can switch languages, on-screen text, and an entire lesson at the click of a button.

Digital content in the classroom is still considered a luxury and is usually provided to students who have access to other digital technologies. There is a huge need for "education content" outside cities. How do you see this changing over the next few years?

Next Education has seen a lot of demand from non-metro cities. We believe educators and parents realize the value of digital education and are very keen to expose students to content and technology that will enable them to succeed in this world. Over the next few years I would like to see digital technology as an integral part of schools, so much so that we no longer discuss them as aspirational.

For greater impact (in terms of understanding), what role do you feel simulations play vis-a-vis animations in the classroom? [Given that a simulation (gravity, chemical reactions etc.) would lend itself better to an interactive constructivist learning environment compared to an animation, where do you see digital technology in education heading?]

Simulations, online experiments and hands-on activities are the next phase of digital learning. Students learn best when they have the power to question, when their curiosity is piqued. Online simulations allow students to change various constraints, and see for themselves how systems and concepts function in real life. So they reinforce basic concepts that have been learnt with classic animation and assessments.

What are your views on social media playing a role in education in time to come?

Social media in controlled environments allows for impact to be multiplied many times over. Gamification allows for individual learning paths, instant feedback and motivation, and increases the number of students a teacher can reach out to. The students' peer group also increases and they have the opportunity to learn from the best teachers across the world.

How helpful would you say digital technology is in education when it comes to students and teachers with special needs (assistive technology)?

It is well-known that different students have different learning styles. Digital technologies allow students to increase the number of ways in which they can work on a particular topic. Additionally, the teacher can help a child work on a path that is different from what other students are using. So a student might spend more time on certain topics and less on others. Digital technology also allows for greater and more nuanced data reporting, thus leading to earlier and more accurate interventions by teachers.

Where do you see technology in education in five years? [A possibility to integrate cell phones into education? The scope of technology in vocational training? Beyond K-12.] And where, according to you, lies the future in technology in education?



Sameer Bora spearheads the research and development team in Next Education Pvt. Ltd. with his motivational management style.

Next Education is a K-12 focused technology based education solution provider. Its products such as TeachNext, LearnNext, MathsLab, ScienceLab and EnglishLab have been designed to aid the teaching-learning process.

With an in-house R&D team, Next Education develops its products, using contemporary learning design principles. Before its products are made available to schools, Next Education tests them rigorously on and off the field. With onsite service support, periodic teacher training, and management reporting on content usage, Next Education aims to bring the future of education to the schools in India.

Learning happens all day round, not just in school. This is where technology also has to reach. Technology in education is moving towards greater integration. We will see scenarios in which students access their schedule on cell phones, learn via online simulations in schools, submit homework via tablets, and log their computer access for integrating into school reports. Real-world integration also leads to more tie-ins for vocational training and continual education.

With your experience in the field, what would you suggest a teacher do to further leverage digital and education spaces? How can one empower teachers to create contextual educational resources and make the most of digital educational tools?

Teachers are the most important catalysts in the learning process. Tools must be designed for efficient use in classrooms with minimal input and relevant, timely output. The teacher must feel comfortable using the tool, rather than be stumped by it. A great example is a remote that allows the teacher to use the digital content from anywhere in the class.

Content must be such that it adds value to the teacher's inputs and not aim to replace the teacher. Suitable teacher-training and clean and simple interfaces are a must so that the teacher is not stumped in front of his/her class. An example is tools that allow in-class assessments, with teachers getting student-level feedback immediately as the test is conducted. They can then focus on the students who missed a particular concept.

