Ed-tech white spaces in 2022: enablers' rise; innovation beyond online; need to focus on outcomes

Getty Images

CS Satheesha takes online classes from the treehouse he has built in his backyard in Bengaluru.

Synopsis

The year about to end was marked by a wide divergence between interest in the sector and real outcomes. Each stakeholder in the sector needed to find a balance between the urgent shifts required when the pandemic hit and the more underlying ones that could shape the sector. What will be the opportunities in 2022? Here's our take, with data and views of experts.

A year of extremes — that was what 2021 was for the **ed-tech** sector. On the one hand, funding poured in for a handful of ed-tech players, and on the other, millions faced learning poverty. Amid the heightened activity, some companies made gainful exits, while others grappled with pandemic-driven challenges for growth.

Ed-tech has been a long-tailed sector in terms of the ratio between companies entering the fray — tracked by databases such as Tracxn — and the ones that achieve scale in growth and funding.

The result of this skewed distribution and capital allocation was the increased number of acquisitions by the most-funded firms, which also kept shoring up their war chests. Their aims ranged from deepening their existing products to building new ones and technologies. For some, it was about backward and forward integration, while for others, it was about fuelling geographical expansion. All of these were often tuned to the rhythm of the investment rounds and expectations.
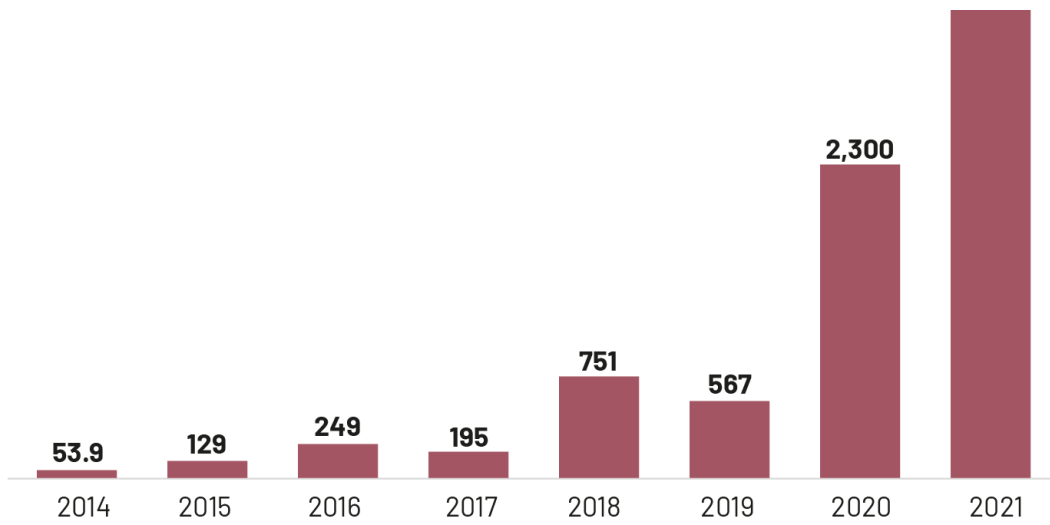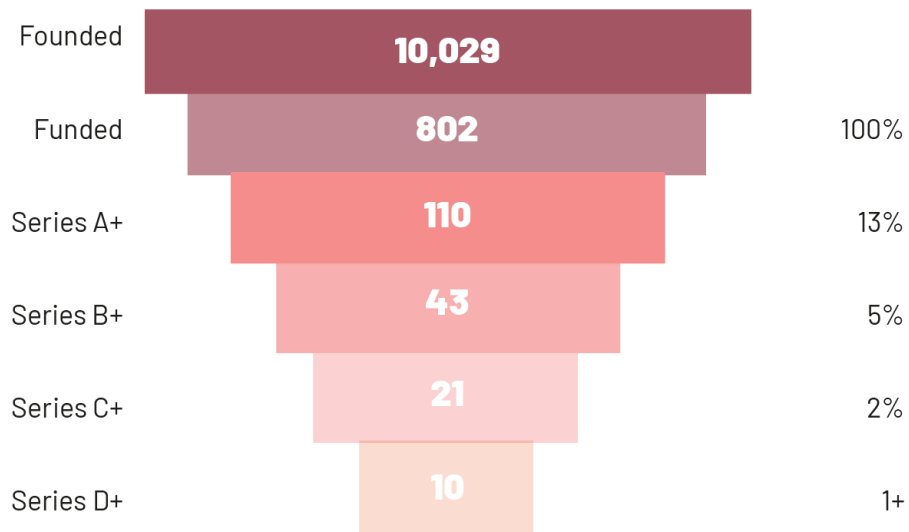
Y-o-y funding trends

3,700

53.9 — 2014
129 — 2015
249 — 2016
195 — 2017
751 — 2018
567 — 2019
2,300 — 2020
2021

Figure for 2021 is YTD

Figures in USD million

Source: *Tracxn*

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Companies by stage

Stage	Value	Percentage
Founded	10,029	
Funded	802	100%
Series A+	110	13%
Series B+	43	5%
Series C+	21	2%
Series D+	10	1+

Note: Figures as of November 2021

Source: *Tracxn Ed-tech report, November 2021*

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Y-o-y acquisition trends

138
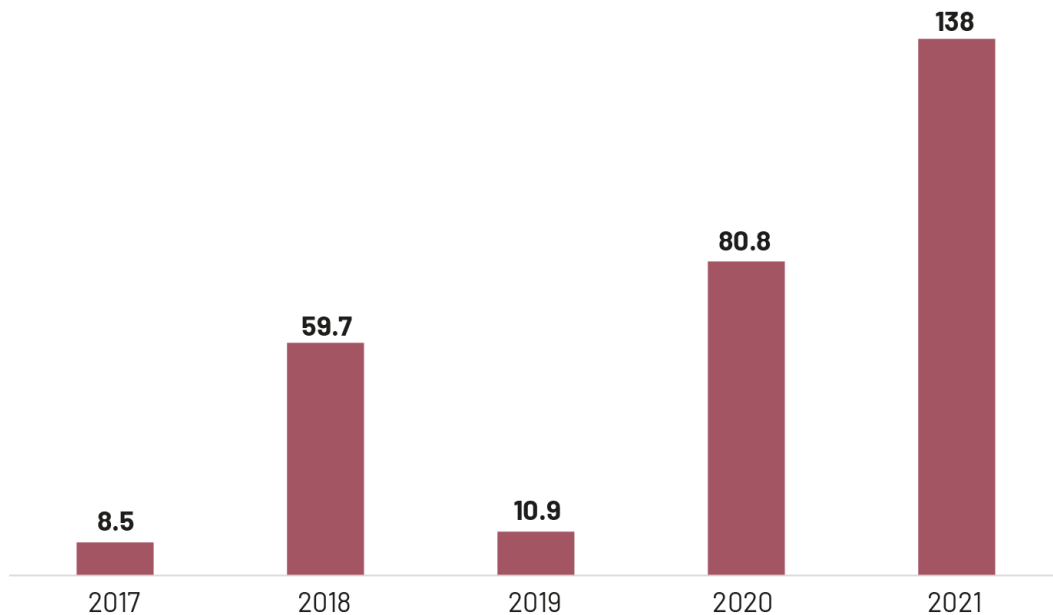
80.8

59.7

8.5

10.9

| 2017 | 2018 | 2019 | 2020 | 2021 |

Figure for 2021 is YTD
Figures in USD million
Source: *Tracxn*

As expected from a year that saw a wide divergence between interest in the ed-tech sector and real outcomes, some investors were jittery about catching a trend too late, while some founders worried whether they would be able to convince stakeholders about the urgency of the problem they wanted to solve.

The question that follows: Will these trends shift in 2022? What will be the opportunities and white spaces that could emerge in the new year? Here's our take, with a dash of data, a dose of reflection, and a peek into the future through the lens of experts.

What the new year may hold

Rakesh Gupta, co-founder of investment advisory Loestro, whose team has been instrumental in many ed-tech M&A deals, explains the current situation by

drawing parallels from e-commerce growth. In the first wave of e-commerce, he says, the early movers were figuring out the delivery model. The next stage saw the emergence of a bunch of enablers — from payment gateways to logistics and more — which aimed at making e-commerce more efficient and viable.

"We see a similar opportunity in ed-tech. From direct delivery of education, we are seeing a shift towards how to improve ed-tech efficacy and scale it up significantly," says Gupta. These enablers include content creation, easing the customer journey around acquisition or engagement, improving completion rates, solving for assessments, placements, analytics, and education financing. Gupta highlights that the unbundling of solutions at each stage will be an important area.

According to Madhu Shalini Iyer, partner at data-driven investor **Rocketship.vc**, the sector is still in flux and leaders will emerge in each area, but content may no longer be a differentiator. Rather, the focus should be on developing tools with effective features.

Highlighting the skewed distribution, she says, of late there has been a drop in companies emerging at Series A and B levels. She believes that **the creator play in ed-tech** could emerge further. Rocketship.vc was the lead investor in a Series B round for Teachmint.

Sub-segment opportunities
The ed-tech sector comprises multiple segments based on the age and the needs of the learners. While test prep has so far seen the highest share of investments, which of the other sub-segments offer opportunities as part of the trend towards enablers and unbundling, and will there be a shift from access to outcomes?

Ed-tech sub-segments
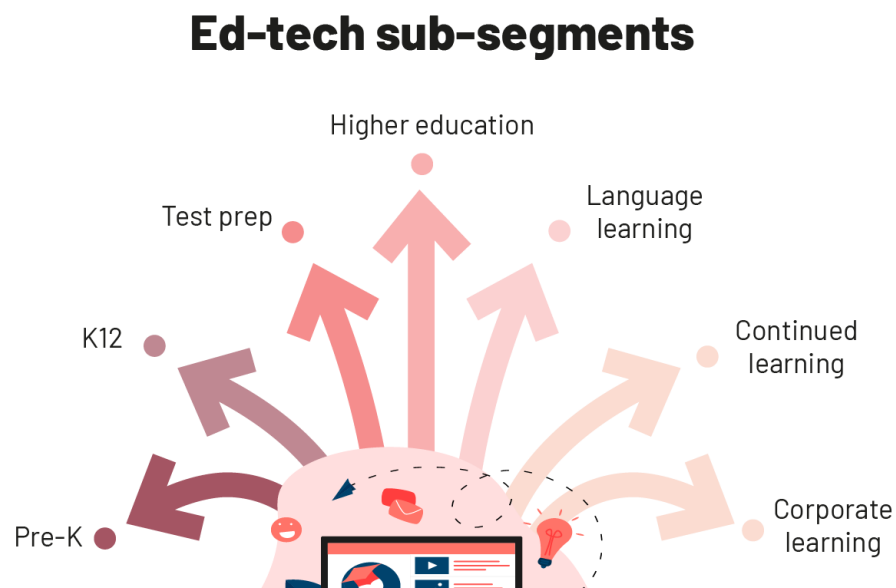
Sarvesh Kanodia, principal, **Omidyar Network India** (active investments in Vedantu, Doubtnut, Masai School, Uolo, Kutuki, CENTA, and Blackboard Radio and exits from WhiteHat Jr and Aspiring Minds), believes that early-childhood education for children aged below 6 years is an untapped market.

Foundational literacy and numeracy have an outsized and long-term impact on education — a fact recognised by the New Education Policy and promoted by organisations such as Central Square Foundation, a non-profit that works towards ensuring quality school education.

While companies such as PlanetSpark and Stones2Milestones address this sub-segment, hybrid-learning models initiated by the likes of Lighthouse Learning

(formerly EuroKids International), Klay, and Flinto work as enablers, with an increased focus on parental engagement.

Kanodia says that Omidyar's investee Kutuki contextualised its offering to the mass Indian audience by making it affordable and providing content and app experiences in local languages.

K-12 education

With schools going through one of the biggest transformations last year, what could change in the K-12 space?

Sriram Subramanian, co-founder and CEO of Clever Harvey, a company that provides programmes for teenagers to assess their career options, believes that live online classes have tried to address the problem of student engagement. "Instead of a 95% dropout rate on MOOCs, there is a 95% completion rate," says Subramanian. But digital access is still not uniform. "While this format thrived during the pandemic, it faces a challenge as life goes back to normal. One key white space is **innovation** in consumption formats: the introduction of semi-live and semi-digital interaction that can sustain engagement at scale," he adds.

Kanodia says B2B ed-tech is also an emerging area, with schools and institutions becoming digital to improve outcomes and admin processes. "Uolo, an Omidyar investee company, is building a social-learning platform using schools as an acquisition channel. Many of their schools are low-fee private schools that can use technology to improve the quality of education." There are other players such as

Lead Schools that are trying to build scale in the B2B K-12 space.

Loestro's Gupta highlights that K-12 ed-tech can be broadened only if becomes affordable and is available across languages and devices. This means all solutions cannot be set up as for-profit enterprises.

That's what **Khan Academy** in India, which caters to about 1.2 million students, is

working on. "Our focus is on localisation of content in as many regional languages as possible, making our platform accessible to public- and government-school students," says its managing director Sandeep Bapna. "Apart from English, we are available in six regional languages and hope to add Tamil, Malayalam, Bangla, and Telugu soon. In the next two to three years, nine out of 10 students will have access to science and math content on Khan Academy in their preferred language."

Besides this, Khan Academy is working with the governments of Punjab, Delhi, and Chandigarh, and with public schools such as Jawahar Navodaya Vidyalaya to empower teachers and improve children's learning outcomes.

Omidyar is supporting the ACT fund, set up after the pandemic, which is working with tech startups and non-profits to increase access to quality ed-tech solutions in tier-II locations and for students from low- and middle-income households, adds Kanodia.

Given the possible drop in school admissions and attendance as a result of the pandemic, Khan Academy is partnering with private companies that have gig and blue-collar workers, whose children are most likely to go to public and low-cost private schools. "We run time-boxed programmes that help such companies extend education as a benefit, with various learning goals such as preparation for exams or getting ready for the next grade," says Bapna. "The content is available in English, Hindi, and Kannada. Additionally, they can opt for receiving learning and activity links on WhatsApp every week."

Higher education
Travel restrictions and confusion around exam dates, patterns, and possible subject choices have made higher education particularly challenging for students and teachers. However, that also opens up opportunities for innovation.

"Some of the avenues for higher ed-tech ecosystem include institutionalised counselling, financial assistance, student accommodation, and coaching for higher

education — especially getting them under the organised realm and bringing transparency for students and parents. We believe this to be a significant opportunity," says Ruchir Arora, CEO and co-founder of CollegeDekho, a college-counselling portal.

There are specialised players focusing on fields such as career guidance (iDreamCareer), college counselling (Collegify, CollegeDekho), and student financing (Leap Finance, Propelld). "Companies operating in the study-abroad space — twinning programmes, test prep, and financing — will see increased demand," says Sumit Verma of investment-banking firm Merisis Advisors.

Continued education and corporate learning
The low level of employability of students, even after acquiring degrees, has been a big challenge. "On the adult-learning side, online skilling is still under-penetrated. We expect multiple players to emerge in tackling segments such as blue-, grey-, and white-collar jobs, and vocational courses. Omidyar has invested in Masai School, which is training hundreds of students from low-income households in software engineering and helping them get jobs," says Kanodia.

How has employability changed over the years?

Year	Value
2015	37.2
2016	38.12
2017	40.44
2018	45.6
2019	47.38
2020	46.21
2021	45.9
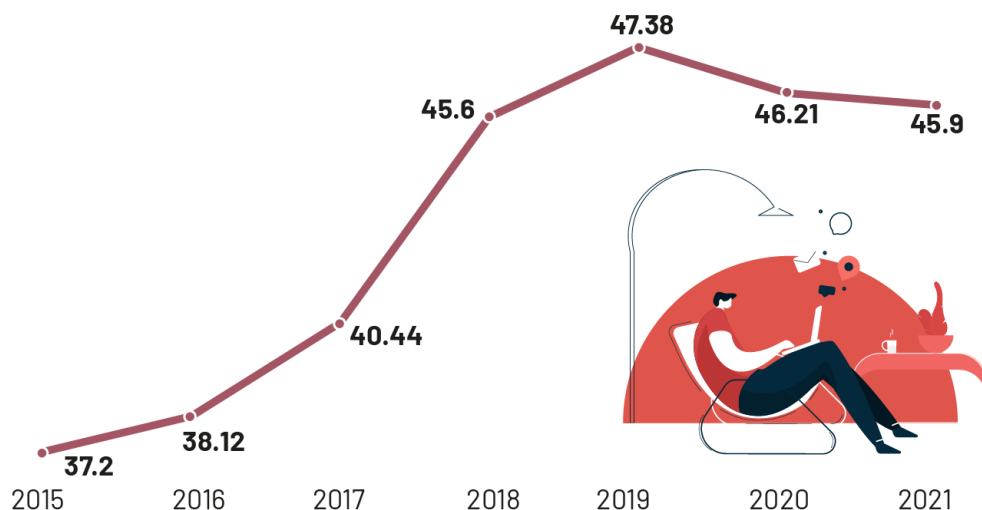
Breaking down the skilling paradigm further, Subramanian says new platforms to demonstrate a person's skills comprise a key white space. For example, to get a job as a full-stack developer, a person no longer has to go through the conventional route of board exams, entrance exams, college placements, and so on. They can develop their ability independently through online courses, signal their ability through a portfolio on GitHub, and get placed through technical interviews. The conventional system of developing and demonstrating skills has been bypassed.

A similar change is under way in other sectors, too — candidates are describing themselves as "ex-Netflix" or "ex-Uber" on LinkedIn, and providing links to their personal sites that showcase their portfolio.

Gupta highlights a "pulse-learning method", in which the traditional path of studying for a certain number of years and then working the next few decades may be replaced with a trajectory of learning, working, and learning again. Lifelong learning is no longer a luxury.

Another significant trend is that of large companies such as Hero Group, Tatas, HCL, and others stepping into ed-tech at the skilling and corporate learning level. This could mark a shift for the actors as well as the game for continued learning and corporate learning.

The underlying currents
"Just like 2021 changed the way we think about **online education**, 2022 will be the year of evolutionary innovation," says Jairaj Bhattacharya, co-founder and managing director of ConveGenius, which works on bridging skill and learning gaps. "The ed-tech industry is steadily growing, with educational institutions adopting a hybrid approach to learning. The need of the hour is to keep up with the global trends. Interactivity will be a USP in the upcoming year. We will see more and more adoption of AI. It is a phenomenal new leap, as it allows personalisation of learning way beyond what was humanly possible."

Pranav Kothari, CEO of Educational Initiatives, believes that the ed-tech sector needs to focus more on creating strong pedagogical foundations for technology. "We at Educational Initiatives call this 'PedTech'. Technology has to respond to how children learn and adapt to their individual needs. Digitising a Class 6 textbook won't help if a student's learning is at a Class 3 level. Animated videos can't teach a child a language if the underlying content isn't contextualised to their needs."

Kothari also highlights that a big opportunity for the sector is to create tech that helps teachers instead of replacing them. Far too much of what the sector has created goes straight to students, putting them in silos disconnected from their teachers and peers, he says. Therefore, the unique strengths of teachers and tech should be used judiciously.

> **"Technology has to respond to how children learn and adapt to their individual needs. Digitising a Class 6 textbook won't help if a student's learning is at a Class 3 level."**
>
> — *Pranav Kothari, CEO, Educational Initiatives*

Gupta of Loestro says another moonshot could be a metaverse in education, where Web 3.0 meets interactive-learning experiences. Even if that may be in the distant future, adds Verma, opportunities to make education fun through gamification, virtual reality, and augmented reality will continue. "While the last couple of years has been about going online, as that was the only possible way to receive education, we are now seeing a trend towards making education fun. Startups focusing on extracurricular activities and STEM toys would be well-positioned to capture the demand," he says.

That said, investors also need to watch out for signs of overcrowding in the sector. Sajith Pai of Blume Ventures, which invested in Unacademy, Classplus, Leverage Edu, and Uolo, says that every week there are one or two pitches for online extracurricular classes for kids. Verma adds that IIT-JEE/NEET test prep, K-12 education, and early coding are overcrowded. Gupta agrees that coding and extracurricular activities are getting saturated, but 2022 could see leaders emerging from these spaces.

Regulatory aspects will be an area to keep an eye on. Aarushi Jain, head of the education Practice at law firm Nishith Desai Associates, says ed-tech has to innovate to sustain in the long run. While the test prep and online education forums will continue to grow, the reopening of schools and colleges will have an impact on their growth, she believes, diverting focus to unexplored opportunities.

"Vocational learning, which has been given due importance in the New Education Policy, could be a new area to look at. There is also emphasis on holistic living and all-round development of an individual in the policy. New product offerings built around personalised learning, social and emotional wellness, and life skills could be another niche," says Jain. "While the entrepreneurs and investors can work the

math, the good news is that most of these new offerings are not within the traditional, regulated education space, and hence will be lightly regulated in India. This will lead to further expansion and inflow of investor money into ed-tech."

(Research support by Rochelle Britto; graphics by Sadhana Saxena)

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