

innovLogue

IS EDTECH FAILING TO DELIVER?

HOW CAN EDTECH BE RE-SHAPED FOR THE FUTURE OF LEARNING & WORK?

15SEP

3.00PM - 5.00PM



Hybrid Session - conducted in person & on Zoom



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The global EdTech industry continues to grow exponentially and is expected to reach USD 605 billion by 2027. But how much do we know about what works to impact learning outcomes? How well does current EdTech facilitate skill acquisition, and bridge the education-to-employment gap, amid constantly evolving workforce needs? Join us in examining the state of EdTech from a learning sciences perspective in this innovLogue session. Our panel discusses how to create solutions for real-world learning needs, offers tips on improving EdTech effectiveness, and more, all to boost learning and business performance!

Speaker



Dr. Samson Tan,

Head Strategic Development, Civica, Former Head, Centre for Innovation in Learning, NIE.

An expert in learning sciences, strategy and lifelong learning, Dr Tan is committed to leading innovation and transforming education. He will share his views on the current state of the EdTech landscape and examine where it needs to go, adult learning needs in the 21st century, and the lessons from learning sciences on how EdTech could innovate.

Speaker



Mr. Sandeep A,

Founder & Managing Partner, Kaizenvest.

With a broad range of experience in consulting, operations and investment management, Mr. Sandeep founded Kaizenvest, a leading education-focused asset management company, in 2009. He will focus on bringing EdTech up to market and education needs from a learning sciences perspective, linking it to performance and growth, and how to remain relevant to the needs of the digital workforce.

Speaker



Mr. Alvinder Singh,

Managing Director, VisionarySchoolmen.

As the MD of EdTech technology company Visionary Schoolmen, Mr. Alvinder has evolved his company's EdTech product offerings, placing learning, skills and capability development at the forefront. He will share Visionary Schoolmen's journey -- the need for change, bringing value to the learning & development chain, learnings and analytics from the real world, and creating greater EdTech value for the workforce.

Moderator



Mr. Darren Tjan,

Principal Consultant, @The Learn Better Co.

With experience in Learning Design and Technology, Darren has consulted with and trained a wide range of individuals from both the public and private sectors. His insight into the challenges, needs and operational objectives of different organisations in different industries will help guide this innovLogue discussion and explore how EdTech can be used to greater effect in learning design.



First Speaker

Dr. Samson Tan

*Head Strategic Development, Civica,
Former Head, Centre for Innovation in
Learning, NIE.*

Is EdTech Failing?

The Future of Education in the Post-COVID19 World

Dr Samson Tan

15 Sep 2022



How are we using Technology in Education?





VICTOR SHCHADEY

[Civica](#)

Fedir Shandor delivers his lectures from the trenches in eastern Ukraine

Source: BBC

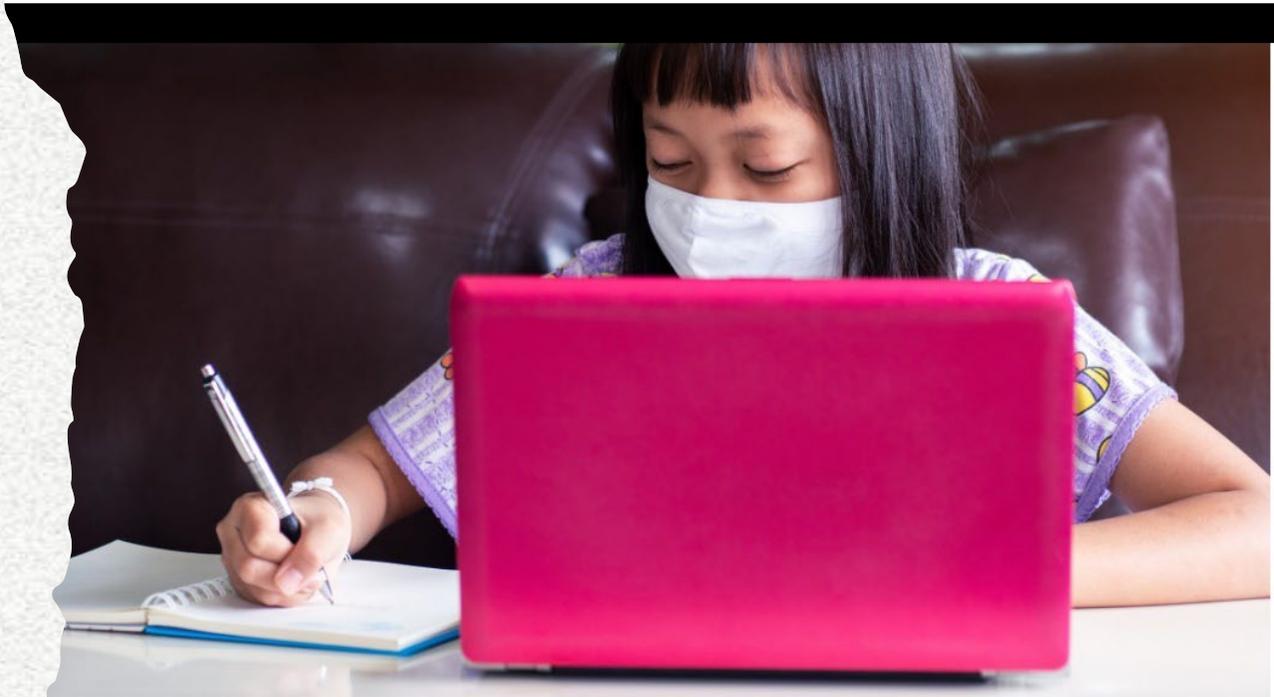
Impact of COVID-19 on Education

- By April 2020, over **1.6 billion students** are out of the classroom.



Across the world, millions of children have had to adapt to new types of learning.

Image: REUTERS/Gonzalo



Doing an online lesson at home for during the Covid-19 pandemic. Photo: Shutterstock

CRISIS =
OPPORTUNITY?

CRISIS

"The Chinese use two characters to write the word 'crisis.'"

危機

crisis

One stands for **danger**;

the other for **opportunity**.

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'Dangers' in a Crisis

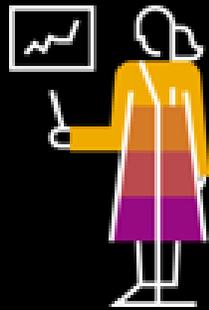
CIVICA



The global coronavirus pandemic impacts **1.5b** students which reflect around 80% of the global student population [\(source\)](#)



89% of University Presidents expressed "serious concern" about their entire institutions' financial future [\(source\)](#)



Education institutes are forced to use online media to deliver education. China delivered education to **180m** students via television [\(source\)](#)



The COVID-19 crisis exposed education's 'digital divide'. According to the UN **3 billion** people have no internet access. [\(source\)](#)



Many institutions have great challenges in effectively use technology to drive student success. Only **50%** have a student success data store in place [\(source\)](#)



92% of University President's are most concerned about the mental health of their students and staff [\(source\)](#)

COVID-19: Challenges for Education

A widening gap between those students with access to resources and technological means, and those who do not - the '**digital divide**' (UNESCO, 2020).

Many students were not able to access online learning due to the lack of appropriate **devices** or **internet connections** (OECD, 2020).

In April 2020, MOE loaned **12,500** laptops/ tablets, and **1,200** Internet dongles to students who did not have adequate devices and/or Internet access at home (Ang, April 2020).



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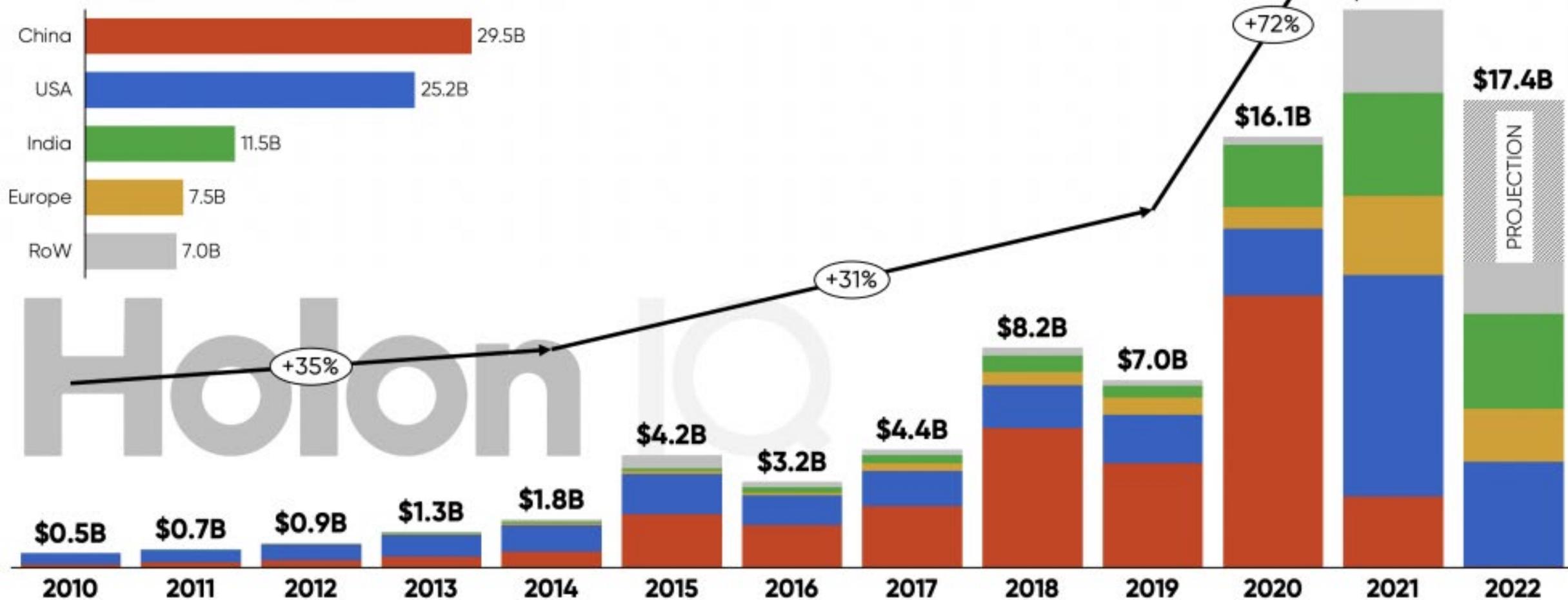
Opportunities in a Crisis



CIVICA

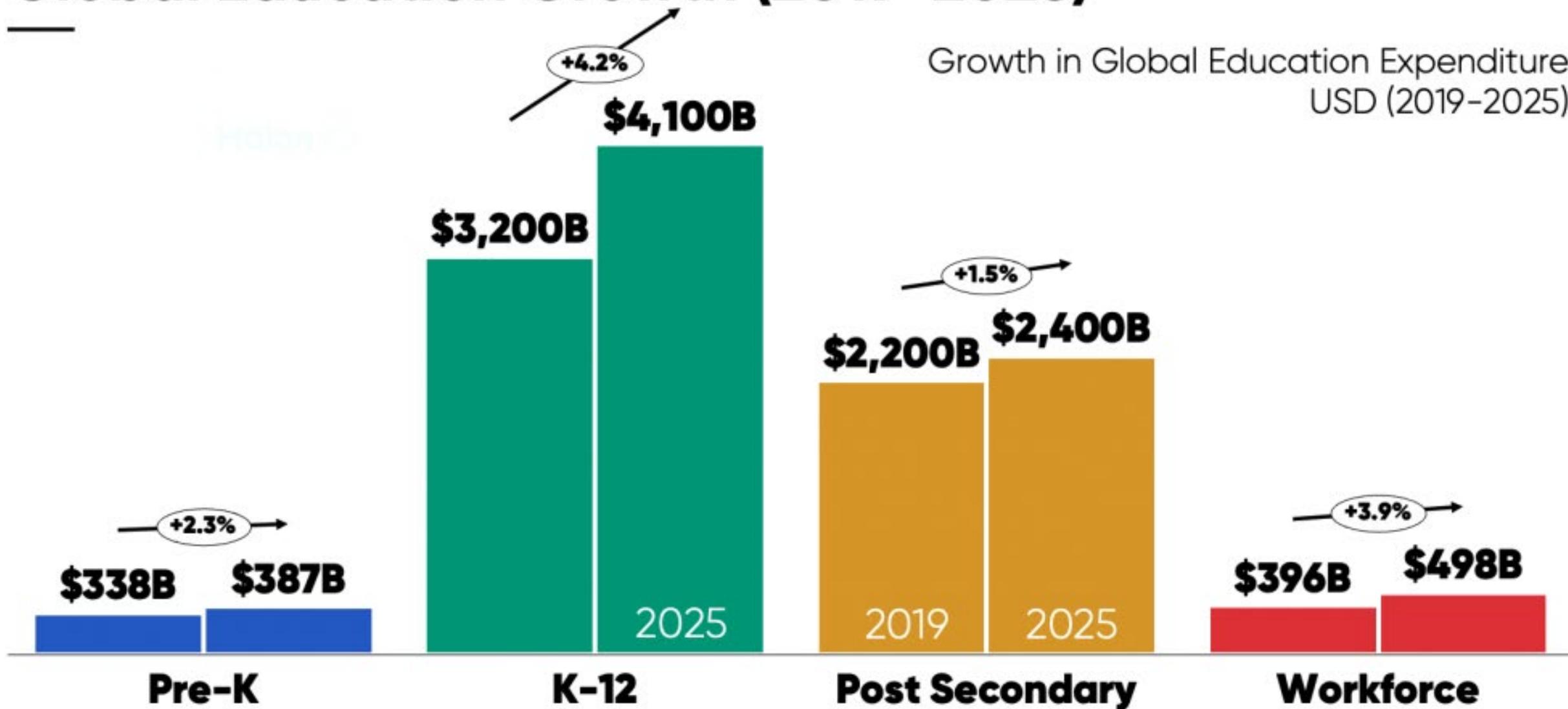
\$11.4B of EdTech Venture Funding for 1H 2022 (1 Jan-30 June). A moderate slow-down would deliver around \$17B+ for the full year.

Global Education Venture Capital Funding, 2010-1H 2022 in USD Billions



Global Education Growth (2019-2025)

Growth in Global Education Expenditure
USD (2019-2025)



COVID-19: Opportunities for Education

The education sector is ripe for **disruption** as students' appetite for online learning may grow due to COVID-19

The adoption of online solutions has been unprecedented as educators are applying a **'first aid' solution**, switching entirely to remote instruction

But remote learning is just a baby step experiment in the long journey to offering online education – **capability development for teaching faculty**



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The Future of Education

CIVICA



The Future of Education

Consider not just digital, online, and pedagogical possibilities, but also the fundamental **purpose of education** to foster **democracy** and **justice** (Tesar, 2021).

Challenge long-held assumptions about teaching, learning, and the difference between **traditional** and **non-traditional** students (Peters et al, 2022).

Accelerate the provision of **low-cost** personal learning devices to students (Ang, April 2020; Ng, December 2020) and enhance **e-pedagogy** by integrating home-based learning into **blended learning** initiatives (Teng, February 2021).

The Future of Education

- Educators need to acquire capabilities in redesigning their courses and programmes in a pedagogical shift to digital and hybrid/blended learning (Kalantzis & Cope, 2020).
 - [Akadasia](#), an edtech start-ups which provides affordable professional development for teachers in designing digital lessons, and access to a network of educators.
- New Breed of EdTech powered by AI and machine learning that fits the underserved students and teachers
 - [Learnable](#) provides teachers with rich learning resources they can share via a dedicated mobile app or WhatsApp group.
 - [Ekatra](#) is a low-data learning platform that to enable students to take micro-courses through text messages



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Do we still need human
educators?

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代双手完成日常的书写以及绘图工作。
几组装调试完成后发货，到手连接电脑即可
程以及售后交流群指导，上手速度快。



Chinese schoolgirl shamed for using robot to do her homework.

Now everybody wants one!

Requiring children to copy text — such as vocabulary, textbook passages or poems — hundreds of times is common practice in Chinese schools



Educators' New Role



Architects of learning environments
- digital transformation of education



Facilitators of learning – learner-centred approaches



Shapers of attitudes and aptitudes
(character)

Reference

- Edmond, C. (December 2021). These start-ups are making education accessible using phone calls, texts and WhatsApp. World Economic Forum. <https://www.weforum.org/agenda/2020/01/technology-education-edtech-play-learning/>
- Kalantzis, M., & Cope, B. (2020). After the COVID-19 crisis: Why higher education may (and perhaps should) never be the same. *Access: contemporary issues in education*, 40(1), 51-55.
- Peters, M. A., Rizvi, F., McCulloch, G., Gibbs, P., Gorur, R., Hong, M., ... & Misiaszek, L. (2022). Reimagining the new pedagogical possibilities for universities post-Covid-19: An EPAT Collective Project. *Educational Philosophy and Theory*, 54(6), 717-760.
- Organisation for Economic Co-operation and Development. (2020). *Education responses to COVID-19: Embracing digital learning and online collaboration*. OECD Publishing.
- Tesar, M. (2021). Future studies: Reimagining our educational futures in the post-Covid-19 world. *Policy Futures in Education*, 19(1), 1-6.
- UNESCO (2022). UNESCO's response and recovery actions <https://www.unesco.org/en/covid-19?hub=800>

Reference - weblinks

- <https://www.todayonline.com/world/chinese-schoolgirl-shamed-using-robot-write-homework-now-everybody-wants-one>
- <https://techcrunch.com/2021/09/22/the-casualties-of-chinas-education-crackdown/>
- <https://news.yahoo.com/coronavirus-billion-students-shut-out-of-school-182618843.html>
- <https://www.insidehighered.com/news/survey/college-presidents-fear-financial-and-human-toll-coronavirus-their-campuses>
- <https://www.unicef.cn/en/what-we-do/unicef-emergencies/covid-19/student-beijing-resumes-study-her-living-room>
- <https://er.educause.edu/blogs/2020/3/how-technology-can-support-student-success-during-covid19>
- <https://www.hrw.org/news/2020/03/25/closing-digital-divide-critical-covid-19-response>
- <https://www.todayonline.com/world/chinese-schoolgirl-shamed-using-robot-write-homework-now-everybody-wants-one>
- <https://blogs.sap.com/2020/04/22/higher-education-respond-recover-re-imagine-during-covid-19/>

CIVICA

Thank you

CIVICA



Second Speaker

Mr. Sandeep A

*Founder & Managing Partner,
Kaizenvest*

Kaizenvest

innovLogue Presentation, September 2022

Sandeep Aneja
sandeep.aneja@kaizenvest.com



What is EdTech?

EdTech – education technology – covers not only online learning, but includes all the software, hardware, and digital tools and services that can be used to deliver education.

Traditional education

Classroom-based, teacher-centered



Common understanding of EdTech

Tech-driven learning



Innovative services

Education delivery
anytime and anywhere

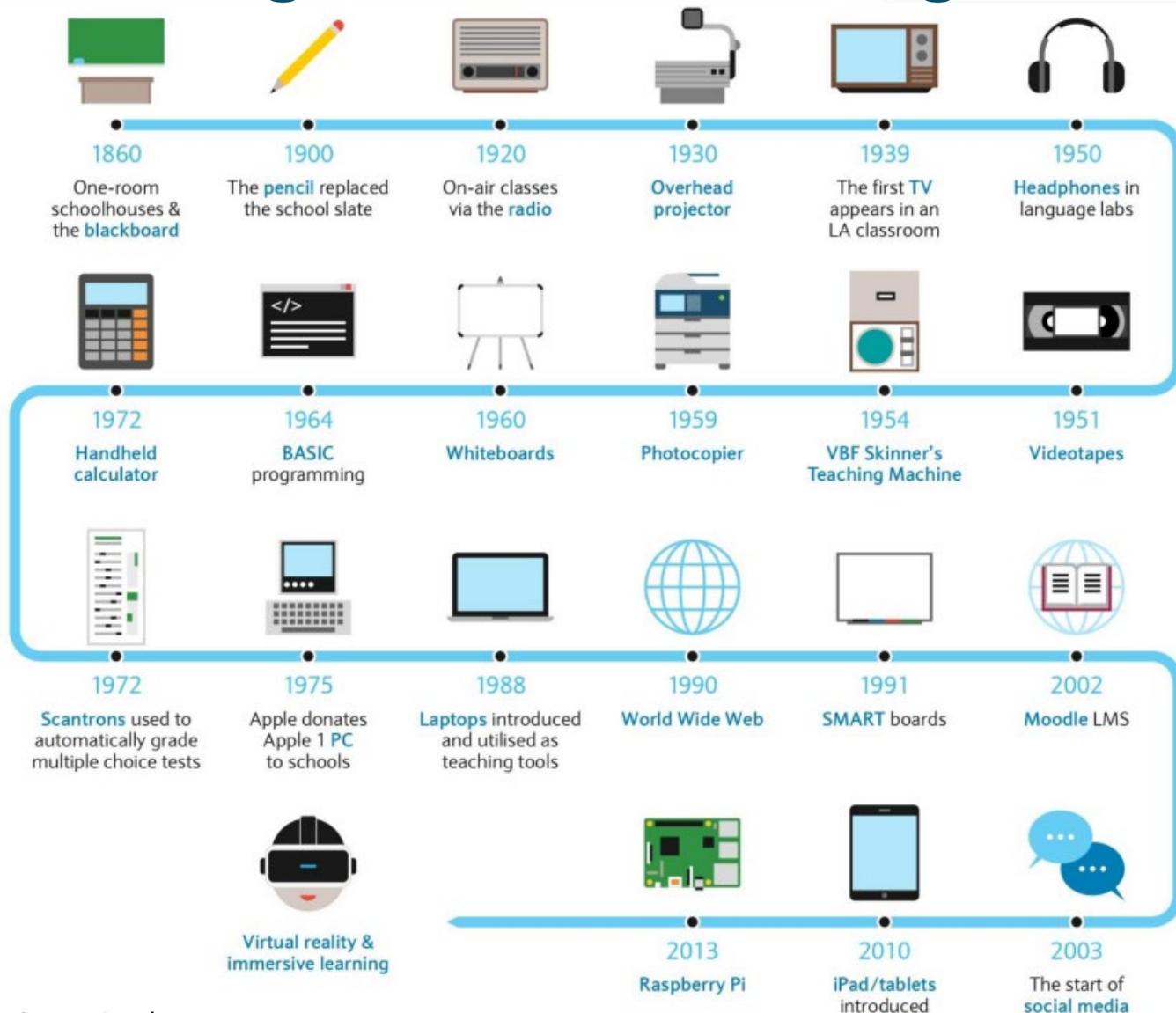
Digital content

Analog/print to digital and
beyond (augmented
reality/virtual reality)

Systems and tools

Digitalization into learning
management system and
better scalability

EdTech is not new: Tech has enabled learning innovation throughout



Education has **remained broadly the same for hundreds of years**, with a teacher, a blackboard and student desks defining the classic classroom around the world. However, technology is rapidly changing that.

A student can now **upload homework through a portal, learn chemistry through 3D immersion and engage in social learning across the globe**; such is the rise of education technology.

Tech is driving “Access” to education for many groups

We are seeing EdTech extend beyond the traditional classroom ranging from pre-K to working professionals



On-the-go coding



Adaptive learning platform



MINERVA®

Designs and delivers educational programs



UNIVERSITY NOW

Online education services

EdTech Landscape

A space for constant innovation



Adaptive self-learning



Geniebook

Personalized learning



Massive Open Online Course provider



Online higher education /Micro credentialling

EdTech is enabling new teaching-learning methods

EdTech has enabled flipped classroom by removing the one-size-fits-all lecture from the classroom and allowing students to have a self-paced lecture at home. The students are encouraged to do the actual work in the classroom, interacting with their teacher and classmates.

Traditional teacher

VS

Flipped Focus

In class

Teachers review homework and present new content



Out of class

Students learn new content through video & tech

Out of class

Students do homework to practice new learning



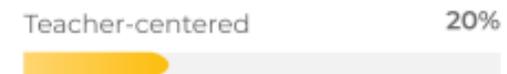
In class

Students discuss and explore applications

Instruction



Instruction



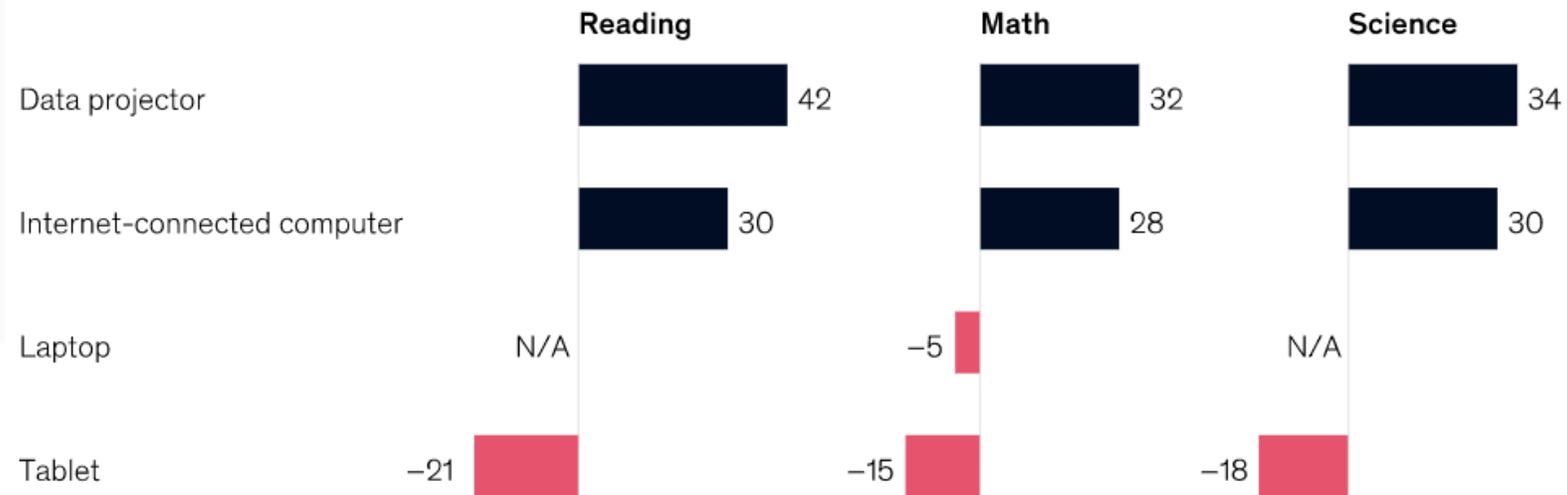
Source: InstincTools

Dark Side of EdTech – Part 1

Despite disrupting areas within classroom learning, studies showed that **some devices that are being used post-EdTech integration are associated with lower student outcomes.**

Some student-based technologies are associated with lower student outcomes.

Impact of using technology in the classroom, points change in PISA score between “No” and “Yes and use technology in classroom” in a regression (40 points \approx 1 year of learning)¹



¹ Controlling for student socioeconomic status, type of school (public, private), and location (urban, rural); statistically significant at 95% confidence level. Results not shown if not statistically significant. In addition to the devices shown, desktop computers and interactive whiteboards had no statistically significant results at the global level.

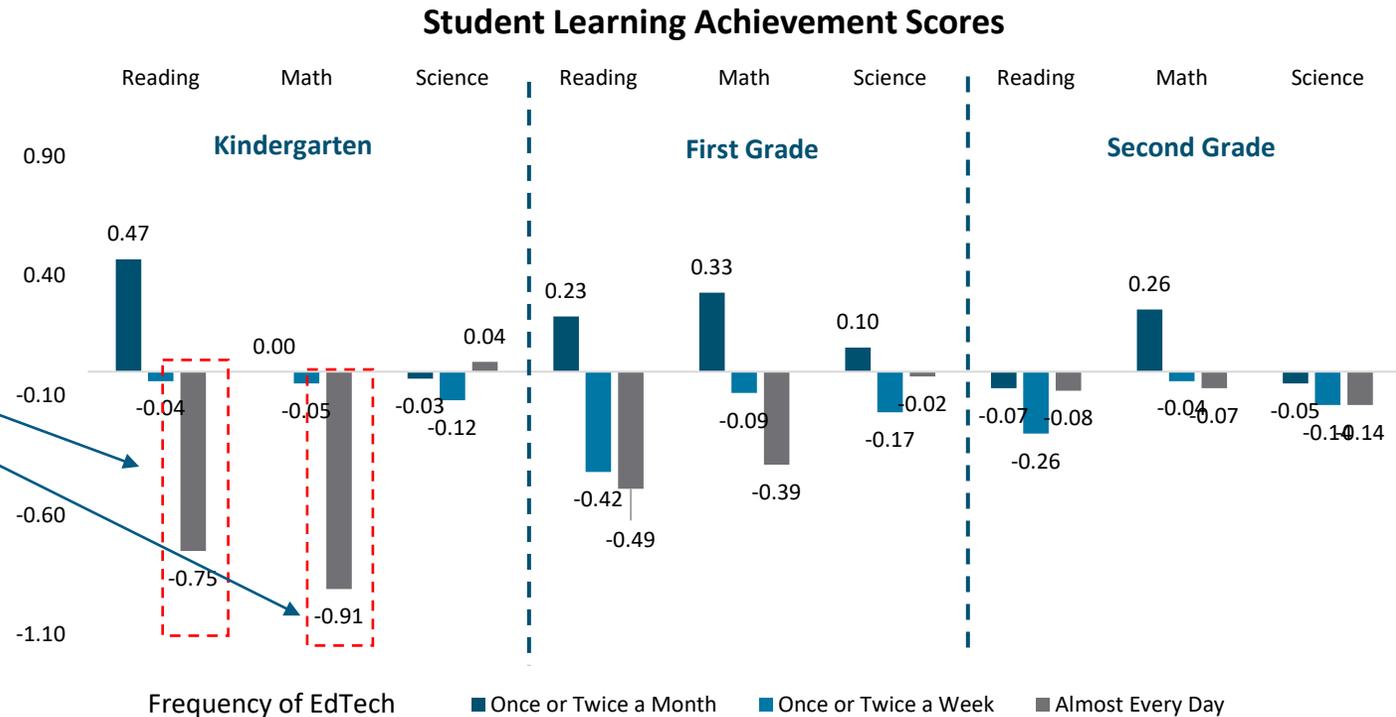
Source: OECD PISA 2018

Source: McKinsey

Dark Side of EdTech – Part 2

Another study showed strong **evidence of negative effects on student learning** due to high frequency usage of EdTech at kindergarten levels.

At the kindergarten level, children in “almost everyday use of EdTech” **show an additional loss in reading and math achievement score** than those in “once or twice a week use of EdTech”.



Source: Exploring the Negative and Gap-Widening Effects of EdTech on Young Children’s Learning Achievement: Evidence from a Longitudinal Dataset of Children in American K–3 Classrooms



SANDEEP ANEJA

Founder and Managing Partner

✉ sandeep.aneja@kaizenvest.com

 [linkedin.com/in/saneja](https://www.linkedin.com/in/saneja)



Third Speaker

Mr. Alvinder Singh

*Managing Director,
VisionarySchoolmen*



Is EdTech Failing To Deliver?

A Perspective from VisionarySchoolmen

ALVINDER SINGH

The Promise

EdTech Promised A Learning Revolution

And it's clear that hasn't been the case





Abstract

EdTech Barriers To Success

- 1 Alignment With Work
- 2 Cost Of Adoption
- 3 Issues With Transference
- 4 Value Generation
- 5 Lack Of Native Innovation

Alignment With Work



Making EdTech Work At Work

Or Why It Hasn't Worked (Yet)

- Learning & Assessment A Fair Reflection Of The Work They Do
- Aligning Learning To Business KPIs
- Measuring Growth
- Skills - Competencies - Capabilities

Cost Of Adoption

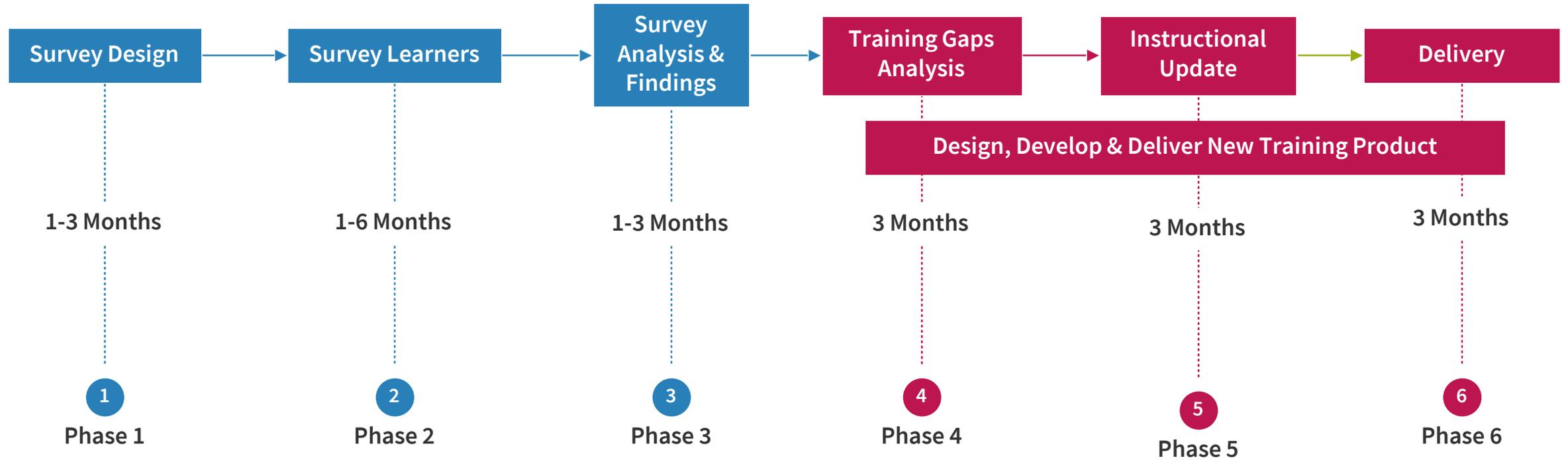


Lowering Barriers To Adoption

Or Why It's So Expensive

- Curriculum Development Is Incredibly Slow
- Curriculum Development Is Incredibly Expensive
- Assessment of Competencies & Capabilities are not “Personalised”

The Current Intervention Process



Issues With Transference

“Last Mile Problem” between Learning and Behavioural Change

Behavioral Change

The degree to which participants apply what they learned during training when they are back on the job.

Learning

The degree to which participants acquire the intended knowledge, skills, attitude, confidence, and commitment based on their participation in the training

Reaction

The degree to which participants find the training favorable, engaging, and relevant to their jobs.

Value Generation



Recognising Where & How Value Is Generated

On A Value Chain

- “Opinionated” vs “Non-Opinionated” EdTech Solutions
- Identifying How EdTech Solutions Function As Enablers Within The Organisation

Lack Of Native Innovation



Developing Technologies Native To Learning

Copy-Paste As Innovations

- Technologies Developed Within Other Industries Transplanted Into EdTech
- Asking Learning Questions And Solving Them With Technology



ALVINDER SINGH

CEO, Founder



www.vsm.ai



(65) 85-222-591



Contact Us

Gateway East, 152 Beach Road, #26-03, Singapore

 +65-98889-743

 alvinder@vsm.ai

Thank you!

**Stay safe and
healthy!**

Please remember to complete the survey.



<https://forms.gle/dxebUZCJngJiru7T9>

Please scan the QR code to take a short
2-minute survey about this session