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# Education technology market overview

## Insights and projections for 2025-2030

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# Intro

Our education systems improve by leaps and bounds, being in step with technological advancements. The education technology industry is transforming from virtual classrooms to open online courses, resulting in massive investments worldwide.

Today, we are witnessing how education institutions and corporations proactively implement information management and communication technology tools, artificial intelligence, and advanced analytics into their training and learning processes to provide engaging, inclusive, and personalised learning. In addition to traditional schooling, digital learning helps professionals to expand their skill sets while simultaneously pursuing their careers.

So, what is the current EdTech market, and what will it look like during the next five years? Who are the most prominent market players? What strategies do they employ to grow and sustain? What are the market trends and challenges? You will find answers to all of these questions in this document.

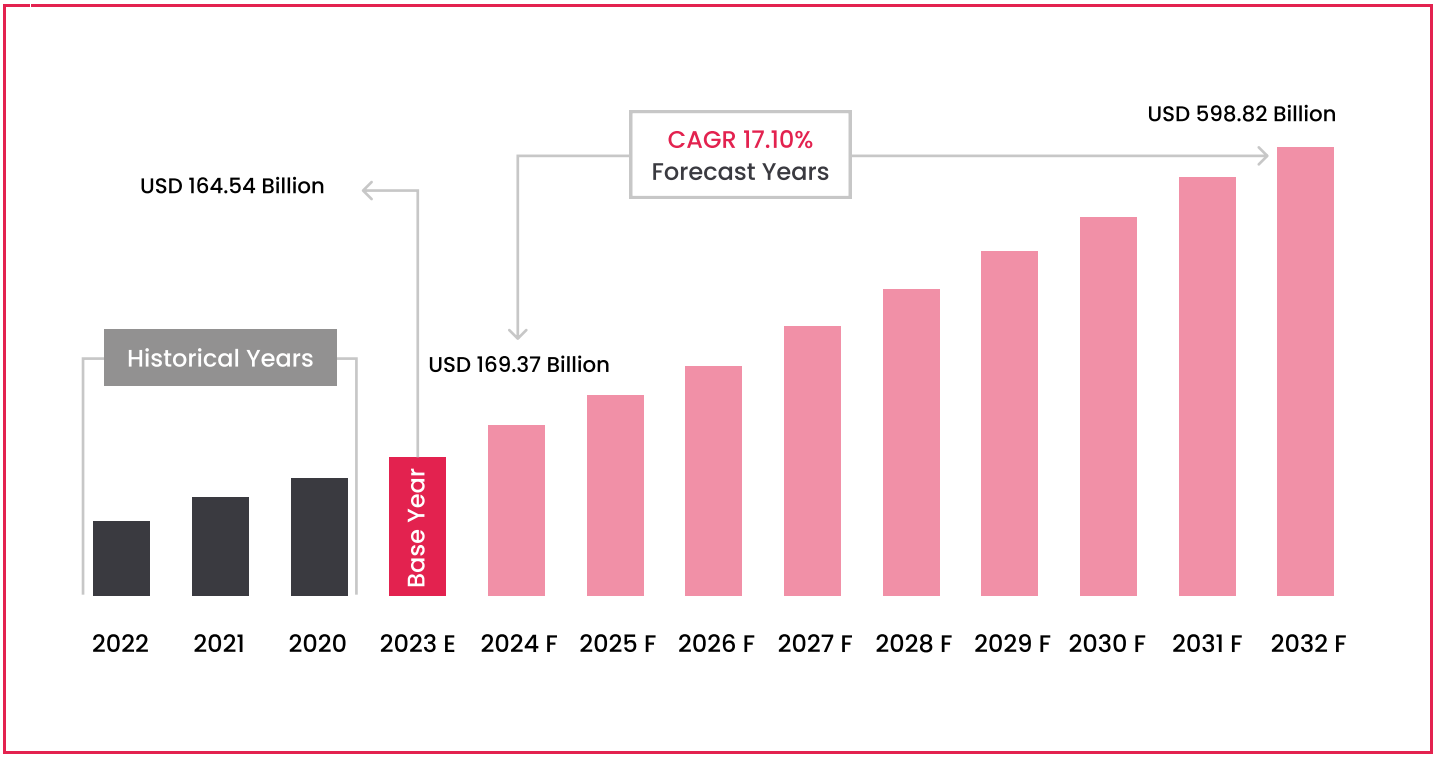
# EdTech: definition

The term education technology, which is commonly abbreviated as EduTech or EdTech, refers to the combined use of computer hardware, software, educational theory and practice to facilitate learning that spans traditional and corporate structures.

EdTech itself often refers to the industry of companies that are involved in the financing, production, and distribution of commercial hardware, software, cultural goods, services, and platforms for the educational market with the goal of turning a profit.

# Market overview

The global education technology market size was valued at USD 144.64 billion in 2023. It is projected to reach from USD 169.37 billion at the end of 2024 to USD 598.82 billion by 2030, growing at a CAGR of 17.10% during the forecast period (2025-2030).




# Europe: the growing usage of advanced technologies

The 2024 list of European EdTech startups shows a decrease in early-stage ventures that are less than three years old, likely due to the ongoing challenges in the funding landscape.

**The UK has increased its share to 38% of the listed startups**, while other major markets like France and Spain have seen reduced representation compared to last year.

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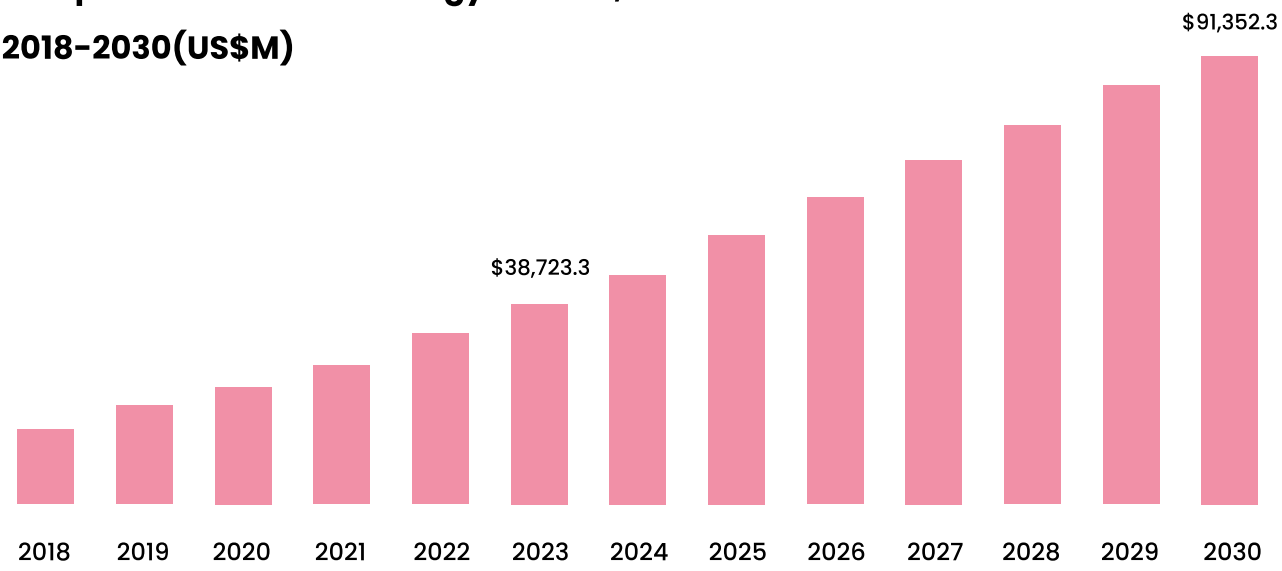
| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$38,723.3** | **$38,723.3** | **13%** |

**Europe education technology market, 2018-2030(US$M)**




Conversely, the Netherlands has experienced growth, and Italy's presence remains stable. Despite these shifts, **Europe continues to exhibit a diverse range of countries in the EdTech sector, indicating sustained investment and acceptance of educational technology across the continent.**

Overall, Europe's EdTech market is seeing a strong focus on personalised and adaptive learning solutions. This shift is driven by artificial intelligence and data analytics advancements, enabling more tailored educational experiences.

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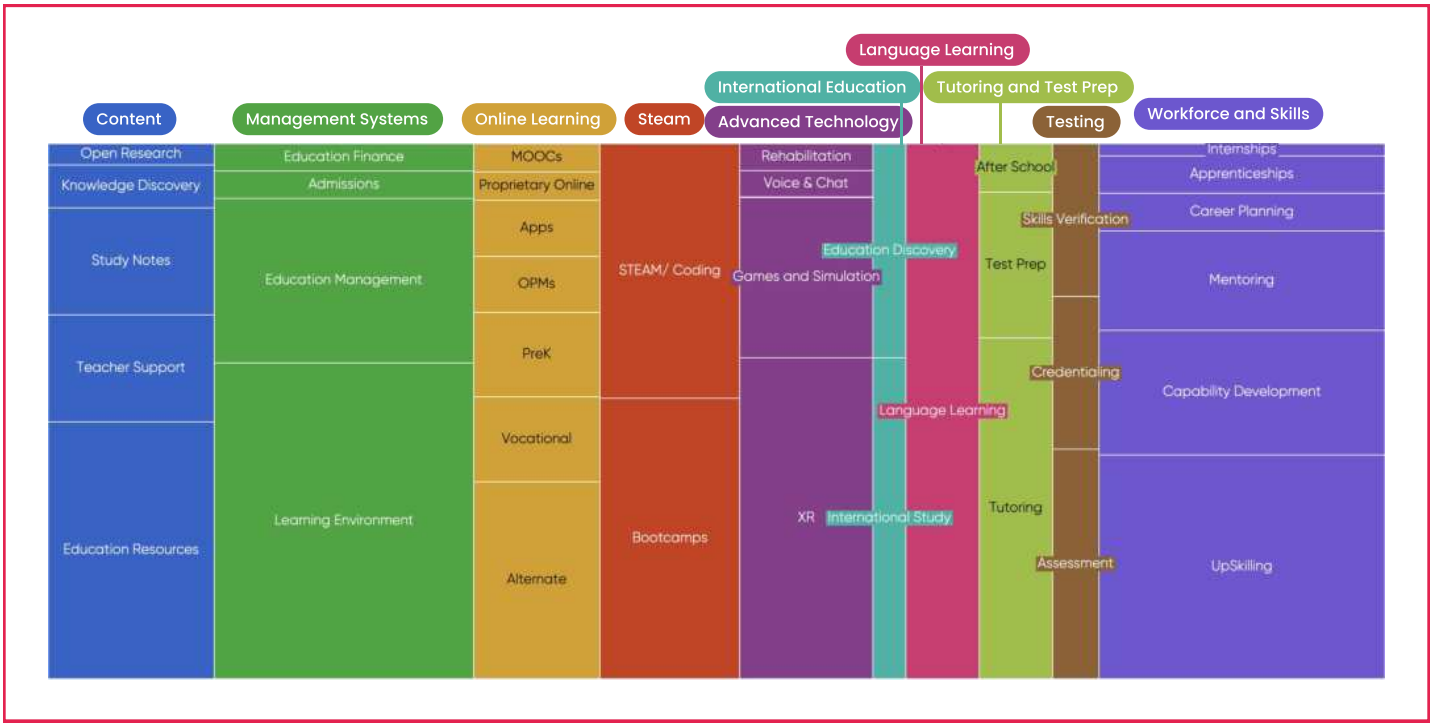
## Workforce & Skills represent largest, but still diverse category followed by Management Systems. Advanced Technology next.

2024 Europe EdTech 200 organized by the HolonIQ Taxonomy




As for the startups, almost 1/4 of this year's cohort work in the workforce and skills segment. The solutions on the market vary from cybersecurity training (**Cyber Guru, Hack The Box**) to digital skills training (**Revoltrain**) and micro-learning (**5Mins AI**).

In addition, management systems that support institutions and organisations with digital infrastructure for learning represent one in five mostly learning environments such as learning experience platform HowNow, schools learning management solutions (**WeSchool**) or social platforms for universities (**Brian**), to cognitive assessment platforms (**Cognassist**), or hands-on lab experience for engineers (**Instruqt**).

The incorporation of virtual and simulated environments into learning processes represents 10% of the current market, with applications in medication training (**Apoqlar, Immersify Education**) and soft skills training (**wondder, Bodyswaps, VirtualSpeech**) popular use cases.

The UK is a notable hub for digital marketing, and several EdTech startups in the region use direct-to-consumer distribution models. These startups benefit from local expertise to refine distribution strategies, which are vital for customer acquisition and market growth.

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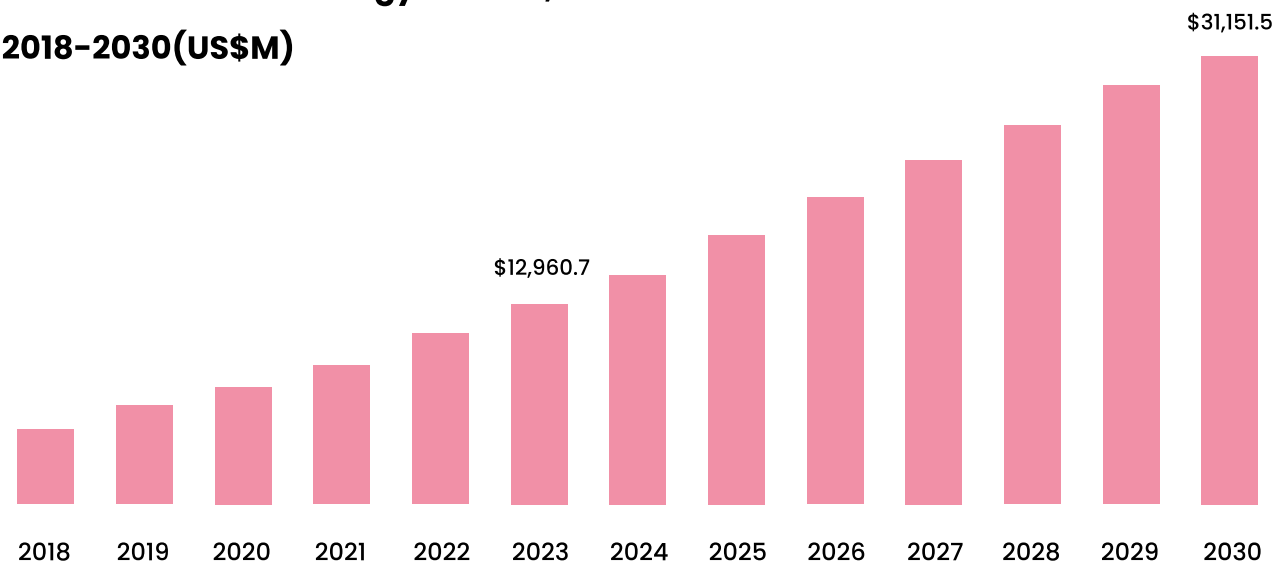
| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$12,960.7** | **$31,151.5** | **13.3%** |

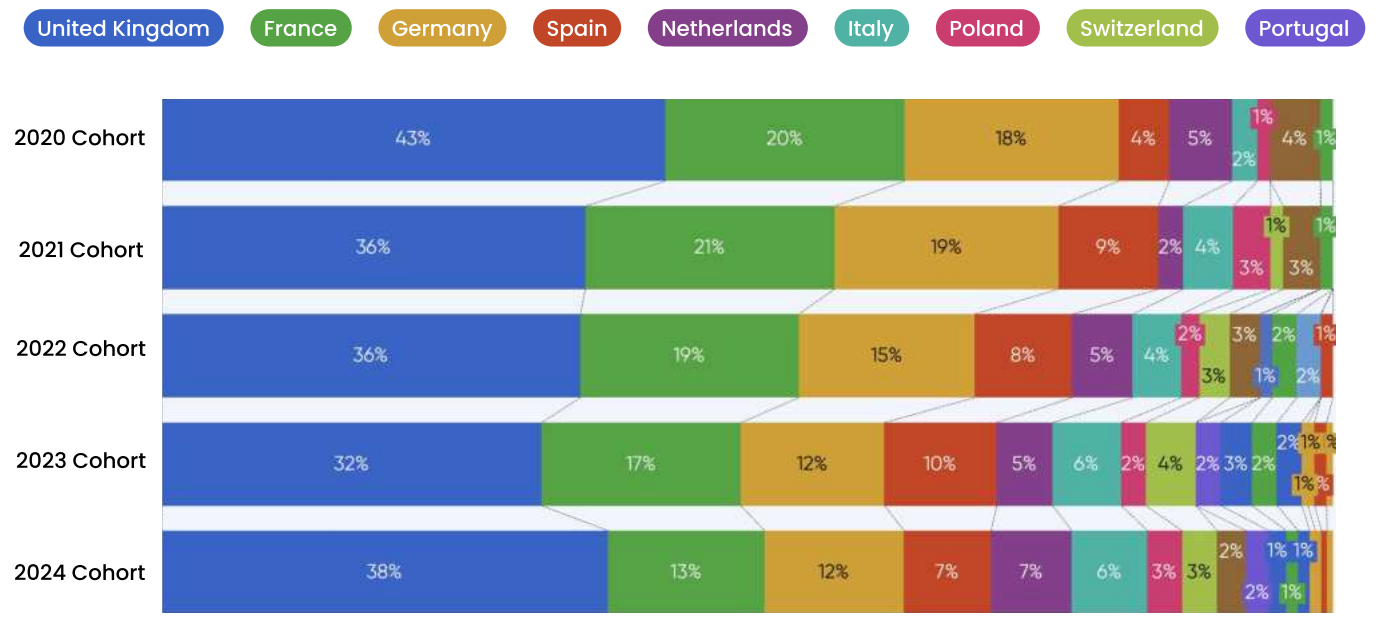
**UK education technology market, 2018-2030(US$M)**




What's more important, the UK EdTech sector grew by over 70% in 2020, far outpacing global growth, with a continued upward trend projected for 2024. The UK also attracts a significant portion of European EdTech investment, securing nearly 41% of all funds in the region.

**Geographic diversity grows with the UK regaining share, with other major markets shrinking. Spain, Italy and the Netherlands steady.**

Europe EdTech 200, 2020-2024 Cohort Distribution by Company Headquarters United Kingdom




There are currently around 1000 EdTech companies in the UK, and while none have yet reached unicorn status (valued at over $1 billion), the market's momentum suggests this could change in the coming years.
As the sector continues to mature, areas like AR and virtual classrooms are expected to play a key role in reshaping the UK's educational settings, helping to build hybrid learning environments.

At the same time, the Management Information Systems (MIS) sector is undergoing significant churn. Traditional MIS platforms, once focused largely on administrative tasks, are being redefined to incorporate advanced analytics, real-time data, and integrations with other educational technologies. This shift is helping schools and universities modernise their operations and improve decision-making processes, while also contributing to the overall digital transformation of the sector.

**The trend keeps going upward in the field of assessment. Discovery Education** recently acquired **Inspyro**, followed by the purchase of another UK-based company, **Spiral**. **Spiral**, an interactive learning platform that supports quick assessments, collaboration, and flipped classroom activities, has now been integrated into Discovery Education's digital platform as part of its latest service upgrades.

Besides, more platforms like **Bramble** keep shaking up virtual tutoring for older students by offering real-time communication, sketching, and resource sharing across devices. On top of that, serial entrepreneurs developing point solutions like **Lawrence Royston**, a co-founder of **Groupcall** and **teamSOS** and **David Surfleet**, who co-founded an Education SAAS business, amassing over 10% of the UK market.

It's worth noting that both **Inspyro** and **Spiral** were founded by teachers, reflecting a broader trend in the UK. Many of the country's most innovative EdTech companies are led by educators. According to **Nina Iles**, head of EdTech at the British Educational Suppliers Association (BESA), this connection to education is a key factor behind their success.

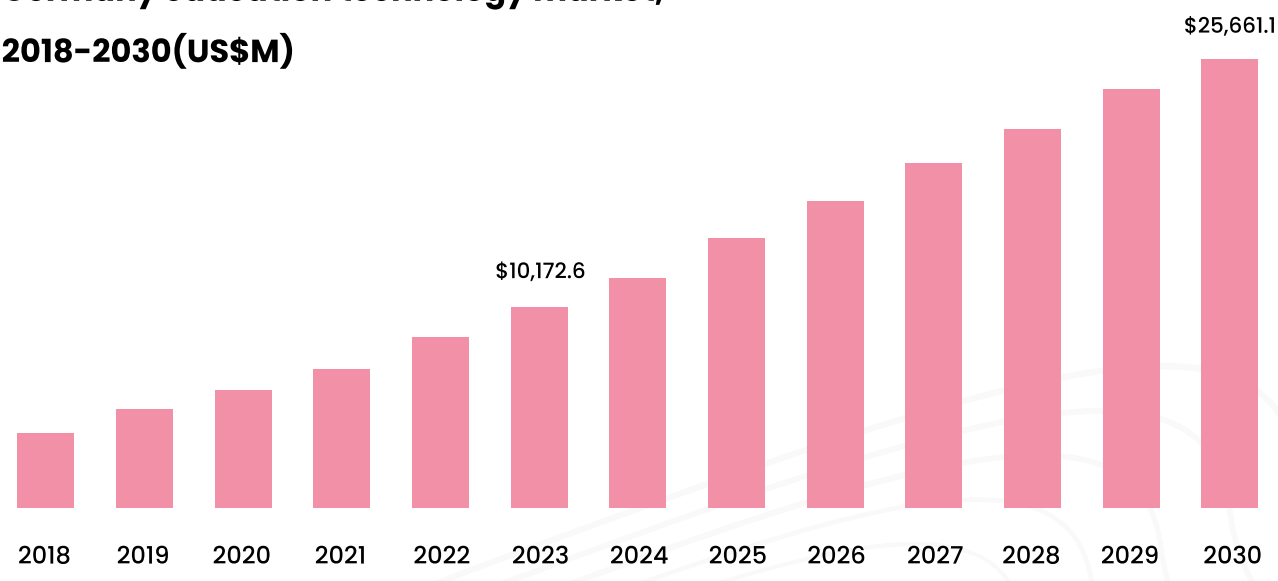
> ***"The classroom is where the magic happens. It's the way in which teachers use the tools at their fingertips that delivers the real innovation, and here, training is key. It's no surprise that UK companies are making waves in the global EdTech revolution: their innovations solve real teacher problems."***- explains Nina Iles.

At the same time, Germany's EdTech market is showing strong government support through initiatives such as the "DigitalPakt Schule," which focuses on enhancing technology infrastructure in schools.

However, the market experienced a drop in funding in 2023, with a 67% decrease compared to 2022. Despite this, Germany remains a notable player in the European EdTech scene with continued investments in digital tools for education.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$10,172.6** | **$25,661.1** | **14.1%** |

**Germany education technology market, 2018-2030(US$M)**



France, on the other hand, has been advancing its digital education strategies with government-led programs like the “Plan numérique pour l'éducation,” aimed at improving digital literacy and integrating technology into education.

Earlier, France secured $162 million across 14 EdTech deals, maintaining its position as one of Europe’s key EdTech markets.

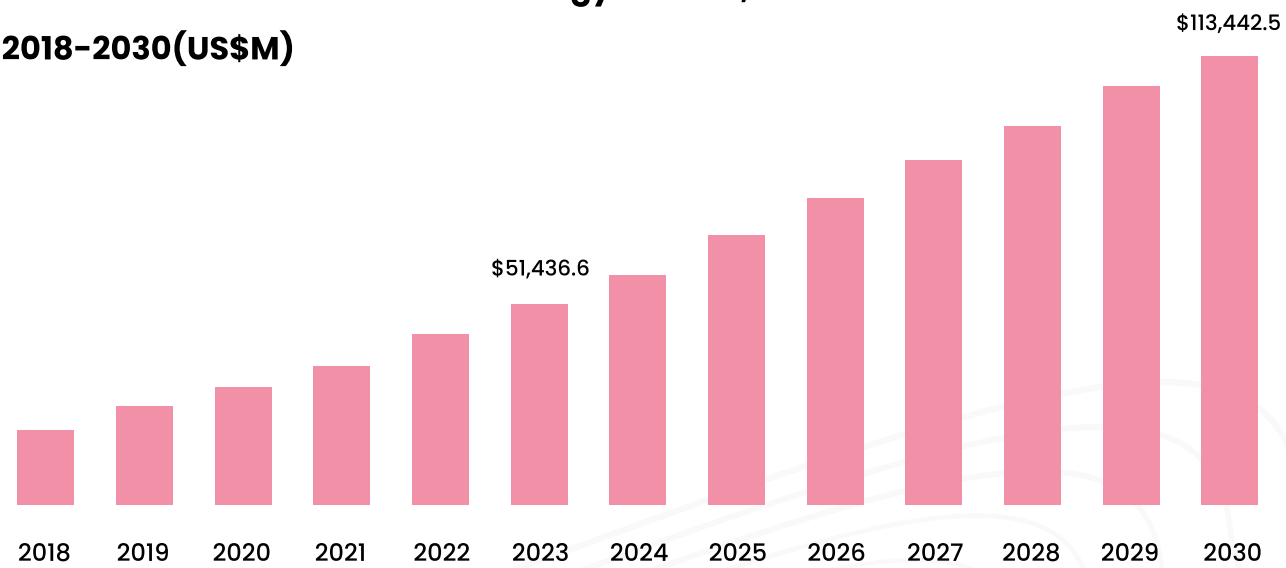
Italy and Spain are also showing growing interest in EdTech. While these markets are smaller compared to Germany and France, they benefit from increased internet penetration and the adoption of mobile learning technologies. In Spain, for example, there is a surge in the use of AI and personalised learning platforms, which continue to drive market interest.

# North America: leading the market with 18.34% CAGR

North America holds the largest share of the global EdTech market and is expected to grow at a compound annual growth rate (CAGR) of 12% during 2024 – 2030.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$51,436.6** | **$113,442.5** | **12%** |

**North America education technology market, 2018-2030(US$M)**



In 2023 - 2024, the EdTech market in both the US and Canada continues to grow and transform, driven by increased demand for digital learning tools, remote education solutions, and emerging technologies like artificial intelligence and virtual reality.

## Workforce & Skills represent the largest, but still diverse category followed by Management Systems. Technology in learning next.

2024 North America EdTech 200 organized by the HolonIQ Taxonomy

**Artificial intelligence and immersive learning technologies are making a significant impact across various industries, particularly in workforce education.** This year, nearly 40% of the startups in the workforce sector are newcomers, maintaining a trend seen in previous years.

There's a noticeable diversification in workforce solutions, with growth in areas such as mentoring and coaching, including companies like **Leland, Mentor Collective, Pathrise, and Sounding Board.**

There's also a strong focus on skills development, with solutions for skills mapping, matching, and intelligence aimed at helping companies identify and nurture internal talent, such as **Workera, Eightfold AI, QuantHub**, and **Glider.ai**.

Many startups this year put a priority on the learner experience, reflecting a broader trend. The advanced technology segment is seeing increased activity in immersive and simulated learning. For example, **Bright** uses simulations and personalised coaching to train contact centre employees, while **STRIVR** and **Training All People (TAP3d)** provide hands-on job training.

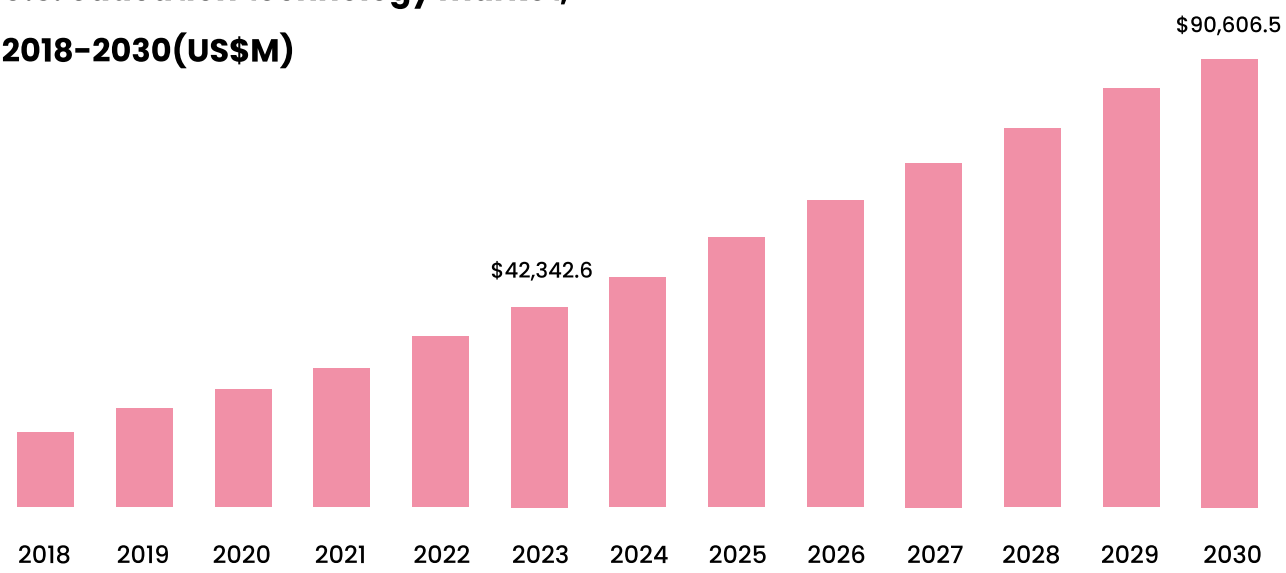
The **education management sector remains extensive and dominated by learning management systems and education financing solutions** that cover all educational stages, from PreK to the workforce.

Notable players in this category include childcare and preschool management systems like **BridgeCare** and **Brightwheel**, as well as alternative early learning solutions such as **Vivvi** and **Wonderschool**. Additionally, startups addressing the gap between talent and job opportunities include **Passage**, which connects immigrants with education and job prospects, as well as **Upright Education**, which provides university tech boot camp programs.

In the US, the EdTech sector is seeing heavy investment from venture capitalists, contributing to its leadership in global market share. **The US EdTech market was valued at $42,3 billion and will grow at a CAGR of more than 11% from 2024 - 2030.**

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$42,342.6** | **$90,606.5** | **14.1%** |

**U.S. education technology market, 2018-2030(US$M)**




Key players such as **Class Technologies**, **PowerSchool**, and **Coursera** are continuing to expand, supported by intensive funding.

For example, **PowerSchool**, a leading provider of cloud-based software for K-12 education, earlier this year entered into a definitive agreement to be acquired by **Bain Capital** in a transaction valued at $5.6 billion.

At the same time, **Class Technologies** has received significant funding from investors, including **Zoom** and **Bain Capital Ventures** (a part of Bain's venture capital activities). This funding aims to expand Class Technologies' ability to improve virtual learning.

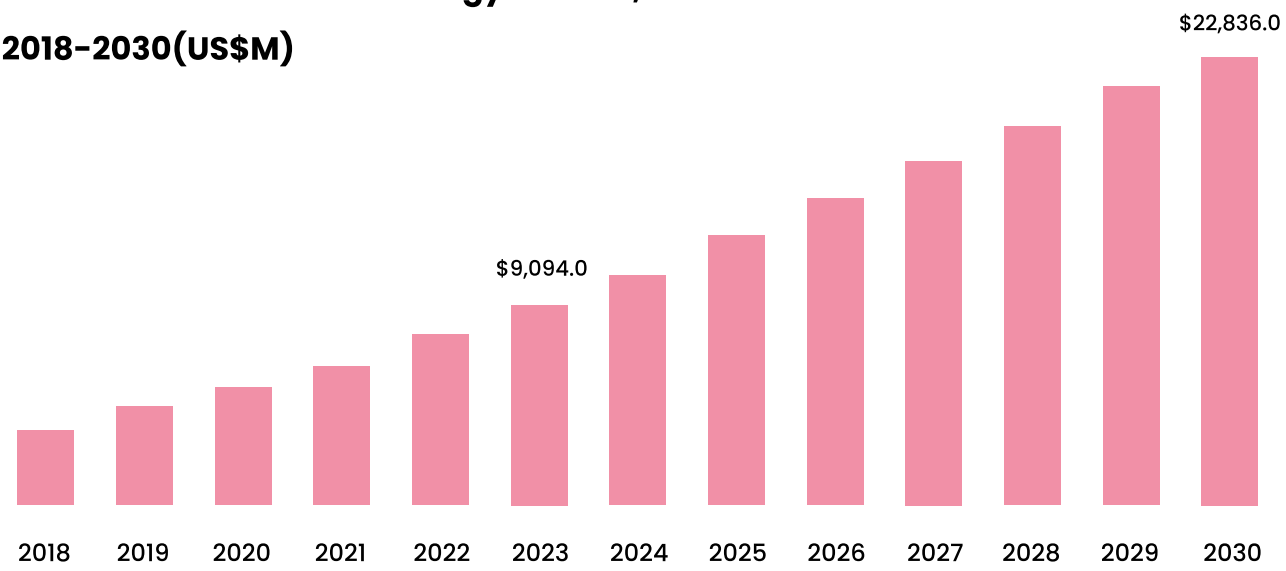
US educational institutions focus on tools like **learning management systems, student information systems**, and other digital platforms to enhance K-12 and higher education experiences. For example, **McGraw Hill** reported financial results for the first quarter of fiscal year 2025, which ended June 30, 2024. Total billings increased 22% to $578 million in the quarter compared to the prior year, driven by a robust market opportunity, with strong win rates within K-12 and continued digital growth within higher education.

Digital billings increased 30% versus the prior year to $324 million and comprised 56% of total billings, compared to 53% in the first quarter of fiscal 2024. Higher Education digital billings increased 15% above the prior year and comprised 94% of total Higher Education billings. The company continued to see growth in users across its core Connect and ALEKS learning platforms, with a combined 14% and 8% growth in paid activations and unique users, respectively.

In Canada, the market is growing similarly, fuelled by government initiatives and private investments in digital education platforms.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$9,094.0** | **$22,836.0** | **14.1%** |

**Canada education technology market, 2018-2030(US$M)**



Canada's educational landscape is also shifting toward integrating AI and cloud-based solutions, particularly in higher education. Platforms designed to improve accessibility and adaptability for diverse learners, as well as tools for workforce training, are increasingly in demand. The expansion of broadband access, particularly in rural areas, is also facilitating the adoption of EdTech solutions.

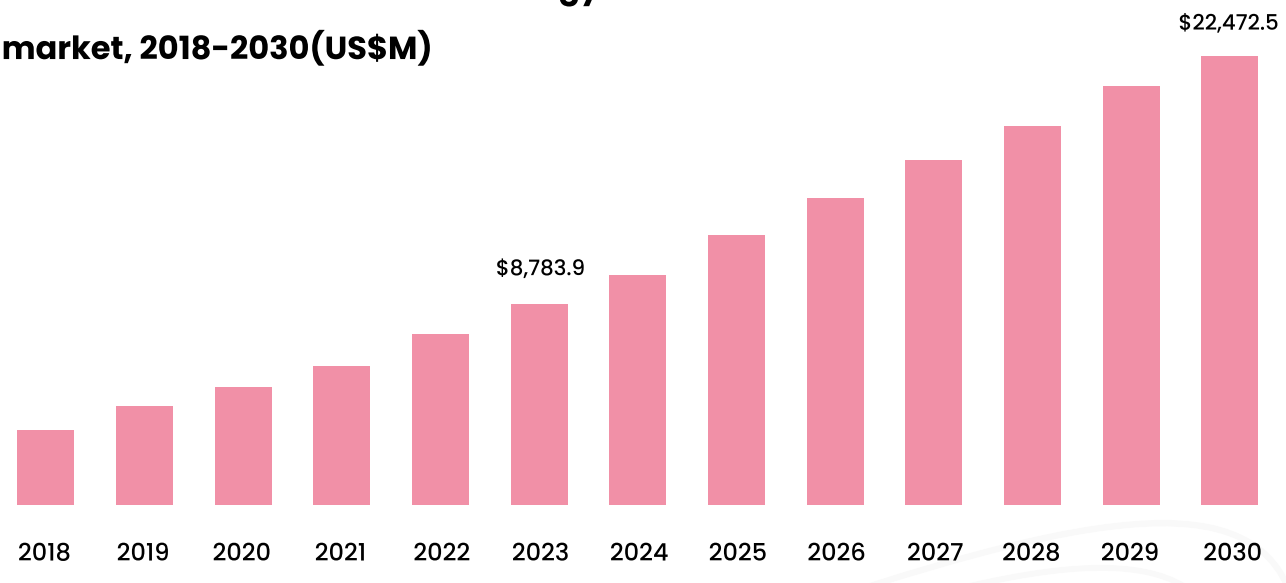
**The sector's growth is expected to continue attracting capital as established companies with strong revenue trajectories stand out from newer entrants.**

# Latin America: on the edge of transformation

The EdTech market in Latin America is on the edge of transformation due to improved high-speed internet access, the emergence of venture capital-backed startups, and rising demand for digital learning tools. After years of steady progress, the region is now experiencing dramatic growth, with EdTech companies demonstrating the desire to scale and internationalise.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$8,783.9** | **$22,472.5** | **14.4%** |

**Latin America education technology market, 2018-2030(US$M)**

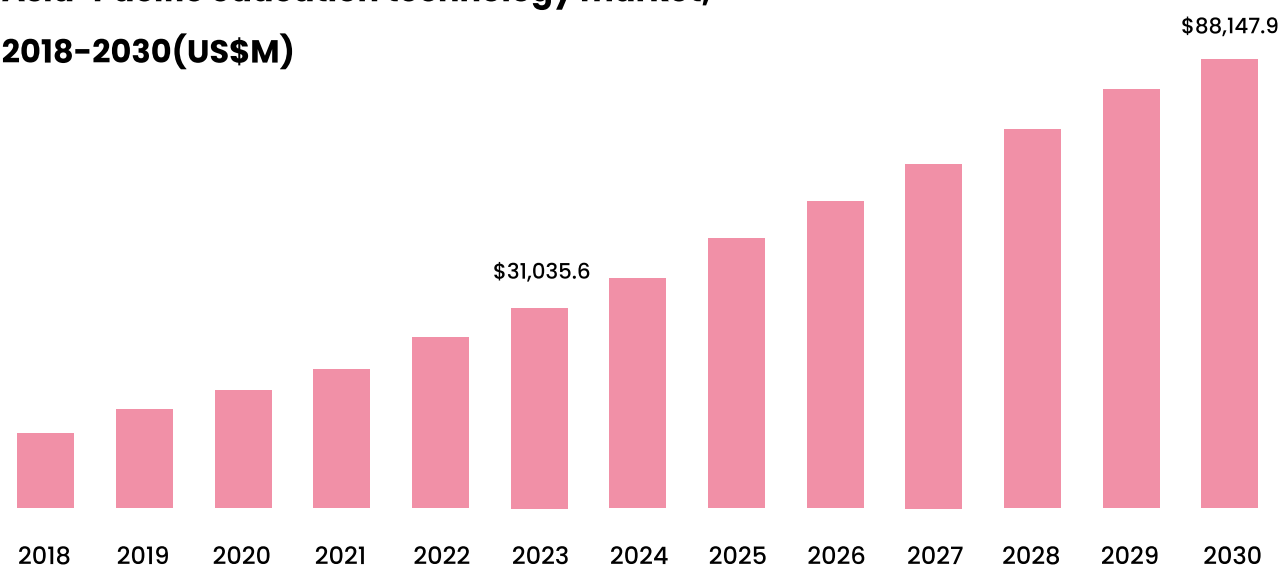


# Asia-Pacific: rapid expansion in China and India

Asia-Pacific is anticipated to experience significant growth, with a CAGR of 16,1%, generating USD 88,1 billion by the end of the forecast period.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$31,035.6** | **$88,147.9** | **16.1%** |

**Asia-Pacific education technology market, 2018-2030(US$M)**

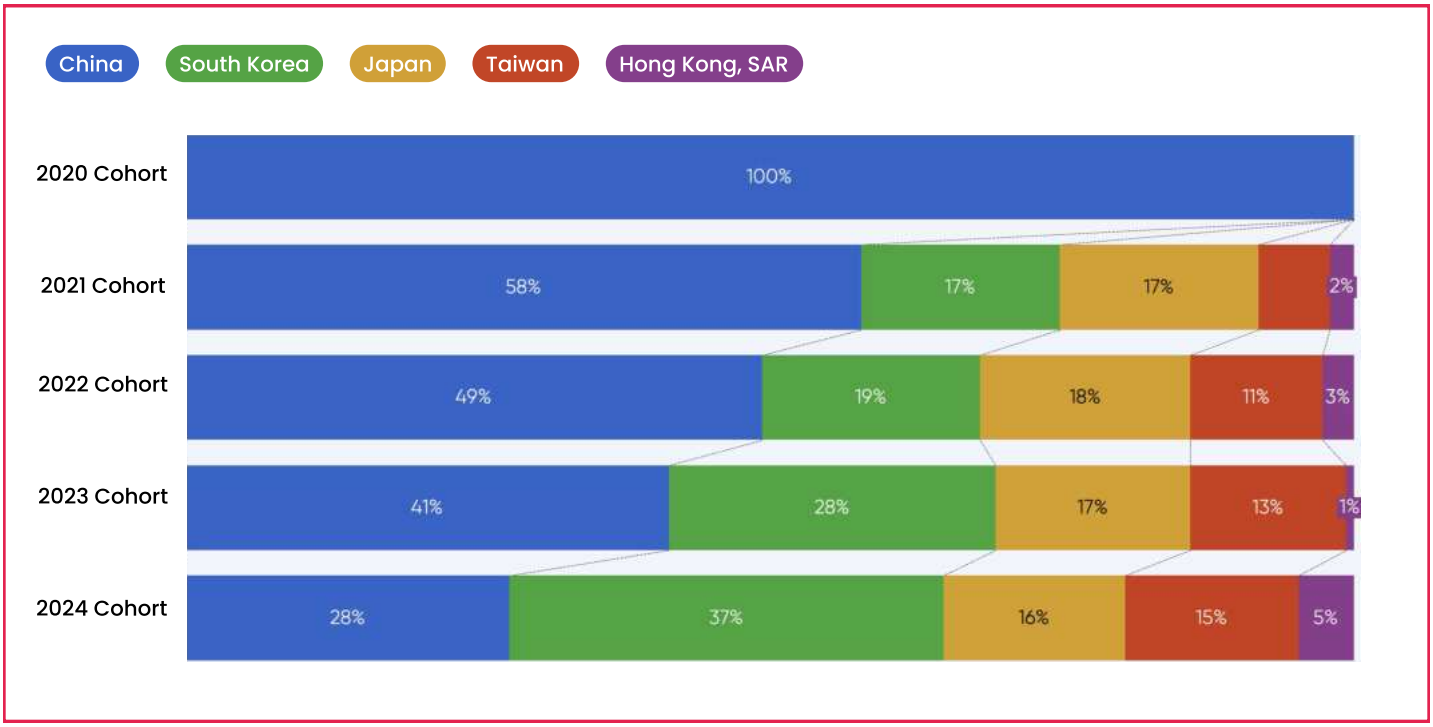



This growth is driven by the widespread adoption of computing devices and smartphones, particularly in developing countries, where increased access to broadband connectivity has opened the door for businesses to reach larger population segments. These trends are paving the way for broader access to online education.

Speaking about China, it is expected to remain the largest EdTech market in the region, driven by strong government support, the rise of e-learning platforms, and, of course, the proactive adoption of advanced technologies such as AI and adaptive learning tools.

**Korea continues to strengthen EdTech solutions, with China's share diminishing further. Taiwan and Hong Kong grow.**

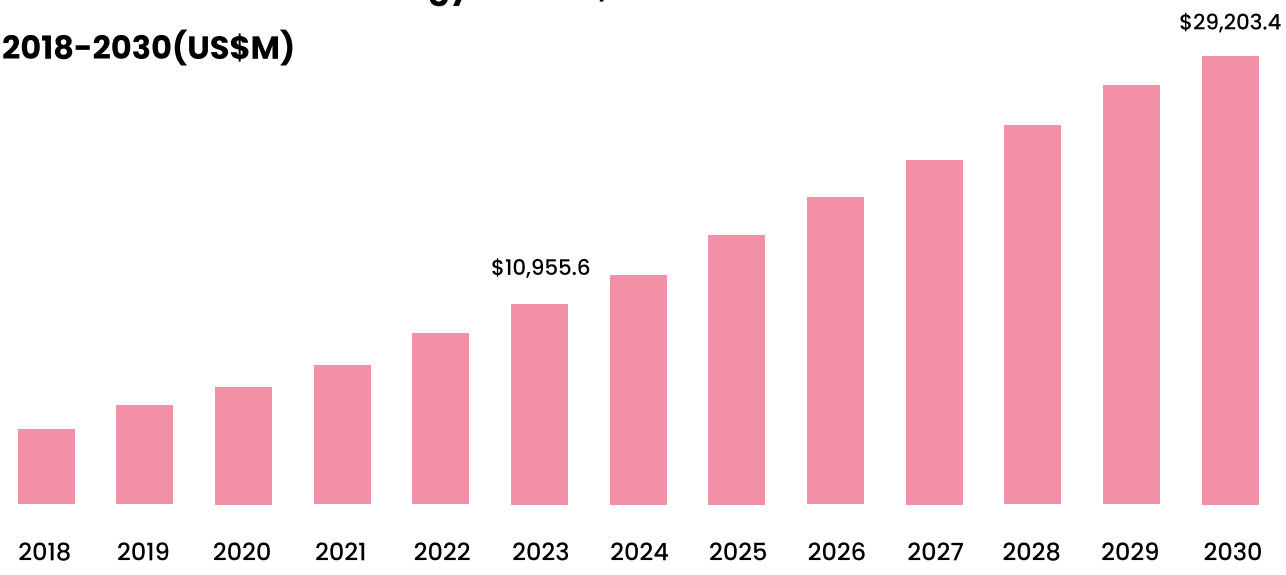
East Asia EdTech 150, 2020-2024 Cohort Distribution by Company Headquarters




The country has seen impressive investment in digital education, particularly remote learning tools, to address growing post-pandemic demand.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$10,955.6** | **$29,203.4** | **15%** |

**China education technology market, 2018-2030(US$M)**



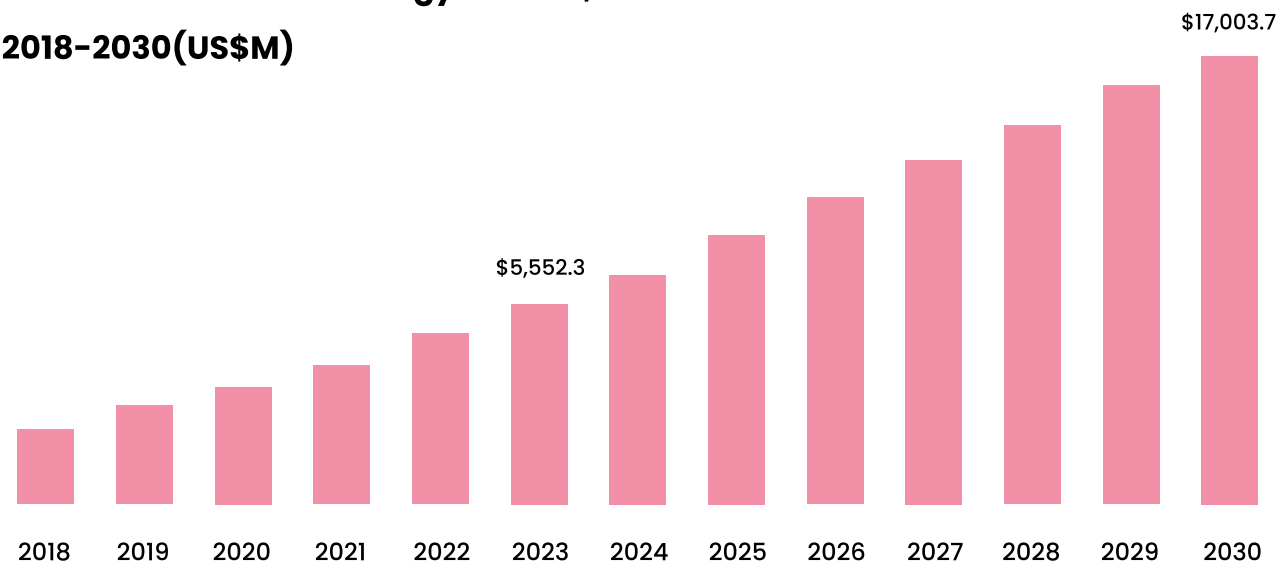

In India, home to over 1.4 billion people, the traditional education system puts its best foot forward to keep pace with the needs of its rapidly expanding population. With 65% of the population under the age of 35, there is a huge gap in the skills required for a modern, competitive economy.

According to McKinsey, by 2030, around 450 million workers will require upskilling to meet industry demands. Addressing this challenge through innovation is urgently needed to ensure its future economic success.

However, India remains a key player in the EdTech space, with its market growth fuelled by improved broadband access and the proliferation of affordable digital devices. Startups like Byju's have capitalised on this, becoming global leaders in online learning. The government's push for skill development in areas like AI and data science has also contributed to the rapid adoption of EdTech tools.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$5,552.3** | **$17,003.7** | **17.3%** |

**India education technology market, 2018-2030(US$M)**

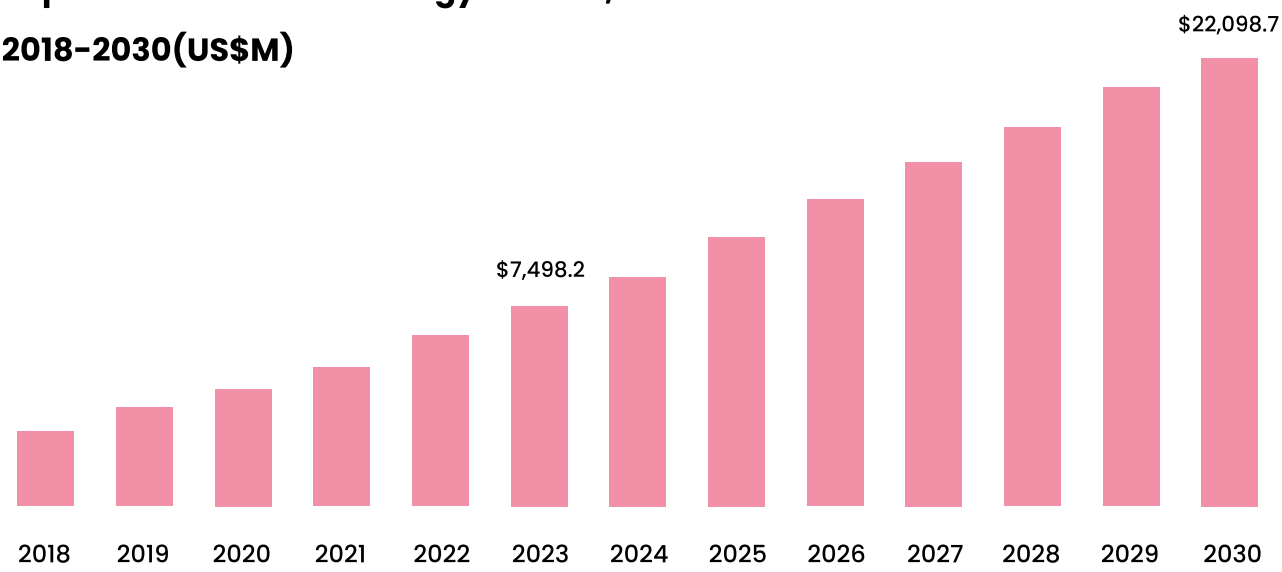



*"EdTech is to enhance access to quality education, bridge educational gaps, and ensure lifelong employability by reaching remote and underserved communities and providing continuous upskilling and reskilling opportunities in a rapidly evolving job market. "*- Aarul Malaviya, Founder, Zamit.

Japan's EdTech market is also on the rise, with increasing investments in virtual classrooms, interactive learning platforms, and AI-driven educational tools. The country addresses challenges in its ageing education infrastructure by incorporating digital learning to improve student outcomes and access.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$7,498.2** | **$22,098.7** | **16.7%** |

**Japan education technology market, 2018-2030(US$M)**

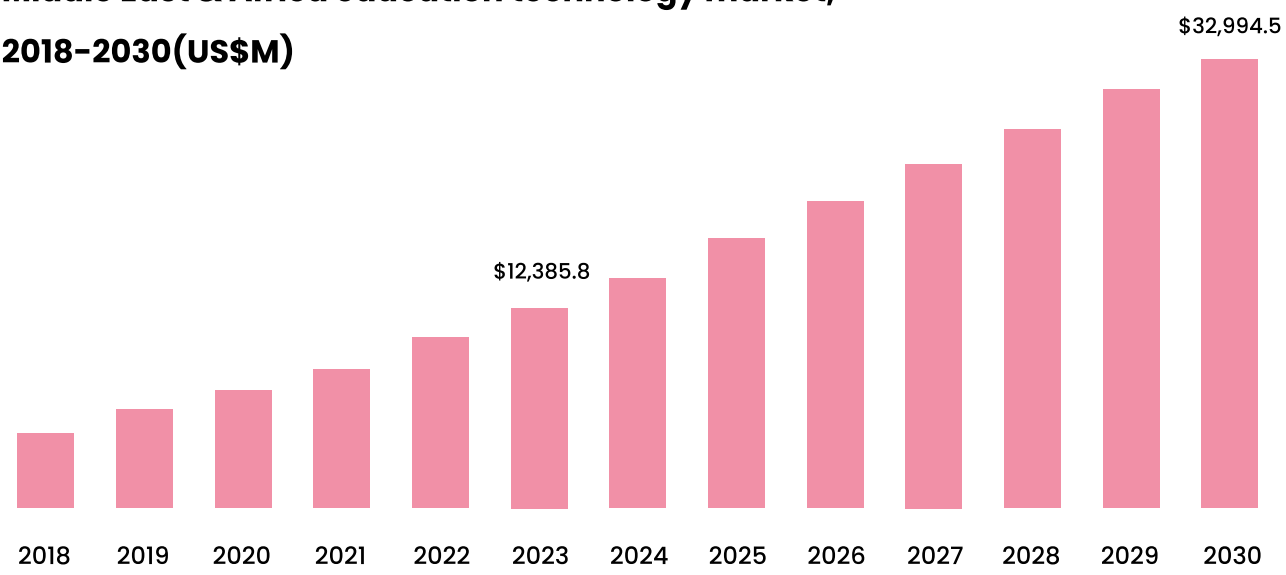


# Middle East and Africa: increasing demand for AR, VR, and AI technologies

Growth in these regions is expected to be driven by demand for education technology solutions based on augmented reality, virtual reality, and artificial intelligence.

| Revenue, 2023(US&M) | Forecast, 2030(US&M) | CAGR,2024 -2030 |
|---|---|---|
| **$12,385.8** | **$32,994.5** | **15%** |

**Middle East & Africa education technology market, 2018-2030(US$M)**




The UAE, with one of the most advanced education sectors in the region, is embracing EdTech as a tool to enhance learning access. Emerging technologies like AI, blockchain, VR, and IoT-based solutions are making improvements in both teaching and learning processes.

**Saudi Arabia** put a priority on cloud-based solutions and personalised learning platforms across higher education and other sectors. The market is bolstered by government initiatives to modernise education, including the implementation of AI and AR/VR technologies, which promote interactive learning experiences.

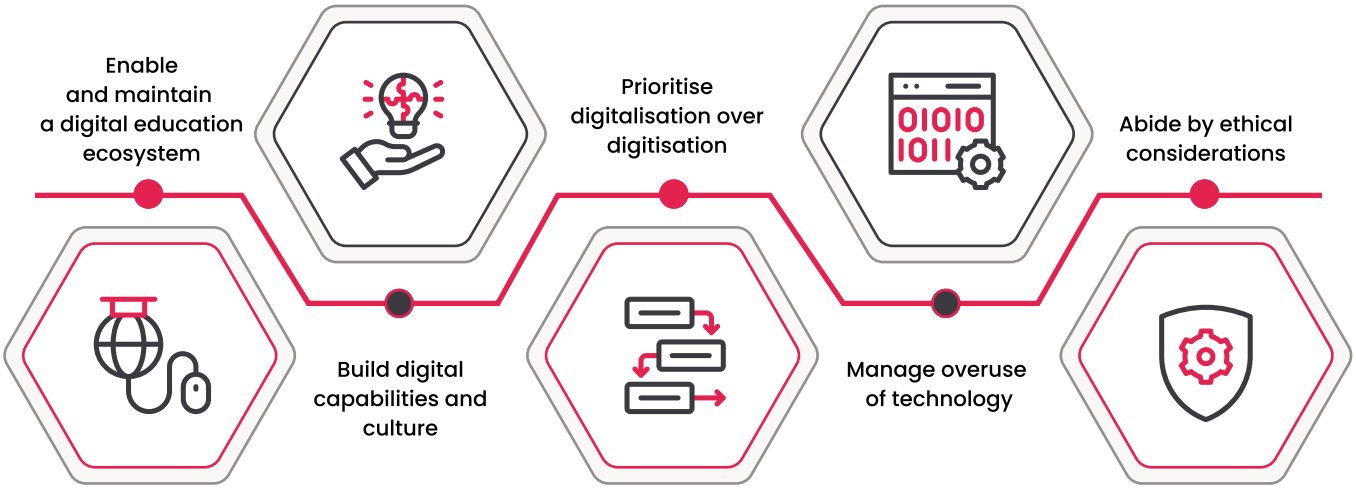
**The UAE**, mainly, is a leader in the Middle East EdTech space, driven by recent developments in AI and immersive technologies such as AR and VR.

# Key trends and developments

The business sector led the EdTech market, accounting for over 68.1% of the total market share. This dominance is driven by the growing recognition in the corporate world of the need for continuous learning, especially as the COVID-19 pandemic accelerated remote work and digital transformation.

In this new work environment, businesses are under pressure to ensure their workforce remains equipped with the latest skills, leading to increased need for structured learning and development. Thus, organisations are ramping up investments in EdTech-based training programs aimed at upskilling and reskilling their employees. These programs often include online courses, virtual workshops, and interactive platforms, providing flexible, scalable, and cost-efficient alternatives to traditional in-person training. For example, HR systems, such as **CIPHR**, are investing in LMS solutions to organise and streamline employee training.

The incorporation of advanced technologies like AI, machine learning, and virtual reality has enhanced the appeal of these platforms by making learning more interactive and efficient. In order to achieve the expected impact when adopting new technologies, remember to:




This upskilling trend is especially pronounced in industries that require niche expertise, where EdTech offers tailored educational content that can be easily updated and disseminated globally at a low cost. Additionally, the rise of remote work has highlighted the need for digital learning platforms that can engage employees regardless of their location.

Asynchronous learning options provided by EdTech platforms allow employees to progress through material at their own pace and fitting smoothly into the flexible work environments that many companies offer. This level of convenience and adaptability has made the business segment the largest and fastest growing within the EdTech space as **companies prioritise employee development in their long-term strategies.**

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# Artificial intelligence in EdTech

## Market expansion

The AI in education sector is projected to grow at a compound annual growth rate of 43.3%, reaching a market value of $88.2 billion by 2032.

## Personalised learning

This segment is anticipated to grow from $5.2 billion in 2022 to $48.7 billion by 2030.

## Student outcomes

73% of students report improved performance rates, while 63% say they study more efficiently using AI-powered tools.

**AI is transforming traditional schooling while becoming a key element in corporate training and continuing education programs. AI-powered corporate training can now adapt to individual employees' learning speeds, making the training process more engaging. Popular use cases include the following:**

### AI supports teachers

AI can help teachers by creating detailed lesson plans, classroom materials, and even e-learning courses, which can be complemented by assessments and quizzes. A customised curriculum could include AI-generated interactive modules and engaging videos.

Automated systems can evaluate student responses and deliver instant feedback, helping to create a more adaptive learning environment. For example, **at Altamira, we delivered an AI-powered tool for neuropsychological assessments and a child's academic success.**

### AI improves administrative support

AI's influence extends beyond the classroom. AI assistants can manage inquiries, assess student data, and generate actionable insights, reducing the burden on administrative staff. These systems take on more complex tasks, allowing administrative teams to focus on higher-level issues.

### AI automates routine tasks

AI can streamline routine administrative duties like tracking attendance, scheduling, and grading. Through the use of natural language processing and machine learning, AI can simplify workflows, reduce administrative workloads, and give educators more time for personalised student interactions.

### AI optimises resource management

AI-driven predictive analytics can forecast resource needs based on historical data. Algorithms like decision trees and regression analysis can assess trends in student enrolment, course demand, and budgets to optimise resource allocation. This approach helps ensure efficient use of resources and improves operational efficiency.

> ***"I see artificial intelligence as an up-and-coming innovation that could fundamentally transform positively teaching and learning methods and aid teacher recruitment/retention."*** - Altamira's Education Sector Consultant (Growth and AI Application Specialist), Conor Gately.

# Remote learning

### Market expansion

The online learning industry is projected to be worth more than $370 billion by 2026.

### Industry impact

The number of online learning users is expected to increase to 57 million by 2027.

### Student outcomes

Online learning and training can improve employee performance by 15% to 25%.

The last decade has seen a shift in online education. Back in 2012, 75% of college students attended all their classes in person, only 13.1% took some online courses, and 12.4% were fully enrolled in online programs. However, by 2020, those figures changed dramatically due to the COVID-19 pandemic, with only 26.6% of students reporting they took no online classes.

Let's explore the situation with remote learning in the USA.

## New Hampshire, Arizona, and Utah – are the states with the highest online college enrolment rates

For places like Alaska and West Virginia, this likely reflects the difficulty of accessing higher education in remote areas. Alaska, for instance, only has eight degree-granting postsecondary institutions.

Meanwhile, states like Utah, New Hampshire, and Arizona dominate due to the presence of the nation's largest online colleges, where most students are enrolled in online-only programs.

- Western Governors University in Utah has more than 150,000 students, all distance learners.
- Southern New Hampshire University serves around 145,500 students, with 138,700 exclusively online.
- Grand Canyon University in Arizona educates approximately 103,100 students, with 79,900 taking classes online.

## Online Schools vs. Traditional Colleges

Despite the growth in online learning, only a small percentage of colleges focus primarily on distance education, with part-time students being more likely to choose such schools over full-time students.

**3.7%**

The proportion of higher education institutions classified as primarily online as of Fall 2022. To meet this definition, 90% or more of the students at these institutions must be enrolled online. Most traditional colleges still offer a mix of online and in-person courses.

**6%**

The percentage of college students attending primarily online institutions in Fall 2022. Although most college students now take some online classes, only a tiny percentage are enrolled in schools that are almost entirely online.

**1.1 million**

The approximate number of students attending primarily online colleges in Fall 2022. Part-time students are more likely to choose these schools than full-time students. Among undergraduates, 7% of part-timers attend mainly online schools, compared to 4.4% of full-timers. For graduate students, 10.7% of part-time and 8.1% of full-time students opt for these institutions.

**8.5 million**

The estimated number of students not participating in distance learning as of Fall 2022. At the same time, over 10 million students take at least some online courses and 8.5 million still study exclusively in person.

Private, non-profit institutions have the highest percentage of students studying fully in person, with 56.2% of learners not taking online courses. Public universities, by contrast, have 45% of their students studying entirely in person, while 33.3% of students at private, for-profit schools do not engage in online learning.

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# Gamification and immersive learning

## Market expansion

Game-based learning will expand by 15.4% in 2024. This growth trajectory targets a market size of $25.7 billion by 2025.

## Student outcomes

Students engaged with gamified learning demonstrate an average 34% improvement in test scores.

Gamified remote learning is reaching new heights with immersive virtual reality content, already used to train workers in the construction, automotive, and aviation industries. These interactive, game-based elements offer students engaging, accessible experiences within creative communities. Instead of simply watching a lecture, students participate in video game-like simulations, gaining a taste of the emerging metaverse—a collection of interconnected online worlds.

**In EdTech, gamification adds a new dimension to remote learning**. It complements traditional teaching methods and has proven to boost student motivation and learning outcomes, especially during the pandemic. For example, David Game College, a private school in London, has opened **the UK's first "teacherless" classroom for 20 GCSE students** this September. The students are taught by artificial intelligence instead of human teachers. The school says the technology allows for precise, bespoke learning.

Now, virtual learning can create immersive, game-like environments that offer adaptive learning through instant feedback, benefiting both students and teachers. This approach goes beyond the physical classroom, enabling students to embark on storyline-driven journeys within virtual worlds. Along the way, they acquire the necessary skills and learn to apply them in real-world scenarios, fostering deeper engagement and better conceptual understanding.

Research from the Journal of Computer Assisted Learnings shows that university students who used immersive VR to solve lab problems outperformed those who studied through a conventional text-based manual. Instead of calculating how slowly a box falls in zero gravity, students in a VR simulation can experience the moon's gravity firsthand. In 3D, they can shrink down to the molecular level to explore the human heart or examine the biodiversity of distant planets.

Moreover, virtual learning provides substantial financial benefits for educational institutions. By virtualising classrooms, schools can allocate resources more efficiently and significantly cut costs, much like flight simulators have done for pilot training.

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# Data analytics in EdTech

## Market expansion

The global big data analytics in education market was valued at $13.58 billion in 2020 and is projected to reach $57.14 billion by 2030, registering a CAGR of 15.3%.

Artificial intelligence and machine learning are becoming some of the most impactful applications in education technology. These tools allow educators to tailor lessons to individual students and help administrators streamline operations. With a focus on creating an interactive and personalised learning environment, institutions are now better equipped to guide students through their educational journeys.

Data-driven insights play important role in shaping the future of education technology. Let's explore some data-related trends driving the global EdTech environment:

## Student-centred learning

With the rise of remote learning, students complete lessons and projects at their own pace. This shift toward asynchronous learning gives students greater flexibility and freedom. A major benefit of this trend is the creation of personalised learning pathways.

**Both teachers and students** can use real-time data to monitor progress and address challenges. The growing demand for data-driven tools enables a more collaborative and flexible learning environment, pushing EdTech companies to create engaging content that delivers positive outcomes.

## Enhancing instructional core

Despite technological advances, educators remain at the heart of the learning process. Institutions must adopt technology that enhances the instructional core, focusing on student engagement, high-quality materials, and practical teaching tools. A blended, data-driven approach — using **videos, eBooks, audio, and dynamic assessments** — helps educators work more efficiently and makes learning easier for students.

## Data-driven digital transformation

Institutions are embracing data analytics to adapt to the demands of students. By integrating data into their digital strategies, they can respond to challenges and position themselves for success. With remote and hybrid learning becoming must-have, institutions undergo a **cultural and operational shift driven by data-driven decision-making**. This approach helps them align resources with long-term goals, creating more efficient and adaptable learning environments.

### Interactive and immersive learning

Data analytics is becoming a game-changer in EdTech by helping institutions identify target audiences and tailor content accordingly. **Students can make personalised learning choices based on their proficiency, difficulty levels, and subject interests.** Audio-visual integration through data analysis creates an interactive, immersive learning experience, helping students better understand course material and make progress at their own pace.

Data analytics enhances learning outcomes by tracking student progress and providing timely feedback. **Schools can store valuable data on student demographics, academic performance, and personal assessments, allowing educators to make more informed decisions**. Predictive analysis enables teachers to forecast trends and identify student interests, improving both the learning process and outcomes.

Data analytics improves interactive learning and streamlines the evaluation of student data, giving teachers deeper insights into student needs. As a result, educators can craft more relevant lessons, ultimately leading to better student success.

# Blockchain technology

### Market expansion

Blockchain in education market is projected to grow at a CAGR of 76.46% by 2026.

Over the past two decades, EdTech developments have driven the modernisation of education, and blockchain technology has the potential to accelerate this shift even further. Tools like blockchain distributed ledger systems, AI, and machine learning are gradually replacing traditional textbooks.

### Smart contracts and Blockchain-based curricula

Smart contracts consistently transform curriculum development. Educators use these contracts to create self-paced courses that automatically start once all prerequisites are met. For example, an **assignment's criteria, due date, and grading deadlines can all be pre-set in a smart contract** between the instructor and student, automating the process.

### Managing degrees, reports, and documentation

Blockchain's unchangeable ledger technology allows events to be recorded in a clear chronological order. **This feature could simplify attendance tracking, create detailed report cards, and provide real-time updates on student progress**. It also eliminates the risk of students losing assignments, as they could be submitted and stored on the blockchain. Furthermore, students can now receive digital degrees and diplomas instead of fragile paper certificates, offering greater convenience and ease of organisation.

### Simplifying payment processes

Tuition payments, which often involve students, parents, banks, lenders, and various university departments, are notoriously complex and time-consuming. Blockchain technology streamlines this process by reducing administrative costs and potentially even lowering tuition fees, making it a more efficient option for handling payments.

# Revenue ecosystem

The EdTech sector is full of potential, attracting many ambitious entrepreneurs eager to make an impact. However, those entering this field face distinct challenges and opportunities as they work to build successful ventures.

Among these challenges, monetisation and securing startup funding is not a linear or predictable process. Obtaining funding from appropriate sources is as critical as any other aspect of establishing a successful startup.

## Monetising your EdTech application

Edtech startups, like all startups, can fail if they adopt the wrong business model. Just as building high-quality solutions requires extensive research, selecting a suitable business model is equally important.

A business model includes several components, such as value propositions, customer segments, and distribution channels, with monetisation strategy being a key element. Whether you're considering a free trial, engaging students, parents, teachers, or administrators to use your product, choosing the right monetisation strategy is the first step for effective planning and growth. **Here are several monetisation models commonly used in the EdTech market:**

- **Freemium or Free Trial**

  This model offers basic features of a product for free while charging for advanced features. **The goal is to attract users with the free features and convert them into paying customers once they see the value**. The freemium model typically has a conversion rate of 2% to 5%. For example, Coursera provides free access to courses but charges for certification.

- **Top-down model**

  In this approach, EdTech founders engage with key decision-makers like administrators or government officials to sell their solutions to schools and organisations. This method can lead to large-scale contracts and a broad customer base but requires a strong product and persuasive pitch. **Schoolzilla**, which operates in 140 schools across the US, is a successful example of this model.

- **Bottom-up model**

  This model involves introducing solutions to schools where teachers and students can use them. **Often, schools get the technology for free, which can lead to recommendations for parents to purchase premium versions for home use**. Scholastic uses this approach by offering free school content and charging for additional home-use material. However, this model can be costly and may result in delayed conversions.

- **Advertisement model**

  This model allows startups to offer their products for free while generating revenue through ads. **The challenge is to ensure ads don't disrupt the user experience**. Duolingo, for instance, generates 12.1% of its revenue from ads while providing free access to content.

- **Marketplace (MOOCs)**

  Creating a platform where users can buy and sell courses is another strategy. Platforms like Udemy and Coursera host user-generated content and charge commissions on sales. While this model is scalable, maintaining content quality tends to be difficult.

- **Subscription model**

  This popular model involves users paying a recurring fee, either monthly or annually. Startups can combine this with the freemium model, offering some features for free and others via subscription. **MasterClass** and **BibliU** are examples of platforms using this model.

## Funding options for your EdTech product

Funding is essential for launching, growing, and scaling a business. Whether you self-fund or seek investors, recurring funds are very important. Here are various funding options:

- **Government funding**

  Both state and federal governments offer funding programs to support EdTech startups. These grants and resources aim to foster innovation. However, securing government funds can be competitive and challenging due to strict guidelines.

- **Angel investors**

  Angel investors are wealthy individuals who provide early-stage funding in exchange for equity. They offer not only capital but also mentorship and access to their network. Successful entrepreneurs often become angel investors, bringing valuable experience and resources.

### Crowdfunding

Crowdfunding involves raising small amounts of money from many people. Platforms like Kickstarter can be suitable for innovative EdTech projects. Successful crowdfunding campaigns often have clear goals and align with the platform's focus.

### Bootstrapping

Bootstrapping means funding your startup with your savings. This approach can be risky as it relies solely on personal finances, but it allows for greater control over your startup. Physics Wallah, now a unicorn, is a notable example of a bootstrapped project.

### Venture capitalists

Venture capitalists invest pooled funds from various investors into startups. **They look for strong teams, promising business models, and unique selling points**. Well-known firms like Sequoia Capital and SoftBank Vision invest significant amounts in later-stage startups.

### Business loans

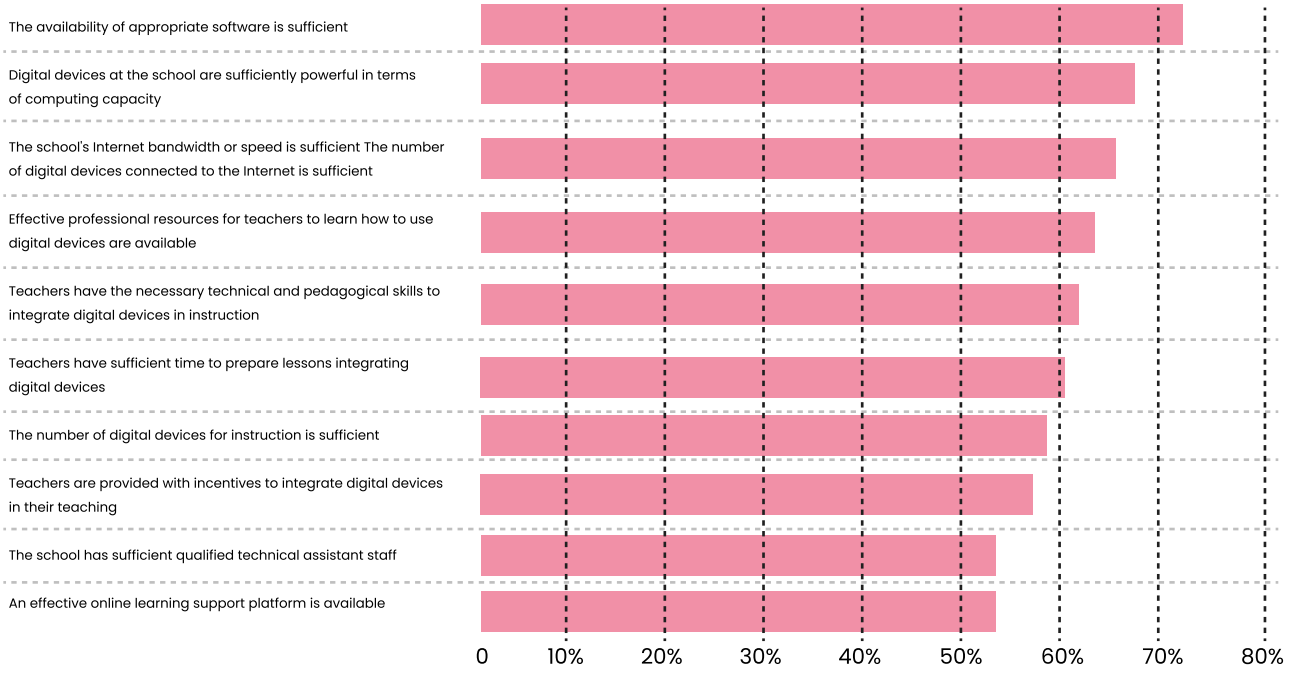
Bank loans are a traditional funding method but often come with high interest rates. Some government-backed schemes offer lower rates. However, loan repayments are required regardless of the startup's success.

# Market challenges

## The digital divide in education

The digital divide refers to unequal access to digital technologies, particularly internet access and device availability. It also includes disparities in infrastructure, digital skills, and the affordability of technology. These gaps create unequal opportunities for people to access information and engage fully in the digital world.

**Percentage of students in schools whose principal agreed or strongly agreed with the following statements; OECD average**




Many schools have already made digital equity a priority in their technology initiatives. At Mt. Diablo Unified School District in California, technology leaders focus on reducing the digital access gap by ensuring students and teachers have fair access to educational technology.

A key step in this effort was centralising their tech procurement.

> ***"Equal access for every student is only possible through centralised purchasing."***- says Robert Sidford, the district's director of technology and innovation.

In their commitment to addressing the digital use gap, Sumner County Schools in Tennessee went entirely one-to-one last year. Leaders equipped students with devices to enhance learning and upgraded the network to support the increased device usage.

> ***"Our focus is on improving the student experience and ensuring their success,"***- says Chris Brown, assistant director of schools for information services.

Bridging the digital design gap — how educators use technology to shape learning experiences — can be especially difficult. However, Fresno Unified School District is tackling this challenge. After installing Promethean digital whiteboards, the district provided extensive professional development to help teachers make the most of the tool.

"*It's not just a fancy screen in the classroom. It's a tool that drives high-quality teaching,*" explains Don Soyinthisane, executive director of IT for the district.

Educators today understand how vital technology is to education, and closing the digital divide is an essential goal. While it may take time, it's achievable. Schools can look to others for inspiration and consult for guidance on getting started.

## Privacy and security

EdTech companies face various cybersecurity challenges, from safeguarding student data against unauthorised access and breaches to securing online platforms from cyber threats and implementing strong authentication protocols. As technology evolves, ensuring data security becomes more difficult, especially with the rise of cloud computing, IoT devices, and third-party integrations. While emerging technologies offer incredible possibilities, they also increase the vulnerability of systems, making it harder to prevent or defend against cyberattacks.

Rapid technological advances make it easier for attackers to exploit an ever-expanding attack surface—the vulnerable areas of IT systems. This is especially true with the widespread use of cloud-based systems, API-driven architectures, and the complexity of outdated legacy systems, all of which are difficult to secure. For EdTech providers, adopting multilayered security measures is inevitable to protect student data and counter these threats effectively.

**Any system that uses the internet to deliver learning content must employ proper security measures, including encryption, multifactor authentication, strong password policies, regular data backups, and secure cloud storage.**

Routine software updates and security audits are also necessary to reduce the risk of vulnerabilities. Additionally, having a well-prepared incident response plan is critical in addressing potential security breaches.

Such a plan should outline clear steps for identifying, containing, recovering from, and communicating about security incidents. By responding swiftly, edtech companies can minimise the impact on student data and maintain user trust.

Collaboration between parents, educators, and EdTech providers is also key to creating a secure online learning space. However, studies show that **31% of caregivers do not supervise their children's computer use**, leaving them vulnerable to cyberbullying, inappropriate content, and potential online predators.

Involving families is just one part of the equation. Transparency in data handling fosters trust among students, teachers, and administrators. This requires a collective effort to promote responsible data use and boost awareness about cybersecurity. Educating users about best practices for privacy and security empowers them to be more mindful of their own data. This **education should cover what data is collected, how it's used, and the measures in place to protect it. Users should also be aware of their rights regarding data sharing and consent.**

Edtech platforms can support user education by providing resources like privacy guides, tutorials, and workshops. These materials can explain important topics such as **password security, identifying phishing attempts, adjusting privacy settings, and managing data responsibly**.

EdTech companies must work closely with educational institutions and regulatory bodies to ensure strong data protection by adhering to industry standards and compliance frameworks.

Compliance with laws like FERPA and GDPR is vital in safeguarding student data. Many EdTech companies also pursue certifications such as ISO/IEC 27001, which is an internationally recognised standard for information security management systems. These steps underscore a commitment to managing and protecting data effectively.

## Technology adoption and implementation in EdTech

When integrated effectively into the classroom, tools like computers, video conferencing, and artificial intelligence can enhance students' education, support learners with disabilities, and offer numerous additional advantages. Yet, the process of implementing educational technology often comes with hidden pitfalls. Many teachers and administrators face challenges in acquiring, installing, and utilising technology that could enrich students' learning experiences. Explore the main challenges currently impacting the adoption and use of educational technology.

### Budget constraints

The most significant barrier to integrating education technology into classrooms is often budget limitations. Budget cuts and financial limits make it challenging for schools to invest in and sustain educational technology. A recent study **found that 75.9% of respondents identified budget issues as the primary obstacle to embracing new tech in education**. Advanced tools like Google Cloud and the associated Chromebooks can strain already tight budgets, making it difficult for cash-strapped schools to adopt and maintain these technologies.

### Insufficient professional training

With the emergence of new and advanced educational technologies, teachers must learn how to use these tools effectively and instruct their students in their use. Introducing new technology without proper training for both educators and students cannot enhance the educational experience. **Investing in professional development for teachers, although time-consuming and costly, is essential for maximising the benefits of educational technology**.

## Weak network infrastructure

Simply providing students with laptops or tablets won't be effective without a robust network infrastructure to support them. A strong network requires high-speed, reliable Wi-Fi at school and home, data security, access to digital resources, and more. Building and maintaining a solid network infrastructure is inevitable for the effective and secure use of technology in education.

## Resistance to change

Many educators hesitate to adopt new technologies in the classroom. This resistance often stems from a lack of training and support rather than bias. Teachers may see learning new tools as risky and may not receive sufficient backing from school administrators. Addressing this resistance requires working closely with teachers to support their adoption of new technologies and demonstrating the potential benefits.

## Lack of integration with curriculum

Even when teachers have access to technology like tablets and smartboards, they may struggle with integrating these tools into their curriculum. Different subjects require different approaches to technology use, and teachers need time and guidance to adapt their lesson plans. A major challenge in adopting new technology is providing the necessary support to help educators incorporate it effectively into their teaching strategies.

## Unreliable devices and software

The efficiency of educational technology can be undermined by unreliable devices and software. Problems with equipment or software, such as malfunctioning notebooks or bugs in testing software, can create significant obstacles. For technology to be a sustainable and effective tool in education, it must be reliable and consistent, avoiding disruptions that hinder its adoption.

# Types of EdTech companies

## 1. Content companies

These companies create and provide educational materials and resources. They focus on developing engaging content for learners.

- **E-learning course providers:** Offer ready-to-use online courses and training modules for various subjects and skills.
- **Digital textbook publishers:** Produce and distribute digital versions of textbooks and educational resources.
- **Interactive content creators:** Develop multimedia-rich educational content, including videos, simulations, and interactive exercises.
- **Educational game developers:** Design and create educational games that make learning fun and engaging.

## 2. Platform companies

These companies provide the technological infrastructure needed to deliver educational content and manage learning processes.

- **Learning management systems (LMS):** Platforms that allow institutions and companies to manage, deliver, and track online learning and training programs.
- **Learning experience platforms (LXP):** Focus on providing a personalised learning experience by integrating various learning resources and tools.
- **Virtual classrooms:** Platforms that facilitate live, interactive online classes and webinars.
- **Course marketplaces:** Platforms where educators can create and sell their courses to a broad audience.

## 3. Hardware companies

These companies produce physical devices and equipment that enhance the educational experience.

- **Educational tablets:** Tablets explicitly designed for educational purposes, often with features tailored for learning and teaching.
- **Interactive whiteboards:** Digital whiteboards that allow for interactive teaching and collaborative learning.
- **VR/AR devices:** Virtual and augmented reality hardware are used to create immersive learning experiences.
- **Smart classrooms:** Technology-enabled classrooms with integrated devices and tools for a connected learning environment.

## 4. Service companies

These companies offer support and consultancy to enhance educational outcomes and use educational technologies.

- **EdTech consulting firms:** Provide strategic advice and solutions for integrating EdTech into educational institutions or businesses.
- **Professional development providers:** Offer educators and administrators training and support to use EdTech tools and methodologies effectively.
- **Implementation and integration services:** Help institutions integrate and deploy EdTech solutions into their existing systems.
- **Technical support and maintenance:** Provide ongoing support and troubleshooting for EdTech products and services.

## 5. AI companies

These companies leverage artificial intelligence to enhance educational tools and personalise learning experiences.

- **Adaptive learning platforms:** Use AI to personalise educational content and learning paths based on individual student performance and needs.
- **AI tutoring systems:** Provide AI-powered tutoring and support that can adapt to students' learning styles and progress.
- **AI-based assessment tools:** Utilise AI to create and grade assessments, providing instant feedback and insights.
- **Content generation tools:** Use AI to create educational content, including quizzes, exercises, and instructional materials.

## 6. Analytics companies

These companies focus on providing insights and data to improve educational outcomes and optimise learning processes.

- **Learning analytics platforms:** Analyse data from educational activities to provide insights into learner progress and engagement.
- **Educational data management systems:** Tools that help institutions manage and analyse student data for better decision-making.
- **Performance tracking tools:** Monitor and report on individual and group performance, identifying trends and areas for improvement.
- **Predictive analytics solutions:** Use data to predict future learning outcomes and identify potential issues before they arise.

Each type of company plays an important role in the EdTech ecosystem, contributing to the overall advancement and effectiveness of educational technology.

# Regulatory bodies

The lack of universal standards for monitoring the quality and impact of EdTech is holding back progress in achieving global education goals. To meet the UN's Sustainable Development Goal 4 (SDG 4) by 2030—**ensuring inclusive, equitable, and quality education for all**—there's an urgent need to set clear benchmarks for EdTech effectiveness.

Policymakers should focus on creating more inventive methods to measure and manage the real impact of EdTech. Reaching SDG 4 depends heavily on scaling high-quality educational technology worldwide. However, the tools we currently use to assess impact—such as the IRIS+ metrics catalogue and the Impact-Weighted Accounts framework—are largely focused on social, environmental, and financial outcomes. This leaves a gap when it comes to evaluating the educational quality and actual learning outcomes of EdTech solutions.

A major issue is that EdTech investors often favour companies with large user bases and profitability over those with proven positive impacts on education. As a result, many products are scaled without sufficient evidence of their effectiveness in improving learning. UNESCO and other global organisations have pointed out that this lack of accountability and regulatory supervision has allowed low-quality EdTech products to become widespread in schools, undermining efforts to improve education for all.

At the same time, the EdTech industry sets its own standards for quality, offering a variety of certifications, quality awards, and badges—both from commercial and non-profit organisations. These range from research-based certifications like ESSA badges, pedagogical evaluations from organisations like ISTE, and even purely commercial options resembling pay-to-play models.

However, incorporating these into national EdTech catalogues poses a major challenge: the lack of local data demonstrating the effectiveness of specific solutions.

Most of the available evidence comes from US-based platforms designed for American students, which often don't translate well to other contexts. Additionally, smaller startups face difficulties in affording the frequent evaluation cycles needed to prove their effectiveness, putting them at a disadvantage compared to larger curriculum providers with established infrastructure for gathering data-driven insights. This creates a challenging situation for balancing local innovation with the need for strict impact standards and ensuring high-quality EdTech solutions.

The most common regulatory bodies include the following:

### 1. Department for Education (UK)

- The Department for Education (DfE) oversees education policy and regulation in the UK. It sets the standards for education in schools and higher education institutions and ensures that these standards are met. The DfE also works on educational reform and development, providing guidelines and support for schools and colleges.
- EdTech companies operating in the UK must align their products and services with the educational standards and policies set by the DfE, ensuring that their solutions support curriculum requirements and educational outcomes.

## 2. Ofsted (Office for Standards in Education, Children's Services and Skills)

- Ofsted inspects and regulates educational institutions, including schools and early years providers, to maintain quality standards. It evaluates the performance and effectiveness of educational services and publishes reports to inform the public and drive improvements.
- EdTech tools and platforms used in institutions inspected by Ofsted must meet quality standards and support the objectives of educational institutions. Ofsted's reports can influence the adoption and integration of EdTech solutions in schools.

## 3. Office for Students (OfS)

- The Office for Students regulates higher education institutions in England. It ensures that universities and colleges provide high-quality education, meet regulatory requirements, and deliver value for money to students. The OfS also promotes fair access to higher education.
- EdTech solutions used in higher education institutions in England must align with the quality and accessibility standards set by the OfS. This includes supporting the diverse needs of students and streamlining the overall educational experience.

## 4. Federal and State Education Departments (USA)

- In the United States, education policy and regulation are overseen at both the federal and state levels. The US Department of Education sets national education policies, while individual state departments handle localised regulations and standards. They work to ensure compliance with educational standards, promote equity, and manage funding.
- EdTech companies must comply with federal and state regulations related to curriculum standards, student data privacy, and accessibility. Regulations may vary by state, so EdTech solutions must be adaptable to different requirements.

## 5. General Data Protection Regulation (GDPR)

- GDPR is a regulation in the European Union that governs the protection and privacy of personal data. It establishes guidelines for collecting, processing, and storing personal information, including data related to educational activities.
- EdTech companies operating in or targeting the EU must ensure compliance with GDPR. This involves implementing robust data protection measures, obtaining consent for data collection, and providing transparency about data usage.

## 6. Children's Online Privacy Protection Act (COPPA)

- COPPA is a US federal law regulating the collection of personal information from children under 13. It requires operators of websites and online services to obtain parental consent before collecting, using, or disclosing personal data from children.
- EdTech companies that offer services or products to children under 13 must comply with COPPA requirements. This includes obtaining parental consent, providing clear privacy policies, and ensuring data is securely managed.

## 7. Family Educational Rights and Privacy Act (FERPA)

- FERPA is a US federal law that protects the privacy of student education records. It gives parents and eligible students the right to access and control their educational information and restricts the disclosure of these records without consent.
- EdTech solutions used by educational institutions must adhere to FERPA regulations, ensuring that student records are kept confidential, implementing secure data practices, and providing features that support compliance with FERPA requirements.

## 8. Accreditation Bodies

- Accreditation bodies assess and certify educational institutions and programs to ensure they meet specific quality standards. Accreditation is a process that validates the credibility and effectiveness of educational programs and institutions.
- EdTech companies may need to work with accredited institutions or align their products with accreditation standards. Accreditation can impact the adoption of EdTech solutions and ensure that they meet the quality expectations of educational institutions.

These regulatory bodies and laws shape the EdTech by ensuring that educational products and services meet quality, privacy, and accessibility standards.

On top of that, by establishing proper incentives and infrastructure to integrate impact metrics directly into EdTech products, the sector can shift from merely meeting basic quality standards to achieving higher, even exceptional, levels of user impact.

With transparent minimum quality benchmarks accessible to both educators and parents, the industry will be better positioned to anticipate potential risks and respond to calls for improved quality. This approach enables EdTech to move beyond ad-hoc impact assessments, instead focusing on designing technologies that prioritise meaningful and measurable outcomes from the beginning.

# Key EdTech companies and their roles

## Chegg Inc. Overview

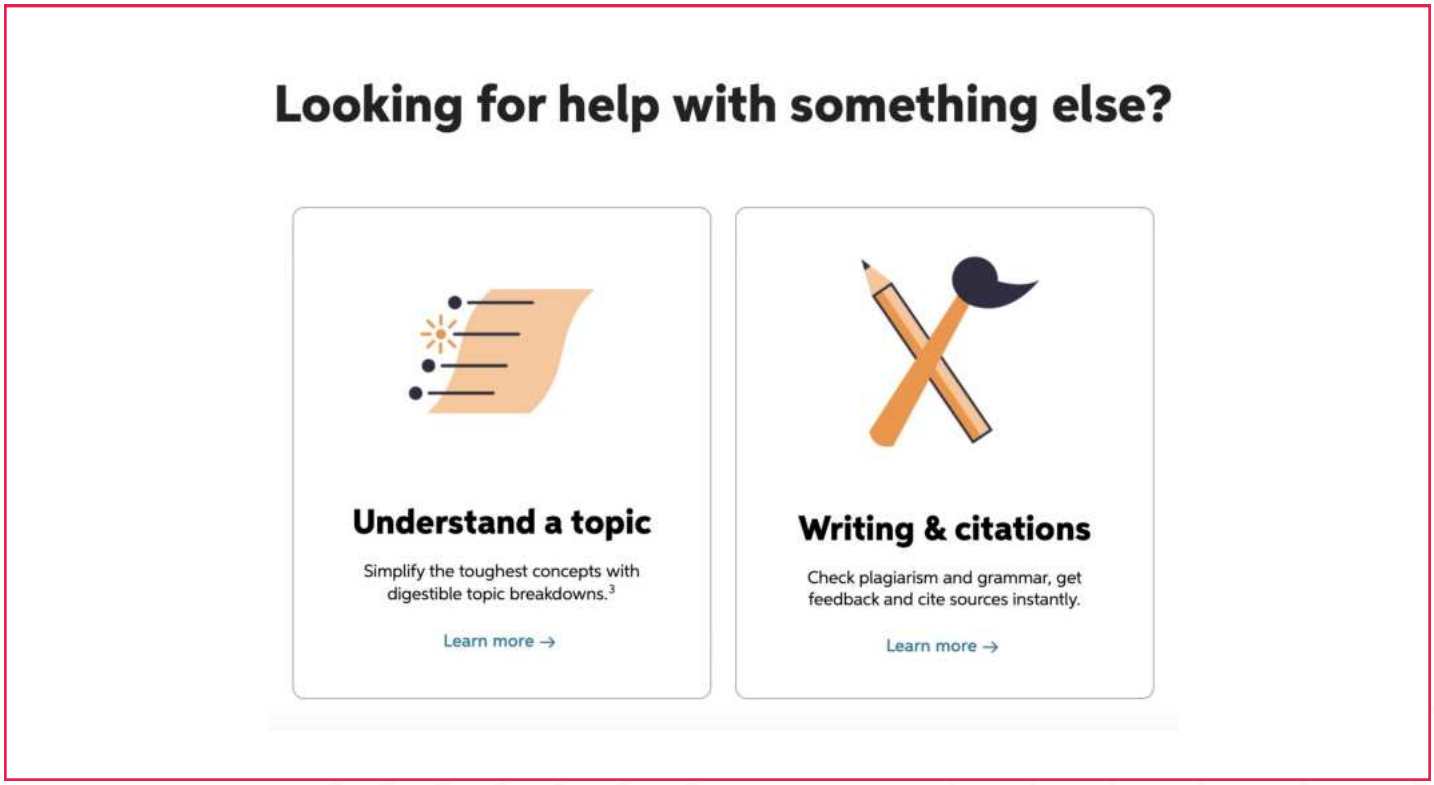
Chegg Inc. is an American education technology company that provides a range of services aimed at improving the learning experience for students. Founded in 2005, Chegg gained popularity for its textbook rental service but has since expanded its offerings to include a variety of educational tools and resources.

The integration of AI across all aspects of Shegg's platform is a continuous process aimed at developing a truly personalised learning assistant. This assistant predicts students' needs, adapts to their strengths and weaknesses, and offers academic, professional, and personal support. Globally, the company is focusing its efforts on testing promotional pricing strategies to convert the millions of students who have explored the platform but haven't yet subscribed.

Shegg's business model thrives on students asking more questions, as these are indexed into search engines and other platforms, drawing even more users to the service.

Since the introduction of automated answers in December 2023, the company has seen a marked increase in the number of questions asked by students, as well as a rise in the number of questions per student.

This growth results from the platform's ability to deliver accurate, high-quality responses almost instantly—a major advantage for learners. Their proprietary language models and algorithms ensure that students receive reliable, real-time support, instilling confidence in the learning process.



The impact of this feature has proven to be immediate, meaningful, and quantifiable for many of their customers. **In January, Shegg's automated answers provided over 2.2 million solutions, a threefold increase compared to the same time last year.**

By the end of Q1, Shegg expected to launch the remainder of its proprietary AI models, which are being trained using its own data and refined by its network of 150,000 subject matter experts. This approach ensures students receive accurate, personalised feedback—a key distinction between Shegg and generic AI models.

The benefits of this service are immense. The company is securing its future by building its own models, which ensures higher quality and significantly reduces costs.

**For example, the cost of answering new questions using Shegg's AI models is already over 75% lower, with further reductions expected**. This cost-efficiency enables Shegg to serve more students faster and in a broader range of subjects and languages. Confident in the value of its product, Shegg is well-positioned to meet the evolving needs of learners.

**91% of Chegg customers say they get better grades when they use Chegg to understand their coursework**[1]

Moreover, upcoming integrations will include personalised learning tools such as practice questions, flashcards, and study guides, all designed to enrich the conversational learning experience.

Looking beyond 2024, as AI-driven translation technology becomes more effective and cost-efficient, Shegg plans to broaden the localisation of its services to reach non-English-speaking users. Additionally, the company aims to develop AI capabilities within corporate skill offerings and establish pathways for students through assessments and other innovative tools.

With respect to Q2 guidance, Shegg **expects total revenue between $159 million and $161 million**, with subscription services revenue between $144 million and $146 million; gross margin to be in the range of 70% and 71%; and adjusted EBITDA between $38 million and $40 million.

## RM PLC Overview

The e-learning sector is experiencing rapid growth, particularly in areas such as AI-driven solutions, adaptive learning, and digital content platforms. This expansion presents a massive global opportunity with double-digit growth rates. However, exploring such a vast landscape can be difficult for organisations without a clear strategy or direction.

For over 50 years, RM PLC has been deeply involved in education, offering solutions that address some of the most pressing challenges in the sector - ensuring equitable access to quality education, overcoming teacher shortages, and tackling disparities in outcomes across different demographics.

RM PLC is well-positioned to lead this transformation. While many EdTech platforms have entered the market, few offer the same credibility, quality, and purpose as RM's offerings, which are developed in partnership with globally recognised accreditation bodies. In addition to AI and adaptive learning systems, RM is exploring immersive technologies like virtual and augmented reality, gamification, and AI-powered feedback, all aimed at creating more engaging and personalised learning experiences.

This digital transformation presents a tremendous opportunity for RM to improve learning outcomes and support educators while building a more inclusive, future-ready education system. However, success requires a thoughtful, methodical approach, ensuring RM's products and services align with globally recognised accreditation standards. As a global provider of EdTech solutions, RM serves a wide range of learners across different stages of education—from early childhood to lifelong learning. Its customers include accrediting bodies, educators, and institutions, and its future plans include expanding direct-to-learner solutions. RM's strong reputation in assessment solutions will support the rollout of a scalable global accreditation platform.

Today, **around 45% of its revenue is derived from intellectual property, and the company plans to increase this to 80% by focusing on internal expertise** and proprietary products rather than relying on third-party contractors.

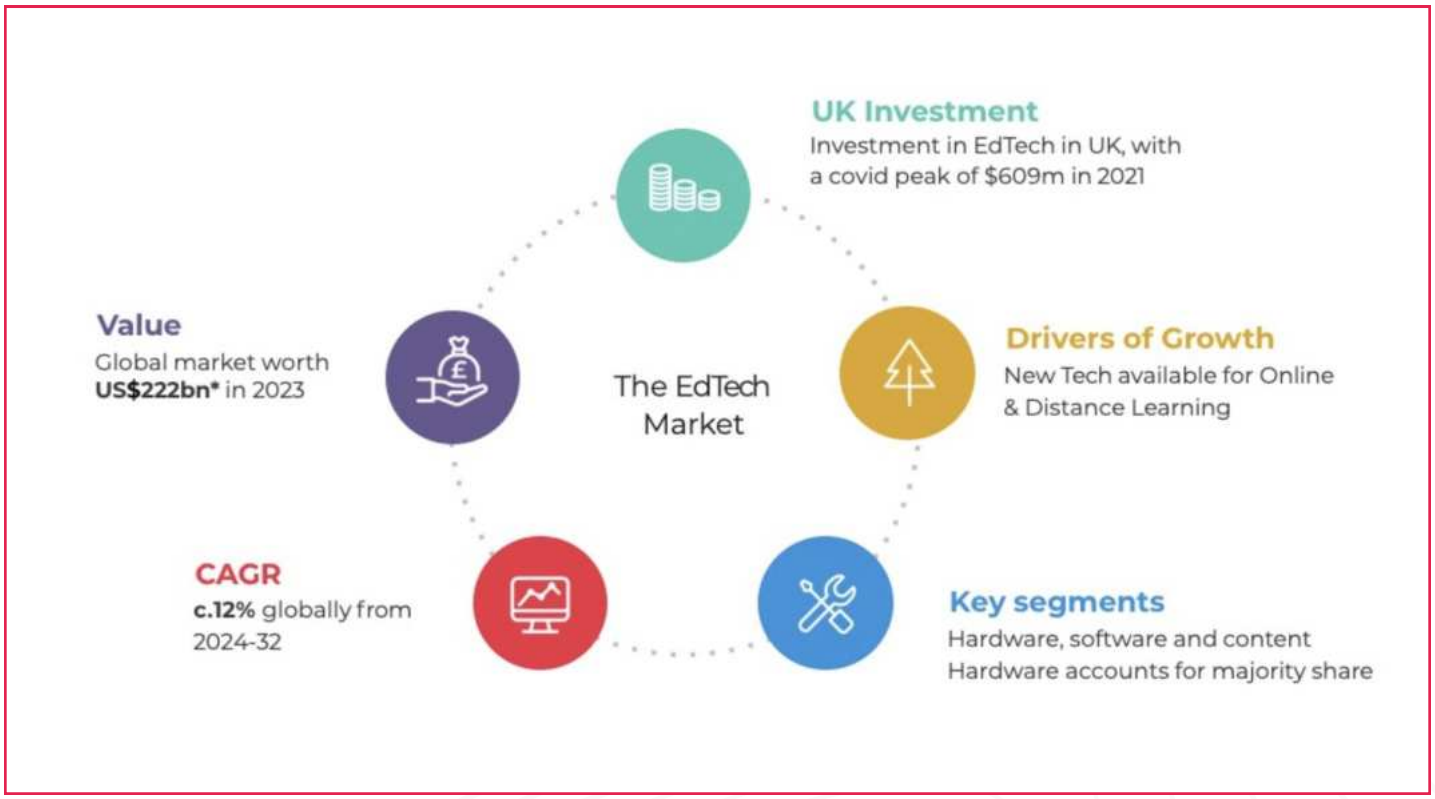
With a global reach, **RM currently supports 10 million students and works with nearly 30,000 educators across 180 countries**. Over 40% of its profits come from markets outside the UK, a clear indication of RM's expanding global presence.

RM's success is grounded in long-term relationships with respected educational institutions. These partnerships, nurtured over decades, are based on mutual trust and a focus on delivering results. RM's extensive experience in the education sector allows it to continually meet the evolving needs of its clients.

In the area of assessment, **RM already delivers 20 million online and marked tests annually**. Despite this progress, there is still a reliance on paper-based processes, with 100 million pieces of paper scanned yearly.

To address this, RM is developing a fully digital, end-to-end accreditation platform offering SaaS solutions. These will include formative assessment tools, allowing educators and students to track their progress, supported by AI-driven adaptive learning content.

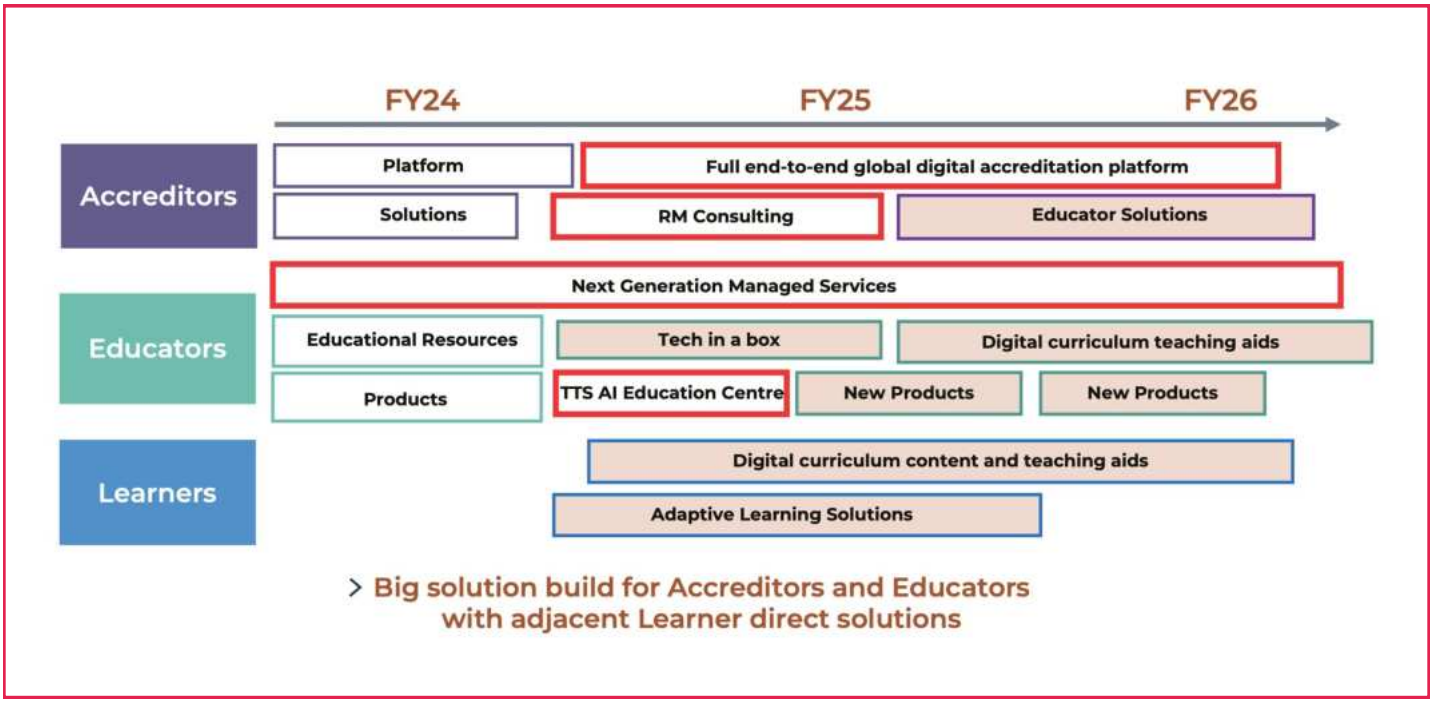
**RM has also developed a five-stage digital assessment model, which has helped many of its clients on their digital transformation journey**. This process shifts paper-based systems to digital and enhances the overall learning experience. This, in turn, creates new opportunities for RM to offer direct-to-learner solutions.



Looking ahead, RM is set to launch a range of new products and solutions, including AI-powered adaptive learning tools and digital curriculum resources for educators and learners alike. The company's goal is to solidify its position as a leading global EdTech provider, backed by a skilled leadership team with a proven track record of delivering complex projects.

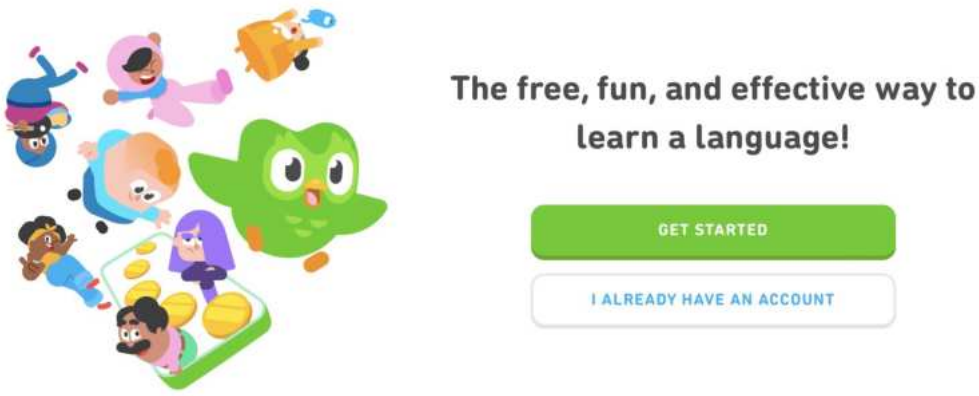
Through strategic long-term contracts and a focus on operational efficiency, RM has already identified £20 million in annual savings. The company's clear objectives for FY24 are aligned with its commitment to becoming a dividend-paying, deleveraged business with double-digit growth and significantly higher EBITDA.

In conclusion, RM is on track to reassert its leadership in the EdTech space, offering a comprehensive range of innovative, AI-driven solutions to a global audience. As it continues to build on its rich history, RM is poised to play a central role in the digital transformation of education.



## Duolingo Overview

Duolingo (DUOL) stands as one of the leading mobile-first platforms for language learning, with a user base of 88.4 million monthly active users, 26.9 million daily active users, and 6.6 million paid subscribers. The platform offers courses in more than 40 languages, alongside math and music, through a gamified learning experience. With approximately 1.8 billion global language learners, Duolingo's penetration of this market stands at about 5%, leaving significant room for growth.




Duolingo's freemium model effectively drives conversion from free users to paid subscribers. **In 2023, the platform's paid subscriber penetration of last-twelve-month MAUs reached 8.3%**. Duolingo's product-focused culture and focus on gamification and social marketing have allowed the platform to scale efficiently, with **90% of its user growth being organic**. The platform is well-positioned to achieve sustainable bookings and revenue growth, with projected compound annual growth rates of 24% and 27%, respectively, between 2023 and 2026.

Several factors contribute to this positive outlook, including user growth driven by product enhancements, deeper monetisation through tiered pricing strategies and new verticals, and improved teaching efficacy.

Duolingo's adoption of generative AI (GenAI) to enhance products and reduce costs further bolsters this growth trajectory. Revenue is projected to grow by an average of 30% in 2024 and 2025, with adjusted EBITDA growth at 60% and free cash flow at nearly 40%. The company also expects to achieve positive operating income and substantial net income growth by the end of 2024.

**Duolingo Income Statement (Cont'd)**

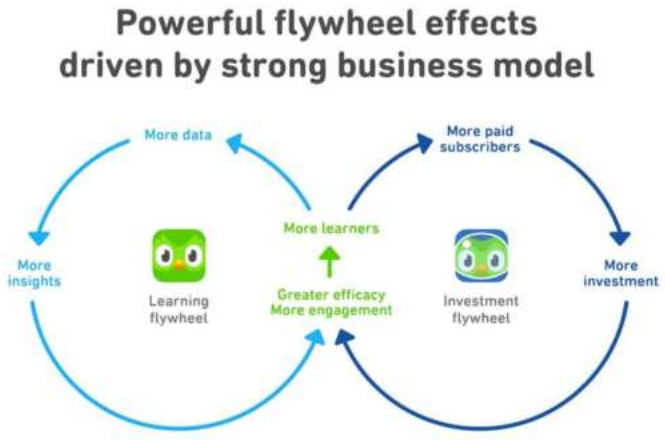
| Y/Y Growth | 2019A | 2020A | 2021A | 2022A | 1Q23A | 2Q23A | 3Q23A | 4Q23A | 2023A | 1Q24E | 2Q24E | 3Q24E | 4Q24E | 2024E | 2025E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Bookings** | | **116.0%** | **54.7%** | **45.7%** | **37.2%** | **41.1%** | **49.5%** | **51.1%** | **45.1%** | **34.9%** | **30.2%** | **26.5%** | **23.1%** | **28.2%** | **23.6%** |
| Total Bookings FXN | | | | 52.0% | 42.0% | 42.0% | 48.0% | 49.0% | 45.0% | 35.2% | 30.7% | 26.7% | 22.8% | 28.3% | 23.6% |
| Subscription Bookings | | 100.2% | 55.5% | 47.8% | 40.2% | 43.3% | 53.9% | 57.3% | 49.3% | 38.1% | 32.3% | 28.6% | 23.3% | 29.8% | 24.3% |
| Non-Subscription Bookings | | 187.7% | 52.2% | 38.9% | 27.3% | 34.0% | 34.9% | 27.4% | 30.6% | 24.0% | 24.1% | 19.3% | 22.5% | 22.4% | 20.2% |
| **Total Revenues** | | **128.5%** | **55.1%** | **47.3%** | **42.4%** | **42.5%** | **43.3%** | **45.4%** | **42.7%** | **43.5%** | **38.7%** | **35.9%** | **31.0%** | **36.8%** | **25.7%** |
| Total Revenues FXN | | | | 51.0% | 47.0% | 46.0% | 42.0% | 43.0% | 44.0% | 43.8% | 38.1% | 36.1% | 30.7% | 37.0% | 25.7% |
| Cost of Revenues | | 121.8% | 50.4% | 43.7% | 46.5% | 41.6% | 37.8% | 46.1% | 42.9% | 43.2% | 36.9% | 35.7% | 26.7% | 35.1% | 24.6% |
| **GAAP Gross Profit** | | **131.3%** | **56.9%** | **48.7%** | **40.9%** | **44.2%** | **45.3%** | **45.2%** | **44.0%** | **43.5%** | **39.3%** | **36.0%** | **32.5%** | **37.4%** | **26.1%** |
| Research and development | | 59.2% | 79.7% | 35.0% | 39.0% | 30.1% | 12.6% | 4.0% | 19.7% | 17.1% | 28.7% | 30.4% | 38.0% | 28.6% | 22.2% |
| Sales and marketing | | 127.4% | 54.8% | 20.2% | 7.4% | 14.4% | 25.6% | -0.4% | 11.5% | 23.8% | 26.0% | 5.6% | 33.0% | 21.3% | 17.3% |
| General and administrative | | 70.4% | 42.4% | 75.3% | 19.3% | 10.2% | 15.9% | 20.9% | 16.5% | 27.0% | 27.2% | 24.9% | 8.7% | 21.4% | 11.2% |
| Stock-Based Compensation Expenses | | NM | 149.3% | 78.5% | 43.5% | 31.2% | 23.1% | 29.3% | 30.9% | 10.2% | 17.1% | 14.3% | 11.6% | 13.4% | 16.5% |
| Depreciation & Amortization | | NM | 25.6% | 46.7% | 75.6% | 37.3% | 3.9% | 9.6% | 26.9% | 19.2% | 27.7% | 29.1% | 8.1% | 21.0% | 7.5% |
| Costs Related to Taxes Paid on Equity Transactions | | NM | NM | 21.1% | 16.7% | 43.2% | -9.4% | 383.3% | 100.0% | 10.6% | 29.2% | 30.1% | -65.4% | -27.4% | 10.0% |
| Other Adjustments | | -77.0% | 4764.5% | -95.4% | -51.1% | 4.7% | -36.2% | NM | -46.9% | NM | NM | NM | NM | NM | NM |
| **GAAP Operating Expenses** | | **105.3%** | **83.4%** | **38.8%** | **28.5%** | **23.1%** | **17.9%** | **12.1%** | **20.0%** | **18.5%** | **24.5%** | **20.4%** | **23.7%** | **21.9%** | **17.6%** |
| **GAAP Operating Income (Loss)** | | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **227.4%** | **NM** | **119.7%** |
| **Non-GAAP Operating Expenses** | | **NM** | **62.8%** | **39.5%** | **25.4%** | **20.4%** | **16.7%** | **7.3%** | **16.8%** | **21.2%** | **27.7%** | **22.4%** | **28.2%** | **24.9%** | **18.1%** |
| **Non-GAAP Operating Income (Loss)** | | **NM** | **NM** | **NM** | **243.7%** | **265.3%** | **871.7%** | **695.6%** | **499.8%** | **149.0%** | **79.9%** | **83.0%** | **42.5%** | **78.2%** | **44.2%** |
| **Net loss and comprehensive loss** | | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **202.1%** | **205.1%** | **54.7%** | **260.0%** | **79.5%** |
| GAAP Basic EPS | | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **196.3%** | **200.0%** | **52.9%** | **254.5%** | **76.8%** |
| **GAAP Diluted EPS** | | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **NM** | **202.0%** | **204.3%** | **52.9%** | **256.7%** | **76.8%** |
| **Adjusted EBITDA** | | **NM** | **NM** | **NM** | **282.9%** | **297.2%** | **956.4%** | **579.0%** | **506.1%** | **144.8%** | **81.2%** | **86.9%** | **37.4%** | **76.4%** | **43.7%** |

| % of Revenues | 2019A | 2020A | 2021A | 2022A | 1Q23A | 2Q23A | 3Q23A | 4Q23A | 2023A | 1Q24E | 2Q24E | 3Q24E | 4Q24E | 2024E | 2025E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cost of Revenues | 29.3% | 28.4% | 27.6% | 26.9% | 27.2% | 26.6% | 26.3% | 26.9% | 26.8% | 27.2% | 26.3% | 26.3% | 26.0% | 26.4% | 26.2% |
| Research and development | 44.6% | 31.1% | 36.0% | 33.0% | 31.0% | 28.6% | 27.1% | 24.2% | 27.5% | 25.3% | 26.5% | 26.0% | 25.5% | 25.8% | 25.1% |
| Sales and marketing | 21.2% | 21.1% | 21.0% | 17.1% | 13.3% | 13.0% | 15.2% | 11.8% | 13.3% | 11.5% | 11.8% | 11.8% | 12.0% | 11.8% | 11.0% |
| General and administrative | 23.1% | 17.3% | 15.8% | 16.9% | 15.8% | 15.5% | 14.9% | 15.1% | 15.3% | 14.0% | 14.2% | 13.7% | 12.5% | 13.6% | 12.0% |
| Stock-Based Compensation Expenses | 0.0% | 10.5% | 16.9% | 20.5% | 18.7% | 19.1% | 18.9% | 18.1% | 18.7% | 14.0% | 15.8% | 15.5% | 15.0% | 15.5% | 14.0% |
| Depreciation & Amortization | 0.0% | 1.3% | 1.1% | 1.1% | 1.2% | 1.0% | 0.9% | 0.8% | 1.0% | 1.0% | 0.9% | 0.9% | 0.7% | 0.8% | 0.7% |
| Costs Related to Taxes Paid on Equity Transactions | 0.0% | 0.0% | 0.7% | 0.5% | 0.5% | 0.4% | 0.4% | 1.5% | 0.8% | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% |
| Other Adjustments | 1.7% | 0.2% | 5.5% | 0.2% | 0.1% | 0.1% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| GAAP Operating Expenses | 90.7% | 81.5% | 96.3% | 90.7% | 80.1% | 77.2% | 77.1% | 70.0% | 75.7% | 86.2% | 69.5% | 68.3% | 66.1% | 67.5% | 63.2% |
| Non-GAAP Operating Expenses | | 69.4% | 72.9% | 69.0% | 60.1% | 57.0% | 57.2% | 51.1% | 56.0% | 50.6% | 52.5% | 51.5% | 50.0% | 51.2% | 48.1% |

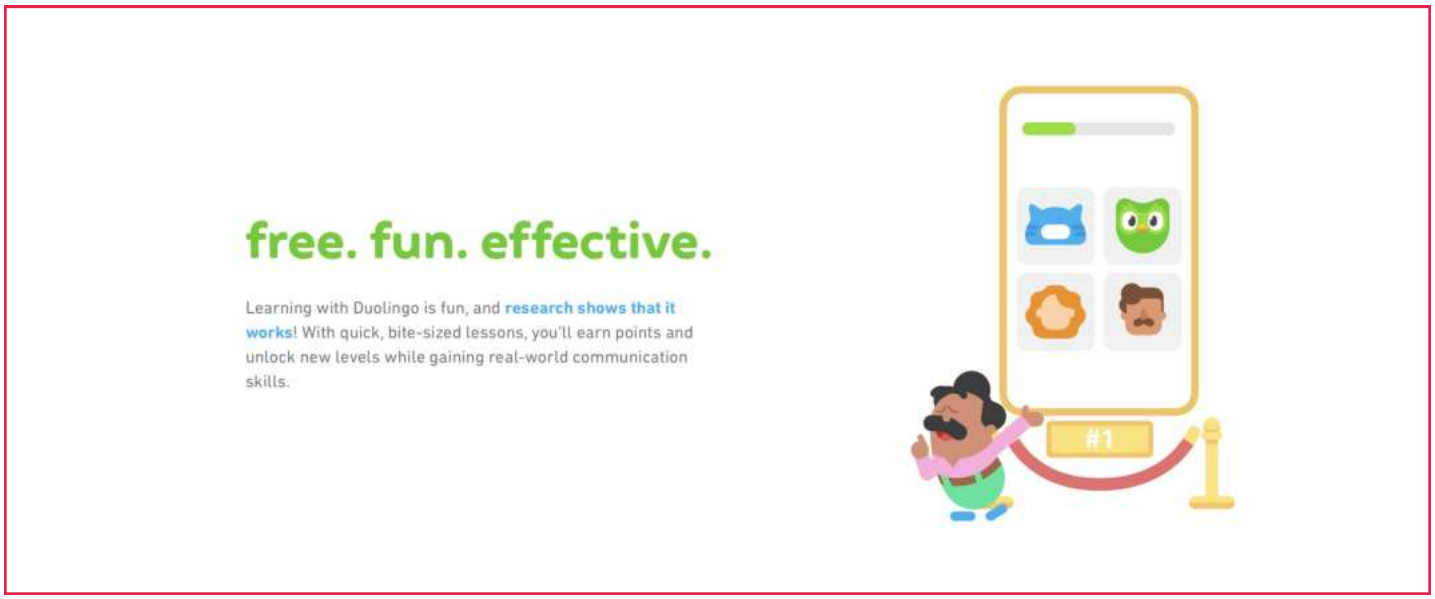
| Margins | 2019A | 2020A | 2021A | 2022A | 1Q23A | 2Q23A | 3Q23A | 4Q23A | 2023A | 1Q24E | 2Q24E | 3Q24E | 4Q24E | 2024E | 2025E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GAAP Gross margin** | **70.7%** | **71.6%** | **72.4%** | **73.1%** | **72.8%** | **73.4%** | **73.7%** | **73.1%** | **73.2%** | **72.8%** | **73.7%** | **73.7%** | **74.0%** | **73.6%** | **73.8%** |
| **GAAP Operating margin** | **-20.0%** | **-8.9%** | **-23.9%** | **-17.6%** | **-7.4%** | **-3.8%** | **-3.4%** | **3.2%** | **-2.5%** | **6.8%** | **4.3%** | **5.4%** | **7.9%** | **6.1%** | **10.6%** |
| Net Income margin | -19.2% | -9.8% | -24.0% | -16.1% | -2.2% | 2.9% | 2.0% | 8.0% | 3.0% | 8.4% | 6.4% | 7.4% | 9.5% | 8.0% | 11.4% |
| **Adjusted EBITDA margin** | **-11.3%** | **2.2%** | **-0.4%** | **4.2%** | **13.1%** | **16.5%** | **16.3%** | **23.3%** | **17.6%** | **22.3%** | **21.5%** | **22.5%** | **24.5%** | **22.7%** | **26.0%** |
| **Incremental Adjusted EBITDA margin** | | **12.8%** | **-5.3%** | **13.9%** | **32.4%** | **43.4%** | **49.6%** | **63.6%** | **48.4%** | **43.5%** | **34.6%** | **39.6%** | **28.1%** | **36.6%** | **38.6%** |

Duolingo continually optimises its product through hundreds of quarterly A/B tests, which enhance user engagement, retention, and teaching efficacy. **Gamification features such as streaks, leaderboards, and social quests boost user interaction, resulting in a healthy engagement rate, as demonstrated by the increase in DAU/MAU ratio from 22.8% in Q4 2020 to 30.4% in Q4 2023. Retention remains strong, with over 90% of paid subscribers opting for annual or family plans**.

In terms of customer acquisition, Duolingo's social-first marketing strategy has been a key driver, with over 3 billion social impressions in 2023, most of which were generated organically. Despite this, the platform is still in the early stages of monetising its large user base, and each cohort has shown increasing conversion rates year over year.



HolonIQ estimates that global spending on language learning will grow from $61 billion in 2019 to $115 billion by 2025, with digital spending expected to grow at a 26% CAGR during the same period. Duolingo's market share, though currently representing a small percentage of global language learners and mobile internet users, is poised to expand in the coming years.




**The company's strong balance sheet, with approximately $747.6 million in cash and no debt,** provides ample liquidity for continued investment in product development and marketing, positioning Duolingo to capitalise on its freemium model and drive sustained user and revenue growth.

## Coursera Overview

Coursera has demonstrated continued growth, driven by strong performance in its consumer segment, particularly in micro-credentials and early adoption of generative AI (GenAI). **The company reported $168.9 million in revenue for the quarter, reflecting a 19% year-over-year increase.**

This performance exceeded market expectations and was bolstered by rising demand for AI-related content and a significant number of new learners. Coursera's consumer revenue, driven by micro-credentials and AI content, showed a 22% growth year-over-year, with the company projecting more than 20% growth for 2024. **GenAI-powered course translations have also opened new markets, helping the platform expand its reach globally.**

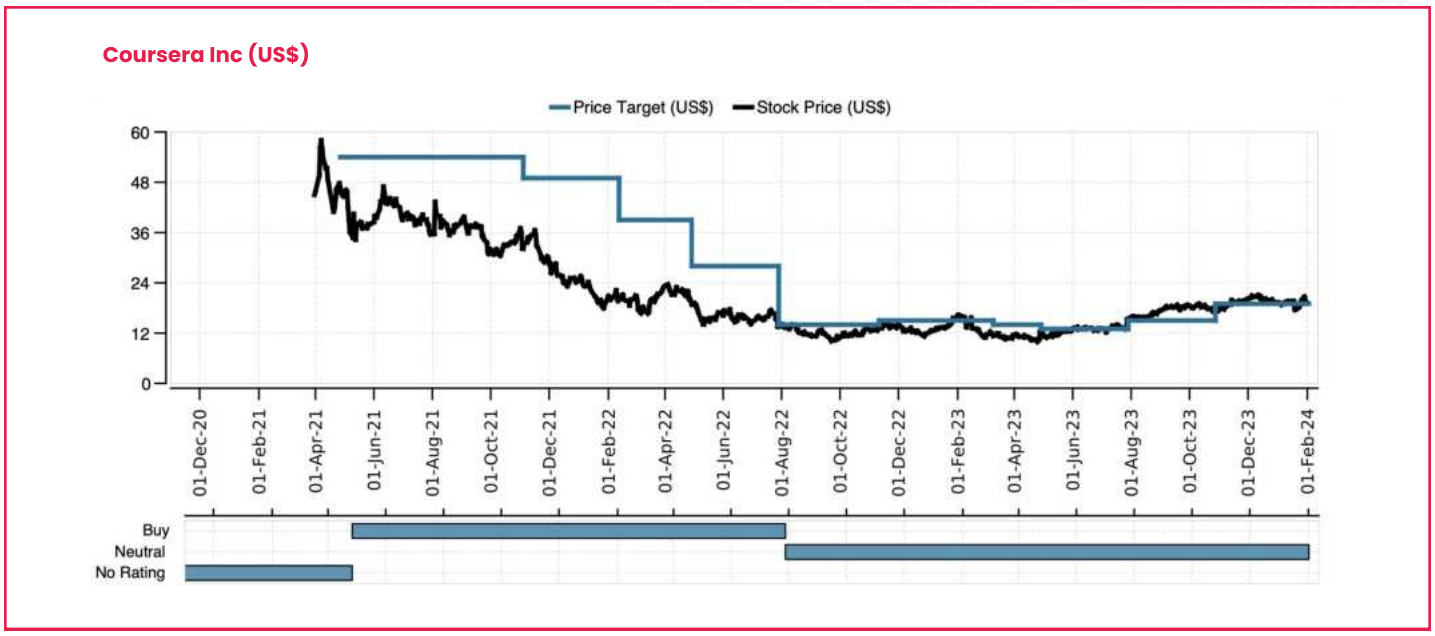
**Valuation Matrix ($s in thousands except per share data)**

| | CY21A | CY22A | CY23A | CY24E | CY25E | NTM |
|---|---|---|---|---|---|---|
| **Revenue Valuation** | | | | | | |
| **Revenue** | 415,287 | 523,756 | 635,764 | 735,231 | 843,518 | 735,231 |
| *YoY Growth* | *41%* | *26%* | *21%* | *16%* | *15%* | |
| **Billings** | 428,664 | 542,683 | 658,757 | 768,231 | 876,518 | 768,231 |
| *YoY Growth* | *39%* | *27%* | *21%* | *17%* | *14%* | |
| EV/Revenue | 7.0x | 5.6x | 4.6x | 4.0x | 3.5x | 4.0x |
| Target EV/Revenue | 9.2x | 7.3x | 6.0x | **5.2x** | 4.6x | 5.2x |
| EV/Billings | 6.8x | 5.4x | 4.4x | 3.8x | 3.3x | 3.8x |
| Target EV/Billings | 9.0x | 7.1x | 5.8x | **5.0x** | **4.4x** | 5.0x |
| **Profitability Metrics** | | | | | | |
| **FCF** | (13,086) | (53,305) | 7,894 | 28,641 | 55,783 | 28,641 |
| *Margin (%)* | *-3%* | *-10%* | *1%* | *4%* | *7%* | *4%* |
| **EBITDA** | (35,480) | (36,945) | (10,000) | 28,631 | 54,983 | 28,631 |
| *Margin (%)* | *-9%* | *-7%* | *-2%* | *4%* | *7%* | *4%* |
| **Non-GAAP EPS** | (0.47) | (0.36) | 0.01 | (0.00) | 0.16 | (0.00) |
| EV/FCF | -223.7x | -54.9x | 370.8x | 102.2x | 52.5x | 102.2x |
| Target EV/FCF | -293.4x | -72.0x | 486.3x | 134.0x | 68.8x | 134.0x |
| "Rule of 40" | 38 | 16 | 23 | 20 | 21 | |

Despite some conservatism in guidance for the enterprise and degree segments, the company remains well-positioned. The enterprise segment grew by 15% year-over-year and continues to face challenges from reduced corporate learning budgets. **However, Coursera's focus on government and campus clients presents new avenues for growth**. The introduction of GenAI for enterprise clients is expected to provide additional momentum.

The degrees business, while underperforming compared to prior expectations, remains a long-term growth opportunity, with management targeting double-digit growth in 2024 and a more substantial recovery in subsequent years.

Coursera's focus on profitability is notable, with adjusted EBITDA margins improving and free cash flow positive for the first time. **The platform continues to add learners at a rapid pace, now boasting 142 million registered users**. Its efforts to address skill gaps through strategic partnerships, particularly with government bodies, demonstrate its ongoing impact in both consumer and enterprise markets.




To sum up, Coursera remains on a strong growth trajectory, with its ability to capitalise on emerging trends in AI and digital learning positioning it as a leader in the education technology sector. The company's march towards profitability, coupled with ongoing innovations in content delivery and partnerships, suggests that it is well-equipped to maintain its growth momentum despite short-term challenges in some segments.

## Strategic recommendations

When nurturing an EdTech project idea, consider several strategic areas that can make a difference in the success of your venture.

**Investing in AI and machine learning should be your top priority.** These technologies have the power to transform the learning experience by making it more personalised and efficient. Imagine a platform that tailors educational content to fit each student's unique learning style and pace or one that adapts quizzes and assignments based on a learner's progress.

By integrating AI, you're enhancing the educational journey for every user. Additionally, AI can streamline administrative tasks, freeing up valuable time for educators to focus on what they do best—teaching.

**Addressing the digital divide is another vital consideration.** Education should be accessible to everyone, not just those with the latest technology. Think about making your solution affordable and reachable for underserved communities. This might mean developing options that work well on low-bandwidth connections or creating partnerships that help distribute technology to those who need it most. Bridging this gap expands your audience and aligns your mission with a commitment to social equity.

**Data security is another big deal**—especially in education, where sensitive information is involved. It's not just about following regulations; it's about earning and keeping the trust of your users. Make sure you provide strong protection for user data through encryption and secure authentication methods. Regular security audits can help you avoid potential threats and maintain a safe user environment.

Finally, **never underestimate the power of continuous innovation**. The EdTech space is constantly evolving, and staying ahead means embracing new trends and technologies. Think about integrating gamification to make learning more engaging or exploring immersive technologies like virtual reality to offer a richer educational experience. Listening to user feedback and adapting your offerings based on their needs will keep your platform competitive.

By focusing on these areas—**personalising learning through AI, addressing accessibility issues, ensuring data security, and continuously innovating**—you'll be well on your way to building a successful and impactful EdTech solution.

# How Altamira can help you

Altamira's Education Sector Consultant (Growth and AI Application Specialist), **Conor Gately** shares his insights about specific services Altamira offer that cater to the needs of EdTech clients. Bringing a wealth of experience from IBM, Xerox, IRIS Software Group, and McGraw Hill across digital transformation, Conor leads successful initiatives driving revenue growth, cost efficiency, and strategic sales triumphs.

"It is clear without saying that **every client wants to have the solution quicker and cheaper.** At Altamira, we understand these priorities and are committed to delivering on them. We c**onsistently tailor approaches that help us compress the software development lifecycle** by developing quicker without sacrificing quality and staying within the budget. By focusing on the optimisation of our development processes, we reduce product's time-to-market.

As a result, we accelerate our clients' time to revenue, improve the predictability of their revenue streams, and contribute to a more stable and sustainable revenue model. By enabling our clients to realise returns on their investments sooner, we provide them with a crucial market advantage.

Among others, we take pride in:

## Comprehensive database of ready-to-use components

Our extensive database of ready-to-use components, meticulously collected over the years, means we can jumpstart your project with proven, reliable modules. This accelerates development, reduces costs, and ensures that your solution benefits from the latest advancements and best practices in EdTech technology.

## Rich repository of prototypes

Our vast database of collected prototypes allows us to provide you with a range of pre-built options tailored to various educational scenarios. This speeds up the ideation and design phase, enabling rapid prototyping and validation of concepts, ultimately reducing time to market and enhancing your ability to innovate quickly.

altamira

## Expertise in non-functional and security requirements

With years of experience, we have developed a deep understanding of the non-functional and security requirements critical to the EdTech domain. Our solutions are designed to be robust, scalable, and secure, ensuring compliance with industry standards and safeguarding sensitive educational data.

## In-depth domain knowledge and competitive insights

Our profound understanding of the EdTech domain's unique needs, challenges, and competitive landscape allows us to conduct a thorough analysis. We provide valuable insights and innovative ideas that address your specific needs and help you stay ahead of competitors. Our expertise accelerates the analysis stage, enabling us to offer strategic recommendations that drive impactful results.

In addition, we create solutions that directly tackle genuine educational challenges, focusing on **technology that improves learning outcomes rather than introducing unnecessary complexity**. This requires ongoing engagement and feedback loops with users to develop solutions that truly meet and enhance the needs of the educational community.

As we prioritise scalability, we pay attention to **resilient backend infrastructures** capable of managing heightened demand without sacrificing user experience.

**Holding ISO 9001 and ISO 27001 certifications and being compliant with GDPR and other data protection regulations**, we treat data security responsibly. Our commitment safeguards users, fosters trust among stakeholders and ensures compliance with educational regulations and standards."

**Altamira** is a global digital transformation partner, specialising in helping organisations scale faster and more sustainably than anyone else.

With market-leading capabilities across all aspects of product and technology development, we make a difference where it matters, when it matters. We provide the following services:

- Mobile and web product development and delivery
- Fast and efficient scaling of your in-house development team
- Boosted time to market
- Rapid MVP creation and deployment
- Expert consulting and technical auditing

**Have a question? Let's talk.**
**We love to help our clients be successful!**

Email: **sales@altamira.ai**
www.altamira.ai