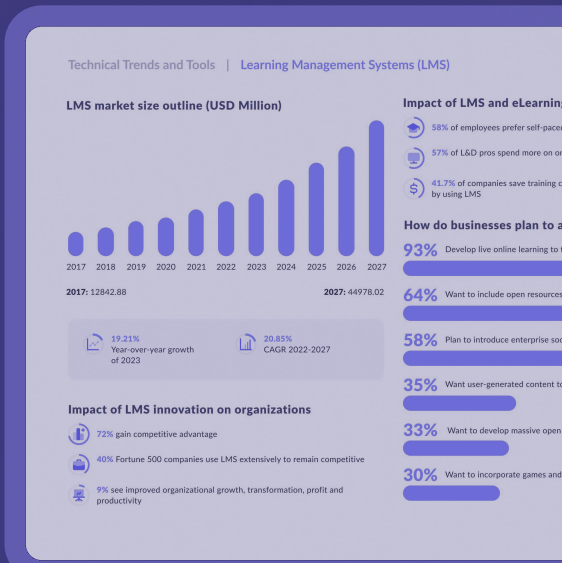
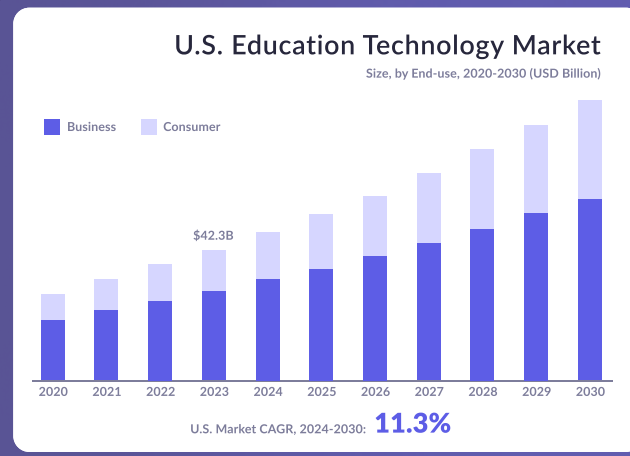


Edtech

The global EdTech market has shown substantial growth and, according to recent projections, is expected to reach significant market sizes. It was valued at approximately \$193.74 billion in 2024 and is projected to reach \$880.34 billion by 2032, with a CAGR of about 20.83% from 2024 to 2032.

In this white paper, we explore the most current trends, cutting-edge technologies, and innovative tools shaping Edtech software development today, while showcasing real-life examples and use cases.



Challenges, opportunities and risks of EdTech

Risks:

- REDUCED FACE-TO-FACE INTERACTION:** Overreliance on EdTech tools may lead to reduced face-to-face interaction between students and teachers, which can impact social and emotional development.
- DEPENDENCE ON TECHNOLOGY:** Students may become overly dependent on technology, leading to reduced critical thinking skills and creativity.
- POTENTIAL BIAS:** EdTech tools may unintentionally perpetuate bias, particularly if they are based on data that is biased or incomplete.
- CYBERSECURITY RISKS:** The use of EdTech platforms may increase the risk of cybersecurity breaches, which can lead to data loss or theft.

To mitigate these risks, it is important to establish clear guidelines and policies around the use of EdTech, including data privacy and security measures, training for teachers and students, and ongoing evaluation and assessment of the effectiveness of EdTech tools.

Promising Edtech services and companies:

LEARNING PLATFORMS:

- Edmodo
- echo360
- Canvas LMS

ADAPTIVE LEARNING SYSTEMS:

- dreambox
- KNEWTON
- CARNEGIE LEARNING

LANGUAGE LEARNING:

- duolingo
- +Babbel
- Rosetta Stone

PROFESSIONAL DEVELOPMENT:

- coursera
- UDACITY
- LinkedIn Learning

ONLINE TUTORING:

- Chegg
- TutorMe
- Varsity Tutors

Conclusion:

EdTech software development is a rapidly growing market that is driven by the increasing demand for digital learning solutions. Personalized learning, gamification, microlearning, collaborative learning, and virtual and augmented reality are some of the current trends in EdTech.

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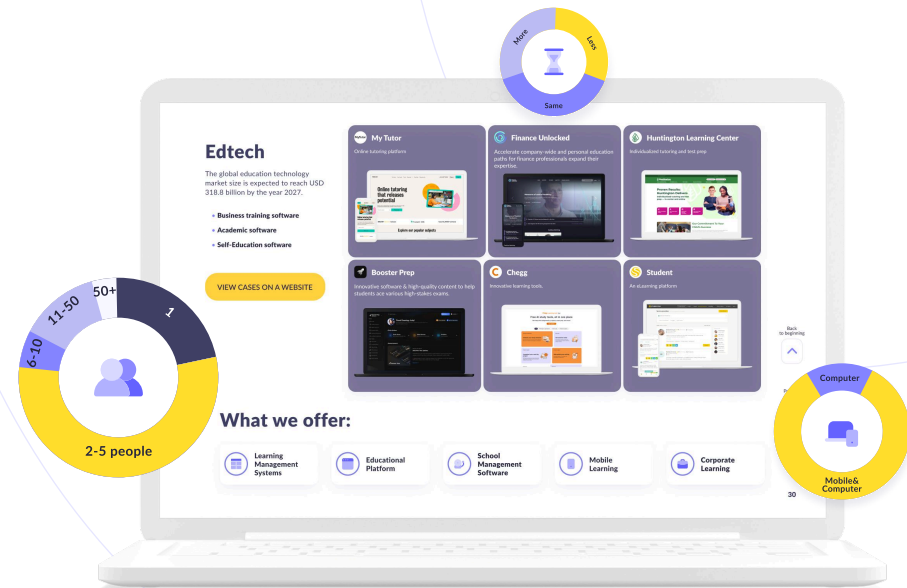


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How personalized learning can benefit students

According to Future Data Stats, the global Personalized Learning Market size was valued at USD 1.8 Billion in 2023 and is projected to grow significantly, reaching USD 19.86 Billion by 2030. This massive growth reflects the growing importance of personalized learning in education. Check out how this model can help students succeed.

Individualised learning model instead of generic

A generic model does not account for students' different learning preferences or unique interests. Personalized learning allows for "anywhere, anytime" learning including:

-  Online and blended learning
-  Dual enrollment and early college high schools
-  Project-based and community-based learning

Virtually unlimited instructional sources instead of teacher and textbook

A generic model does not account for students' different learning preferences or unique interests. Personalized learning allows for "anywhere, anytime" learning including:



94% of education professionals said that students demonstrate improved learning performance and/or achievement when technology is integrated into their curriculum.



Approximately **50%** of learning system vendors now have AI capabilities integrated into their platforms, allowing them to provide hyper personalised learning experiences.

Student-voiced curriculum instead of one size

In personalized learning, students are empowered to focus on their interests and personal goals.



Students who work toward their personal career goals with the Career Academy Support Network at the University of California-Berkeley report graduation rates **10%** points higher than statewide average.

Variable pacing instead of fixed

With personalized learning, students have the opportunity to learn at their natural pace, without fear of being left behind.



93% of education professionals agree that students would benefit from personalized pacing to target gaps in achievement or to accelerate learning.

Skills assessment instead of knowledge

While traditional learning is evaluated with periodic knowledge tests, personalized learning is evaluated with diverse, ongoing assessments which can immediately help tailor instruction and help guide students toward their goals.



66% of students measure their academic success by the achievement of their own personal learning goals, outstripping parental pride (55%) or school awards and honours (45%).

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Roles

A traditional lecture setting relies on passive students, but the brain changes that underline learning occur when the experiences are active.

“Guide on the Side” teacher instead of “Sage on the Stage”

A teacher’s role in personalized learning is to guide students in a collaborative and interactive setting



20% of high school students in a traditional classroom expressed a strong interest in a STEM field



But interest jumped to **27%** in a student- and teacher-driven classroom that utilized technology

Interacting Student instead of Receiving

In a traditional setting, student simply receive and reiterate information; in a personalized setting, they contribute to their learning



15% of students grades 6-12 have informally tutored other students online or found an expert to help them with their own questions.



12% of high school students have taken an online class on their own (not school or teacher directed) to support their learning.

Pros:

- Increases student engagement and motivation by tailoring the learning experience to the student's individual interests and abilities
- Improves retention and academic achievement by providing students with content that matches their learning style and pace
- Provides teachers with data-driven insights into individual student learning and progress

Cons:

- Requires a significant amount of data to provide truly personalized learning experiences
- Can be expensive to develop and implement
- May be difficult to ensure that all students receive the same quality of education if personalized learning is too individualized

Subtrends:

- Adaptive learning
- Personalized learning paths
- Personalized assessments

Tech solutions and tools:

- Learning Management Systems (LMS)
- Learning Content Management Systems (LCMS)
- Adaptive Learning Platforms
- Intelligent Tutoring Systems (ITS)

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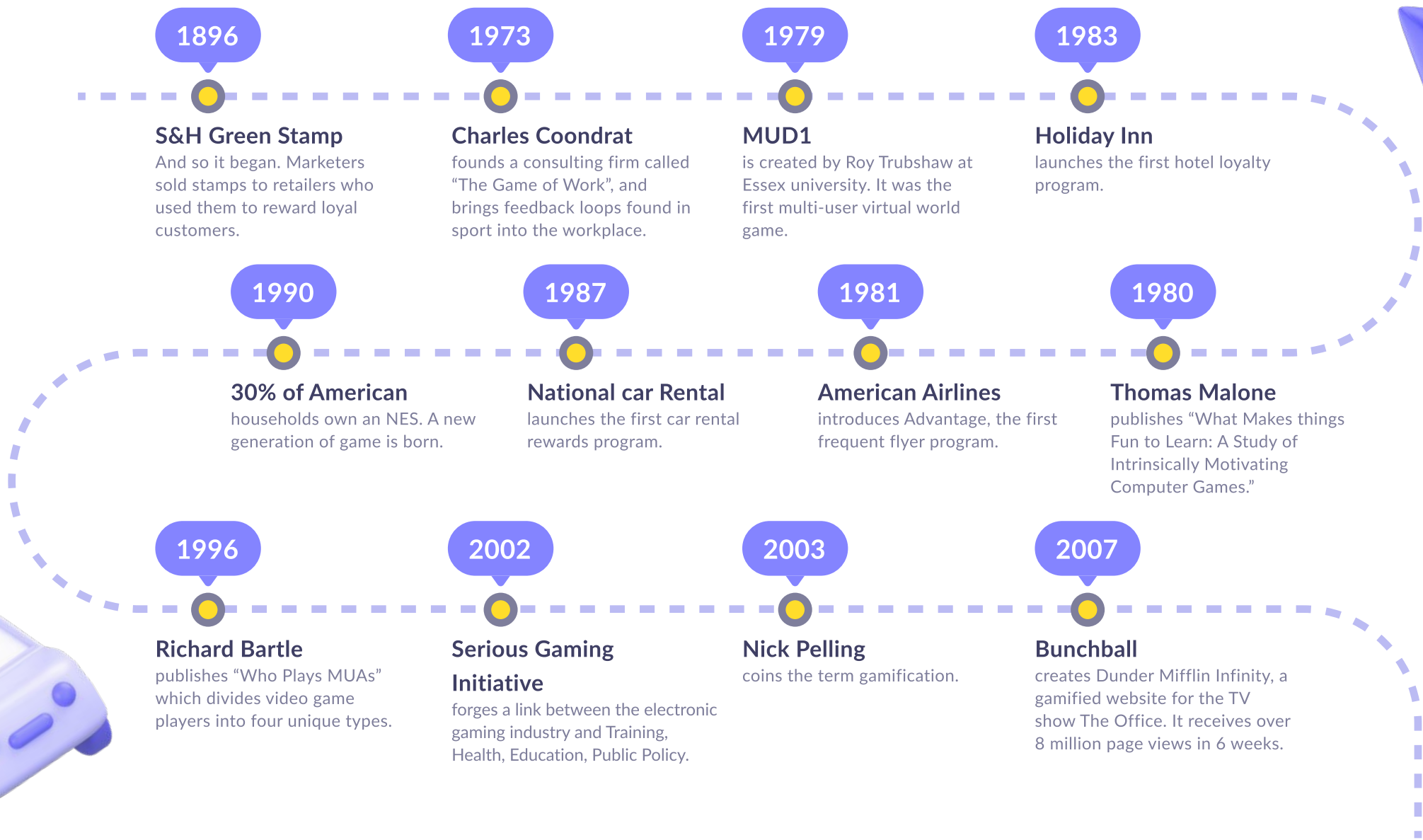
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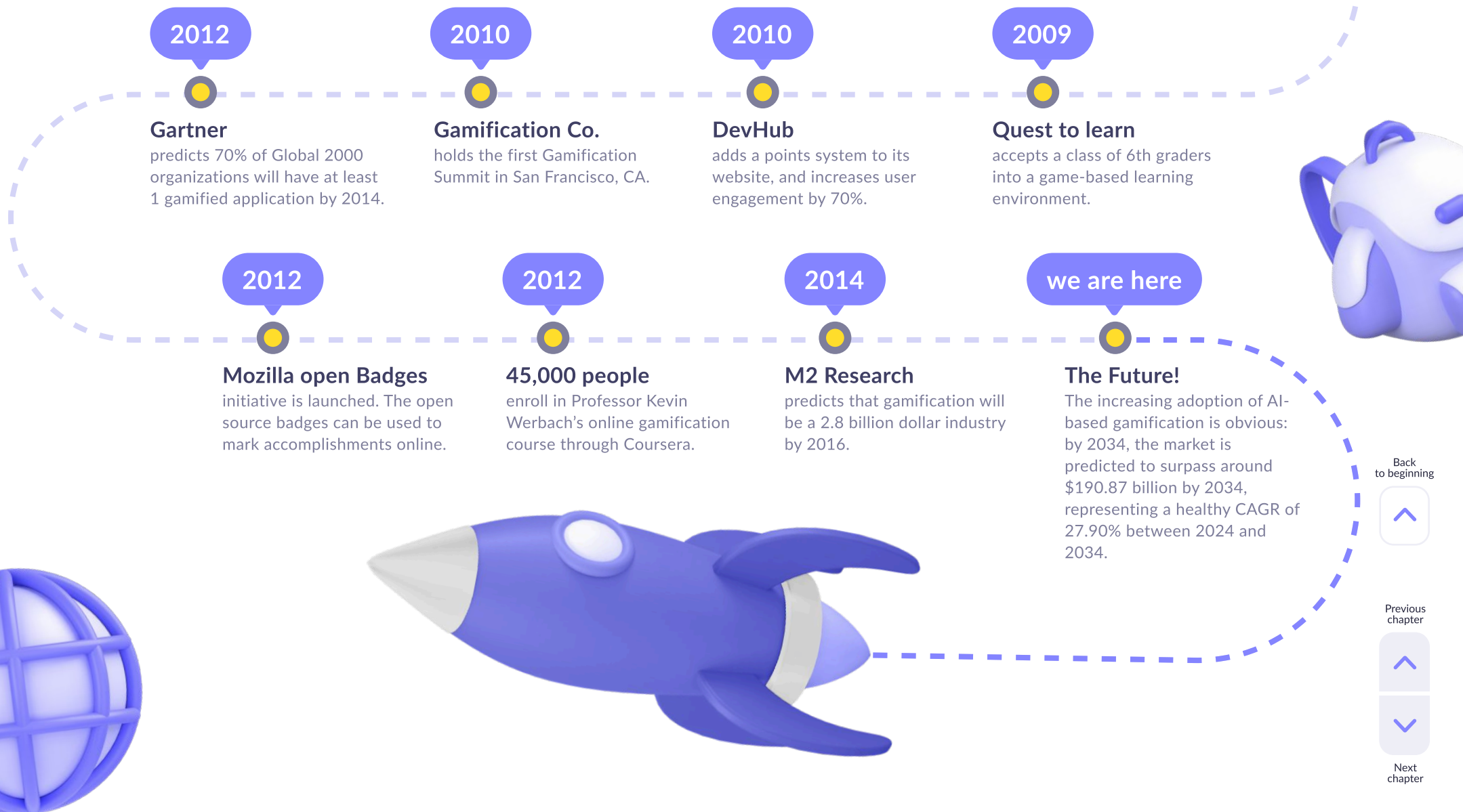


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Gamification

History of gamification

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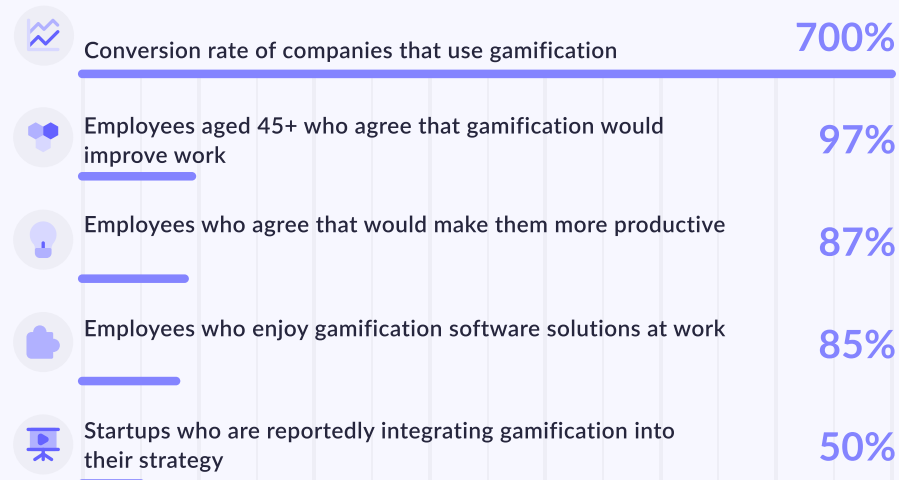
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Gamification in eLearning

Gamification involves incorporating game elements such as points, badges, and leaderboards into the learning experience. This trend has been shown to improve student motivation, engagement, and learning outcomes. Gamification can be used to make learning fun and engaging, helping to encourage students to take an active role in their education.



Gamification in operations



Preferred gamification strategies of adult learners


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Interacting student instead of receiving

Unlike traditional settings where students primarily receive and recite information, personalized learning environments actively involve students in shaping their own educational experiences.



80% US workers who believe game-based learning is more engaging



60% increase in employee engagement as a result of gamification training features



Gamification training features have improved productivity by **50%**



50% business transformation programs that fail due to poor employee engagement

Pros:

- Increases student engagement and motivation by making learning fun and enjoyable
- Improves retention and academic achievement by reinforcing learning through game elements
- Encourages competition and collaboration, helping to develop important social and emotional skills

Cons:

- Can be perceived as too simplistic or immature for older students or certain subject areas
- May be difficult to measure learning outcomes and achievement through game-based activities
- Requires a balance between learning objectives and game elements to ensure educational value is not compromised

Subtrends:

- Game-based learning
- Gamified assessments
- Badges and rewards

Tech solutions and tools:

- Learning Management Systems (LMS)
- Gamification platforms
- Virtual Reality (VR) and Augmented Reality (AR) tools

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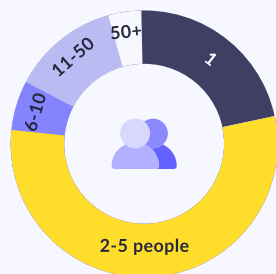
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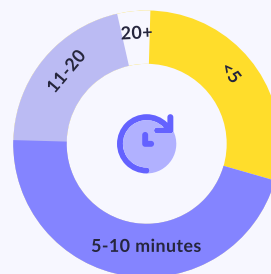
Microlearning

The microlearning market is expected to reach USD 4.87 billion by 2029, growing at a CAGR of 13.13%. Microlearning delivers educational content in small, easy-to-learn pieces. This trend is supported by mobile technologies and has been shown to increase engagement and retention. Microlearning can be used to break complex concepts down into smaller, more manageable pieces, helping students to better understand and retain the information.

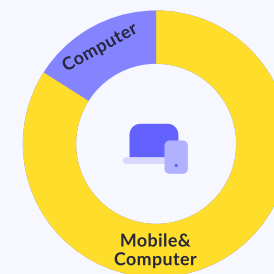
Most microlearning developers work in teams



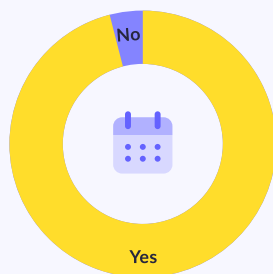
Microlearning courses are typically <10 minutes in duration



Microlearning is developed for both mobile devices and computers



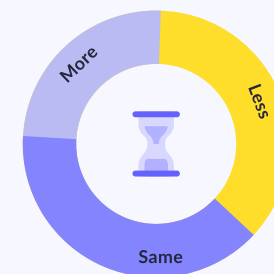
Anticipated involvement in microlearning development over next year is almost 100%



Most microlearning is a blend of new and repurposed content



Microlearning takes the same or less time to produce than typical e-learning



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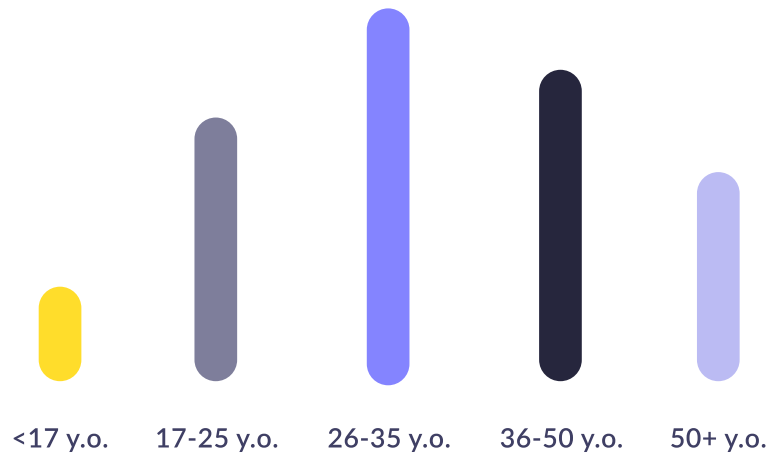
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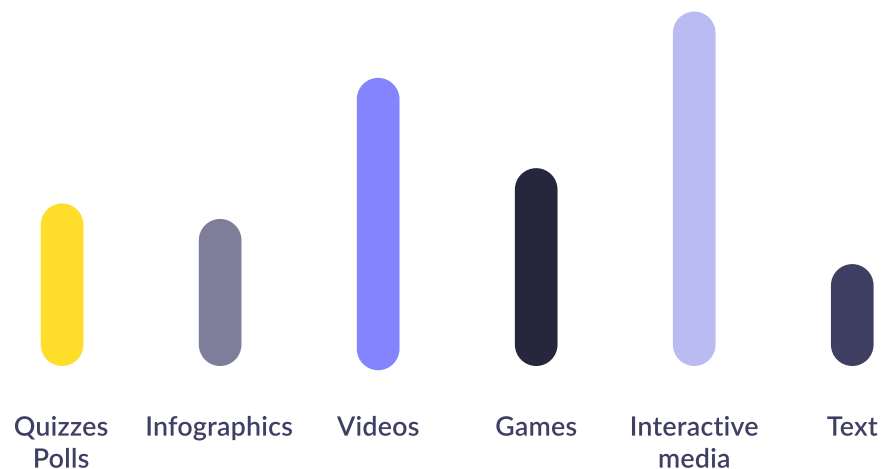
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Target audiences for microlearning offerings are mostly adults



Microlearning delivery methods are varied and rich in technology



Pros:

- + Increases student engagement and motivation by delivering content in easily digestible chunks
- + Improves retention by reinforcing learning through repetition and reinforcement
- + Provides flexibility and convenience, allowing students to learn at their own pace and on their own schedule

Cons:

- May not provide enough depth of understanding for more complex subjects or concepts
- May not be effective for students who require more structure or guidance in their learning
- Requires careful planning and organization to ensure that microlearning modules are cohesive and comprehensive

Subtrends:

- 🔥 Bite-sized learning
- 🔥 Just-in-time learning
- 🔥 Mobile learning

Tech solutions and tools:

- ⚙️ Learning Management Systems (LMS)
- ⚙️ Microlearning platforms
- ⚙️ Mobile learning apps
- ⚙️ Learning Experience Platforms (LXP)

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Collaborative learning

The global online collaborative learning platform market surged in 2022 and is expected to continue growing significantly until 2028 with a high CAGR. Collaborative learning, where students work together on projects or to solve problems, is facilitated by technologies like video conferencing and chat tools. It helps develop teamwork and communication skills, preparing students for real-world scenarios.

What is collaborative learning?

"Collaborative learning" is an umbrella term for a variety of educational approaches involving joint intellectual effort by students, or students and teachers together.

Usually, students are working in groups of two or more, mutually searching for understanding, solutions, or creating a product.

Collaborative learning activities vary widely, but most focus on students' exploration or application of the course material, not simply the teachers presentation or explanation of it.

How are collaborative classrooms different from traditional ones?

In collaborative classrooms, the lecturing/ listening/note-taking process may not disappear entirely, but it lives alongside other processes that are based in students' discussion and active work with the course material.

What are the essential goals of collaborative learning?

It is believed that collaborative learning promotes a broader educational agenda, encompassing several intertwined rationales.

Enhanced involvement in the classroom

Collaborative learning is both socially and intellectually engaging, motivating students to forge stronger connections with their peers, faculty, course content, and their own learning process.

Improved confidence

Collaborative learning also results in improved academic confidence among many students. Through interaction with peers, they are motivated to actively explore and share ideas.

Cooperation and teamwork

In collaborative endeavours, students inevitably encounter difference, and must grapple with recognizing and working with it. Cultivation of teamwork, community-building, and leadership skills are legitimate and valuable classroom goals, not just extracurricular ones.

Civic responsibility

Collaborative learning encourages students to acquire an active voice in shaping their ideas and values and a sensitive ear in hearing others.

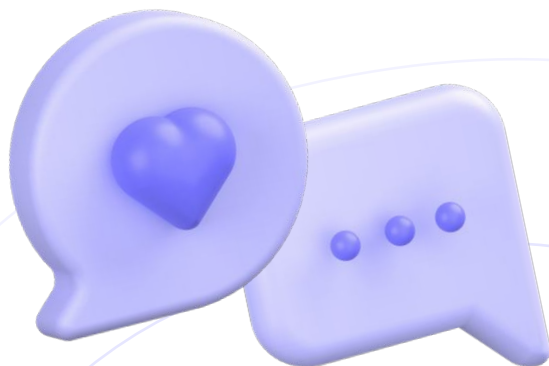
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What is the role played by interactive technology in collaborative learning?

Increases concentration

The integration of technology into classrooms helps in boosting concentration and retaining information. A study was conducted to evaluate the impact of technology use. 18 2nd grade students were challenged to complete a Power Point project about an animal. 16 out of the 18 students remembered more facts about the animal after completing the presentation. These results show that technology indeed helps students remember what they learn.

Keeps students updated

Technology is the need of the day. By introducing interactive technologies into the classroom, the students get the opportunity to explore more about recent trends and arrivals.

Some facts showing the significance of collaborative learning



People forget **70%** of formal learning within 1 week and **87%** in 1 month.



86% of employees say they learn what they need at work by collaborating with others.



Trainees increased their performance by **22%** through deliberate reflection & sharing lessons learned with others.



40% of organisations have mentoring programmes (and the number is growing.)

Pros:

-  Develops important social and emotional skills such as communication, teamwork, and leadership
-  Encourages peer-to-peer learning and the sharing of ideas and knowledge
-  Provides a more engaging and interactive learning experience than traditional lecture-style instruction

Cons:

-  Requires careful management and facilitation to ensure that all students are participating and contributing equally
-  May be challenging to coordinate schedules and logistics for group projects or activities
-  May be difficult to ensure that all students are learning the same content and achieving the same learning outcomes

Subtrends:

-  Social learning
-  Peer learning
-  Group projects and assignments

Tech solutions and tools:

-  Learning Management Systems (LMS)
-  Social learning platforms
-  Collaboration Tools (e.g. Google Docs, Slack)
-  Video conferencing platforms (e.g. Zoom, Microsoft Teams)

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Adaptive learning

As of 2023, the global adaptive learning market has been valued at \$4.07 billion. It is forecasted to grow significantly, reaching approximately \$27.83 billion by 2033, at a compound annual growth rate (CAGR) of 21.20% over the forecast period from 2023 to 2033. Adaptive learning is a teaching method that uses technology to adjust the content, pace, and delivery of educational material to match the learning needs and preferences of individual students. This approach offers a number of benefits and limitations.

How does adaptive learning benefit learners?

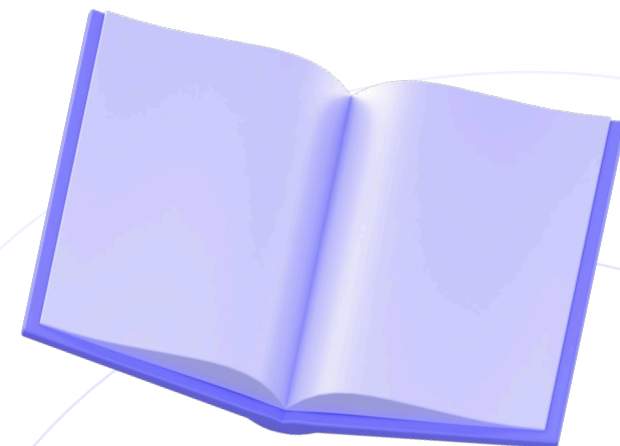
Adaptive learning acts like a one-on-one instructor to learners. So you might have multiple learners taking the same course, but the content they see is based entirely on their current knowledge levels and experience.

Is an LMS required for adaptive learning?

Any learning program that requires learner activities to be tracked needs to be hosted on an LMS. So is the case with adaptive learning.

How is adaptive learning different from personalized learning?

Personalized learning, just like adaptive learning takes learners on a specific learning path. But the difference is that in the case of personalized learning, it is not dynamic.



Are there different levels in adaptive learning?

Yes. There are different levels in adaptive learning:

- 1 Self-paced interactive level:**
In this level, learners receive feedback on summative assessment and if they've answered a required number of questions correctly, new content is unlocked.
- 2 Content level:**
Learner receives an explanation for each wrong answer and can review sections of content related to that question.
- 3 Assessment level:**
If learners answer an assessment question correctly, the next question is a tougher one. If they answer incorrectly they are given easier questions before proceeding to more complex ones.
- 4 Assessment and content level:**
Learner answers all questions of a formative assessment and receives a tailored plan that contains relevant content and practice activities. After this, the learner completes the summative assessment and a new learning plan is generated.
- 5 Assessment and content level with high granularity:**
At this level, every step the learner takes to answer a question is recorded. The difficulty level of each question is based on how the learner performs on the previous question.

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Pros:

- +** Adaptive learning offers personalized learning experiences for students based on their individual learning needs, preferences, and pace. This means that students can work at their own pace, allowing them to fully grasp concepts before moving on to more challenging material.
- +** Students tend to be more engaged in adaptive learning environments because the content is tailored to their specific needs and learning preferences, making the learning process more interesting and enjoyable.
- +** Adaptive learning has been shown to improve learning outcomes, with students demonstrating increased retention and understanding of concepts.

Cons:

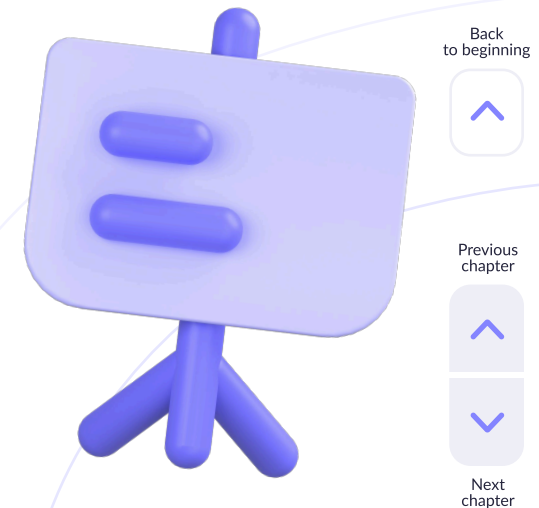
- Adaptive learning systems can be costly to develop and implement, which can be a barrier for some institutions.
- Implementing adaptive learning technology can be complex and requires significant technical expertise.
- With the collection and storage of large amounts of student data, privacy and security concerns can arise.

Subtrends:

-  **Intelligent Tutoring Systems.** These are computer-based systems that provide customized instruction to students, based on their individual learning needs.
-  **Learning analytics.** This involves the collection and analysis of data on student learning to identify areas where personalized learning can be implemented.
-  **Personalized content delivery.** This involves the use of adaptive algorithms to deliver customized learning content to individual students.

Tech solutions and tools:

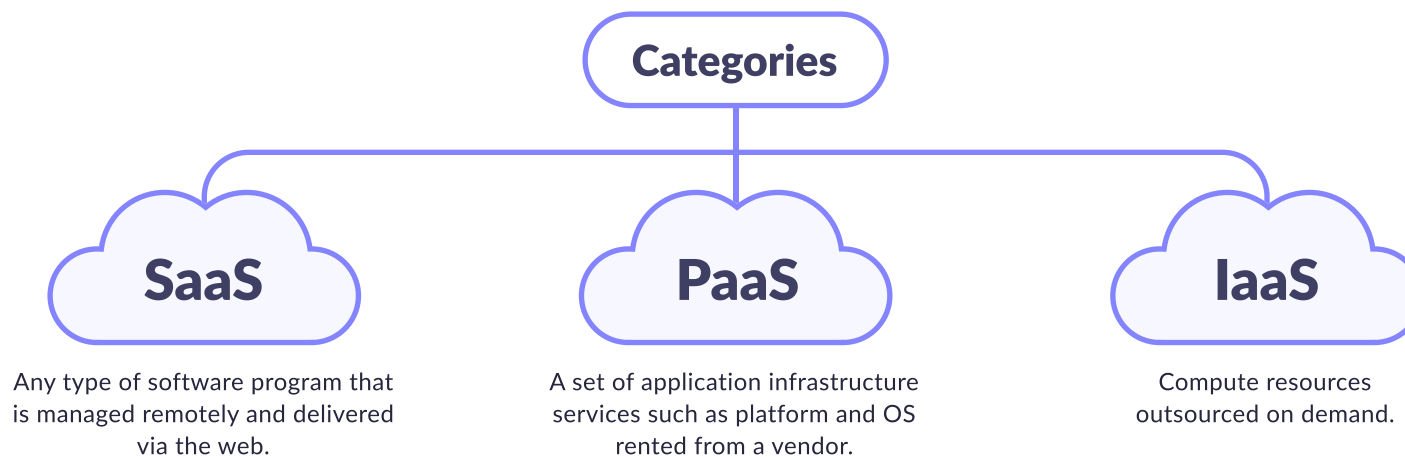
-  Adaptive Learning Platforms
-  Learning Management Systems (LMS)
-  Personalized Learning Engines
-  Learning Analytics Tools
-  Knewton
-  Smart Sparrow
-  Dreambox Learning
-  Carnegie Learning
-  McGraw Hill Connect



Cloud computing

Cloud computing technologies such as Amazon Web Services (AWS) and Microsoft Azure are being used to host and deliver Edtech solutions that can be accessed from anywhere with an internet connection. Cloud computing can provide scalability, flexibility, and cost-effectiveness, making it an attractive option for Edtech companies.

The U.S. National Institute of Standards defines cloud computing as "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction."



Who empowers educational institutions?



110 million

students, faculty and staff use Microsoft Office 365 Education, a cloud-based communication and collaboration tool.



14,000

education institutions from primary and secondary schools through higher education use AWS to provide flexible, affordable technology solutions.



80 million

educators and students around the world using G Suite for education.

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Pros:

- + Provides scalability and flexibility, allowing Edtech solutions to be easily expanded and updated
- + Offers cost-effectiveness by eliminating the need for physical servers and infrastructure
- + Enhances accessibility by allowing Edtech solutions to be accessed from anywhere with an internet connection
- + Eliminates the need for expensive on-premises hardware and software, reducing the total cost of ownership for Edtech solutions
- + Allows Edtech solutions to scale up or down as needed, depending on user demand
- + Cloud-based solutions can be accessed from anywhere with an internet connection, making them ideal for remote learning environments.
- + Cloud-based solutions make it easy for teachers and students to collaborate and share resources.

Cons:

- Requires a reliable internet connection to function effectively
- May be subject to security and privacy concerns if not implemented correctly
- Requires careful management and monitoring to ensure optimal performance and cost-effectiveness
- Storing data in the cloud can be a potential security risk if not properly secured and managed.
- Cloud-based solutions require a reliable internet connection, which can be a challenge in some areas.
- Edtech solutions that rely on cloud computing are dependent on the service providers, which can lead to vendor lock-in and potential data ownership issues.

Subtrends:

- 🔥 **Serverless computing:** Serverless computing allows Edtech solutions to run without the need for servers, reducing costs and improving scalability.
- 🔥 **Multi-cloud:** Multi-cloud strategies involve using multiple cloud providers to avoid vendor lock-in and improve resilience.

Tech solutions and tools:

- ⚙️ Amazon Web Services (AWS)
- ⚙️ Google Cloud Platform
- ⚙️ Microsoft Azure

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Big Data analytics

Big data analytics technologies are being used to collect and analyze data on student learning and engagement, allowing for more personalized and effective learning experiences. Big Data analytics can be used to identify areas where students are struggling, helping to tailor educational content and instruction to their individual needs.

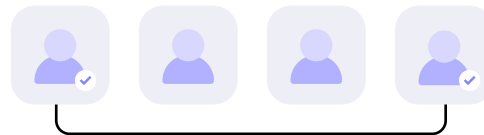
Every time a student receives a grade, checks a class syllabus online or swipes a campus ID card, a trail of 'digital bread crumbs' is left behind. When that data is combined, mined and analyzed along with the data of the school's entire student population, that 'big data can reveal behavior patterns that colleges can use to improve a student's college experience.

How Big Data works

Here's a look at how a big data system works:



The system accesses a student's previous college grades, high school GPA and standardized test scores.



The software finds the transcripts of other students who had classes or tests in common with that student.



The system finds correlations by connecting grades to other courses' grades.

The system takes into account the requirements necessary for a major and knows which courses the student completed.

The software then uses that information to predict how successful a student would be in that class.

The system takes into account the requirements necessary for a major and knows which courses the student completed.



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Some of the Big Data projects include:

Arizona State University

ASU offers web-based courses that shape and personalize a student's learning experience.

Another ASU program involves tracking when and where students swipe their campus ID cards to find out who is and isn't involved or connected on campus.

ASU has a Facebook app that mines student profiles to recommend friends with similar interests.

Arizona State University University of Florida

These two universities use similar "eAdvisor" programs that suggest classes and track how well students do in their major.

Rio Salado College

RSC uses a data program to predict how well a student will do in a class. It also sends performance reports to professors.

University of Texas

Professors use software to see how students answered questions in real time and to match those with differing ideas so they can discuss and defend their opinions with one another during class.

Austin Posy State University

Before APSU students sign up for classes, a robot advisor assesses their profiles and points them to certain courses in which they'd do well.

Pros:

- + Provides valuable insights into student learning and engagement, allowing for more personalized and effective instruction
- + Enables data-driven decision-making for educational content and resource development
- + Improves accountability and transparency by providing measurable outcomes and performance metrics

Cons:

- Requires significant amounts of data to be effective
- Can be expensive to implement and maintain
- Raises concerns around data privacy and security if not managed properly


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Artificial Intelligence

The AI in education market is projected to hit \$88.2 billion by 2032, with a remarkable CAGR of 43.3%. Technologies like natural language processing and machine learning are utilized to develop adaptive learning systems, customizing content and instruction to each student's needs. AI analyzes learning patterns and engagement levels to provide personalized study and practice recommendations.

Pros:

- ✚ Enables the development of adaptive and personalized learning systems that can tailor instruction to individual student needs
- ✚ Improves efficiency and accuracy in grading and assessments
- ✚ Can provide real-time feedback and support for students

Cons:

- ✖ May be perceived as impersonal or lacking in the human touch of traditional teaching methods
- ✖ Raises ethical concerns around the use of AI in education and its potential impact on student privacy and autonomy
- ✖ Requires significant amounts of data to be effective, which can be a challenge in some educational settings

Subtrends:

- 🔥 Natural Language Processing (NLP)
- 🔥 Machine Learning
- 🔥 Intelligent Tutoring Systems

Tech solutions and tools:

- ⚙️ AI-powered Learning Management Systems (LMS)
- ⚙️ Chatbots
- ⚙️ Intelligent Tutoring Systems
- ⚙️ Content Curation Platforms
- ⚙️ IBM Watson
- ⚙️ Carnegie Learning
- ⚙️ Content Technologies Inc.
- ⚙️ Blackboard
- ⚙️ Desire2Learn

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Virtual and Augmented Reality

Augmented and virtual reality technology has the potential to transform the way students learn and interact with educational content. By creating immersive and interactive learning experiences, augmented and virtual reality can increase student engagement and motivation, while also providing a more effective way to teach certain subjects.

What's the difference?

VIRTUAL REALITY

Surrounds you in a digital world with simulated people, objects, and environment. Using a headset you can be transported to another place and/or time with a 360° view

AUGMENTED REALITY

Adds an extra layer of interactive 3D content to your actual surroundings. Using see-through glasses, you are visually connected to the environment around you.

According to a survey from Touchstone Research and Greenlight VR:



95% of respondents were aware of VR



Only **35%** had actually tried it

Pros:

- Provides immersive and experiential learning experiences that can simulate real-world scenarios and environments
- Increases student engagement and motivation by providing a more interactive and visually stimulating learning experience
- Allows for remote learning and collaboration, eliminating geographical barriers

Cons:

- Can be expensive to develop and implement
- Requires specialized hardware and software to run effectively
- May not be accessible to all students due to cost or technological limitations

VR in education

The global immersive virtual reality market size was valued at \$15.7 billion in 2023 and is projected to grow at a CAGR of 26.6% from 2024 to 2030.

One example of how augmented and virtual reality is being used in education is through virtual field trips. By using VR technology, students can explore remote locations and historical sites that they may not otherwise have the opportunity to visit. This can provide a more engaging and memorable learning experience, while also reducing the cost and logistical challenges associated with traditional field trips.

Another example is the use of AR technology to enhance textbooks and other educational materials. By overlaying digital content onto physical materials, such as images and diagrams, AR technology can provide a more interactive and engaging way to learn and understand complex concepts.

Subtrends:

- Immersive Learning
- 3D Learning Environments
- Gamification

Tech solutions and tools:

- Virtual and Augmented Reality Learning Platforms
- Simulation Software
- 3D Modeling and Rendering Tools
- Unity, Unimersiv, Labster, Nearpod, and Google Expeditions

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Learning Management Systems (LMS)

The estimated number of Learning Management System (LMS) users has grown to 73.8 million in 2024, and it's still rising. The global LMS market is expected to grow at a compound annual growth rate (CAGR) of about 20% between 2025 and 2034, reaching approximately \$89.58 billion by 2032. This growth reflects the increasing demand for education streamlining solutions in the LMS segment. Popular LMS platforms include Blackboard, Canvas, and Moodle.

A **Learning Management System (LMS)** is a software application that allows businesses and other organizations to administer, distribute, track and report on educational materials.

An LMS is also utilized by colleges, universities and schools in order to supplement classroom learning as well as distribute coursework that is available exclusively online.

Many commercial entities have embraced an LMS in order to ensure employee compliance, licensure, and to help employees maintain and improve their skill sets.

Many academic institutions supplement classroom degree programs with online lectures and other coursework.

4 steps to choose the perfect LMS

1

Which type of business do you have?

Some LMS platforms are industry-specific, make sure the LMS you're selecting will be able to support your business. If possible, look for an all-purpose LMS that allows all types of businesses to conduct in-house training through a wide variety of courses. This kind of platform can suit many different needs like manufacturing, packaging or IT services.

2

How many employees?

Again, sometimes an LMS is very niche-specific, catering to either small businesses or massive enterprise. Does your company can have five employees? Or 5,000? Look for a platform that will support your organization's size.

3

Train the whole team, simultaneously.

A great LMS lets you offer training to employees across distinctly different departments. Double check, will your chosen LMS allow warehouse employees to access safety training courses, while desk-and-cubicle employees are simultaneously upgrading their skills with Microsoft Office?

4

Talk to your finance team first.

Some LMS platforms are expensive, be sure to budget accordingly. However, keep in mind that employees will now no longer have to travel and sacrifice productivity in order to get the training their jobs require. What's more, you can now replace expensive consultants/instructors with cheaper online coursework.

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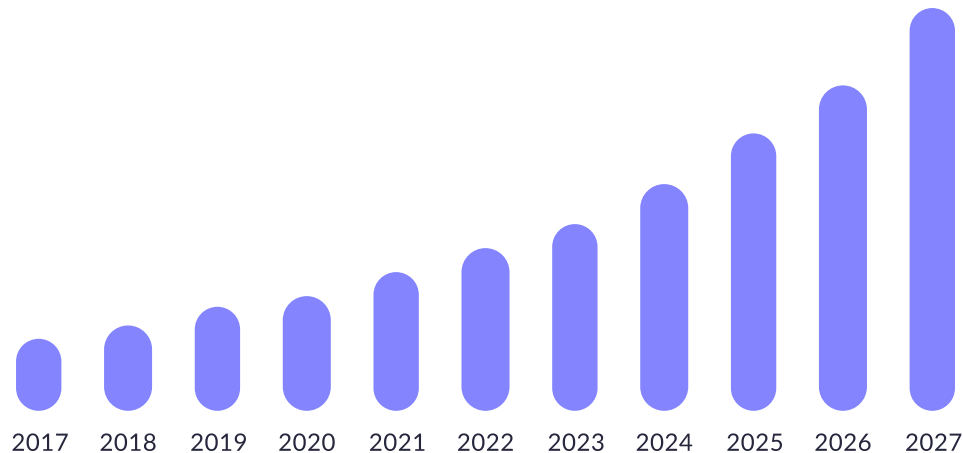
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LMS market size outline (USD Million)



2017: 12842.88

2027: 44978.02



19.21%
Year-over-year growth
of 2023



20.85%
CAGR 2022-2027

Impact of LMS innovation on organizations



72% gain competitive advantage



40% Fortune 500 companies use LMS extensively to remain competitive



9% see improved organizational growth, transformation, profit and productivity

Impact of LMS and eLearning on corporate training



58% of employees prefer self-paced learning



57% of L&D pros spend more on online learning



41.7% of companies save training cost by using LMS

How do businesses plan to adopt LMS

93% Develop live online learning to their programs

64% Want to include open resources for their digital learning programs

58% Plan to introduce enterprise social networks to help in learning

35% Want user-generated content to be included in learning programs

33% Want to develop massive open online courses – MOOCs

30% Want to incorporate games and simulations for better results



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5 features every LMS should have

1 CUSTOMIZATION FEATURES

Every LMS should offer customizing and branding features such as custom logos, color schemes, and labels so that companies can easily portray their brand.

2 EXTENSIVE REPORTING AND ANALYTICS

For a company's activity the reporting and analytics part of an LMS are essential. Reporting features should include canned reports, customizable reports, ad-hoc reporting, and graphical analytics for key areas of the LMS.

3 E-COMMERCE INTEGRATION

For companies that want to make revenue by selling courses, an LMS must of course include e-commerce functionality, ideally with discount codes, multiple currencies, and integration with popular payment gateways.

In addition, it's important to have a beautiful online class catalog that supports cross-listing and categories, as well as an integrated shopping cart.

4 MOBILE VERSION

Considering the current technology advancement, it is no longer an option for LMSs to not have a responsive design or mobile apps. Companies are now looking for LMSs that will allow them to access their training material in a user friendly interface anytime and anywhere.

5 ADMINISTRATION FEATURES

It's important for companies to have all the necessary tools to administer all aspects of its activities and employees in a single location, to easily enable/disable features, and to keep employees and clients informed with the latest company news.

Pros:

-  LMS solutions provide a centralized platform for managing course content, assignments, and assessments.
-  LMS solutions allow teachers to track student progress and performance, identifying areas where additional support may be needed.
-  LMS solutions can be used to create personalized learning experiences tailored to each student's needs and abilities.
-  LMS solutions make it easy for students and teachers to collaborate and share resources.

Cons:

-  LMS solutions make it easy for students and teachers to collaborate and share resources.
-  LMS solutions can be expensive, particularly for schools and educational institutions with limited budgets.
-  Overreliance on technology can lead to a reduction in critical thinking and problem-solving skills, as well as reduced social and emotional development.

Subtrends:

-  **Collaboration:** LMS solutions make it easy for students and teachers to collaborate and share resources.

Tech Solutions and Tools:

-  Blackboard
-  Canvas
-  Moodle

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How blockchain will revolutionize education

Blockchain is a framework that securely stores and verifies data so that records and transactions are tamper-evident and open-source. The blockchain in education market is expected to exhibit a CAGR of 43.94% by 2030.

Ways blockchain changes education

- 
MASSIVE OPEN ONLINE COURSES (MOOCs) FUELED BY CRYPTOCURRENCY
 Institute for Blockchain Studies is creating accredited MOOCs with proof-of-truth systems and smart contract-based curricula
- 
CONTENT SHARING
 MIT's OpenCourseWare publishes free course materials and awards tokens to contributors
- 
GLOBAL LEARNING COMMUNITY
 Students gain access to other school's courses and compete outside of their classroom
- 
 The blockchain can be programmed to record anything that can be expressed in code, including educational transcripts and student loan records
- 
 This could help refugees and other displaced people continue their education no matter where they go, even if their country or university can no longer verify their identities
- 
 All users would need is a key or drive to access their documents and prove their education

Pros:

-  Enhances security and transparency in student data management and credential verification
-  Provides a decentralized and tamper-proof system for record-keeping and certification
-  Improves the efficiency and accuracy of administrative processes such as transcript requests and degree verification

Cons:

-  Requires significant technical expertise to develop and implement
-  May not be compatible with existing systems and infrastructure
-  Can be subject to legal and regulatory challenges in certain jurisdictions.

Subtrends:

-  Digital Credentials
-  Micro-Credentials
-  Blockchain-based Learning Platforms

Tech Solutions and Tools:

-  Blockchain-based Learning Management Systems (LMS)
-  Digital Credentialing Platforms
-  Student Identity Verification Tools
-  Learning Machine
-  Credly

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Internet of Things (IoT)

IoT involves the use of connected devices and sensors to collect and transmit data, which can then be analyzed and used to improve various aspects of education. IoT (Internet of Things) has the potential to enhance the educational experience by providing new ways to collect data, monitor student progress, and automate administrative tasks. However, there are also potential drawbacks associated with the use of IoT in Edtech.

To mitigate these risks and maximize the benefits of IoT in Edtech, it is important to establish clear guidelines and policies around data privacy and security, as well as to provide adequate training and support for teachers and staff. It is also important to evaluate the effectiveness of IoT devices and ensure that they are being used in ways that support student learning and well-being.

How familiar are you with the concept of a Smart Internet of Things School?

9% Have implemented parts of a Smart School plan



3% Plan to implement the technology in the next 1–3 years



23% Aware and beginning to investigate



36% Slightly aware of the topic



29% The concept is entirely new



What impact do you anticipate from the Internet of Things?

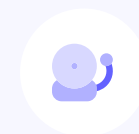
46% Major impact withing 2 years



33% Minor or delayed impact



Key benefits of custom IoT development in Education



School management efficiency



Real-time data collection



Safety and security



Better student engagement

What concerns an drawbacks do you see to the technology?



Security



May be expensive



Privacy



Lack of interoperability among different smart technologies



Distractions



May be hard to manage

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Here are some examples of how IoT is used in Edtech:



SMART CLASSROOMS:

IoT-enabled classrooms can be designed to automatically adjust lighting and temperature, and provide other smart features such as interactive whiteboards and smart projectors. These features can create a more engaging and productive learning environment for students.



WEARABLE TECHNOLOGY:

Wearable devices such as smartwatches and fitness trackers can be used to track and monitor student performance and activity levels. This data can then be used to provide personalized learning experiences for each student.



LEARNING ANALYTICS:

IoT can be used to collect data on student behavior, learning habits, and performance. This data can then be analyzed to identify patterns and trends that can be used to improve teaching methods and create more effective learning experiences.



STUDENT SAFETY:

IoT-enabled sensors can be used to monitor student safety, such as detecting falls or identifying when a student has left a designated area. This can help ensure the safety of students, particularly those with disabilities or other special needs.



SOME EXAMPLES OF IOT DEVICES AND PLATFORMS

that are being used in Edtech include Google Classroom, Microsoft Teams, Schoology, Canvas, and Edcause. By integrating IoT into Edtech, educators and students can benefit from the ability to collect and analyze data in real-time, leading to more effective and personalized learning experiences.

Top 10 currently-implemented smart technologies

- 1 Interactive whiteboard
- 2 Cameras and video
- 3 Tablets and eBooks
- 4 Student ID cards
- 5 3D printers
- 6 Smart HVAC system
- 7 Electric light/maintenance
- 8 Temperature sensors
- 9 Attendance tracking
- 10 Wireless doorlocks

Subtrends:

-  Smart Classrooms
-  Wearable Technology
-  Learning Analytics

Tech solutions and tools:

-  IoT-enabled Learning Management Systems (LMS)
-  Smart Sensors
-  Wearable Devices
-  Edcause, Google Classroom
-  Microsoft Teams
-  Schoology
-  Canvas

Overall, each Edtech trend has its own unique subtrends, tech solutions, and tools. By combining these technologies in innovative ways, educators and Edtech companies can create even more effective and impactful learning experiences for students.

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Challenges, opportunities, and risks of Edtech

Edtech has the potential to revolutionize education by providing new and innovative ways to deliver education and learning experiences. However, like any new technology, there are challenges, opportunities, and risks associated with its use. Here are some of the key challenges, opportunities, and risks of Edtech:

Challenges:

MAIN:

Access to technology. One of the biggest challenges of Edtech is ensuring that all students have equal access to technology, particularly those in low-income areas or developing countries.

Privacy and security. As with any technology that collects and stores personal data, there are concerns around privacy and security. This is particularly relevant in the case of Edtech, where sensitive information such as student grades and personal information is stored on online platforms.

Implementation and training. Edtech requires significant investment in hardware, software, and training, which can be a challenge for some schools and educational institutions.

Standardization. With the vast array of Edtech tools available, there is a risk of fragmentation and lack of standardization, which can lead to confusion and inefficiencies.

OTHERS:

- Disconnection between educators and business owners
- Confusion between users, customers, and decision-makers
- Slow monetization
- High competition
- Resistance to change
- Low usage and retention
- Global expansion costs
- Long sales cycles
- Privacy and data protection concerns

Opportunities:

MAIN:

Personalized learning. Edtech has the potential to create personalized learning experiences tailored to each individual student, allowing for greater engagement and better learning outcomes.

Access to education. Edtech can provide access to education for individuals who may not have been able to attend traditional classrooms, such as those in remote or underprivileged areas.

Collaboration and communication. Edtech tools can facilitate communication and collaboration between students and teachers, creating a more connected learning environment.

Analytics and insights. Edtech provides opportunities to gather data and insights on student performance and behavior, which can be used to improve teaching methods and learning outcomes.

OTHERS:

- Bridge the gap by listening to teachers
- Have a direct relationship with your customers
- Build a sustainable business model
- Come up with a unique value proposition
- Demonstrate measurable results
- Improve user engagement
- Utilize cost-reducing partnerships
- Reduce the layers of approval
- Build a reputation of security

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Risks:

REDUCED FACE-TO-FACE INTERACTION: Overreliance on Edtech tools may lead to reduced face-to-face interaction between students and teachers, which can impact social and emotional development.

DEPENDENCE ON TECHNOLOGY: Students may become overly dependent on technology, leading to reduced critical thinking skills and creativity.

POTENTIAL BIAS: Edtech tools may unintentionally perpetuate bias, particularly if they are based on data that is biased or incomplete.

CYBERSECURITY RISKS: The use of Edtech platforms may increase the risk of cybersecurity breaches, which can lead to data loss or theft.

To mitigate these risks, it is important to establish clear guidelines and policies around the use of Edtech, including data privacy and security measures, training for teachers and students, and ongoing evaluation and assessment of the effectiveness of Edtech tools.

Promising Edtech services and companies:

LEARNING PLATFORMS:



are examples of popular learning platforms that allow teachers to manage and deliver educational content and resources.

ADAPTIVE LEARNING SYSTEMS:



are examples of companies that provide adaptive learning systems that can tailor educational content and instruction to individual student needs.

LANGUAGE LEARNING:



are examples of companies that provide language learning solutions using gamification and adaptive learning technologies.

PROFESSIONAL DEVELOPMENT:



are examples of companies that provide online courses and training programs for professional development.

ONLINE TUTORING:



are examples of companies that provide online tutoring and homework help services.

Conclusion:

Edtech software development is a rapidly growing market that is driven by the increasing demand for digital learning solutions. Personalized learning, gamification, microlearning, collaborative learning, and virtual and augmented reality are some of the current trends in Edtech.

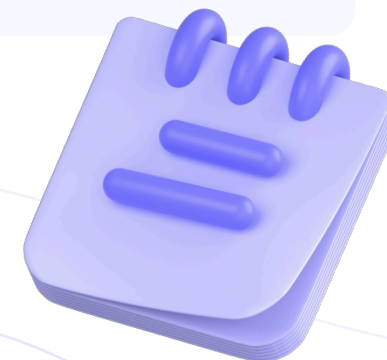
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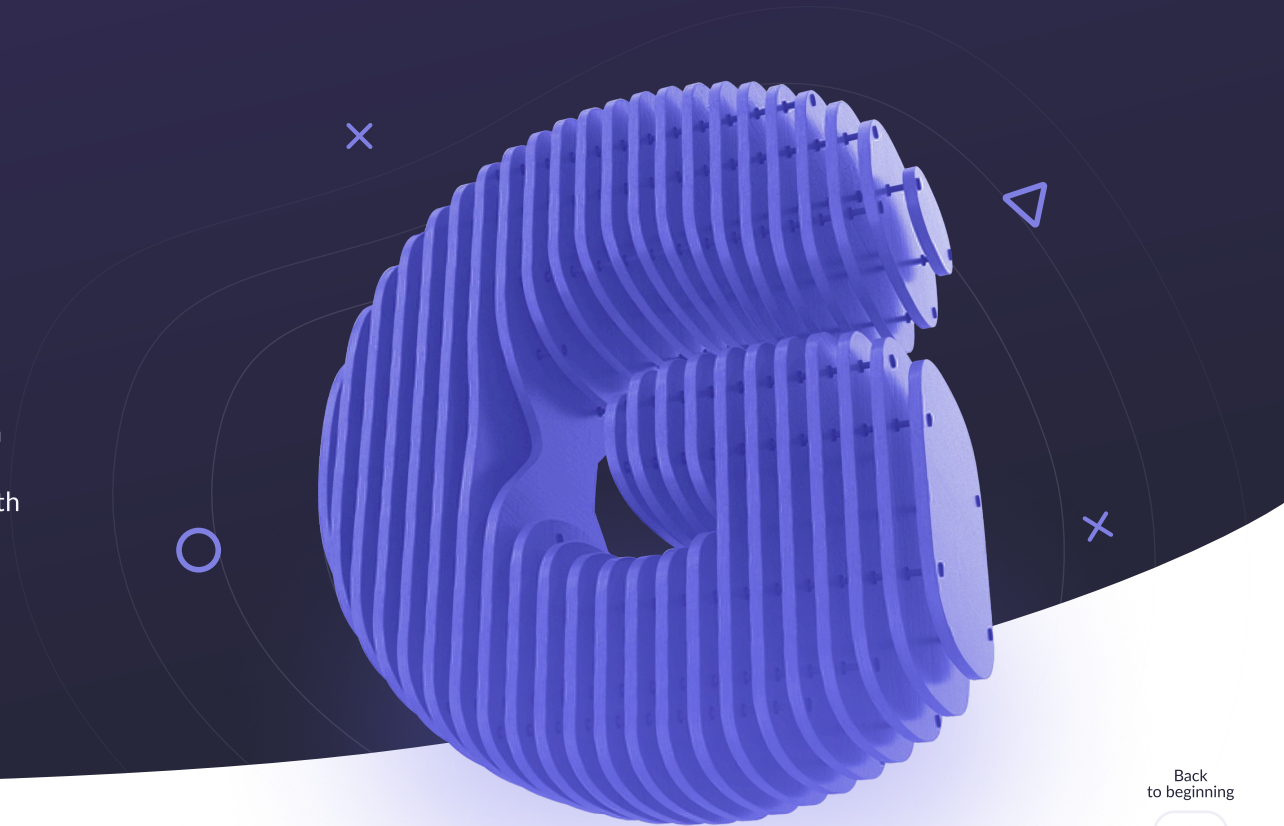


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GENIUSEE

As a software and product development company, we become tech partners for our clients and are honoured to take responsibility for the technological excellence of their projects. Founded in 2017, with headquarter in US and dev-centres in Poland and Ukraine, we accumulate the expertise of 200+ skilled professionals.



We in numbers

180+ Projects
Completed

200+ Team
Members

88 NPS Score
(70% of new clients
come from referral)

\$ 350 m+ Raised
By Our Clients

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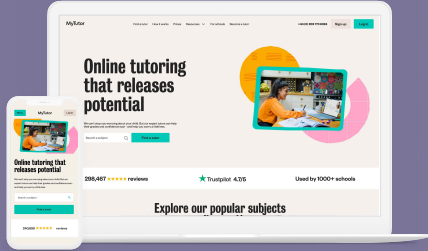
Edtech

The global education technology market size is expected to reach USD 318.8 billion by the year 2027.

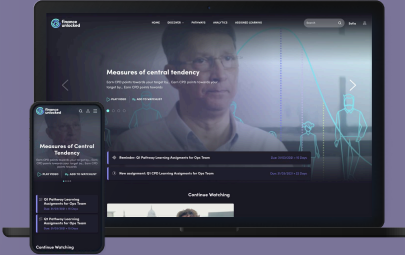
- Business training software
- Academic software
- Self-Education software

VIEW CASES ON A WEBSITE

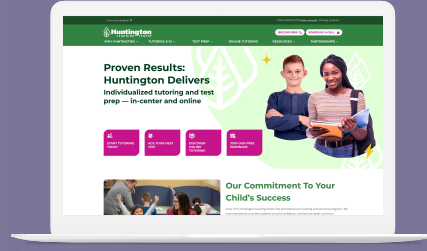
MyTutor
Online tutoring platform



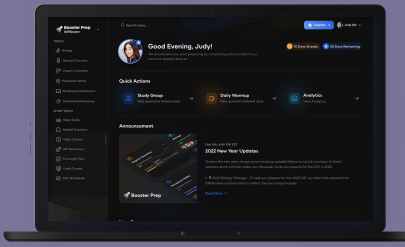
Finance Unlocked
Accelerate company-wide and personal education paths for finance professionals expand their expertise.



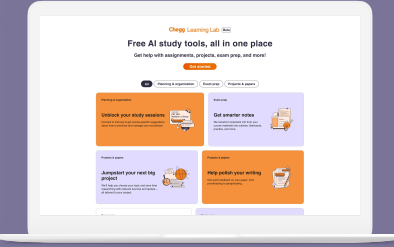
Huntington Learning Center
Individualized tutoring and test prep



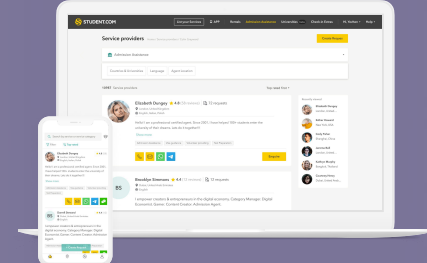
BoosterPrep
Innovative software & high-quality content to help students ace various high-stakes exams.



Chegg
Innovative learning tools.



Student
An eLearning platform



What we offer:



Learning Management Systems



Educational Platform



School Management Software



Mobile Learning



Corporate Learning

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Technologies we use:

Cloud



Back-End



Front-End



Mobile



Our team consists of:

16% AWS Cloud Engineers

35% Back-End Engineers

43% Mobile & Front-End Engineers

Our certifications:



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Our clients recognize us as one of the top web developers in the education sector.



Clutch

Their communication, work ethic, and desire to give a positive outcome for their client are impressive.

Tech Lead, MyTutor



Clutch

Geniusee is very organized, and they always get back to us right away.

Co-founder, E-learning platform

Our projects:



MyTutor



OnSafely



Schedule a call with us