

# AI in Higher Education Market Boosts Education By USD 25.7 billion by 2033, Reflecting a Robust CAGR of 32%

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NEW YORK, NY, UNITED STATES, February 3, 2025 /EINPresswire.com/ --The <u>AI in Higher Education Market</u> is projected to experience significant growth, with its value anticipated to increase from USD 1.6 billion in 2023 to USD 25.7 billion by 2033, reflecting a robust CAGR of 32% over the forecast period.



This market involves the application of AI technologies to enhance educational and administrative processes within higher education institutions. AI tools such as <u>learning</u>

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In 2023, the Solution segment held a dominant position in the AI in higher education market, capturing more than a 72.5% share..." *Tajammul Pangarkar*  management systems, virtual facilitators, and predictive analytics are increasingly used to deliver personalized learning experiences, streamline administrative tasks, and improve overall educational outcomes.

Key factors driving market growth include the demand for adaptive learning environments, the need for efficient administrative solutions, and the integration of advanced AI capabilities like machine learning and natural language

processing.

However, the market faces challenges such as data privacy concerns and ethical considerations,

which require careful management to ensure equitable AI usage. Despite these challenges, the benefits of AI in creating interactive learning experiences and improving operational efficiency make it an essential component of modern higher education globally.

# Key Takeaways

The global AI in Higher Education Market is anticipated to reach approximately USD 25.7 billion by 2033, exhibiting a significant compound annual growth rate (CAGR) of 32% from 2024 to 2033.

In 2023, the Solution segment held a dominant position in the AI in higher education market, capturing more than a 72.5% share.

In 2023, the Cloud-Based segment held a dominant market position in the AI in higher education sector, capturing more than a 58% share.

In 2023, the Machine Learning (ML)



### Al in Higher Education Market Share



segment held a dominant market position in the AI in higher education sector, capturing more than a 57.6% share.

In 2023, the Learning Platform and Virtual Facilitators segment held a dominant market position in the AI in higher education sector, capturing more than a 44.9% share.

In 2023, North America held a dominant market position in the AI in higher education sector, capturing more than a 38.1% share.

### **Experts Review**

Experts highlight the transformative potential of AI technologies in higher education, emphasizing their role in enhancing learning and administrative efficiencies. AI tools facilitate personalized learning experiences by adapting content and teaching methods to individual student needs, thereby improving engagement and retention rates. However, the implementation of AI presents challenges related to talent acquisition and the existing skill gaps within educational institutions. The rapid evolution of AI technologies necessitates specialized skills that are often scarce within academia, leading to difficulties in attracting and retaining qualified personnel.

Additionally, concerns about data privacy and ethical use of AI require careful consideration to ensure compliance with regulatory standards and maintain stakeholder trust. Despite these challenges, there is significant opportunity for AI to revolutionize educational research and foster global academic collaboration by enabling institutions to manage extensive datasets and automate routine tasks. Strategic investments in <u>AI infrastructure</u> and training are essential to overcoming these hurdles, driving innovation, and realizing AI's full potential in higher education.

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# **Report Segmentation**

The AI in Higher Education market is segmented by component, deployment mode, technology, and application. The components include solutions and services, with solutions leading due to the increasing demand for AI-driven educational tools. Deployment modes are divided into cloud-based and on-premise, with cloud-based solutions holding a prominent 58% share due to their cost-effectiveness and scalability.

The dominant technologies are machine learning (ML) and natural language processing (NLP), with ML capturing a 57.6% market share owing to its critical role in personalizing learning content and processes. These technologies are implemented in various applications, including learning platforms, virtual facilitators, smart content delivery, fraud and risk management, and intelligent tutoring systems.

The learning platform and virtual facilitators segment leads with a significant market share, driven by the integration of emerging technologies such as augmented and virtual reality, which transform traditional learning environments into dynamic interactive experiences. These segments illustrate the broad range of AI applications in higher education, reflecting the industry's push for innovative solutions tailored to improve educational outcomes and operational efficiency.

Key Market Segments

By Component Solution Services By Deployment Mode Cloud-Based On-Premise

By Technology Machine Learning (ML) Natural Language Processing (NLP) Computer Vision Other Technologies

By Application Learning Platform and Virtual Facilitators Smart Content Delivery Fraud and Risk Management Intelligent Tutoring System (ITS) Other Applications

Drivers, Restraints, Challenges, and Opportunities

Key drivers of the AI in Higher Education market include the growing need for personalized learning and increased efficiency in administrative processes. AI technologies enable tailored educational experiences through adaptive learning systems, enhancing student engagement and retention. AI's capability to automate routine tasks such as admissions and scheduling reduces administrative burdens, allowing institutions to allocate resources more effectively.

However, challenges include talent acquisition and existing skill gaps, as educational institutions often struggle to attract the requisite expertise due to competing salaries in the private sector. There is also a pressing need for staff and students to upskill to accommodate an Al-integrated environment. Furthermore, data privacy concerns and ethical considerations regarding Al use must be navigated skillfully to ensure compliance with regulations.

Despite these challenges, opportunities exist in expanding AI-driven research capabilities and fostering global academic collaboration. Al's ability to analyze vast datasets accelerates the research process and enhances result accuracy, promoting international partnerships. Through strategic approaches to managing skills and data, educational institutions can fully leverage AI's potential to reshape higher education.

#### Key Player Analysis

Major players in the AI in Higher Education market include IBM Corporation, Google LLC,

Pearson plc, Intel Corporation, and Microsoft Corporation. IBM Corporation and Google LLC are at the forefront, utilizing advanced AI capabilities to deliver personalized learning experiences and improve institutional efficiency. Pearson's integration of AI into its learning platforms offers adaptive digital tools that tailor learning to individual student needs.

Intel and Microsoft provide crucial AI infrastructure and cloud services that facilitate efficient data management and learning analytics, shaping educational strategies. Additionally, companies like Oracle Corporation and D2L Corporation contribute significantly by developing comprehensive AI-driven educational solutions.

These key players' focus on innovation and strategic partnerships enables them to lead the market, driving the adoption of AI technologies that transform educational experiences and operational efficiencies across global higher education institutions.

Top Key Players in the Market

IBM Corporation Google LLC Pearson plc Intel Corporation Microsoft Corporation Amazon Web Services Inc. Adobe Inc. Coursera Inc. Blackboard Inc. Oracle Corporation D2L Corporation Instructure Inc. Other Key Players

### **Recent Developments**

Recent developments in the AI in Higher Education market highlight the integration of AI technologies to enhance learning experiences. In October 2023, Coursera launched the Generative AI Academy, focusing on increasing AI literacy for executives and learners to meet the changing demands of the job market.

Pearson introduced an AI-powered study tool in September 2023, integrated with its MyLab and Mastering platforms, offering personalized support to enhance learning experiences. In June 2023, Google and IBM announced that their professional certificates on Coursera had received European Credit Transfer and Accumulation System (ECTS) credit recommendations, bridging traditional education and industry requirements. These developments underscore the ongoing evolution of AI in education, emphasizing tools that facilitate personalized learning, improve engagement, and align educational outcomes with industry needs. By harnessing AI, educational institutions are better equipped to address learning challenges, providing students with skills necessary for future careers.

## Conclusion

The AI in Higher Education Market is poised for remarkable growth, driven by the demand for personalized learning experiences and increased operational efficiency. Despite challenges such as skill gaps and data privacy concerns, the market offers substantial opportunities for enhancing educational outcomes and fostering global collaboration.

Leading players like IBM and Google are pivotal in advancing AI applications, leveraging innovative technologies to transform learning and administrative processes. As educational institutions recognize AI's potential, strategic investments and skill development will be crucial in overcoming existing barriers, ensuring that AI plays a central role in shaping the future of higher education.

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