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10 ways AI can enhance higher education

1 Forecast demand

AI can monitor and forecast course completion rates of students allowing for detailed future planning for teaching and premises allocation.[1]

AI can predict the need for future course demands, allowing higher education institutions to plan for demand and pivot their services accordingly.

AI can scan for emerging themes and technologies that will need to be taught in order to support a workforce of the future.

2 Differentiate learning experiences

AI can modernise historical video footage and bring it to life, immersing students in their studies for amplified learning.[2]

AI can create simulations of environments, enabling students to get 'hands on' and interact with a digital replica of a real object.

AI can process the content of a textbook and present it to a student in a manner that is more effective and personalised than the conventional method of 'read it all.'

FACT **A team of musicians and data scientists used AI to complete Beethoven's unfinished 10th symphony.** Read more.

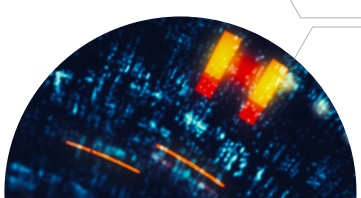
3 Foster **academic integrity**

AI can be used identify behaviour associated with cheating and flag this to a human invigilator.[3]

AI is being used in educational institutions to run plagiarism checks on student essays and research papers.[4]

FACT **AI invigilators are being used during online university exams. The AI is able to recognise and flag inappropriate activity with a human supervisor to review the misconduct.** Read more.

4 Personalise



learning solutions

AI can provide personalised instruction and feedback to students including recommended studying strategies such as encouraging them to learn via audio as opposed to reading.

AI can learn students' habits and propose the most efficient study schedule and methods for them.

5 Improve student outcomes

AI can track patterns to identify students at risk of dropping out or struggling to understand the course material – thereby making sure support staff can intervene to retain students for the institution.

AI-driven progress checks enable educators to more frequently check in on students who are falling behind and take corrective measures before it is too late in their studies.

AI can act as teacher assistants by responding to questions, instantly evaluating assessments and delivering feedback outside of traditional teaching hours.

6 Untap **innovation** and **research**

AI can empower knowledge management by automating the categorisation of research papers across fields of research making it easier for academics to track and search.

AI working with humans can help fast track discovery and invention.

AI can improve library searches, linking the right materials to the right subjects for heightened research.

FACT **Research publications need to be assigned to Field of Research (FoR) codes that categorise the papers to the appropriate disciplines. Applying AI to this task is able to save university staff thousands of hours every research reporting cycle.** Read more.

7 Remove tedious **admin**

AI can automate the administrative task load teachers typically take on, such as filing paperwork, scheduling course times and updating progress reports.

AI has the potential to grade abstract essays and exams, and compile a comprehensive student comparison for the teacher, helping schools to establish benchmarks and make investment decisions.

FACT **By implementing AI across varying repetitive processes, one Australian university was able to automate 50 processes and save their faculty 10,000 hours.** Read more.

8 Promote educational **equality**

Real-time translation devices enable students of multiple language backgrounds to attend the same classes, tapping into knowledge otherwise inaccessible.

AI can help students with differing abilities by providing more accessible methods of teaching, such as the reading of textbooks to a visually impaired student.

9 Elevate **course quality**

While grading exams, an AI algorithm can pick up on

information or concepts that the students are missing and inform the teachers so that they can review the appropriate course materials and methods.

AI can analyse the interactions teachers have with their students and their presentations in the classroom to provide feedback on communication and presentation skills.

AI can analyse patterns in student exam answers, allowing teachers to determine which questions are most often answered incorrectly and adapt teaching methods appropriately.

FACT **AI in education was valued at USD$1.10 billion in 2020 and is projected to reach USD$21.52 billion by 2028, growing at a CAGR of 45.21% from 2021 to 2028.** Read more.

10 Augment the **campus experience**

AI can be used to monitor institutions' utilities and power, alerting the appropriate teams when problems arise.

Smart technologies such as AI can help campuses augment user experience, deliver new business value, and enhance safety, security and efficiency.[5]

FACT **An Australian university created an app that is able to track location and provide 'heat maps' that help students identify quiet areas on campus for studying.** Read more.

Get in touch

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