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S H A R E

PERKONGSIAN

PROS OF AI IN HIGHER EDUCATION

Rafizah Kechil, Wan Anisha Wan Mohammad

Artificial intelligence (AI) improved learning outcomes

As artificial intelligence (AI) permeates the educational landscape, it brings with it a host of benefits that contribute to improved learning outcomes and streamlined administrative processes in higher education institutions. Below, we explore some of the significant advantages of AI implementation in universities, encompassing personalized learning experiences, enhanced administrative efficiency, improved resource access, and heightened student engagement.



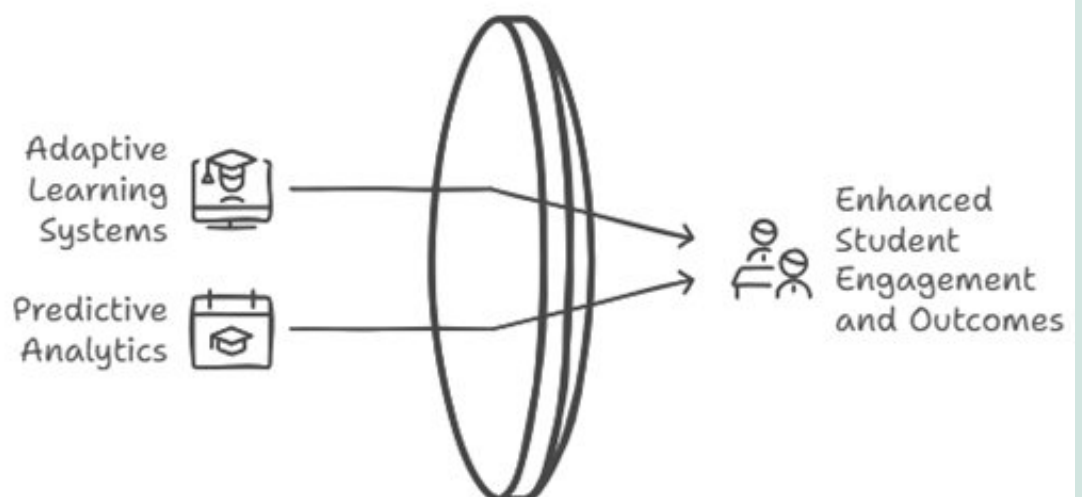
Personalized Learning Experiences

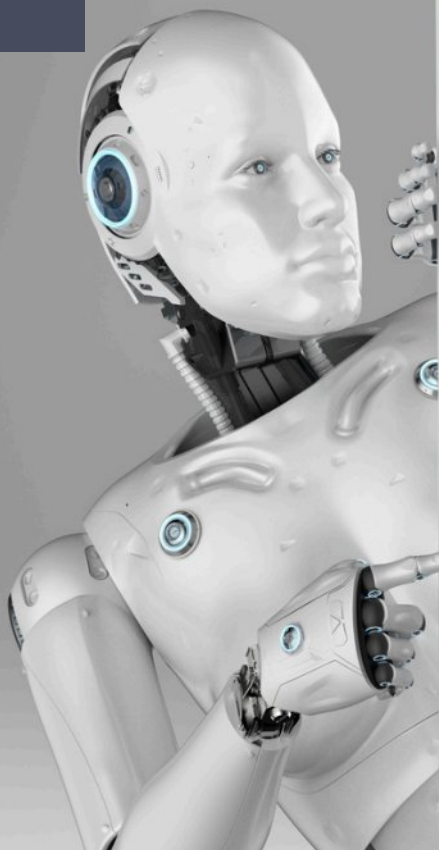
One of the standout contributions of AI in higher education is its ability to provide tailored learning experiences. This personalization enhances student engagement and outcomes, leading to a more effective learning environment. Examples of how AI achieves this include:

- **Adaptive Learning Systems:** These platforms utilize data analytics to assess a student's current knowledge, skills, and learning pace. For instance, platforms like Smart Sparrow and DreamBox Learning adjust the curriculum dynamically, offering customized resources that align with the learner's needs. Studies indicate that personalized instruction can lead to higher retention rates and better academic performance compared to traditional, one-size-fits-all approaches.
- **Predictive Analytics:** AI algorithms can analyze student data to predict learning behaviors and outcomes. By identifying which students may struggle with certain topics, educators can intervene early, providing resources or support tailored to individual challenges. This proactive approach fosters a supportive learning environment and ultimately enhances student success.



AI-Driven Personalization in Education





Increased Efficiency in Administration

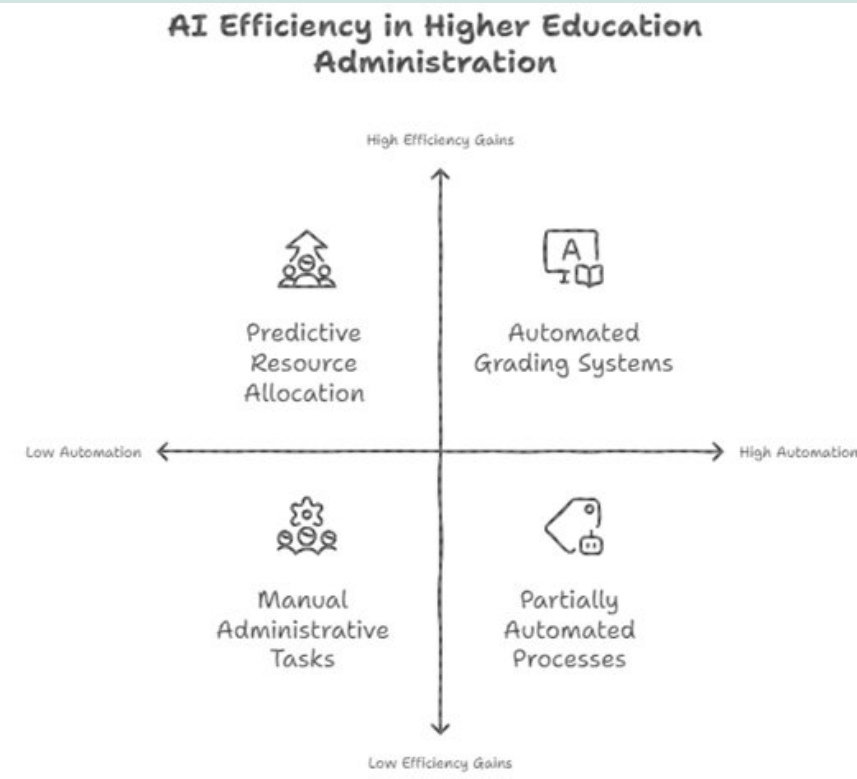
AI technologies streamline administrative tasks, significantly benefiting higher education institutions by reducing workload and increasing efficiency. With the integration of AI, various administrative functions can be executed more swiftly and accurately:

- **Automated Processes:** Tasks such as grading and assessment are notably time-consuming for faculty. Systems such as Gradescope utilize AI to facilitate quicker grading by automatically assessing student submissions and providing feedback. This not only saves time but also ensures consistency in evaluation.
- **Resource Allocation:** AI systems can analyze enrollment data, course demand, and student performance trends to optimize resource distribution. For instance, universities can use predictive modeling to manage faculty assignments and classroom utilization effectively, ultimately leading to cost savings and enhanced academic offerings.

Improved Access to Resources

The benefits of AI extend to accessibility, ensuring that all students can access educational resources and opportunities. Key implementations include:

- **24/7 Access to Learning Materials:** AI enables students to engage with resources anytime, anywhere. Whether it's through online libraries, digital courses, or AI-driven platforms providing academic support, students can take control of their learning journey. For example, platforms like Coursera and edX offer a vast array of courses from accredited institutions that students can access at their convenience.
- **Language Translation Services:** AI-powered translation tools, such as Google Translate or Duolingo, help bridge communication gaps for non-native English speakers. These tools can convert academic materials, lectures, and discussions into multiple languages, promoting an inclusive environment in diverse classrooms.

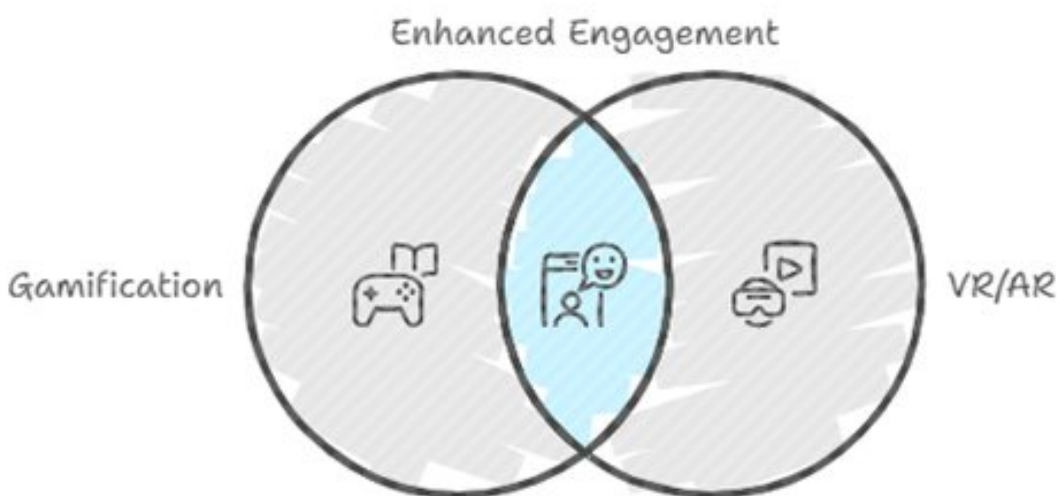


Enhanced Engagement and Interactivity

AI technologies also have the potential to reshape how students connect with their learning materials and each other, leading to improved engagement:

- **Gamification:** AI facilitates the integration of game-based learning elements, making education more interactive and enjoyable. Platforms like Kahoot! and Quizlet leverage AI to create adaptive quizzes that adjust to the learner's skill level, encouraging competition and collaborative learning among classmates. Research shows that gamification in learning can improve motivation and retention, resulting in better academic performance.
- **Virtual and Augmented Reality (VR/AR):** AI plays a pivotal role in immersive learning experiences, providing learners with virtual environments that enhance understanding of complex concepts. For instance, medical students can gain practical experience through VR simulations, allowing them to practice surgeries in a risk-free setting, which has been found to improve skill acquisition and confidence.

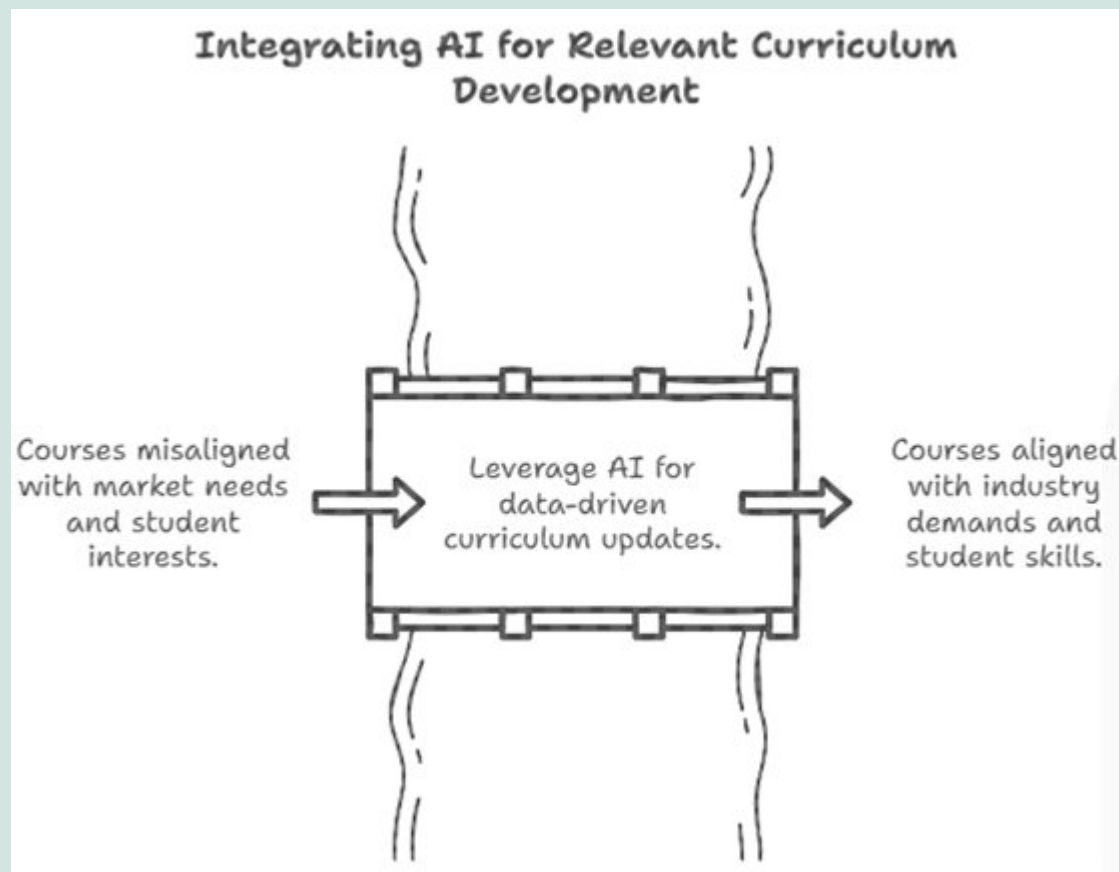
AI-Driven Educational Enhancements



Supporting Diverse Learning Needs

AI is particularly effective in supporting diverse learners within higher education:

- **Assistive Technologies:** Students with disabilities can leverage AI-driven tools designed to accommodate various learning needs. For example, speech recognition software allows students who are visually impaired to navigate courses more easily. Text-to-speech and personalized learning solutions help to ensure that all students, regardless of their challenges, can participate in educational activities.
- **Emotional Support Through AI:** AI chatbots, such as Woebot, provide mental health support to students dealing with stress and anxiety, which is becoming increasingly important in the high-pressure environment of higher education. These conversational agents can offer resources and coping strategies, thus contributing to students' overall well-being.



Integrating AI in Curriculum Development

AI can also aid academic institutions in curriculum development by providing insights derived from big data analysis. Faculty can design courses based on current trends, labor market needs, and student interest, ensuring relevancy and helping students develop skills that are in demand.

By leveraging AI for curriculum development, institutions can continually update their offerings to ensure they align with industry requirements and student expectations. This adaptability is crucial in an ever-evolving job market.

Resources:

Crompton, H., Burke, D. (2023). Artificial intelligence in higher education: the state of the field. *Int J Educ Technol High Educ* 20, 22. <https://doi.org/10.1186/s41239-023-00392-8>

Chen, C. (2023). AI Will Transform Teaching and Learning. Let's Get it Right. <https://hai.stanford.edu/news/ai-will-transform-teaching-and-learning-lets-get-it-right>



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