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EFFECTIVE INTEGRATION OF AI IN BUSINESS EDUCATION FOR IMPROVED LEARNING OUTCOMES

The paper explores the benefits of Artificial Intelligence (AI) integration into business education, including personalized learning and hands-on experience, and how it can improve critical thinking, problem-solving, and decision-making skills. The paper outlines the steps required to effectively integrate AI in business education, including selecting appropriate AI tools, designing course content, and providing training to educators and students. Several examples of AI integration, ChatGPT in the classroom and AI and Business Intelligence, are discussed. Overall, this paper highlights the potential for AI integration to transform the way we teach and learn business education, leading to better-prepared students for the modern business environment.

Keywords: artificial intelligence, business education, ChatGPT, business intelligence

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ЭФФЕКТИВНАЯ ИНТЕГРАЦИЯ ИИ В БИЗНЕС-ОБРАЗОВАНИЕ ДЛЯ УЛУЧШЕНИЯ РЕЗУЛЬТАТОВ ОБУЧЕНИЯ

В статье рассматриваются преимущества интеграции искусственного интеллекта (ИИ) в бизнес-образование, включая персонализированное обучение и практический опыт, а также то, как ИИ может улучшить навыки критического мышления, решения проблем и принятия решений. В статье описываются шаги, необходимые для эффективной интеграции ИИ в бизнес-образование, включая выбор подходящих инструментов ИИ, разработку содержания курса и проведение обучения для преподавателей и студентов. Обсуждаются несколько примеров интеграции ИИ, ChatGPT в классе, ИИ и бизнес-аналитика. В целом, в этом документе подчеркивается потенциал интеграции ИИ для изменения методов преподавания и изучения бизнес-образования, что позволяет студентам лучше подготовиться к современной бизнес-среде.

Ключевые слова: искусственный интеллект, бизнес-образование, ChatGPT, бизнес-аналитика

The integration of Artificial Intelligence (AI) in education has been gaining traction in recent years, and for good reason. AI has the potential to transform the way we teach and learn, providing personalized and adaptive learning experiences that are tailored to the needs and abilities of individual students. In the field of business education, AI integration can play a critical role in preparing students for the modern business environment, providing them with the skills and knowledge they need to succeed in a rapidly changing landscape.

This paper will focus on the effective integration of AI in business education for improved learning outcomes. The paper will explore the benefits of AI integration, including personalized learning and hands-on experience, and how it can improve critical thinking, problem-solving, and decision-making skills. It will also outline the steps required to effectively integrate AI in business education, including selecting appropriate AI tools, designing course content, and providing training to educators and students.

The paper aims to provide insights and guidance to educators who are interested in incorporating AI into their teaching practice. It will provide examples of successful AI integration in business education and offer practical advice on how to implement AI tools effectively. The paper will also highlight the importance of effective integration and the need for continued exploration and development in this field.

Overall, the effective integration of AI in business education has the potential to revolutionize the way we teach and learn. By providing personalized and adaptive learning experiences, AI can help prepare students for the modern business environment and equip them with the skills they need to succeed in their careers.

Benefits of AI Integration in Business Education

The integration of Artificial Intelligence (AI) in business education can offer several benefits to both educators and students:

Personalized Learning. AI integration in business education can help provide personalized learning experiences that cater to the individual needs and abilities of students. AI tools can analyze student performance data and provide personalized recommendations on learning resources, exercises, and activities. Personalized learning can improve student engagement, motivation, and retention of course material, resulting in better learning outcomes.

Hands-on Experience. AI-powered simulations and case studies can provide students with hands-on experience in real-world problem-solving. Such activities can help students apply theoretical concepts to practical situations, improving their critical thinking and decision-making skills. These AI-powered simulations and case studies can be designed to mimic real-world scenarios, allowing students to develop skills that are directly applicable in the modern business environment.

Efficiency and Cost Savings. AI integration in business education can also improve the efficiency and cost-effectiveness of education delivery. AI tools can automate administrative tasks such as grading, feedback, and content delivery, freeing up time for educators to focus on high-value teaching activities. The use of AI-powered tools can also lead to cost savings, reducing the need for manual labor and improving the overall efficiency of education delivery.

By incorporating AI tools into their teaching practice, educators can provide better learning outcomes and equip students with the skills they need to succeed in the modern business environment.

Steps to Effective Integration of AI in Business Education

To effectively integrate AI in business education, educators must follow certain steps that align with their teaching objectives. Let us outline the necessary steps to successfully integrate AI in business education.

Select Appropriate AI Tools. Educators must carefully consider the various AI tools available and select those that best align with their teaching objectives. They should choose AI tools that are user-friendly, efficient, and have a proven track record of success. Some popular AI tools that can be used in business education include machine learning algorithms, natural language processing, and predictive analytics.

Design Course Content and Assessments. Educators must design course content and assessments that align with their teaching objectives and are compatible with the selected AI tools. For example, educators can incorporate AI-powered simulations and case studies into their course content to provide hands-on experience in real-world problem-solving. They can also use AI-powered assessments to provide personalized feedback and recommendations to students based on their performance.

Provide Training. Educators must provide training to themselves and their students on how to use the selected AI tools effectively. They must ensure that their students have the necessary technical skills to use the AI tools and understand how to interpret and apply the insights generated by the tools.

Educators must also receive training on how to design effective course content and assessments that align with their teaching objectives.

Successful AI Integration in Business Education

There are several successful examples of AI integration in business education. AI has been used to automate time-consuming tasks such as grading reports, maintaining reports, and enhancing virtual AI schools and classrooms [1]. Companies are finding innovative ways to help business performance by embracing AI and machine learning [2]. AI is used by businesses more frequently than people realize, from marketing to operations to customer service [2]. AI can support three important business needs: automating business processes, gaining insight through data analysis, and engaging with customers and employees [3]. AI is interdisciplinary, requiring the integration of data management, database systems, data warehousing, natural language processing, network analysis, social computing, and machine learning [4]. Some leading examples of AI in business include voice and face recognition, targeted advertising and remarketing, chatbots, online support, and virtual assistants [5].

ChatGPT in the classroom

ChatGPT is an AI chatbot that utilizes GPT-3, GPT-3.5, GPT-4 technologies, drawing on vast amounts of data and powerful processing capabilities to converse with users on virtually any topic. Whether you need a song, a story, a shopping list, or even a lesson plan, ChatGPT can do it all – it can even complete your students' homework assignments [6–9].

On November 30, 2022, ChatGPT was released as the first notable public AI chatbot, prompting students to wonder if it could write their English essays or math homework, while teachers pondered how to manage a class where students can rely on a chatbot for assistance. Meanwhile, IT staff were considering blocking the platform, though it's doubtful that would deter students from using it.

As educators, we must now consider the broader implications of chatbots and AI in education. How will it impact teaching and learning? Can we use it as a tool for education, or should we try to ban it? Ultimately, we must weigh the benefits and drawbacks of this emerging technology and adapt our teaching strategies accordingly [6]. There are already so many ways a student can use ChatGPT in the classroom [7].

AI and Business Intelligence

Business Intelligence (BI) applications play a crucial role in the information ecosystem of every prosperous organization. They facilitate the processing of vast quantities of unorganized data from both internal and external sources, enabling effective business decisions to be made. Notably, even robust BI tools such as Power BI and Tableau can be effectively utilized for educational purposes [11–13]. AI is increasingly being integrated into the BI processes of organizations to analyze and interpret data for better decision-making. AI algorithms can quickly identify patterns and trends in large data sets that may not be immediately apparent to human analysts. This allows for faster and more accurate analysis, resulting in more informed and effective business decisions. Incorporating AI into BI processes can also lead to improved learning outcomes in business education. Students can be introduced to the technology and trained on its capabilities, preparing them for the demands of the modern business world. This can include hands-on experience with popular BI tools like Power BI and Tableau, which utilize AI to streamline data analysis and visualization. Moreover, AI-powered BI tools can provide real-time insights into business operations and market trends, giving students a more dynamic and engaging learning experience. By working with these tools, students can develop critical thinking skills and gain a deeper understanding of how data can inform business decision-making. The integration of AI into BI processes can lead to improved business outcomes and better learning outcomes in business education. As the use of AI in business continues to grow, it is important for educators to prepare students to effectively utilize these tools in their future careers.

Teachers fear AI

If teachers are not ready to embrace AI, it may be challenging to prevent students from using it to cheat. However, there are some steps teachers can take to minimize the risk of cheating:

1. *Educate students on academic integrity.* Teachers can start by teaching students about the importance of academic integrity and the consequences of cheating. They can also provide guidance on how to use AI tools ethically and responsibly.

2. *Design assignments that cannot be easily cheated.* Teachers can design assignments that require critical thinking, creativity, and collaboration, making it difficult for students to use AI to cheat.

3. *Use plagiarism detection software.* Plagiarism detection software can help teachers identify instances of plagiarism and prevent students from using AI-generated content to cheat.

4. *Monitor student progress and behavior.* Teachers can monitor student progress and behavior closely to identify any suspicious activity or patterns of cheating.

5. *Embrace AI as a tool for teaching and learning.* Rather than trying to ban AI, teachers can embrace it as a tool for teaching and learning. By incorporating AI into their lesson plans, teachers can help students develop the skills they need to succeed in an AI-driven world while also reducing the temptation to use AI to cheat.

In **conclusion**, the integration of AI in business education offers significant benefits to both educators and students. By providing personalized learning experiences and hands-on experience in real-world problem-solving, AI integration can improve critical thinking, problem-solving, and decision-making skills. Additionally, AI integration can lead to cost savings and increased efficiency in education delivery. To effectively integrate AI in business education, educators must select appropriate AI tools, design course content and assessments that align with their teaching objectives, and provide training to themselves and their students on how to use the AI tools effectively. ChatGPT in the classroom and AI and Business Intelligence are examples of how effective integration of AI can improve learning outcomes. As the potential of AI continues to grow, it is important for educators to continue exploring and developing new ways to integrate AI into their teaching practice. By doing so, they can better prepare students for the challenges and opportunities of the modern business environment.

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