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Using Immersive Media 'Metaverse' as a Teaching Tool, Especially in Business Schools in the Accounting and Finance Classes

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Abstract

This paper investigates the potential advantages of incorporating immersive media (IM) technologies such as Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR) artificial intelligence (AI) and machine learning (ML) into accounting and finance education. The market for IM is expected to reach $300 billion by 2024, and organizations are using IM to create new goods, services, and experiences and streamline processes. Despite evidence that IM technologies increase learning outcomes by delivering a more participatory and engaging experience, students from minority-serving institutions frequently have limited access to IM technology and IM-focused education. This might exacerbate the digital gap and disfavor disadvantaged groups even further. The Metaverse, a communal virtual shared place generated by the convergence of digital and physical realities, marks a new stage in the growth of the internet and has the potential to revolutionize commerce. This research paper aims to contribute to the expanding body of knowledge in this area and make suggestions for future practice and study. The problem statement stresses the lack of inclusivity and equal access to IM-focused education for marginalized students, notably in accounting and finance. This study aims to evaluate the potential benefits of utilizing IM as a teaching tool in business schools, particularly accounting and finance departments, and to identify gaps in the existing literature. The study used a qualitative research approach, namely a literature review, to collect and analyze existing data on how business schools use IM as a teaching tool. The research design and techniques explore minority-serving school students' challenges in accessing IM technology and education and how IM can enhance classroom engagement and performance. The study aims to promote diversity and inclusiveness in the business sector and to contribute to existing efforts to prepare college graduates for the evolving corporate world.

Introduction

Immersive Media (IM) technologies, such as Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR), are transforming the business world. These technologies are becoming increasingly popular, with the IM market projected to grow to $300 billion by 2024 (Pachhandara, 2022). Businesses are leveraging the unique advantages of IM technologies to create new products, services, and experiences and to streamline their operations. As a result, incorporating IM into

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academic curricula has become increasingly important to ensure that college graduates are competitive in the ever-evolving business world.

One area of the business world that could greatly benefit from IM is accounting and finance education. IM technology in business schools could provide students with a more immersive learning experience, leading to increased engagement and better academic performance. Research suggests that IM technologies can improve learning outcomes by providing a more interactive and engaging experience, making it easier for students to grasp complex concepts (Haryana et al., 2022). For example, IM technologies could be used in accounting and finance to create immersive simulations and games that allow students to practice real-world scenarios and develop analytical and decision-making skills. Moreover, the business world is rapidly evolving from traditional physical entities into a convergence of physical and virtual entities known as the 'Metaverse.' The Metaverse is a collective virtual shared space created by the intersection of digital and physical realities. It represents a new dimension in the evolution of the internet, where individuals can interact with each other and digital entities in a three-dimensional space.

Therefore, business schools must keep up with these technological advancements and prepare their students to be competitive in the future job market. IM technologies in accounting and finance education can provide students with the necessary skills to adapt to the evolving business landscape. By incorporating IM technologies into business school curricula, universities can ensure their graduates have the knowledge and skills to succeed in the digital economy.

Unfortunately, students from minority-serving institutions, including Black Serving Institutions, often have limited access to IM technology, IM-focused instruction, and academic programs centered on IM entrepreneurial development. This lack of inclusivity could widen the digital divide and further disadvantage underrepresented groups. According to Varty (2022), Black, Hispanic, and Native American students are underrepresented in science, technology, engineering, and mathematics (STEM) fields. Therefore, promoting inclusivity and providing equal access to IM-focused education is essential.

Statement of the Problem

Notwithstanding the potential advantages of immersive media (IM) in business education, minority students who attend schools that serve them still lack access to IM technology, training, and academic programs that focus on IM entrepreneurial growth. Due to this, IM has not been used diversely or inclusively as a teaching tool, which may affect the ability of these students to compete in the rapidly changing corporate environment. Moreover, IM-focused education must be inclusive, particularly in accounting and finance. Although the amount of research on the usage of IM in education has grown recently, there is still a vacuum in the knowledge surrounding how IM affects students from institutions that serve minorities. Teachers and politicians may create successful methods for encouraging diversity and inclusion in the field by thoroughly

understanding the possible advantages of IM and its effects on academic achievement and engagement.

This project investigates the possible effects of using immersive " Metaverse " media as a teaching tool in business schools emphasizing accounting and finance education. The project will determine the difficulties minority-serving school students have in accessing IM technology and instruction and how IM can improve engagement and performance in the classroom. The study intends to identify gaps in the existing body of research and offer suggestions for enhancing IM-focused education in the business field through a complete qualitative literature analysis.

Purpose of the Study

This study investigates the possible advantages of using immersive " Metaverse " media as a teaching tool at business schools, particularly in accounting and finance. The study aims to determine the degree to which the existing literature supports using IM in the academic curriculum and to spot any gaps. The project will also examine how IM can improve students' engagement and academic success in institutions serving minorities. The study seeks to contribute to current efforts to prepare college graduates for the changing business world and promote diversity and inclusivity in the sector by performing a thorough qualitative literature analysis of existing studies on the use of IM in the classroom. The review's main objective was to examine the possible advantages of IM in accounting and finance education, focusing on how it might advance diversity and accessibility in the industry.

Research Design and Methods

The methodology and research design of the study were based on a qualitative research strategy, specifically a literature review. The literature review aims to gather and examine current data on how business schools, particularly those specializing in accounting and finance, use immersive media, sometimes known as the "Metaverse," as a teaching tool. This literature reviews a qualitative method and designs to find the benefits and challenges of using IM to aid teaching. The challenges identified were those encountered by minority students when providing them with access to IM technology and education. This method and design enable the research to assemble valuable resources. These sources include books, online databases, academic journals, conference papers, and conference proceedings where needed. The search terms for finding reliable sources were "immersive media," "Metaverse," "teaching tool," "business education," "accounting," and "finance." The search was comprehensive and well-rounded. It included searches across different fields of study, including psychology, business, and education.

To gain valuable insights about issues like the potential benefits of using immersive media as a teaching tool, the challenges minority students at minority-serving institutions encounter when attempting to access IM technology and instruction, and how IM can improve academic performance and student engagement, data collection and analysis had to be thorough and

methodical. This study analyzed the data gathered primarily using the grounded theory method and theme analysis. In contrast to grounded theory, which generates new hypotheses and concepts, the thematic analysis aims to identify recurring themes and patterns in the data. These techniques made finding and gathering relevant information from the examined literature easier, which was processed and assessed to improve comprehension of the current problems.

The data analysis procedure required coding the data, classifying it into themes and patterns, and then synthesizing the results to get insight into the research topics. Grounded theory and thematic analysis allowed for a thorough and nuanced investigation of the data, revealing significant insights and gaps in the body of literature.

Research Questions

1. What is the potential impact of incorporating immersive media "Metaverse" as a teaching tool in accounting and finance classes in business schools?
2. How does the immersive media "Metaverse" affect students' academic performance and engagement in minority-serving institutions?
3. What are the best practices and strategies for incorporating immersive media "Metaverse" into accounting and finance education, particularly for minority-serving institutions?
4. What are the challenges and limitations of using immersive media "Metaverse" as a teaching tool in business schools, and how can they be addressed?

Population, Sample, and the Results

Population

The population of interest for this study are undergraduate and graduate students enrolled in business schools, focusing on students from minority-serving institutions such as Black Serving Institutions.

Sample

The sample for this study consists of a comprehensive literature review that includes peer-reviewed journal articles, books, reports, and other relevant sources. The sources were obtained through various academic databases such as Google Scholar, JSTOR, and EBSCOhost. The inclusion criteria for sources were that they addressed the use of immersive media "Metaverse" as a teaching tool in accounting and finance classes and its impact on student academic performance and engagement.

Results

The literature review revealed several studies suggesting that incorporating immersive media (IM) into accounting and finance education could positively impact student learning outcomes and engagement. However, the lack of access to IM technology, instruction, and academic programs

centered on IM entrepreneurial development is a significant challenge for students attending minority-serving institutions, including black-serving institutions.

One study by Arity and Vesty (2020) examined the potential impact of incorporating immersive media into accounting education. The study found that immersive media can be a practical teaching tool for accounting concepts and enhance students' understanding and engagement with accounting principles. Another study by Koreňová et al. (2022) found that using a 3D virtual world to teach finance to undergraduate students improved their critical thinking skills, financial decisions, and problem-solving abilities. These findings suggest that incorporating IM technology into accounting and finance education could improve student learning outcomes and engagement.

However, these benefits may not be available to all students, particularly those from minority-serving institutions who may face challenges accessing and utilizing IM technology. Gonzales (2017) observed that when digital access rates peak, technology maintenance suggests that the digital divide will increasingly emerge as an inability to remain connected. Students reacted differently to the inevitability of disconnection; those with fewer resources struggled the most. This suggests that the lack of access to IM technology and resources may further widen the existing digital divide, leaving students from minority-serving institutions disadvantaged.

Therefore, addressing the challenges and barriers students from minority-serving institutions may face in accessing and utilizing IM technology is crucial. This could include initiatives to increase access to technology and resources and provide training and support to help these students feel more comfortable using IM technology. By doing so, all students, regardless of their background, can have equal opportunities to benefit from the potential advantages of IM technology in accounting and finance education.

Applications and Benefits of IM to Stakeholders

The University

The university's budget, infrastructure, and tastes will all play a role in determining the precise technology used to integrate IM into courses and curricula. Immersive media can be presented in various ways, including on interactive whiteboards, interactive glasses, and virtual reality glasses. The university has the option of using several different approaches. The university may, for instance, equip students with VR glasses for a more realistic experience, letting them engage with financial models and data in a three-dimensional setting.

By implementing IM into its classrooms and curricula, the university can improve the learning experience for students and attract new students interested in cutting-edge educational technology. The university's reputation as a pioneer in technological education might also win support and collaboration from businesses.

The Professor

IM can let professors interact with their students in fascinating new ways. Professors may get their students thinking critically and solving problems by giving them interactive, immersive technology to use in the classroom. Professors can use IM to communicate complex financial ideas effectively to their students, leading to greater comprehension.

The Students

Using IM offers many advantages for students. IM can make lessons more exciting and fun, boosting students' interest and involvement. Second, IM's visual and interactive representations of financial models and data might aid students in better grasping those ideas. Lastly, IM can help students acquire skills vital in today's workplace, such as critical thinking, problem-solving, and teamwork when using technology.

Recommendations

Recommendations for Practice

1. Incorporate immersive media into the academic curriculum of business schools, especially in accounting and finance classes, to enhance student engagement and academic performance.
2. Ensure inclusivity in immersive media-focused education by providing equal access to technology, instruction, and academic programs centered on immersive media entrepreneurial development for students attending minority-serving institutions, including black-serving institutions.
3. Encourage collaboration between universities, businesses, and immersive media technology companies to provide students with real-world immersive media experiences.
4. Develop training programs and certifications to increase the pool of qualified immersive media professionals in the business world.

Recommendations for Future Research

1. Conduct further research to investigate the effectiveness of immersive media in improving academic performance and engagement in business schools.
2. Research to explore the impact of immersive media on the retention and graduation rates of students from minority-serving institutions, including black-serving institutions.
3. Explore the potential of immersive media in other fields, such as healthcare, engineering, and the arts.
4. Investigate the potential impact of immersive media on the job market and the future of work.

References

Arity, V., & Vesty, G. (2020). *Designing Authentic Assessments: Engaging Business Students in Flow Experience with Digital Technologies.* Tertiary Education in a Time of Change: Disruptions, Challenges, and Strategies, 21-38. https://link.springer.com/chapter/10.1007/978-981-15-5883-2_3

Gonzales, A. (2017, May). *Technology Maintenance: A New Frame for Studying Poverty and Marginalization.* In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (pp. 289-294). https://sci-hub.hkvisa.net/https://doi.org/10.1145/3025453.3025475

Haryana, M. R. A., Warsono, S., Achjari, D., & Nahartyo, E. (2022). *Virtual Reality Learning Media with Innovative Learning Materials to Enhance Individual Learning Outcomes Based on Cognitive Load Theory*. The International Journal of Management Education, 20(3), 100657. https://www.sciencedirect.com/science/article/abs/pii/S1472811722000593

Koreňová, L., Gurný, P., Hvorecký, J., Lůžek, P., & Rozehnal, P. (2022). *Virtual Reality Retooling Humanities Courses: Finance and Marketing Experience at A Czech University*. Applied Sciences, 12(19), 10170. https://www.mdpi.com/2076-3417/12/19/10170

Pachhandara, N. (2022, April 25). *Looking Forward to The Future Of AR, VR And MR*. Forbes. https://www.forbes.com/sites/forbestechcouncil/2022/04/25/looking-forward-to-the-future-of-ar-vr-and-mr/?sh=3ea3975865ca

Varty, A. K. (2022). *Promoting Achievement for Community College STEM Students Through Equity-Minded Practices.* CBE—Life Sciences Education, 21(2), ar25. https://www.lifescied.org/doi/full/10.1187/cbe.21-09-0237