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Impact of AI TRiSM on Knowledge and Decision Making for Business Executives in the Education Industry

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A B S T R A C T

This research focuses on exposing the impact of AI TRiSM in knowledge and decision making for business executives in the education industry. The objectives are to investigate the impacts of AI TRiSM on business executives in knowledge and decision making in the education industry, and to explore how we can maximize the positive impacts and minimize the negative impacts of AI TRiSM on business executives in knowledge and decision making in the education industry. Secondary and primary data has been gathered to share sufficient insights around the topic. AI is all about humanizing technology. AI TRiSM guarantees the robustness, fairness, reliability, effectiveness, privacy, and data protection of AI models. Many companies have adopted AI such as Google, Netflix, and Tesla. In the education industry, the introduction of AI has several advantages such as personalized learning and automation of tasks. However, it does have its disadvantages such as high cost and privacy concern. Several cases around the globe (UAE, China, and USA) have been reflected as well to highlight how AI has been applied in education. Through primary data gathering, 2 interviews have been conducted. 1 from the student perspective, and the other from the educator perspective, and both were asked 6 questions during the interview. From those responses, data was analyzed. Limitations of conducting this research paper has been addressed, followed by recommendations of adopting AI technologies, and finally a conclusion that summarizes the whole research paper and reflects on the accuracy of both hypotheses stated.

1. INTRODUCTION

It is highly important to stay updated with the new technologies introduced that will ultimately affect our daily lives and businesses operations. Artificial Intelligence, also referred to as AI, is one of the newly introduced technologies, and is being more commonly used in our day-to-day activities (Loebbecke, 2019). Many organizations use AI as a foundation to automate repetitive processes and to gather valuable data to make sense of information that will be useful for the decision-making process throughout all project phases. This makes an organization's operations run efficiently and allows business executives to make effective decisions (Palade & Deo, 2022). However, the main questions to be asked is, what do all business executives need to know about AI in order to build or grow an organization that is reliant on AI, and how much should they know about the advantages

and constraints of AI in order to make use of it at its full capacity (Habbal et al., 2024). This research paper will focus on highlighting the impact of AI TRiSM in knowledge and decision making for business executives in the education industry.

1.1. Research Objectives

The objectives of this research paper are as follows:

- To investigate the impacts of AI TRiSM on business executives in knowledge and decision making in the education industry.
- To explore how we can maximize the positive impacts and minimize the negative impacts of AI TRiSM on business executives in knowledge and decision making in the education industry.

1.2. Problem Statement

AI makes activities operate more efficiently, consequently leading to an increase in productivity, while offering opportunities for expansion and improving monitoring and control. AI is a widely common phenomena that can be used in education. AI tools have the capability to transform education by delivering personalized learning experiences which will enhance learner engagement and improve learning outcomes. As AI adoption in the education industry is increasing and has the possibility to revolutionize education, it also poses some challenges such as compatibility of AI infrastructure, time required for knowledge and training, and data security. A clear understanding of AI capabilities in e-education is required for applicable decision making and investment in the education industry. However, not all business executives understand the knowledge behind the utilization of AI, and how it can be beneficial for strategic decision making. Although AI tools are available, it is not enough to only implement them, as we have to fully comprehend their capabilities for knowledge and decision making.

1.3. Hypotheses

The following hypotheses will be investigated to understand how AI TRiSM impacts knowledge and decision making for business executives in the education industry:

- ***H1:*** E-education tools will improve student engagement and enhance learning outcomes compared to the traditional method of learning.
- ***H2:*** Business executives and educators' workload will be reduced as a result of AI introduction to the education industry.

1.4. Research Questions

The following research questions will be answered in this research paper:

- How does AI enhance e-education compared to the traditional method of learning?
- What ethical concerns need to be taken into consideration when implementing AI in e-education?
- What are the advantages of AI-empowered education, and how do we maximize them?
- What are the disadvantages of AI-empowered education, and how do we minimize them?

2. LITERATURE REVIEW

Artificial Intelligence, also referred to as AI, is the capability of a system to mimic or simulate human intelligence (Bawaneh et al., 2023; M. El Khatib, Ibrahim, et al., 2023). AI TRiSM refers to AI Trust, Risk, and Security Management. A number of elements must be in place in order to guarantee the safe and reliable deployment of AI by understanding AI-powered systems, adequate assurance, and AI laws and requirements (How to Trust Systems With AI Inside, 2023) (Al-Kassem et al., 2012; Aziz et al., 2023). The primary purpose of the AI Act is to expedite the development and adoption of AI, and to ensure that its usage is consistent with global principles and standards (How to Trust Systems with AI Inside, 2023) (A. Aljumah et al., 2023; Gaytan et al., 2023; E. Khatib et al., 2021).Companies that do not handle AI risk are more likely to suffer negative AI affects and failure (M. T. Alshurideh, Obeidat, Victoria, Alzoubi, et al., 2022; M. El Khatib, Al Qurashi, et al., 2021). Examples of those negative affects is that models will not run their algorithms as planned, security and privacy breaches will appear, loss of resources and reputation will emerge, and harm to individuals could be a possibility (Al-Dmour et al., 2023; Mat Som & Kassem, 2013). Incorrect AI implementation might also result in poor decision making (A. I. Aljumah, Nuseir, et al., 2022c; Khan et al., 2022).

AI TRiSM is a practice that supports AI models. AI

TRiSM is a framework that assures the robustness, fairness, reliability, effectiveness, privacy and data protection of AI models (M. T. Alshurideh et al., 2023). According to a study, AI TRiSM will become a popular technology in the next few years (AlDhaheri et al., 2023; M. El Khatib, Alzoubi, et al., 2023; Ghazal, Hasan, Ahmad, et al., 2023). By 2026, an organization's AI model will be 50% more effective in terms of adoption by enhancing business goals and user acceptance if it includes AI transparency, trust and security (H. M. Alzoubi, Sahawneh, Alhamad, et al., 2022; M. El Khatib et al., 2020; Gulseven & Ahmed, 2022; M. T. Nuseir, 2020). AI is imposed onto a number of technologies to give robots and systems human-like intelligence in the sense of perception, understanding, planning, acting and learning ("AI TRiSM Is Improving Artificial Intelligence Technology", 2023). AI TRiSM systems observe environments, identification, participate in decision making, resolve difficult issues, recall prior experiences, and copy patterns (M. T. Alshurideh, Alquqa, Alzoubi, Al Kurdi, & Alhamad, 2023). According to Javatpoint, AI is viewed as a tool for making the world a better place and much easier to maneuver in (Abudaqa et al., 2022; A. I. Aljumah, Shahroor, et al., 2022; Lee, Wong, et al., 2023). These technologies are designed to minimize human labor as much as possible and are a great asset to humanity (A. Al-Kassem et al., 2013). Tasks and processes will be done faster and more accurately with these machines ("AI TRiSM Is Improving Artificial Intelligence Technology", 2023) (H. M. Alzoubi, In'airat, et al., 2022; M. El Khatib et al., 2021). Aside from making the world a more error-free place with the simple techniques it offers, these AI technologies and applications have an affect and significance towards many areas in our organizational plans, as well as our daily lives (I. Akour et al., 2022; M. El Khatib, Yaish, et al., 2021; M. T. Nuseir, Aljumah, & El-Refae, 2022).

AI TRiSM is becoming more vital for organizations looking to utilize it to fulfill their business goals. However, to truly harness the potential of AI, businesses must have the necessary expertise in place to create and execute the appropriate AI solutions (A. H. Al-Kassem, 2017; M. M. El Khatib et al., 2023; Louzi, Alzoubi, Alshurideh, et al., 2022). There are various reasons why AI TRiSM is important, such as:

- Firms can effortlessly manage complicated and time-consuming employment processes, as it expedites and simplifies operations.
- Assists firms in identifying the optimal combination of people and skills, fostering a healthy work environment, and providing continuous training and development opportunities.
- Contributes to improving productivity, lowering costs, and making better informed decisions.

In AI, a knowledge base is a structured collection of data and information that AI systems may utilize to execute tasks, make choices and produce insights (Alshawabkeh et al., 2021; Amiri et al., 2020; M. El Khatib et al., 2023). In the context of big data, an AI knowledge base may assist businesses in making sense of vast and complicated datasets, identifying patterns and trends and generating insights for decision making (Aityassine et al., 2022; H. Al-Kassem, 2014; Almasaeid et al., 2022). If an AI system is provided with faulty or inadequate data, the outcomes will be inaccurate and unreliable (Elkhatib, M., Al Hosani, A., Al Hosani, I., & Albuflasa, 2022). Business executives must be able to evaluate the findings provided by AI systems and utilize this knowledge to make educated choices in order to make sense of the information acquired through AI (H. M. Alzoubi et al., 2020; Blooshi et al., 2023; M. Nuseir & Elrefae, 2022). This requires a thorough grasp of the underlying data and statistical methodologies used by AI systems, as well as the awareness of the business environment in which the findings are created (M. T. Alshurideh, Alquqa, Alzoubi, Al Kurdi, & Hamadneh, 2023; H. M. Alzoubi, Kurdi, Akour, et al., 2022; M. El Khatib, Beshwari, et al., 2023). AI is being employed by a diverse spectrum of businesses in a variety of sectors. These are some examples of businesses that are using AI technology:

- Google is one of the world's major AI users, using it in a variety of applications such as search ranking, voice recognition and picture identification.
- Netflix is able to personalize suggestions such as movie recommendations for its subscribers based on their watching history and activity.
- Tesla's self-driving vehicle system detects and responds to changing road conditions using AI and machine learning algorithms.

AI is a key driver of innovation in every industry in the world, including education (A. I. Aljumah, Nuseir, et al., 2022b; H. Alzoubi & Ahmed, 2019). Nowadays, educational institutions use a wide variety of learning management systems. The adoption of AI-driven learning solutions in our educational system is quite slow (Al-Awamleh et al., 2022; Arshad et al., 2023; M. El Khatib, Zitar, et al., 2023). The pandemic, however, forced management to rely on technology for virtual learning, which changed the way things were done if compared to the past (M. T. Alshurideh et al., 2023; M. T. Nuseir et al., 2020). Most educators today agree that technology has to be a big part of education. The 'UAE Strategy for Artificial Intelligence' was announced by the United Arab Emirates (UAE) in 2017 (H. Alzoubi et al., 2020; M. El Khatib, Ahmed, et al., 2023; Hani Al-Kassem, 2021; Sakkthivel et al., 2022). This strategy addresses the creation and use of AI across nine key industries, including education. It highlights how AI has the ability to save expenses and improve learning (Amiri et al., 2020; M. T. Nuseir, 2021; Varma et al., 2023). Moreover, In 2016, the US launched the 'National Artificial Intelligence Research and Development Strategy Plan' which expresses the same concept. AI in education focuses on enhancing education and quality of life (H. M. Alzoubi, Kurdi, Alshurideh, et al., 2022; M. El Khatib, Alnaqbi, et al., 2023). The graph below shows the growth of AI in education by region from 2016 to 2027. This shows how quickly the concept of AI is spreading across all regions.

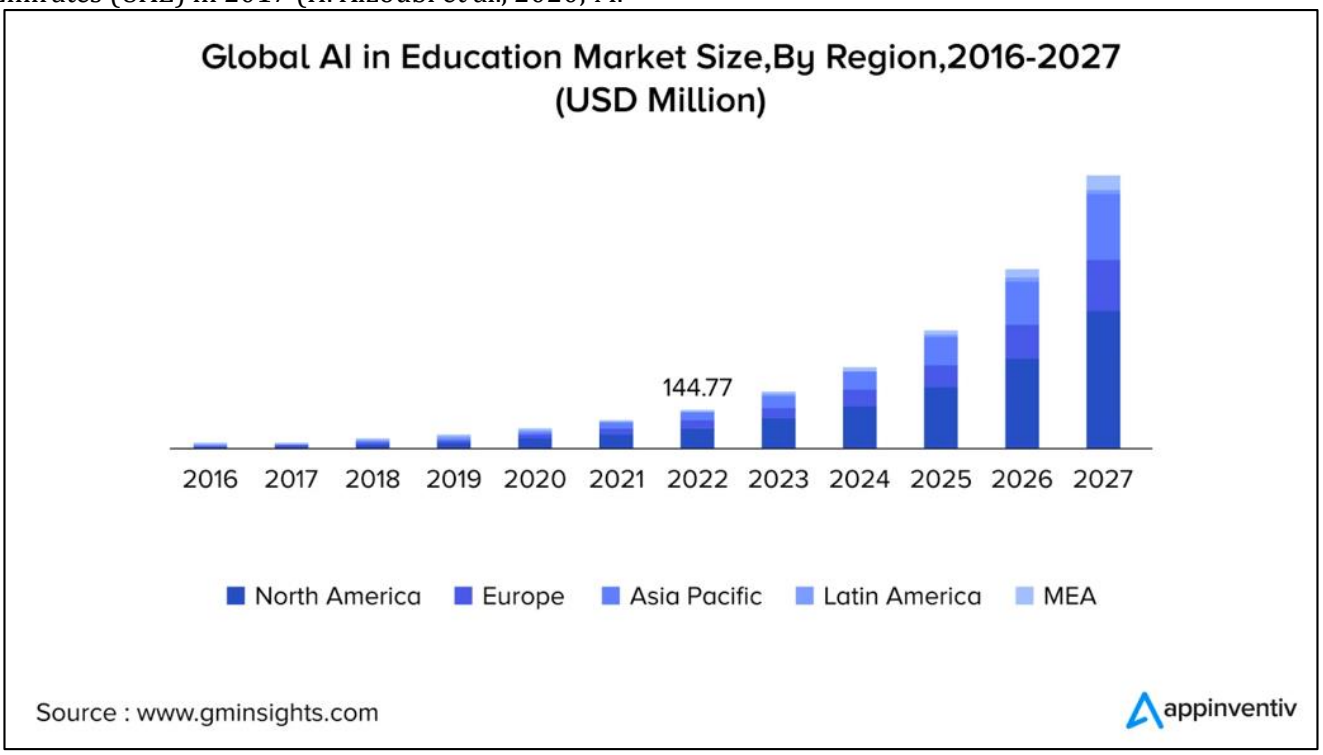

Figure 1

The application of AI in education offers several advantages that include:

- **Personalized learning:** In education, AI guarantees that educational software is personalized for each student (H. M. Alzoubi, Ghazal, El khatib, et al., 2022; M. T. Nuseir & Aljumah, 2022). Additionally, by using technologies like machine learning to help with education, the system adapts to how the learner understands different lessons and makes the material easier to comprehend based on their level of understanding (Ahmed et al., 2022; R. S. Al-Maroof, Alnazzawi, et al., 2022). This combination of AI and education caters to the needs of each individual through features such as AI-enhanced games, individualized programs and more (M. El

Khatib, Khayat, et al., 2023; M. T. Nuseir & Aljumah, 2020).

- **Automation of tasks:** One of the primary aims of AI is to automate jobs that formerly needed human intelligence. Reducing the amount of work needed to finish a project or the amount of time a person has to spend on everyday tasks is a huge step forward towards productivity (M. Alshurideh, Alzoubi, Alshurideh, Kurdi, et al., 2022). For example, chatbots can answer questions from users and help them figure out the answers needed (H. M. Alzoubi et al., 2019; Nuseira & Aljumahb, 2020).
- **AI support exams:** Actively using AI software systems in tests and interviews can help find suspicious behavior and let the supervisor aware of it. The AI algorithms monitor each individual using web cameras, microphones, and web browsers and conduct a keystroke analysis in which any movement triggers an alarm (M. El Khatib et al., 2022; Lee, Nawanir, et al., 2023). This use of AI technology in education has turned out to be one of the best ways to test students online (R. S. Al-Maroof, Alahbabi, et al., 2022).
- **Unbiased decisions:** Emotions control us as humans. AI, on the other hand, is emotionless and takes a very practical and logical approach towards addressing problems (Abudaqa et al., 2021; El khatib, Mahmood, et al., 2023). AI is better at making decisions because it does not have any preconceived ideas.

Despite of having several advantages of applying AI in the education industry, there are also adverse effects of AI in education industry:

- **Lack of job opportunities:** Teachers may perceive AI as a threat to their employment, believing that technology will automate their duties and render them obsolete.
- **High cost:** The expense of developing and implementing educational technologies that are powered by AI is quite high. This might be a massive obstacle for academic institutions and teachers that require additional resources to invest in AI technologies (M. Alshurideh et al., 2023).
- **Lake of emotional and human interaction:** AI can give tailored learning and immediate feedback. However, it cannot replace the human and emotional support that students need to succeed. Overreliance on AI-powered educational technologies may negatively affect students (A. Aljumah et al., 2020; M. El Khatib et al., 2022).
- **Privacy concern:** Privacy concerns are another restriction of AI in the classroom. Educational technologies driven by AI may acquire and keep sensitive and personal data, raising privacy and security concerns (I. A. Akour et al., 2022; A. H. Al-Kassem et al., 2022).

Emerging technologies are becoming a focus of higher education due to the rising discussion about AI's effects on future workforces. After all, education and training will influence our performance with AI in the future. Hence, it should not come as a surprise that populations and global governments are placing an increasing emphasis on education. As a result, the education industry will have some of the fastest worldwide job growth (M. T. Alshurideh, Alzoubi, Ghazal, et al., 2022; Ghazal, Hasan, Alzoubi, et al., 2023; Yasir et al., 2022). New technologies also give students more chances to keep learning, even as they move into new jobs and business settings. As the need for new skills grows, educators will turn to digital platforms that support learning in the long run (Nadzri et al., 2023). Higher education teachers will be able to manage and use these new learning environments if they have the right help. According to AACSB's Collective Vision report, this is an opportunity for business schools to become hubs of lifelong learning (Ahmed & Nabeel Al Amiri, 2022; R. S. Al-Maroof, Alnazzawi, et al., 2021; M. T. Alshurideh, Alzoubi, El khatib, et al., 2022; H. M. Alzoubi, Alshurideh, Al Kurdi, et al., 2022; M. M. El Khatib & Ahmed, 2018). They can connect people to business school expertise and experiences to create opportunities across career life cycles. With an increasing focus on higher education quality, more than 50% of schools and colleges use AI for administrative support.

E-learning can overcome one of the most significant shortcomings of traditional learning methods which is scalability (M. T. Alshurideh, Alzoubi, Ghazal, et al., 2022). Most firms must engage their employees in continuous learning to enhance their abilities and knowledge in response

to changing job requirements (H. M. Alzoubi, Ahmed, et al., 2022; M. El Khatib, Khadim, et al., 2023; M. T. Nuseir, Aljumah, & El Refae, 2022b). Therefore, the ability to modify and adjust your e-learning course to meet the training demands of your staff is a significant asset (Kassem & Martinez, 2022). Apple takes advantage of this e-learning feature by annually teaching its staff both existing and revised business conduct regulations and compliance guidelines via individual online courses (A. Al-Maroof et al., 2021; A. I. Aljumah, Nuseir, et al., 2022a; Ghazal, Hasan, Abdullah, et al., 2023). This training assists Apple's leaders in maintaining their team's commitment to high ethical standards, and 98% of employees completed the courses successfully. In contrast to traditional courses, e-learning resources are suited to specific organizational settings. The objective is to equip students with specialized knowledge instead of generic information (El khatib, Beshwari, et al., 2023; Louzi, Alzoubi, El Khatib, et al., 2022).

AI is a component of the automation of cognitive and physical tasks. It aids decision making and enables individuals to complete activities more quickly and effectively (I. Akour et al., 2023; M. M. El Khatib et al., 2019). Without human involvement, it allows for automated decision making. Automation can be improved by AI, which will cut down on arduous work and intensive human labor. Due to its learning potential, AI is the best for business, as data-driven decisions lead to better learning. AI can learn to model datasets, and those models can correctly categorize data and make real-time forecasts and suggestions. In the education industry, AI research has transformed learning with digital textbooks and lectures. Teachers aid early-stage virtual tutors (Alhamad et al., 2021; Farrukh et al., 2023). Moreover, face analysis can assess the emotions of students which will allow us to determine and customize learning experiences to meet the needs of students (M. Alshurideh, Almasaeid, El Khatib, Alzoubi, et al., 2022; M. M. El Khatib & Ahmed, 2020). Although AI technology can be a very beneficial tool in online education, administrators should examine how to balance deploying intelligent software and human-based approaches to ensure that students are engaged at a holistic level (A. I. Aljumah et al., 2021b; Ghazal, Al-Dmour, et al., 2023).

Below are three cases of AI adoption in e-education around the world:

- **United Arab Emirates:** UAE's E-Safe School is an excellent government-led project that encourages, supports, and gives schools credit for reviewing their online safety plans and developing an action plan to keep students safe online. All schools have a responsibility to keep students safe and help them do well. So much of what students do and see today is shaped by online media (A. I. Aljumah et al., 2021a). Access to the internet has become the new currency of learning. Therefore, a school's duty of care is becoming increasingly important online (R. S. Al-Maroof, Alhumaid, et al., 2021). The program will change how online safety is taught in all schools to protect and help children online across the country ("International Telecommunication Union," 2017). The UAE has launched an initiative to build an intelligent security structure in schools, making it the first country in the world to realize the concept of an 'e-safe school' following the EU Standards for safe Internet across public and private schools (M. Alzoubi et al., 2021; Mubeen et al., 2022). As part of the Khalifa Empowerment Program's initiative to promote online safety and e-awareness, the Deputy Prime Minister and Minister of the Interior, His Highness Sheikh Saif Bin Zayed, has taken the initiative to implement this forward-thinking strategy (I. Akour et al., 2021; M. T. Nuseir et al., 2021). The strategy embraces the following beliefs:
    - Information that can help make or change online safety policies and develop best practices.
    - A way to figure out what you do well and where you could improve.
    - There are chances for the whole school to commit and get involved.
    - A scale that schools can use to talk about how they can move from a basic lev el of online safety to a more ambitious and innovative level.

The initiative is based on the concept that the school will evaluate itself in online safety using the

21 aspects evaluation system. Following this, the assessment team from the Khalifa Empowerment Program will be able to visit the school, discuss its evaluation, approve provided evidence and prepare the final report of the school illustrating the strength aspects of the school, improvement plans and the appropriate procedures for its sustainability (H. Alzoubi et al., 2022; M. T. Nuseir, Aljumah, & El Refae, 2022a). According to the WSIS Award winner E-Safe School engages the school community, helps schools progress, is easy to use and was designed with users in mind. Additionally, it offers time-saving tips.

- **China:** Squirrel AI is an example of AI education in China, established in 2014. The first K12 EdTech business in China that focuses on intelligent adaptive education and dominates the industry is Squirrel AI Learning by Yixue Group. The first adaptive learning engine in the country. It was created by YiXue Education using a sophisticated algorithm and is entirely its own independent intellectual property. Squirrel AI uses an algorithm so that 70% of students' teaching suggestions come from AI, and 30% come from real teachers. This lets each student get an education that fits their needs while still letting people manage the machine learning process (Tariq, Alshurideh, Akour, Al-Hawary, et al., 2022). Due to its high level of AI development, China has a lot of potential to implement these types of plans. In 1997, only 4.2% of research papers from China were about developing AI. In 2017, that number had risen to 27.7%. China is now the most significant publisher. China has the most patent applications for AI. The Squirrel AI Learning Intelligent Adaptive Learning System (IALS) delivers intelligent and individualized education based on the learner. It integrates AI technology into teaching, learning, evaluating, testing, and training. Using the AI and the human teacher paradigm, IALS successfully addresses the high expense of traditional education, the shortage of resources for instructors, and the inefficiency of learning.
- **United States of America:** Stride K12 has been a leader in K-12 online education since 2000, delivering high quality hands-on and online curriculum directly to the homes of the students. Through a range of educational experiences, Stride K12-powered learning provides students a customised approach (Tariq, Alshurideh, Akour, & Al-Hawary, 2022). Every family is distinct and has varied expectations for their child's educational environment. Online public schools are becoming more and more popular among American families as an alternative to conventional brick-and-mortar choices. There are several advantages that Stride K12-powered virtual public schools provide, including access to a quality education, an interesting curriculum, lots of social contact, and a far more flexible timetable for students of all ages. Similar to traditional schools, Stride K12 serves students in grades K-12 by conducting lessons taught by state-licensed instructors, offer instructional resources (textbooks, workbooks, and other interactive items), observe a conventional school year timetable, conform to state curriculum and assessment criteria, and present graduates with a high school diploma (H. M. Alzoubi, Alshurideh, Kurdi, et al., 2022). Despite the fact that online public schools are comparable to traditional brick-and-mortar schools in many respects, they also provide a number of distinct benefits. Moreover, students attending online public schools through Stride K12 may create a more flexible schedule, finishing their studies at their own speed and in an atmosphere that suits them ("Tuition-Free Accredited Online Public Schools-K12", n.d.). There are several types of tuition-free public schools available online to fulfill the requirements and interests of families. Stride K12 assists public schools educating students in all grade levels in all 50 states ("Tuition-Free Accredited Online Public Schools – K12", n.d.).

Table 1: Case Demonstration

Case	Demonstration	Motivation
Case A (UAE): Khalifa Empowerment Program-Aqdar's E-Safe School	Designed to help schools build their online safety policy, leadership, infrastructure, and education, as well as evaluate how well their plan works.	• Create a system to recognize and certify the finest elements of school online safety policy and practice in UAE schools. • Clearly identify areas for improvement. • Give schools access to information and resources to assist that change.
Case B (China): Squirrel AI	A type of educational technology that may instantly offer a learner individualized help in response to their interactions.	• Delivering individualized and excellent K-12 after-school tutoring. • Taking on the following pressing issues in education today such as lack of individualized attention in traditional classrooms, and unequal Educational Opportunity Distribution.
Case C (USA): Stride K12	Tuition Free-online public school. It provides students different educational experiences, allowing for a tailored learning experience.	• Students who enroll in online public schools offered by Stride K12 can construct more adaptable timetables, allowing them to complete their coursework at their speed and in an atmosphere that best suits their needs.

3. METHODOLOGY

Secondary data gathered and explored as the topic of AI TRiSM is quite novel. The most recent findings about the topic were gathered from the Journal publications, websites, books and internet sources, which is foreground of this research paper, with the goal to inform the reader about the importance of AI TRiSM in today's fast-moving world, mainly highlighting how it affects business executives in knowledge and decision making in the education industry. Secondary data that has been gathered and emphasized in the *Literature Review* for comparative reasons, in order to gain an in-depth understanding around the topic. Although the main source of information was secondary data, interviews were conducted for primary data collection to further understand the impact of AI adoption in the education industry from the student and educator perspective.

3.1. Data Gathering

Two interviews have been conducted as primary data to investigate the impact of AI in e-education. The interviewees were Mr. Abdulrahman, who is a student from Mohammed Bin Zayed University of Artificial Intelligence, and Ms. Amna Al Nuaimi, Lead of Education and Outreach at the Mohammed Bin Rashid Space Centre. The questions listed below were asked during the interview, and each interviewee's response has been recorded for further data analysis, and the full interview answers can be found in the *Appendices* section on page 25.

1. Why do you think AI is important in today's world?
2. Do you think AI is important in education? If yes/no, please state your reason(s).
3. Do you think e-education impacts students and educators negatively? How?
4. Why do you think that some individuals

may be resistant to e-education/e-learning platforms?
5. How has e-education re-shaped the mindset of students and educators?
6. How do you measure the effectiveness of e-education/e-learning platforms?

4. DISCUSSIONS AND ANALYSIS

The information gathered in both interviews have highlighted the following details:

- AI proposes a new method of learning, and information can be taught in a more personalized way for students to grasp information better. There is no such thing as one method of teaching as many learners prefer different methods of learning, such as audio, visuals, or both. Organizations can also make use of it.
- AI enhances learning experience. For students, it provides a more personalized way of learning, and some opt to stop relying on the traditional method of teaching and incorporate a mix of both traditional and adopt AI methods of teaching.
- There could be some concerns with AI such as security concerns, mainly regarding how much information AI systems can have about a person, which could make people seem skeptical to start using it. However, just like any other system, several plans need to be put in place to mitigate any negative factors that stem out of it.
- More opportunities are brought to life with various sources of AI to experiment with, to be able to better deliver information to learners.
- Not all people are happy with change, as various learners prefer someone to stand in front of them and educate them, which is not wrong, especially if they are used to it.
- We can measure the effectiveness of AI-empowered e-education tools by student engagement and satisfaction meters, which can give us an indication on the student's acceptance of AI systems for e-education.

4.1. Limitations

Based on the research conducted on AI TRiSM in knowledge and decision making for business executives in the education industry, the following are some of the research's limitations:

- This research paper heavily relies on secondary data, highlighting AI TRiSM in the education sector only. With the lack of maturity of AI at the moment, there is a lack of holistic understanding of how AI could benefit all sectors in knowledge and decision making.
- Primary data was quite difficult to gather, as most people still rely on traditional methods of education or did not fully implement AI technologies.
- Considering the maturity level of AI and its cautious implementation across various organizations, it is difficult to gather personal insights on how AI allows them to make the right decisions to optimize their performance, manage costs and meet market demands. Therefore, mainly advantages, disadvantages and the impact of AI were considered, specifically for the education industry.

4.2. Recommendations

Based on the research conducted on AI TRiSM in knowledge and decision making for business executives in the education industry, the following are some recommendations to further enhance AI-embedded education tools:

- Improve educator's skillset by enhancing their AI literacy and ensure that users understand the full capabilities of an AI system.
- As AI deals with various information that is explicitly valuable, users must understand that there is a risk of information breaches. Thus, risk mitigation plans must be taken into considerations to eliminate any negative outcomes.
- Enhance algorithms and models to improve training data of AI systems in order for the system to be able to generate the right outcomes to be utilized by business executives for decision making. With training data, several test runs can be done by the system to ensure all possible outcomes are anticipated, and only the

appropriate and correct ones are exposed. On the other hand, the more computational capacity the system has, more data can be generated.

- Human input and feedback can help to improve the accuracy and effectiveness of AI models. By incorporating feedback from human experts, AI can learn and improve over time. AI is programmed what to do, however, it is still at its infancy to actually think like a human.

5. CONCLUSION

In conclusion, AI has the potential to revolutionize the way we work and live, but it also poses some challenges and concerns. While AI can improve efficiency, productivity, and decision making in the education industry, it also has the potential to displace human workers and raise ethical concerns related to privacy, bias and transparency. However, with thoughtful planning, education, and collaboration, AI can be integrated in an effective way, creating new opportunities and improving the quality of education and life for everyone involved in this digitally transforming phenomena. Ultimately, the future of AI will depend on how we choose to develop and utilize this powerful technology.

This confirms the first hypothesis, that e-education tools will improve student engagement and enhance learning outcomes compared to the traditional method of learning. However, the second hypothesis appears to be false, as business executives and educators' workload will not be reduced because of the introduction of AI in the education industry, as they will need to develop a new set of skills to be able to adapt to new modes of education.

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