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RISE

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ARTIFICIAL INTELLIGENCE (AI): Embracing the Future

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ABOUT THE MAGAZINE

RISE Magazine is published by Office of the Deputy Vice-Chancellor (Research and Innovation) with aims to highlight a research and innovation on multidisciplinary expert of fields in UiTM. It serves as a platform for researcher to showcase their high quality and impactful findings, activities and innovative solution through publication. Contribution of these ideas come from academicians, researchers, graduates and universities professionals who will enhance the visibility of research and stride to elevate Universiti Teknologi MARA to global standards. This is an effort to promote research as a culture that is accepted by all expertise.

ABOUT UiTM

Universiti Teknologi MARA (UiTM) is a public university based primarily in Shah Alam, Malaysia. It has grown into the largest institution of higher education in Malaysia as measured by physical infrastructure, faculty and staff, and student enrollment. UiTM is the largest public university in Malaysia with numerous campuses throughout all 13 states in Malaysia. There is a mixture of research, coursework and programmes offered to the students. The Office of the Deputy Vice-Chancellor (Research and Innovation) also known as PTNCPI *(Pejabat Timbalan Naib Canselor (Penyelidikan dan Inovasi))* serves as a *Pusat Tanggungjawab* (PTJ) for navigating the research and innovation agenda of the university to achieve UiTM's goals.The PTNCPI office strives to mobilize faculty and campuses, fostering collaboration among researchers, with the aim of transforming the University into a Globally Renowned University by 2025

synthesia

Exploring The Unseen: Unleashing the Potential of ***Synthesia AI*** in Pedagogical Approaches

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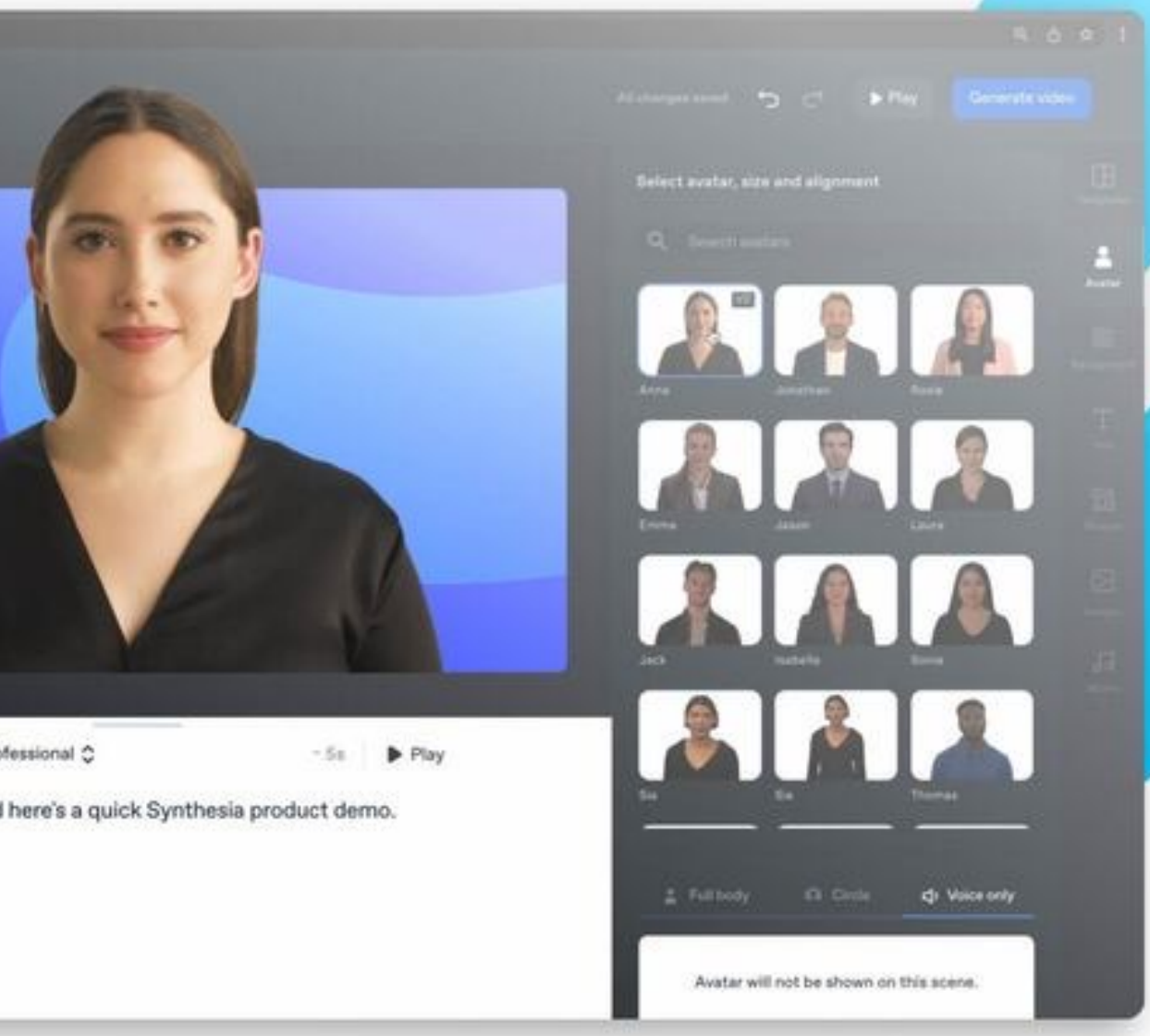
The rapid development of AI, or artificial intelligence, in recent years is reshaping the way people interact with machines. Synthesis AI is an advanced innovation that utilizes AI and deep learning algorithms to create educational videos with a humanlike voice actor. This technology offers educators, trainers, and corporations the opportunity to deliver highly tailored and engaging learning experiences remotely. Synthesia AI accomplishes its tasks by analyzing data from text, audio, and video using sophisticated natural language techniques. Incorporating demographic information of the learners into the creation of a video's simulated human speaker's appearance, voice, and vocabulary can enhance accessibility and interest in the content. Subsequently, a script for the digital speaker is generated based on the analysis of user-entered instructional text. Utilizing facial recognition technology, the AI produces a video that seamlessly matches the script. One of Synthesia AI's key selling points is its ability to generate unique and captivating lesson plans.



Another advantage of Synthesia AI is its capability to deliver educational content remotely. This function's significance has amplified due to the prolonged pandemic and the growing popularity of online learning and remote work. Thanks to technological advancements, compelling and dynamic educational materials are now accessible to anyone, anywhere. Businesses, organizations, and educational institutions, particularly schools, can reap the benefits when reaching out to students who cannot attend in-person classes.

Ts. Jacqueline Joseph, a lecturer in the Faculty of Plantation and Agrotechnology at UiTM Sabah's Kota Kinabalu Campus and winner of the Gold Medal in the 2022 International e-Content Development Competition (eCONDEV), has embraced this approach in developing course content for AGR022 (Basic Plant Science) for Massive Online Open Courses (MOOC) delivery (Figure 1). Synthesia AI has demonstrated its ability to invigorate the classroom environment by providing educators with novel ways to present material and sustain student engagement.

This technology enables the creation of new educational content formats such as simulated environments, interactive quizzes, and digital field trips. Ts. Jacqueline also experimented with applying Synthesia AI in the lab by developing laboratory-based instructional content for a Cytology lab course designed for Pre-Diploma Agrotechnology students (Figure 2 (a) and (b).

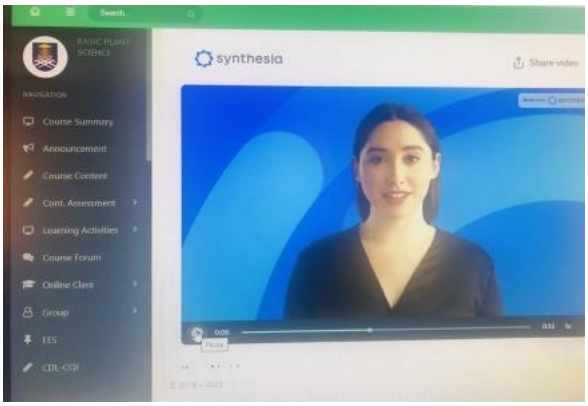


Figure 1: Synthesia AI in one of the MOOC course developments

Synthesia AI is an innovative technology with the potential to revolutionize education by producing realistic and captivating video content. This potential arises from its utilization of artificial intelligence. Various educational strategies can incorporate Synthesia AI to enhance student outcomes and overall educational quality. Some potential applications of Synthesia AI in educational settings include:

- Flipped Learning: Synthesia AI can create pre-recorded video lectures for students to watch before class. This approach facilitates self-paced learning and allocates class time for discussions and activities that promote deeper understanding.
- Personalized Learning: Synthesia AI generates video content tailored to each student's learning style, interests, and pace. This approach ensures personalized instruction optimized for individual needs.
- Project-Based Learning: Synthesia AI produces videos offering step-by-step guidance for completing projects or tasks. This approach engages students in hands-on learning, fostering critical thinking and problem-solving skills.
- Collaborative Learning: Synthesia AI designs videos promoting collaboration and group work. Students can collaborate on video projects or problem-solving using video-based resources.
- Game-Based Learning: Synthesia AI designs educational games for interactive and engaging learning experiences. This approach harnesses play for learning and enhances motivation and enjoyment.

Figure 2: Students were listening to the instruction delivered through Synthesia AI

However, while Synthesia AI holds significant potential, it should not replace human instructors. Human interaction, feedback, and guidance remain crucial in the learning process. Moreover, the use of AI in education raises ethical and privacy concerns that require addressing.

In summary, Synthesia AI has the capacity to transform language learning and education in general. With the boundary between human and artificial intelligence blurring, Synthesia AI paves the way for endless technological possibilities. In conclusion, while Synthesia AI has the potential to revolutionize education by offering students access to unique, relevant, interactive, scalable, and forward-thinking video lessons, its implementation should be approached with care, in collaboration with human instructors, and a comprehensive understanding of its limitations and potential risks.

DR ÁZRI'S
PERFUME

Your Scents Enterprise

UiTM Start Up Company

Researcher/Founder:
ChM. Dr. Mohd Azri Ab Rani

Faculty/College:
Faculty of Applied Sciences,
UiTM Shah Alam

Product:
Dr Azri's Perfume

Description:
The perfume can last up to 72 hours with the ability of a fixative that helps in reducing fragrance volatility. The long lasting perfumes come with six different types of scents and are the first to be certified Halal by Jabatan Kemajuan Islam Malaysia (JAKIM).

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