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TRANSFORMING EDUCATION, DRIVING INNOVATION AND ADVANCING LIFELONG LEARNING FOR EMPOWERED WORLD

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TRANSFORMING EDUCATION, DRIVING INNOVATION AND ADVANCING LIFELONG LEARNING FOR EMPOWERED WORLD
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THE KHUTUB KHANAH

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ABSTRACT

The Khutub Khanah (TKK) is an innovative AI platform that is built to locate and centralize access to a selection of reliable AI websites that are suitable for educational purposes. In the current digital landscape, AI tools are being developed rapidly, and there are tons of AI websites that are growing in number and complexity. It is an advantage to use AI for learning purposes; it can create interactive learning and can be used as a guide for learning purposes. However, it can be overwhelming to identify an AI platform that is not effective and age-appropriate for learning, other as an ethical issue that needs to be considered while using AI. TKK addresses this gap by offering a curated hub that is safe and relevant for users with different learning levels. Recognizing the potential of AI in transforming education, TKK comes by using the technology to support an interactive learning experience and explore the ethical implications and responsibilities associated with the use of AI. TKK is created to support 3 categories of learners for their learning purposes. These 3 groups are researchers, school students, and young children. For researchers, it provides access to AI tools that support research activities. TKK offers school students to enhance their understanding of core subjects and guide them with their homework. For children, it will be a safe and fun AI-based education tool to promote early literacy. TKK makes AI tools more accessible, structured, and safe for smart education across all age groups.

Keywords: *Artificial Intelligence (AI), AI Hub, Educational Platform, Smart Education*

INTRODUCTION

Artificial intelligence is rapidly growing greatly in various industries, including education, and it has an impact on the current learning process. The integration of artificial intelligence has slowly altered from conventional teaching methods to personalized learning, which offers diverse educational requirements, especially for students with special needs. Artificial intelligence has reshaped learning paradigms and opened different possibilities for individualized and dynamically adaptive educational experiences (Walter, 2024). Artificial intelligence tools have offered personalized learning, other of which is an intelligent tutoring system that acts as a learning assistance.

Artificial intelligence tools have been approved as one of the latest methods for educational purposes because AI offers an unparalleled opportunity for education to adapt to current technological trends (Tafur & Molina, 2023). AI offers a variety of tools for different users, most tasks can be done using AI, and it is more flexible and time-consuming. However, the ethical considerations while using AI need to be concerned. Building ethical AI or getting AI to act ethically requires an understanding of AI ethics. What is ethically right and wrong is determined by ethical or moral beliefs and principles (Huang et al., 2023). It is important to use AI as a medium of education in the right way because technological revolutions contribute to preparing more educated and informed citizens, drive innovation, and support economic growth necessary for achieving a sustainable future (Strielkowski et al., 2023).

Despite this artificial intelligence growth, the number of artificial intelligence tools keeps rising, and the safety of the tools and ethical considerations on using the tools are still being questioned. The Khutub Khanah is designed in order to provide a safe place for personalized learning activities. The Khutub Khanah or TKK is an application that works as a platform for researchers, students, and young children to explore knowledge in a modest and interesting way with the help of artificial intelligence. TKK provides and gathers a few AI tools that are already available in one place. This application is suitable for different age ranges and education levels because it has divided the tools based on user education level. It also serves as a platform to expose the ethics of using AI.

Through this initiative, TKK aims to encourage educators, learners, and researchers to implement AI-based practices that are both effective and ethically responsible. The expected results include stronger digital literacy, equitable access to modern educational technologies, and the development of future-ready mindsets.

METHODOLOGY

The process of designing innovations requires a structured framework that is suitable for the outcome of the innovation. This innovation is designed using the ADDIE model, it is used in the development of the Khutub Khanah. The ADDIE model is widely used in educational and training programs to guide a systematic and well-structured creation of effective and learner-centered educational tools. The ADDIE model applies to meet different teaching requirements in all online educational environments (Spatioti et al. 2022). It consists of five phases: analysis, design,

development, implementation and evaluation.

Analysis

In the idea of creating TKK AI tools, the target user groups are identified in order to fulfil their learning needs. For this innovation, there are three types of users: researchers, school students and young children. It is important to divide them into their education level to understand the user limitations,such as device accessibility and age-appropriateness.

Design

The design of TKK is important to make it suitable for user preferences. The layout of the TKK platform is clarity, accessible and minimalist to make sure that users can easily understand the functions of these applications. The interface is different based on their categories and is user-friendly.

Development

After completing the design phase where the layout and interface were carefully designed based on user categories. The development phase of the TKK application focuses on building and assembling all the components from the design specification. This phase transforms the design ideas into real products. However, for TKK ,the tools of AI still need to be selected carefully and cannot be inserted into the application yet because it is still in the idea and prototype stage.

Implementation

TKK is still in the prototype stage, so there is no implementation yet for this innovation. It is hoped that TKK will work as an AI education hub for researchers, school students,s and young children, so they don't have to find AI tools on different websites, which takes a lot of time. They can only access one application to the other AI tools.

Evaluation

As mentioned, TKK is still in the prototype stage, so there is no evaluation that can be done for these innovations.

RESULTS AND DISCUSSIONS

The innovation of The Khutub Khanah (TKK) as an educational AI hub is hoped to have an impact on society, educational institutions, and the country. The prototype of TKK successfully achieved the intended goals of providing a safe place for an AI educational platform that highlighted the ethical use of AI, and it provided an AI learning hub for three different types of learners.

The impact of TKK on society is, it will provide an equitable access to AI-driven learning tools for different categories of learners, including underserved communities. Educational institutions will

also benefit from this innovation because it offers personalized AI tutoring and resources in Science, Technology, Engineering, and Math, improving student outcomes. This innovation also aligns with Malaysia's digital education roadmap and the Ministry of Education's push for hybrid and future-ready learning. TKK stands as a capable educational innovation that encourages sustainable learning through the integration of AI.

Table and Illustration

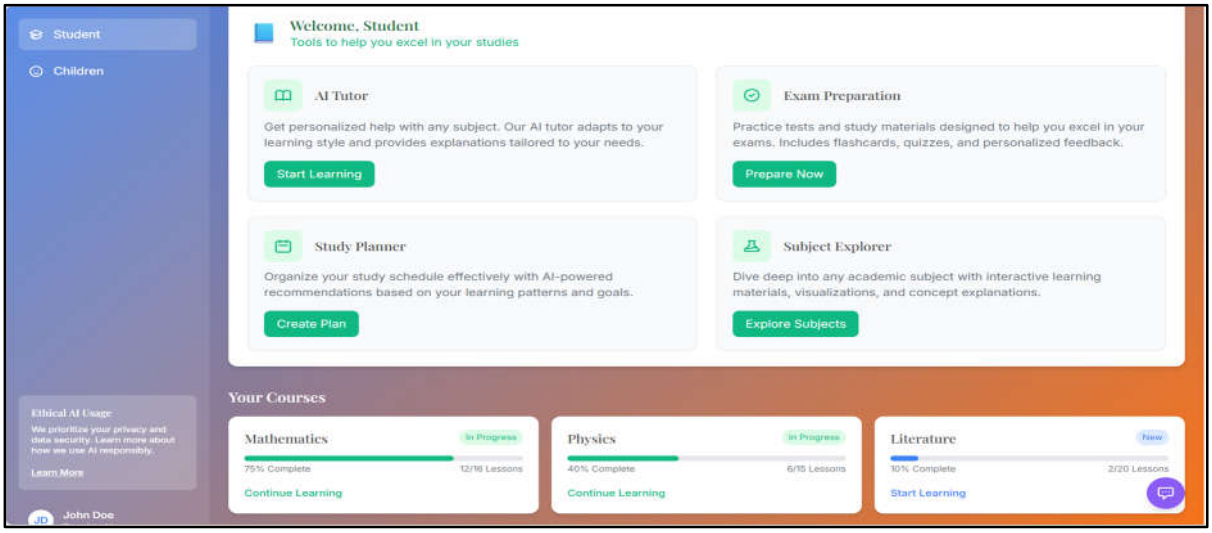

Figure 1.: Website interface

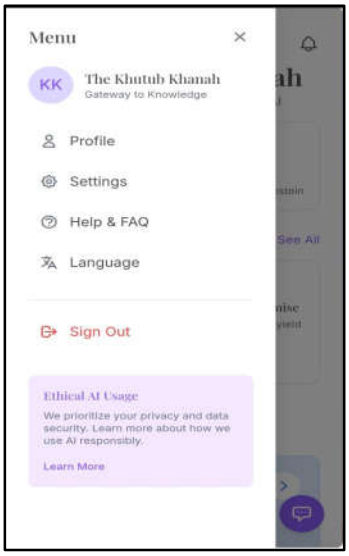

Figure 2.: Mobile menu bar

CONCLUSION

TKK not only enhances STEM education and research but also aligns with national priorities and global goals such as SDG 4: Quality Education. As Malaysia moves toward a future shaped by digital transformation, the Khutub Khanah stands as a beacon of innovation, empowering minds and uplifting communities preparing Malaysia's next generation for IR 4.0 and AI-integrated industries. TKK has the potential to revolutionize how students engage with digital resources. It empowers users to become more independent, informed, and innovative in their learning journey. In the future ,it is hoped that TKK will be a useful instrument in the future of intelligent and sustainable education and remain responsive to evolving educational needs.

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