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ABOUT THE MAGAZINE

UTM Nexus marked the first research and innovation magazine in UTM history to publish a research & innovation centric stories, magazine style. Our vision is to share our stories to everyone, in a true spirit of "Kerana Tuhan untuk Manusia" (In the Name of God for Mankind). The information in this publication was correct at the time of going to press, April 2026. The views expressed by contributors in this publication are not necessarily those of UTM.

ABOUT UTM

Universiti Teknologi Malaysia is a public research-intensive university in engineering, science and technology located in Skudai, Johor and has a campus in Pagoh, Skudai and Kuala Lumpur Malaysia.

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FROM STONE TO SILICON

Preserving National Treasures for the Digital Generation

by Dr. Marsha Lavania A/p Manivannan
UTM Scholars

Edited by Iskandar Mohamed

Remember school trips to the museum? You probably walked through quiet corridors, staring at dusty old pots behind thick glass. There was always a strict "Do Not Touch" sign hovering nearby. While these buildings do an amazing job of protecting our history, they are facing a harsh reality today. People simply are not visiting like they used to.

It makes sense if you think about it. Today's kids grow up with smartphones, high-speed gaming, and constant digital interaction. Competing with that level of engagement is incredibly tough for a traditional physical exhibit. Plus, keeping old artifacts safe in climate-controlled, aging buildings costs an absolute fortune.

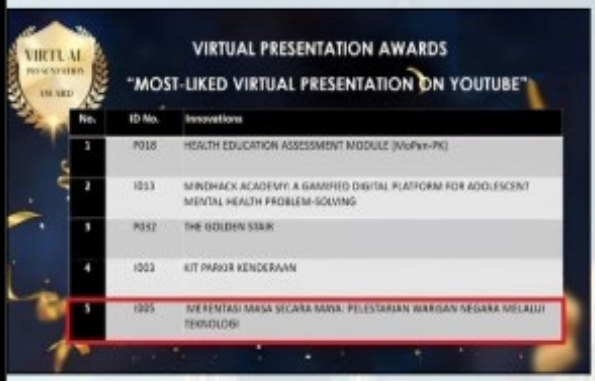
So, we have a real problem on our hands. How on earth do we get digital natives to actually care about the past?

A brilliant new project called "Travelling Through Time Virtually: Preserving National Heritage Through Technology" might just have the answer. It recently grabbed the attention of key stakeholders at the 2025 Digital Education Carnival, an event put together by the Kelantan State Education Department. The core message of the project is simple: history does not have to be a boring, one-way lecture. It can be hands-on, highly social, and right inside your pocket.

If the younger generation practically lives on their screens, our cultural heritage needs to meet them halfway. This is exactly where augmented reality—or AR—steps into the picture.

The team behind the project uses an AR app called Blippar to completely digitize historical items. Forget about looking at a flat picture in a textbook or staring through a museum display case. This technology turns real-world artifacts into stunning 3D models that you can interact with. Anyone with a smartphone or a tablet can instantly access these national treasures, no matter where they are.

Picture this. You point your phone camera at a code, and suddenly, a centuries-old cultural artifact appears right on your kitchen table. Items you were never allowed to touch can now be spun around 360 degrees. You can zoom right in to look at the tiny details and intricate carvings. You can even tap on



different parts of the object to read quick, interesting facts about its history.

By weaving AR into cultural education, we make sure young audiences are no longer just passive observers. They are actively exploring. It makes learning dynamic and, honestly, a lot of fun.

AR does something quite beautiful by blending our physical surroundings with the digital realm. It creates a learning space without borders. By capturing these ancient objects as 3D models, the project essentially gives anyone a free ticket to a virtual museum.

This is not just about using tech for the sake of it. It proves that modern tools are absolutely essential for keeping our heritage alive. It helps students build a genuine connection to their roots, bridging the massive gap between traditional museum visits and the fast-paced digital world today's youth are used to.

The benefits go way beyond simple entertainment. We like to call it "edutainment."

First off, it seriously cuts down the heavy financial burden of looking after physical exhibits. Second, it levels the playing field. Someone living hundreds of miles away from a major city can now experience the museum just as vividly as someone standing right inside it. It also gets people talking. Families, friends, and classmates can huddle around a screen to explore and chat about their shared history together.

Behind the scenes, this gives museum curators a fresh, modern way to preserve fragile items. For teachers, virtual tours are a fantastic tool to bring dry history lessons to life in the classroom.

Of course, an idea this good takes a great team to pull off. The initiative is led by Dr. Mohd Saipuddin Suliman from the Kulliyyah of Sustainable Tourism and Contemporary Languages at the International Islamic University Malaysia (IIUM). He did not do it alone, though. He worked alongside a dedicated group of nine educators from six different institutions across the country.

People are definitely taking notice of their hard work. The team presented their project at the 2025 International Science and Social Science Innovation Competition. They walked away with the Silver Award and the very cool "Most-liked Virtual Presentation on YouTube" prize.

"Travelling Through Time Virtually" shows us exactly how to use digital tech to protect our cultural roots. By making history cheaper to maintain, easier to access, and way more appealing to young minds, this project is a massive win for Malaysia. Thanks to smart collaborations like this, our nation's treasures are in safe hands for generations to come.

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