

HBKU Thematic Research Grant 2nd Cycle– Project Highlight

Project Title: CipherBot: An AI-based Bilingual Interactive Platform for Supporting Progressive Education through Collaborative Storytelling



LPI: Dr. Jim Jansen

Executive Summary

Partnering with Academyati to enhance progressive education setting, we will develop CipherBot, an AI-based platform that uses machine learning models at the backend to prepare story-based projects for students and encourages them to learn various concepts through these projects. The platform will allow educators to design learning material in English and translate it to Arabic if needed based on their expected objectives and assess the performance of students in a seamless manner without interrupting the students' learning experience. Furthermore, the student view will allow learners to select their desired projects and engage with an interactive bot (CipherBot) to learn from step zero (*Cipher*) concepts like linguistics, science, and numeracy within the project context. The interactive bot will only move to the next learning objective once the student learns the current objective by introducing a gesture-based implicit assessment technique that nudges the learner to play mini-games to continue learning the subsequent concepts. This unique assessment approach will ensure students are not ranked or scored traditionally but will keep them engaged with CIPHERBOT until they finish the educational project. With advances in Artificial Intelligence (AI), it is possible to design and build fully-customizable mobile learning platforms that cater to the needs of educators and students in progressive schools.

Expected Outcome

- Invention disclosures
- Robust Prototype
- User ability study

Collaborating HBKU entities:

Dr. Evren Tok - College of Public Policy, HBKU



The screenshot shows the ACUA website interface. At the top, there are navigation tabs: ACUA, About Us, Research Tools, Admin, and oca. Below the navigation, there is a section for 'Acua' with a brief description of its research focus. The 'Recent Blog Posts' section lists several articles with titles like 'Towards Designing a More Inclusive Technology' and 'Cross-Platform Social Media Studies: Five Advantages And Five Disadvantages'. The 'Support' section includes social media icons and contact information. The 'Team' section features a profile for Khouloud Khali Aldous, a Post-Doctoral Researcher at Qatar Computing Research Institute. The 'Contact us' section provides an email address (evren@qcri.hbku.edu.qa) and instructions for reaching out.