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Bridging Disciplines and History: A Case Study of Interdisciplinary Problem-Solving in Moroccan

Cybersecurity Engineering Education

Abstract:

This article outlines a case study conducted within the Moroccan cybersecurity engineering program at ENSA engineering school, aiming to demonstrate the integration of interdisciplinary problem-solving, principles of social innovation and ethics, and historical insights from Muslim scientific achievements. The purpose is to enhance the curriculum and foster ethical innovation and critical thinking among students to address complex cybersecurity challenges. Qualitative research methods were employed for this case study. Interviews were conducted with educators, curriculum designers, and students within the Moroccan cybersecurity engineering program to explore the practicality and implications of the proposed interdisciplinary model. Curriculum materials, faculty development strategies, and student engagement initiatives were examined in depth. The study utilizes data collected from interviews and document analysis, including curriculum materials and educational policies. Interviews provide insights from key stakeholders involved in the Moroccan cybersecurity engineering program, offering a comprehensive view of the challenges and opportunities associated with integrating interdisciplinary problem-solving and historical perspectives. The article anticipates the presentation of a model designed to enrich Moroccan engineering English class module, with a specific focus on cybersecurity. The interdisciplinary approach, coupled with historical insights from renowned Muslim scholars, is expected to empower students to think critically, innovate ethically, and take on the multifaceted cybersecurity challenges of Morocco. The results offer a blueprint for Moroccan engineering institutions to enhance their English teaching programs and produce graduates who are not only language proficient but also socially conscious and historically informed, thus contributing to the nation's cybersecurity needs and continuing the legacy of Muslim scientific achievements.