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Assessment of the Role of Artificial Intelligence in Repositioning TVET for Economic Development in Nigeria

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Abstract

TVET is vital for economic development, but the rapid advancement of AI has necessitated a shift in its roles. As the global economy relies on AI, TVET programmes must adapt to this change in order to meet its mandate. However, there is scarcity of empirical studies on the role of AI integration for repositioning TVET for economic development. Therefore, this paper focused on the assessment of the role of Artificial Intelligence in the repositioning of Technical and Vocational Education Training (TVET) for economic development in Nigeria. To achieve the broad aim, this study examines the current state of TVET in Nigeria, identifies existing challenges, and highlights the transformative potential of integrating AI into TVET. The population of the study was 2350 VOTED students of five selected universities in Southwest, Nigeria. The sample consisted of 500 VOTED students selected from the five universities using disproportionate simple random technique. A validated 15-item questionnaire, designed by the researcher on a point scale ranging from strongly agree (4) – strongly disagree (1), was used for data collection. Reliability of the instrument was ensured using the split-half reliability technique, which yielded a cumulative coefficient of 0.79. Data collected were analysed using mean and standard deviation to answer the research questions, while a t-test was used to test the hypotheses at a 0.05 level of significance. The findings revealed that there is a need to integrate AI into the current state of TVET; the major challenges and barriers that hinder AI integration in TVET are the unavailability of uniform content to serve the AI application and that introduction of AI into the curriculum of TVET will contribute to the advancement of Nigerian economic development. There is therefore an urgent need for investment in AI infrastructure for access to AI tools and technologies; raining in AI skills acquisition, and updating TVET programmes are crucial for the repositioning of TVET for economic development in Nigeria.

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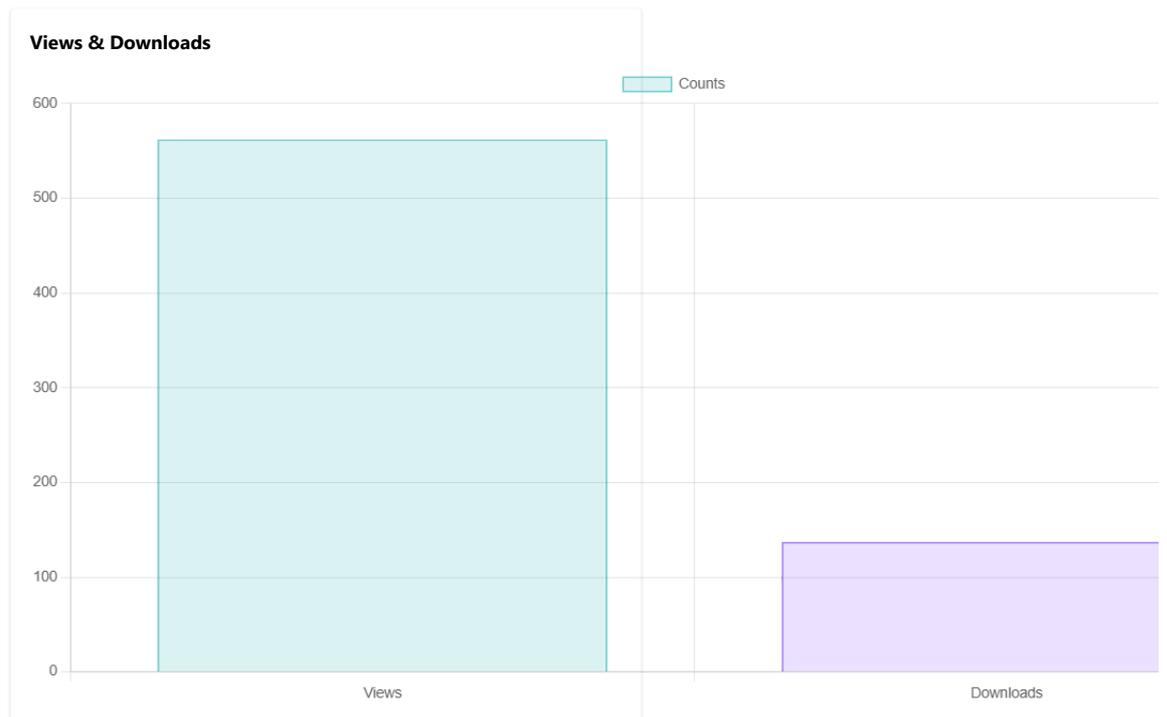
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