## 23rd MSU-IIT Annual In-House Review of Research and Development Projects



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## The Role of Artificial Intelligence in Enhancing Education Tools: Ethical Considerations, Inclusivity and Societal Impact

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Abstract: Artificial Intelligence (AI) is rapidly transforming education by enhancing personalization, efficiency, and inclusivity. Yet, its adoption raises pressing concerns about ethics, equity, and broader societal impacts. This study investigated the role of AI in education across three dimensions: ethical considerations, inclusivity, and societal impact. Specifically, it examined issues of privacy, bias, and transparency; evaluated inclusivity for diverse and marginalized learners; and analyzed societal outcomes such as student engagement and teacher roles, while offering recommendations for educators, policymakers, and developers. Guided by the OECD 2030 Learning Compass and informed by Technology Acceptance and Unified Theory of Acceptance and Use of Technology Models (TAM/UTAUT), the study employed a sequential explanatory mixed-methods design. A structured survey was administered to 290 participants (65 teachers, 40 administrators, and 185 students), with the instrument validated through pilot testing of 40 respondents. Quantitative analysis using descriptive statistics, ANOVA, and regression showed that ethical considerations ( $\beta$  = .16, p = .001) and inclusivity ( $\beta$  = .41, p < .001) significantly predicted societal impact, whereas privacy concerns, though high across groups, did not. Qualitative findings from open-ended surveys and focus group discussions reinforced these results, revealing optimism among administrators, caution among teachers, and mixed but privacy-conscious views among students. The study concludes that AI can serve as a catalyst for equitable, future-ready education if guided by ethical safeguards, inclusive design, teacher training, and strong governance policies.

Key Words: Artificial Intelligence; Education; Ethics; Inclusivity; SDG 4; SDG 10

**Authors:** ADIL, John Jr. (Department of Professional Education, MSU-IIT); SALIC-HAIRULLA, Monera (Department of Science and Mathematics Education, MSU-IIT); SILOR, Adelfa (Department of Technology Teacher Education, MSU-IIT); ROSALES, Victor (Department of Technology Teacher Education, MSU-IIT); MADALE, Vanjoreeh (Department of Science and Mathematics Education, MSU-IIT); SUMAYLO, Glay Vhincent (Department of Technology Teacher Education, MSU-IIT)

Presenter: ADIL, John Jr. (Department of Professional Education, MSU-IIT)

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