

Action Research on the Durability and Pedagogical Efficacy of Repurposed E-Waste Hardware in Ghanaian Technical College Maker Spaces

A, m, a, S, e, r, w, a, a, A, d, j, e, i, ,, K, o, f, i, A, g, y, e, m, a, n, ,, A, b, e, n,
a, M, e, n, s, a, h, ,, K, w, a, m, e, A, s, a, n, t, e

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| Abstract

This study addresses a current research gap in Computer Science concerning Testing the durability and educational utility of repurposed e-waste hardware in maker spaces for technical colleges in Agbogbloshie, Ghana in Ghana. The objective is to clarify key debates, identify practical implications, and outline a focused agenda for scholarship and policy. A qualitative approach was used, drawing on recent literature and policy sources to frame the analysis. The analysis indicates persistent structural constraints alongside emerging local innovations; however, evidence remains uneven across contexts and sectors. The paper argues for context-specific approaches and stronger empirical foundations in future research. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. Testing the durability and educational utility of repurposed e-waste hardware in maker spaces for technical colleges in Agbogbloshie, Ghana, Ghana, Africa, Computer Science, action research This structured abstract provides a standardised summary to support rapid screening, indexing, and assessment of scholarly contribution.
