Investigating the Role of Artificial Intelligence in Developing Creativity in Architecture Education in Egypt: A Case Study of Design Studios

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Abstract : This paper delves into the transformative potential of artificial intelligence (AI) in fostering creativity within the domain of architecture education, especially with a specific emphasis on its implications within the Design Studios; the convergence of AI and architectural pedagogy has introduced avenues for redefining the boundaries of creative expression and problem-solving. By harnessing AI-driven tools, students and educators can collaboratively explore a spectrum of design possibilities, stimulate innovative ideation, and engage in multidimensional design processes. This paper investigates the ways in which AI contributes to architectural creativity by facilitating generative design, pattern recognition, virtual reality experiences, and sustainable design optimization. Furthermore, the study examines the balance between AI-enhanced creativity and the preservation of core principles of architectural design/education, ensuring that technology is harnessed to augment rather than replace foundational design skills. Through an exploration of Egypt's architectural heritage and contemporary challenges, this research underscores how AI can synergize with cultural context and historical insights to inspire cutting-edge architectural solutions. By analyzing AI's impact on nurturing creativity among Egyptian architecture students, this paper seeks to contribute to the ongoing discourse on the integration of technology within global architectural education paradigms. It is hoped that this research will guide the thoughtful incorporation of AI in fostering creativity while preserving the authenticity and richness of architectural design education in Egypt and beyond.