

Artificial Intelligence and Human Inputs in Warfare Systems: A Comparative Analysis on Challenges and Opportunities

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The warfare systems, which were fundamentally dominated by human intervention in the early years, have evolved in the modern context with the advent of emerging technologies such as non-human intelligence. In that case, modern warfare systems, enhanced by the integration of Artificial Intelligence (AI) have been able to achieve efficiency, maintenance capacity, risk management, cost reduction, and surveillance. However, while AI contributes to increasing the overall performance on the battlefield, it also presents challenges in areas such as adaptability, complexity, and ethical concerns. Although the deployment of AI in warfare reduces the need for human involvement, it is crucial to be concerned about the diminishing role of human skills and capabilities on the battlefield. This influences to understand the comparative dynamics between AI and human inputs in warfare systems. This study explored the challenges and opportunities of both AI and human inputs in warfare, along with a comparison of both, focussing on aspects such as efficiency, maintenance capacity, decision-making, surveillance, risk management, adaptability, and strategic implications in warfare systems. The study, which was mainly conducted through qualitative methods by looking into case studies and existing literature, found that AI can enhance capacity, reduce human error, and save human capacity for other essential tasks in warfare systems. In contrast, it introduces uncertainties that are less prevalent with human inputs. Furthermore, the study emphasised that both AI warfare systems and conventional warfare systems can have challenges and opportunities that require an integration of both AI and human inputs in warfare. The findings also illustrated that, a good collaboration between these two can be influential in the battlefield, ensuring adaptability for evolving trends through effective warfare strategies.

Keywords: *artificial intelligence, human inputs, warfare systems, challenges, opportunities, comparison*