AI-Powered Drone Warfare: A Case Study on Russia-Ukraine War

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The current Russia-Ukraine War has led to the development of new strategies and technologies such as the militarization of Artificial Intelligence (AI). Russia is alleged to have assisted in the deployment of drones, interfered with communications, and carried out cyberattacks using AI-powered systems. Concurrently, Ukraine has also seen an unparalleled level of drone deployment, with thousands of unmanned aerial vehicles (UAVs) being employed that utilize AI to bomb targets, guide artillery, and observe enemy formations. These AI-enabled tactics have allowed both countries to carry out complex and coordinated attacks with precision. This study delves into how AI-powered drone warfare has been utilised in the modern context by using Russia-Ukraine war as a case study. The research aims to analyse the revolution of AI in the context of warfare. Key aspects covered include the strategic influence of AI-powered drones on conventional combat paradigms and the operational efficiency. It also discusses the ethical considerations and future implications while highlighting the usage of AI-powered drones. The research methodology employed is a mixed-method approach, incorporating both primary data which includes government-released data and drone footages as well as secondary data from literature and doctrines. The conceptual framework is based on the review of theoretical studies. The Russia-Ukraine War provides a current example of the significant influence of AI, and this paper lays the groundwork for a thorough investigation of its revolutionary significance in contemporary warfare specialising in drones.

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