

The Human Role in Autonomous Weapon Design and Deployment

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Abstract

There has been increasing debate in the international community as to whether it is morally and ethically permissible to use autonomous weapons, which are weapon systems that select and fire upon a target with no human in the loop. Given the tightly coupled link between emerging technology and policy development in this debate that speaks to the very core of humanity, this paper explains how current automated control systems, including weapons systems, are designed in terms of balancing authority between the human and the computer. The distinction between automated and autonomous systems is explained, and a framework is presented for conceptualizing the human-computer balance for future autonomous systems, both civilian and military. Lastly, specific technology and policy implications for weaponized autonomous systems is discussed.