

## ***Mors ex Machina: On Autonomous Systems and the Rules of War.***

Brian p. Bloomfield & Theo Vurdubakis  
Department of Organisation, Work and Technology  
Lancaster University,  
Lancaster, UK, LA1 4YX  
[t.vurdubakis@lancaster.ac.uk](mailto:t.vurdubakis@lancaster.ac.uk)

A common feature in many of the wars that have ushered in the twenty-first century is the extensive use made of robotic systems. Armed Robotic Vehicles and Unmanned Aerial Vehicles, for example, are now being deployed or being developed by many militaries from the 'first world' and beyond. Whilst today's robotic systems are, on the whole, remotely operated, there is a widespread expectation that, like financial market systems before them, such systems may in the near future acquire considerable autonomy in making life-and-death decisions. For instance, USAF's (2009) *Unmanned Aircraft Systems Flight Plan 2009-2047* predicts deployment within this timescale of fully autonomous aerial vehicles, where humans will play the role of "monitoring the execution of decisions" rather than actually themselves making those decisions: "advances in AI will enable systems to make combat decisions and act within legal and policy constraints without necessarily requiring human input"(p.41).

Against this backdrop, the present paper offers a critical discussion of the research programme led by Ronald Arkin (2009) and funded by the U.S. Army Research Office that focuses on the development of an "ethical governor" which will enable future autonomous military systems to use lethal force while adhering to the rules of war more closely than human combatants. Unlike (human) soldiers, Arkin (2009a;b) and his co-workers argue, who due to their embodiment and associated behavioural drives/imperatives/flaws cannot maintain adherence to their own ethical codes, suitably programmed "ethical robots" will be exempt from fear, anger or stress-induced scenario fulfilment. For this reason, they can not only be entrusted with life-or-death decision but can also be relied upon to identify and report *human* violations of the rules of war. The paper thus discusses the "ethical warrior robot" as an instance of how ostensibly "technical" matters serve as the means for articulating and rhetorically rehearsing the various philosophical antinomies and moral conflicts characteristic of occidental (post?)modernity.