

Abstract

This thesis aims to examine the growing development of autonomous systems from a civilian and military perspective. The literature analysis has shown that in the military sector there is much access to an interactional-scientific and literary debate, especially on the growing possibility of autonomous weapons development. On the other hand, however, the civilian sector is increasingly advancing the development of autonomous systems. Many of these are already being applied in civilian society: from self-driving cars to medical equipment. Nonetheless, the study showed that although these sectors are going at different speeds, the risks and challenges related to the topic of autonomous machines are very similar, especially with regard to the concept of responsibility and human-machine nexus. For this reason, this thesis aims to analyze the civilian experience in the field of autonomy to determine whether there might be any transferable lessons from the civilian to the military world for the future development of autonomous weapons. After a thorough analysis of the aircraft crashes involving the Boeing 737 MAX and the accidents caused by the self-driving cars, this thesis concludes that the best way to address the ethical and moral challenges of autonomous weapons is to develop and design such systems from a human-centric perspective first.

Key words: Artificial intelligence, Autonomy, Autonomous Systems, Human-Machine Nexus, Responsibility Gap

Title: Civil Applications of Autonomous Systems: Implications for the Military Sector