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AI IN SPACE: THE FINAL FRONTIER OF CAUSALITY

Abstract

Artificial intelligence (AI) and robots have been triggering the imagination of humanity for quite a long time. From cheery Star Wars depictions of "sentient" machines having their own emotions and thoughts to eerily evil super-computers that are able to "commit" murder in space, as presented by Stanley Kubrick, the big screen has hosted a wide variety of artificially intelligent "beings" that cannot always be controlled by humans. Science-fiction is becoming a reality as the use of autonomous AI in space exploration is constantly on the rise, by governmental and non-governmental entities alike. For example, NASA's TechSat21 mission has paved the way for the Shared Activity and Coordination model, an advanced AI co-operating system. Accordingly, the spacecraft is modeled as an "agent" directly negotiating with other spacecraft to partition the work among them. What if, along the "negotiation" in this swarm of spacecraft, one of the "agents" was to falsely translate a message, "causally" leading to an accident? This paper addresses the question of whether law can, and should, accommodate the instances of "accidents" and "wrongdoings" "committed" by artificially intelligent objects. It further examines whether these cases stretch the very limits of causality and attributability laying in the core of liability. In this context, the present study explores the link between the level of autonomy of an "agent" and the applicable theory of liability. It thus distinguishes between technologically created conscience and basic cognitive behavior. The paper ultimately examines the legal emergence of causality in order to test the feasibility of the current liability regimes applied internationally in space.