

**Death by Robots and Ubers:
Artificial Intelligence, Autonomous Systems, and Risk in Workplaces**

Abstract

Manufacturing- and transportation-related deaths and injuries are, unfortunately, often among the grim effects of production and mobility. They have not ceased to be a factor in these realms despite decades of efforts on safety and risk management. Deaths and injuries that are associated with robots are often placed in a different light than other sorts of incidents, with themes of murder and malice introduced in science fiction and popular discourse on these events. This paper explores the history of how deaths and injuries by robots and autonomous systems have been distinguished from other kinds of incidents; it examines the implications of these assignments for how the incidents are handled in terms of safety and risk assessment, as well as in discourse on work itself. As the kinds and numbers of robots and autonomous systems (including vehicles) increases, variations in the narrative themes associated with these deaths are developing. The paper discusses how “death by robot” accounts are employed in efforts to characterize workplace and infrastructure automation for political and social purposes.

On January 25, 1979, Robert Williams reportedly died as a result of interaction with a robot. Other deaths have followed with connections to robots and autonomous systems, with a variety of reactions and analyses (Lyons, 2018; Oravec, 2018). Deaths that involve a component of autonomous, machine-originated action have broad implications for the insurance and other risk-related industries as well as for the workers and families involved. This paper provides case studies of an assortment of these deaths. Human mortality and vulnerability have often been factors in how robotics and artificial intelligence (AI) applications have been construed in public policy and legal venues, with Isaac Asimov’s (1950) “Three Laws of Robotics” an attempt to provide some direction. In the past few years, a number of criticisms, legislative efforts, and vocal protests specifically directed at artificial intelligence (AI) and automation implementations have also arisen, focusing on such technologies as drones, robots, self-driving cars, and online transportation services such as Uber (Oravec, 2018). Analyses of the relative places of humans and machines in the economy are not new, however, with

themes ranging from economic displacement to public safety (Pankewitz, 2017; Roper, 1999). The notion of a “thinking machine” that can engage in functional and useful practices for workplaces as well as dysfunctional ones has permeated many robotics initiatives and AI approaches as well as public consciousness concerning AI applications, framing some of the ethical considerations involving these issues.

The mottos and ethical statements of many high tech organizations (including Alphabet/Google) often assert an intent is to avoid “evil” and other societal troubles (Oravec, 2014b). The paper examines how deaths by robots and other autonomous entities are influencing the character of modern workplaces and communities.

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