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Author: Mr. Michael Pope
Embry-Riddle Aeronautical University, United States, popem4@my.erau.edu

Ms. Cristina Viana
Embry-Riddle Aeronautical University, United States, vianac@my.erau.edu
Mr. Ryan Kressler
Embry-Riddle Aeronautical University, United States, kressler@my.erau.edu
Ms. Kirsti Wattles
Embry-Riddle Aeronautical University, United States, wattlesk@my.erau.edu
Mr. Trenton Druesedow
Embry-Riddle Aeronautical University, United States, drueset1@my.erau.edu
Ms. Alyssa Hodum
Embry-Riddle Aeronautical University, United States, Hoduma@my.erau.edu
Ms. Kirsten Bauernschmidt
Embry-Riddle Aeronautical University, United States, kirstenb3323@gmail.com

ETHICAL IMPLICATIONS OF THE USE OF ARTIFICIAL INTELLIGENCE IN HUMAN SPACE OPERATIONS.

Abstract

The concept of Artificial Intelligence (AI) in popular culture goes back as far as 1920 in Karel Capek's play R. U. R. (Rossum's Universal Robots). Starting in the 1950's with the emergence of scientists like Alan Turing, the concept of AI went from science fiction to an idea that seemed possible, yet at the time impossible. The concept of AI that has the capability of thought became increasingly possible after the emergence of quantum computing in the 21st century. This capability of thought by AI raises ethical questions on whether sentient AI afforded the same ethical norms as human beings. These ethical issues persist as humanity explores out into the stars as it is inevitable that these AI will be used in deep space exploration.

This paper addresses these issues and seeks to better understand the ethical issues surrounding the uses of AI in deep space exploration. To do this, the paper discusses the underlying philosophical questions surrounding the ethical norms of sentient beings and whether these norms could extend to non-living sentient beings. We do not seek to provide a concrete, end all be all answer to these questions, but simply to analyze the use of AI in space travel, determine whether human ethical norms could possibly extend to these machines, and the criteria that which these machines will have to meet in order to receive these protections.