

**Title:** The Contribution of Rough Set Theory to Artificial Intelligence

**Abstract:** After more than 70 years of development, artificial intelligence is moving towards the stage of general artificial intelligence, which has had a profound impact on human production and life. Rough set theory emerged in the early 1980s and, after 40 years of development, has played an irreplaceable role in handling inaccurate, inconsistent, and incomplete data. As we all know, artificial intelligence mainly studies knowledge representation, knowledge acquisition, and knowledge application, which means that the research of artificial intelligence revolves around knowledge. But what is knowledge? Unfortunately, textbooks on artificial intelligence do not provide a formal definition of knowledge. This report will introduce the understanding and formal definition of knowledge in rough set theory, as well as its significant contributions to artificial intelligence, hoping to provide inspiration for future research in artificial intelligence.

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