

The Role of AI in Solving the Problem of Induction in Cyber Crime Analysis

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Abstract: *The problem of induction poses a significant challenge in cybercrime analysis, where predictive models must be built upon incomplete and evolving data. This study explores the potential of Artificial Intelligence (AI) in addressing this challenge. We propose a novel framework that leverages machine learning and probabilistic reasoning to enhance inductive reasoning in cybercrime analysis. Our results demonstrate that AI can effectively identify patterns, detect anomalies, and predict future threats, thereby mitigating the limitations of inductive reasoning. This research contributes to the development of more robust and reliable cybercrime analysis systems, ultimately enhancing cybersecurity.*

Keywords: Artificial Intelligence, Cybercrime Analysis, Problem of Induction, Machine Learning, Probabilistic Reasoning