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Harnessing Artificial Intelligence for Emergency Preparedness & Response: Opportunities and Risks

The integration of Artificial Intelligence (AI) tools offers unprecedented opportunities to enhance efficiency, accuracy, and timeliness in emergency management. AI can play multiple roles in the field:

- AI-driven predictive analytics can forecast disasters, enabling proactive measures and resource allocation.
- Real-time data processing facilitates rapid decision-making and situational awareness during crises.
- AI-powered robotic systems can assist in search and rescue operations, mitigating human risk.

Alongside these benefits come inherent challenges. Biased algorithms may perpetuate inequalities in resource distribution and decision-making processes. Moreover, the reliance on AI introduces cybersecurity vulnerabilities, potentially exposing critical infrastructure to malicious attacks. This poster explores the dual nature of AI in emergency management, emphasizing the need for ethical frameworks, transparency, and robust safeguards to harness its potential while mitigating risks.

Note: AI helped write this abstract.

Presentation Theme: Practice and Research

Collaborators, Advisor(s) and Department(s) that assisted with this research: Toni Hauser