Christin Salley

Schmidt AI in Science Postdoctoral Fellow, University of Michigan

NON-COMPETITIVE DIVISION

Deploying AI for Emergency Dispatch Services: Challenges and Ethical Integration

The United States faces a challenge with over one-third of emergency call centers being understaffed and a surge in call volumes. Some states are testing a solution using Artificial Intelligence (AI) for non-emergency calls in 911 centers, allowing human operators to prioritize emergencies. However, effective AI implementation and ethical considerations to mitigate biases are not well understood. This study aims to address these gaps by identifying barriers to AI in dispatch systems and controlling for these obstacles. We will conduct interviews with operators to explore disparities and inefficiencies in AI usage in emergency management. Virtual interviews will be held with county coordinators or directors from 911 dispatch centers and public safety answering points (PSAPs) in Michigan. Insights from these interviews will help develop advanced AI systems to aid dispatchers with non-emergency events, while mitigating biases and evaluating effectiveness through fairness metrics. The expected results will outline challenges to AI implementation in dispatch systems, a field with limited research, and propose equity-driven solutions. This interdisciplinary research intersects emergency management, public health, and natural language processing, setting ethical precedents for AI in emergency services.

Presentation Theme: AI in Emergency Management, Social Equity

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

- Aditya Tambe, University of Michigan, amtambe@umich.edu
- Tomas Garcia Lavanchy, University of Michigan, tomasgl@umich.edu
- Antoine Richards, Institute for Diversity and Inclusion in Emergency Management, Antoine.Richards@i-diem.org
- Lu Wang, University of Michigan, wangluxy@umich.edu
- Sabine Loos, University of Michigan, sloos@umich.edu