



# Seminar Series



## Dr. Kai-Cheng Yang

Postdoctoral Researcher at Northeastern University

Kai-Cheng Yang is a postdoctoral researcher at Northeastern University's Network Science Institute. He obtained his Ph.D. in Informatics from the Luddy School of Informatics, Computing, and Engineering at Indiana University Bloomington. His research focuses on creating safe, fair, and trustworthy online information platforms by identifying how malicious actors and flawed systems distort information flow and developing effective countermeasures. He is the leading expert on social bots and misinformation and has been at the forefront of exploring the misuse of generative AI in these contexts. His expertise was recognized during the high-profile Musk vs. Twitter trial in 2022 and the US Senate hearing on AI-driven scams in 2023. He developed Botometer (botometer.org), a widely-used bot detection tool that supports social media users, journalists, and public servants globally. His research has been featured in over 120 media stories by leading outlets like BBC, CNN, Time, and The New York Times.

### AI Transforming the Information Ecosystem: The Good, the Bad, and the Ugly

The rise of generative AI technologies is reshaping the information ecosystem, encompassing production, dissemination, and consumption. Ensuring online platforms remain safe, fair, and trustworthy requires addressing the emerging challenges and opportunities during the transformations. In this talk, I will present my latest research into these dynamics. For production, I focus on malicious AI-powered social bots that generate human-like information and engage with others automatically (Bad), discussing their behaviors and methods for detection. Regarding dissemination, I analyze the capabilities and biases of large language models (LLMs) as information curators in the AI era (Ugly), focusing on their judgments of information source credibility. On the consumption side, I explore how LLMs can be leveraged to detect misleading textual and visual content and provide fact-checking support (Good). Finally, I will reflect on the broader implications of advancing AI models for the reliability and trustworthiness of the information ecosystem and conclude with future directions.

**Date:**  
January 27, 2025

**Time:**  
2:00 - 3:00 pm

**Location:**  
Blocker 220 and  
Zoom

**Faculty host:**  
Dr. Lu Tang, Director  
of TAMIDS Data  
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