Artificial Intelligence and the FCC

2023 and Beyond

Monisha Ghosh, Professor, College of Engineering, University of Notre Dame

mghosh3@nd.edu

Laura Stefani, Partner

LAStefani@Venable.com

Heather E. West, Senior Director of Cybersecurity and Privacy Services

HEWest@Venable.com

VENABLE LLP

Terms for Artificial Intelligence (AI)

"An engineered or machine-based system that can, for a given set of objectives, generate outputs such as predictions, recommendations, or decisions influencing real or virtual environments ... designed to operate with varying levels of autonomy."

In other words: Systems that can change their behavior based on data.

Algorithms are instructions that a computer (or person) follows to take inputs and create outputs.

Machine learning is the process by which a computer system uses algorithms and data analytics to learn and adapt without explicit input from a person.

Models are algorithms that have been trained to recognize certain kinds of patterns – sometimes very sophisticated.
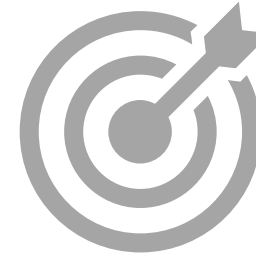
VENABLE LLP

Kinds of AI

Narrow Artificial Intelligence

Highly Capable Artificial Intelligence

Generative Artificial Intelligence

Artificial General
Intelligence/Superintelligence

Qualities of AI

Explainability

Safety

Accuracy

Robustness

… and many more

VENABLE LLP

The U.S. AI landscape

The White House announcements, upcoming executive order

Congressional AI proposals, Senate SAFE Innovation Framework

Agencies clarifying existing authorities and exploring new ones

Courts grappling with AI cases of all kinds

VENABLE LLP

Uses of AI in the Telecom Sector

- Customer service (e.g., chat bots), marketing, and communications

- Video content distribution

- Automating, optimizing, and managing communications networks
  - E.g., real-time threat detection; disaster response

- Robocalls and call spoofing

- Finding, analyzing, and addressing interference events for wireless networks
- Software-defined radios
- Spectrum Manager databases
- Space situational awareness and collision management

VENABLE LLP

Recent FCC Activities on AI

TAC Recommendations

AI Workshop

NOI on Spectrum Use

TAC Recommendations

- Developing and disseminating an FCC Code of Conduct for AI

  - Could be analogous to DoD recommendations (includes high-level and non-industry-specific ethical principles)

- Engaging with other U.S. agencies to share knowledge and to develop common and consistent policies for AI

  - Suggests AI Strategic Plan memo published by the United States Nuclear Regulatory Commission

- Assessing existing regulations for implications of AI

  - Such as intercept and wiretap rules and the use of AI bots in robocalls

- Monitoring and leveraging EU AI regulatory activities

  - Consider adopting best practices that align with telecommunications industry

VENABLE LLP