Consumer Advisory Committee

Wednesday, June 26, 2024

Opening Remarks

Alejandro Roark
Chief
Consumer & Governmental Affairs Bureau
Federal Communications Commission

AI in Telcom

Greg Bohl
Chief Data Officer
TNS Communications

AI Primer

Artificial Intelligence is simply defined as the capability of a machine to imitate intelligent human behavior.

Three stages of AI

Narrow Intelligence – Has a narrow range of capabilities – **This is AI today**

General Intelligence – Matches human intelligence

Super Intelligence – Exceeds human intelligence

4 types of AI

Reactive Machines – Responds to stimulus - Aircraft autopilot, or Automated factory

Limited Memory - makes informed decisions based on input – Self driving car

Theory of Mind – Emotional intelligence

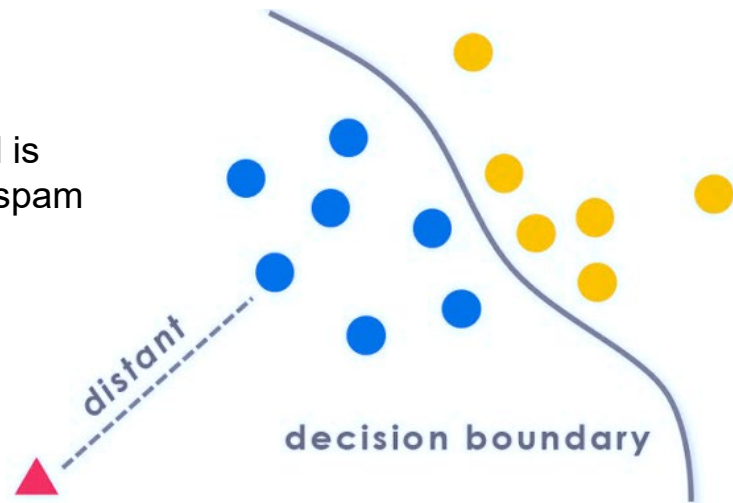**Self-Aware** – Obtains consciousness

TNS

AI Primer

Machine Learning is an enabler of Artificial Intelligence using data and algorithms.
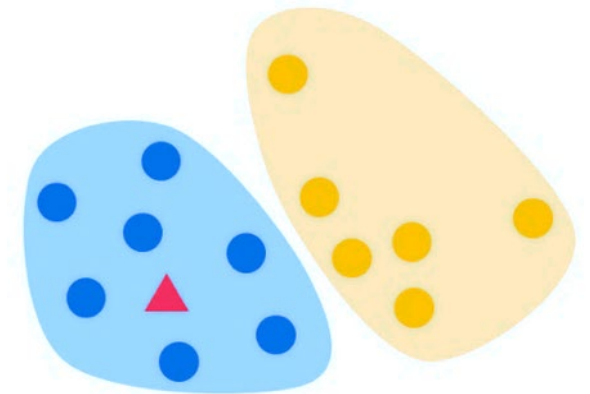
2 Main types of Algorithms

Discriminative

Discriminative models which are also called a conditional models and is what we use to detect spam and fraud.

distant

decision boundary

Generative

Generative models creates things. Technically they understand how the data is embedded into what they are about, such as language in an LLM. The downside, or risk is that they struggle with handling outliers.

Source: medium.com

AI Primer

Machine Learning is an enabler of Artificial Intelligence using data and algorithms.

3 Main types of training:

1

Supervised

training data is labeled

2

Unsupervised

training data is unlabeled or raw data

3

Reinforcement

reward training, positive or negative, penalty or reward, repeated thousands to billions of times.

Solutions

In Signal verses Call Activation

In Signal applications

- Products and applications which intercept a call and identify the telephone number as potential spam, scam, or fraud to the recipient of the call.

Call activation Applications

- Over the top, Downloadable app, etc. Products which analyze the telephone number as potential spam, scam, or fraud to the recipient once the call reaches its intended recipient. This group also includes applications which "listen in" on the call.

Today's Approaches in Spam and Fraud

Current market suppliers are using Discriminative AI to prevent spam and fraud

- Approaches include Decision Tree, Clustering, Neural Networks
- Algorithms are trained using proprietary data sets with some common elements
- Directory listings and calling volume are used to determine good practices
- Feedback from subscribers typically collected to identify spam/fraud
- Honeypots are used to evaluate performance of spam detectors

High volume low latency are key considerations

- Fraud and scam detection is to be made pre-connect
- Handling traffic from large networks requires low latency

Adaptive learning approaches capture new fraud trends

- Frequent updates to fraud detection methods are needed as spam campaigns are always evolving

What Is a Deep Fake?

Deep fake images, video and voice can be created using inexpensive or free commercially available tools.

- A deep fake image or video is when someone's face or body has been digitally altered so they appear to be someone else, typically to spread misinformation

- A deep fake voice is a synthetically generated voice to replicate someone's voice, including their volume, pace, tone, pitch and enunciation

"As technology advances, it will become increasingly difficult to identify manipulated media."

Department of Homeland Security Report

How Are Bad Actors Using AI?

Bad actors leverage generative tools due to the cost and easy access. So, what are they doing exactly?

- **Broad Reach**—using deep fakes to replicate politicians, celebrities and other public figures

- **Narrow Focus**—creating a single opportunity using human engineering

  - Commonly uses fear

  - Victims might not have the means to pursue attackers legally

  - Law enforcement has limited bandwidth

How are bad actors collecting data?

Voice Mail

Public Speaking

Videos including TikTok, Youtube

This raw data then gets applied to human engineering

Will video-calling clones be next?

"Delphi, touted as the world's first digital cloning platform, uses data from podcasts, videos, PDFs and other content to develop a clone that can mimic the user's thoughts and speech—and it can take as little as one hour."

NY Post, April 2024

Applying Current Regulations

To wrap up, Some thoughts on future regulations

To wrap up, Some thoughts on future regulations

Gen into the detail of AI

What performs harm verses what is beneficial

Thank You

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Questions & Answers

Consumer Advisory Committee

Guest Speaker 2

Raul Rojo
Attorney Advisor
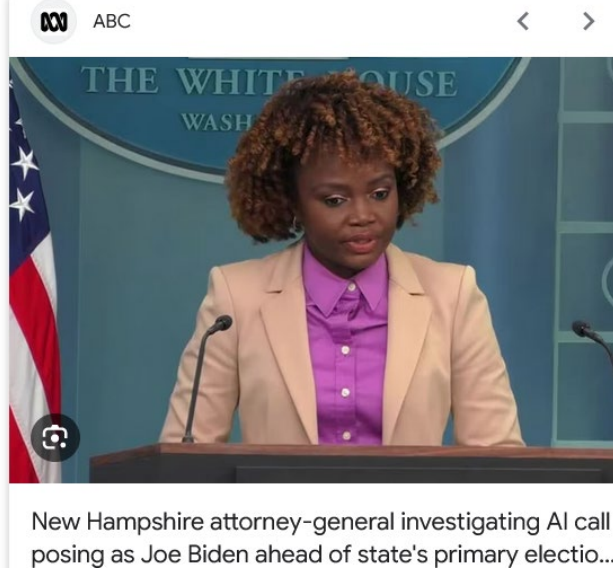Telecommunications Consumers Division
Enforcement Bureau
Federal Communications Commission

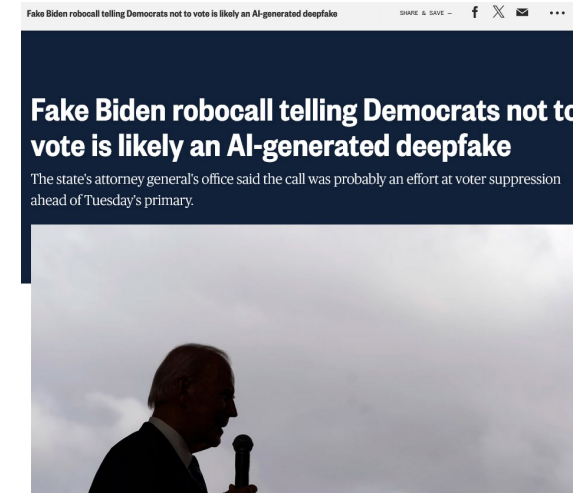New Hampshire AI Robocall Enforcement

Breaking News
January 21, 2024

ABC

THE WHITE HOUSE
WASH

New Hampshire attorney-general investigating AI call posing as Joe Biden ahead of state's primary electio...

Fake Joe Biden robocall urges New Hampshire voters not to vote in Tuesday's Democratic primary

By Em Steck and Andrew Kaczynski, CNN
4 minute read · Updated 5:44 PM EST, Mon January 22, 2024

Fake Biden robocall telling Democrats not to vote is likely an AI-generated deepfake

The state's attorney general's office said the call was probably an effort at voter suppression ahead of Tuesday's primary.

This coming Tuesday is the New Hampshire Presidential Preference Primary . . . . We know the value of voting Democratic when our votes count. It's important that you save your vote for the November election . . . . Your vote makes a difference in November, not this Tuesday. . .

Investigation

YouMail

Industry Traceback Group

New Hampshire Attorney General's Office

Anti-Robocall Multistate Litigation Task Force

Department of Justice

Tracing the spoofed calls

Lingo Telecom

Life Corporation

Steve Kramer

Steve Kramer

Self described:

- Political Consultant
- Worked in politics since the age of six
- CEO of Get Out The Vote ("GOTV")
- Political robocall veteran

Paul Carpenter

Self described:

- Magician and Hypnotist

- Can escape a straitjacket in less than 11 seconds

- World record holder for spoon bending

- Expert on all things AI

Two-Step Enforcement to Protect Consumers

Step 1: Disrupt Calls

- Issue CDL warning service provider
- Issue Public Notice to warn industry about potential bad actor
- Highlight the dangers to the public

Step 2: Hold Responsible Party Accountable

- Issue citations
- Notice of Apparent Liability
- Consent Decree
- Forfeiture Order

FCC Notifies All U.S.-Based Voice Service Providers of Rules Permitting them to Block Lingo Telecom

(k)(4) Public Notice

PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov
TTY: 888-835-5322

DA 24-102
Released: February 6, 2024

ROBOCALL ENFORCEMENT NOTICE TO ALL U.S.-BASED VOICE SERVICE PROVIDERS

FCC Enforcement Bureau Notifies All U.S.-Based Providers of Rules Permitting Them to Block Robocalls Transmitting from Lingo Telecom, LLC

File No. EB-TCD-00036094

By the Chief, Enforcement Bureau:

The Enforcement Bureau (Bureau) of the Federal Communications Commission (FCC or Commission) issues this Public Notice to notify all U.S.-based voice service providers about significant apparently unlawful robocalls originating from or transmitted by Lingo Telecom, LLC (Company or Lingo).[1] Pursuant to section 64.1200(k)(4) of the Commission's rules, we hereby notify all U.S.-based voice service providers that if Lingo fails to effectively mitigate illegal traffic, including the identified traffic described in the cease-and-desist letter listed below and substantially similar traffic, within 48 hours of the date of this *Public Notice*, U.S.-based voice service providers may block voice calls or cease to accept traffic from Lingo, without liability under the Communications Act of 1934, as amended, or the Commission's rules.[2]

47 CFR§ 64.1200(k)(4)

Permits downstream providers to block calls from a notified provider that fails to either;

(a) effectively mitigate the identified traffic within 48 hours or

(b) implement effective measures to prevent new and renewing customers from using its network to originate illegal calls).

FCC Issues Robocall Cease-and-Desist Letter to Lingo Telecom

FEDERAL COMMUNICATIONS COMMISSION
Enforcement Bureau
Telecommunications Consumers Division
45 L Street, NE
Washington, DC 20554

February 6, 2024

<u>VIA ELECTRONIC DELIVERY AND CERTIFIED MAIL - RETURN RECEIPT REQUESTED</u>

To: Lingo Telecom, LLC
       Alex Valencia
       Chief Compliance Officer
       9330 LBJ Freeway
       Suite 944
       Dallas, TX 75243
       alex.valencia@lingo.com

Re: Notice of Suspected Illegal Traffic

Dear Mr. Valencia,

Lingo Telecom, LLC (Lingo or Company)[1] is apparently originating illegal robocall traffic. The Enforcement Bureau (Bureau) of the Federal Communications Commission (FCC or Commission) provides this letter as notice of important legal obligations and steps Lingo must take to address this apparently illegal traffic. Failure to comply with the steps outlined in this letter **may result in downstream providers permanently blocking *all* of Lingo's traffic.**

I.   Background

On Sunday, January 21, 2024—two days before the New Hampshire Presidential Primary Election—individuals began receiving calls that played an apparently deepfake[2] prerecorded message from a voice that was artificially created to sound like U.S. President Joseph R. Biden, Jr.[3] According to

Lays out specific steps provider MUST take to avoid further enforcement action.

A)   Provider must Investigate the identified robocalls within 48-hours.

B)   Block the robocalls <u>and</u> any substantially similar robocalls within 14 days.

C)   Report back certifying that it is blocking the traffic and a description of its plan to identify and block similar traffic.

FCC Proposes a $6M Fine against Steve Kramer for Generative AI Robocalls that Imitated President Biden

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)
	) File No.: EB-TCD-24-00036094
Steve Kramer	) NAL/Acct. No.: 202432170005
	) FRN: 0035440791
	)

NOTICE OF APPARENT LIABILITY FOR FORFEITURE

Adopted: May 23, 2024   **Released: May 24, 2024**

By the Commission: Chairwoman Rosenworcel and Commissioners Starks and Gomez issuing separate statements.

I. INTRODUCTION

1. We propose a penalty of $6,000,000 against Steve Kramer (Kramer) for perpetrating an illegal robocall campaign targeting potential New Hampshire voters two days before the state's 2024 Democratic Presidential Primary Election (Primary Election) in apparent violation of the Truth in Caller ID Act of 2009, which is codified at section 227(e) of the Communications Act of 1934, as amended (Communications Act), and section 64.1604 of our rules.[1] Kramer's illegal robocalls carried a deepfake[2] generative artificial intelligence (AI) voice message that imitated U.S. President Joseph R. Biden, Jr.'s voice and encouraged potential voters not to vote in the upcoming Primary Election (Deepfake Message). The caller identification (caller ID) information was inaccurate and misleading as the calls transmitted the telephone number associated with a prominent New Hampshire political operative (NHPO); in reality, Kramer—without the knowledge or consent of the individual identified in the caller ID—was responsible for the spoofed robocalls.

2. Following an extensive investigation by the Federal Communications Commission's

FCC Proposes $2M Fine Against Carrier Behind N.H. Robocalls

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	File No.: EB-TCD-24-00036425
Lingo Telecom, LLC	)	NAL/Acct. No.: 202432170004
	)	FRN: 0035440734
	)	

NOTICE OF APPARENT LIABILITY FOR FORFEITURE

Adopted: May 23, 2024   **Released: May 28, 2024**

By the Commission: Chairwoman Rosenworcel and Commissioners Starks and Gomez issuing separate statements; Commissioners Carr and Simington concurring and issuing separate statements.

I.   INTRODUCTION

1.   Following an investigation by the Federal Communications Commission's (Commission or FCC) Enforcement Bureau (Bureau), we propose a penalty of $2,000,000 against Lingo Telecom, LLC (Lingo or Company) for applying incorrect Secure Telephone Identity Revisited and Signature-based Handling of Asserted information using toKENs (STIR/SHAKEN) attestations in apparent violation of section 64.6301(a) of the Commission's rules.[1] Specifically, Lingo, in a failure to utilize reasonable "Know Your Customer" (KYC) protocols, applied incorrect STIR/SHAKEN attestations to spoofed robocalls carrying a deepfake[2] generative artificial intelligence (AI) voice message purporting to be from the president of the United States (Deepfake Message) that targeted New Hampshire primary election voters two days before the state's 2024 Democratic Presidential Primary Election (Primary Election). The Deepfake Message told primary election voters not to vote in the upcoming Primary Election.

2.   The STIR/SHAKEN framework allows for the authentication and verification of caller identification (ID) information and is a vital tool designed to give consumers more confidence that caller ID information is accurate. The last two decades have seen a proliferation in the misuse of spoofing technology by malicious actors as a means of evading liability for illegal robocalls and other abusive communications. Accordingly, restoring the reliability of caller ID information is a top consumer protection priority for the Federal Communications Commission (Commission or FCC). In recent years, the Commission has undertaken multiple proceedings to ensure rapid adoption of the technology required to bring STIR/SHAKEN to telecommunications networks across the country.[3] The framework uses three

Questions & Answers

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THANK YOU

Consumer Advisory Committee