Generative AI: Artificial Voice Detector (AVoiD)

Utrecht, 11th February 2025

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Project duration: August 2023 – November 2024

The involved business partners

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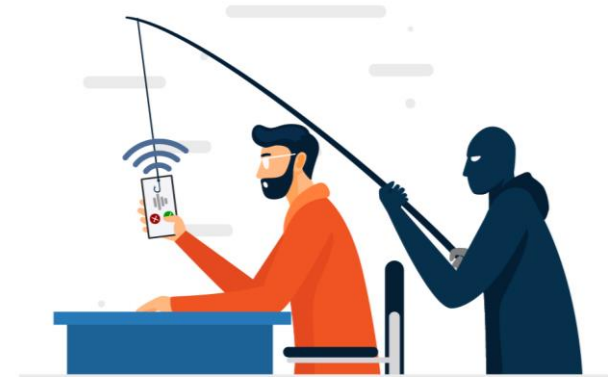Project duration: August 2023 – November 2024

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Presentation content

1. The problem

2. AVoiD: Artificial Voice Detector

3. Business impact for partner organizations

4. Next steps & key message

5. Questions & Discussion

Problem

> ❗ **Synthetic audio/deepfakes are already being used for scams (fraud, espionage, …) and misinformation**

Company worker in Hong Kong pays out £20m in deepfake video call scam

Fake Joe Biden robocall tells New Hampshire Democrats not to vote Tuesday

THE TERRIFYING A.I. SCAM THAT USES YOUR LOVED ONE'S VOICE

Electricity and gas phone scams: two energy companies discovered simulating victims' voice consent with AI

Sources:
Company worker in Hong Kong pays out £20m in deepfake video call scam | Hong Kong | The Guardian
Fake Biden robocall tells voters to skip New Hampshire primary election
The Terrifying A.I. Scam That Uses Your Loved One's Voice | The New Yorker
Truffe telefoniche per luce e gas: scoperte due società energetiche che simulavano il consenso vocale delle vittime con l'IA

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Problem

> ❗ **Synthetic audio/deepfakes are every day easier to generate**

The 10 Best Free AI Voice Generators for 2025

Home > Blog > Video Editing

Last Updated on Jan. 17, 2025 – by **David Morgan**

♡ Add to My Favorites

ChatGPT can now see, hear, and speak

Google is using AI to make fake podcasts from your notes

Sources:
The 10 Best Free AI Voice Generators for 2025
ChatGPT can now see, hear, and speak | OpenAI
Google is using AI to make fake podcasts from your notes - The Verge

Problem

Can you spot the fake?

1) 🔊

fake

2) 🔊

real

3) 🔊

fake

Audio source: 1 + 2: ASVSpoof5 challenge
3: NotebookLM

The problem – Impact insurance
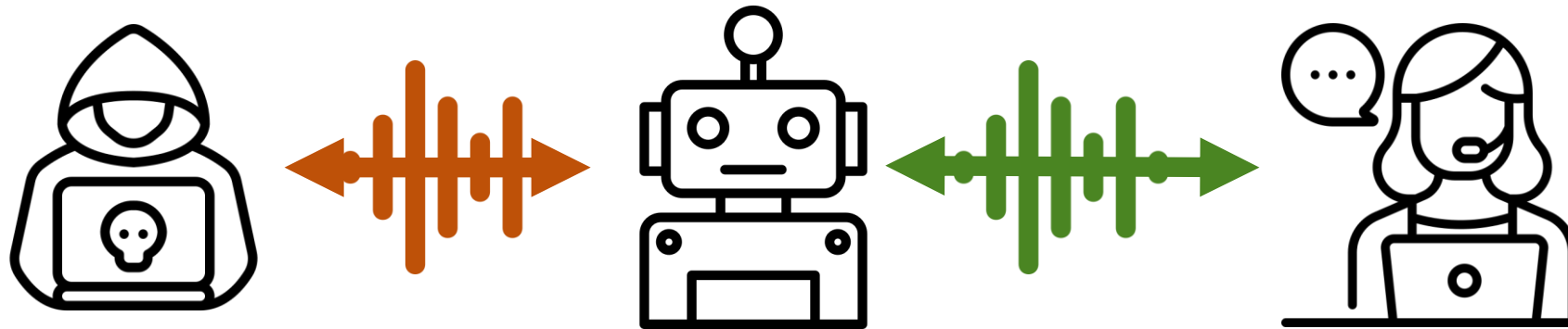
The problem - Impact high tech industry

Soon
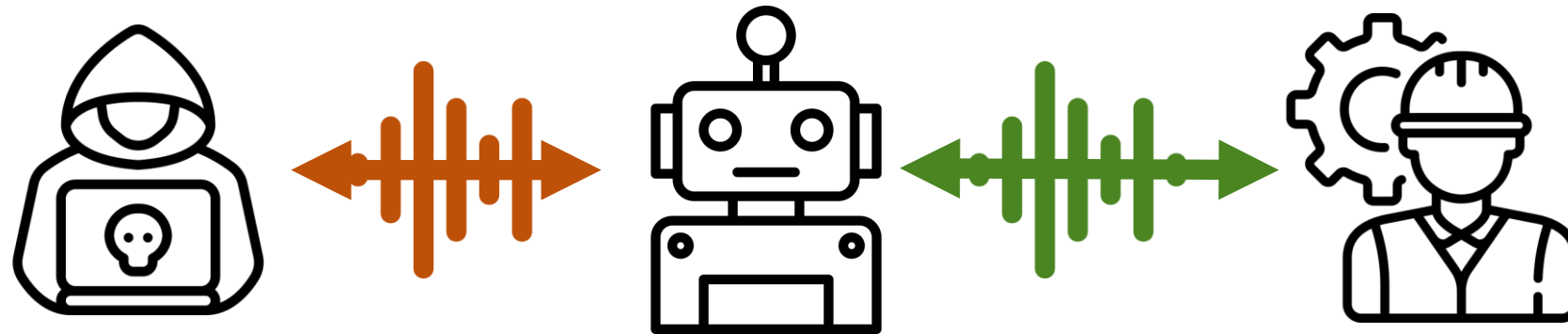
Yeah I can send you the documentation of machine X!

The problem - Impact financial industry

Soon
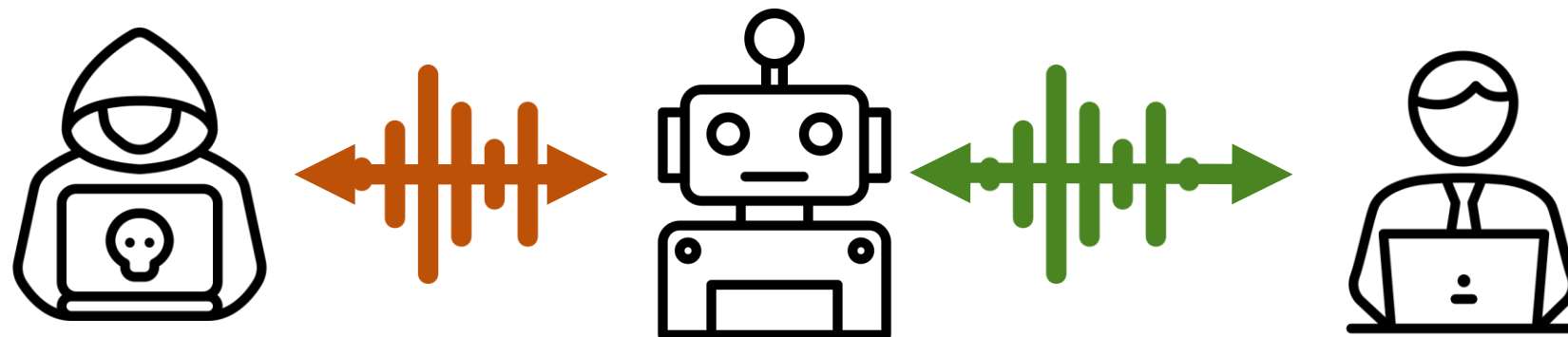
The problem – in the future

In a few years...
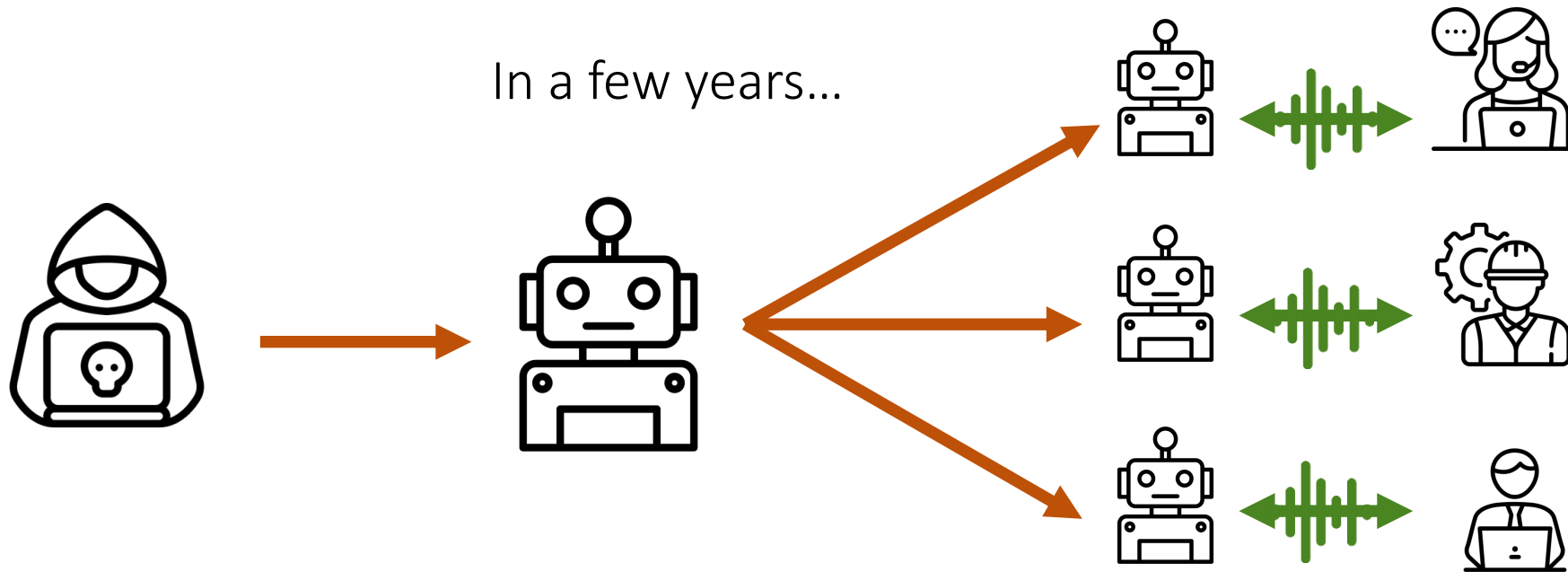
❗ What would 10, 100, 1000 deepfake calls a day mean for your organization?

*3 seconds are enough

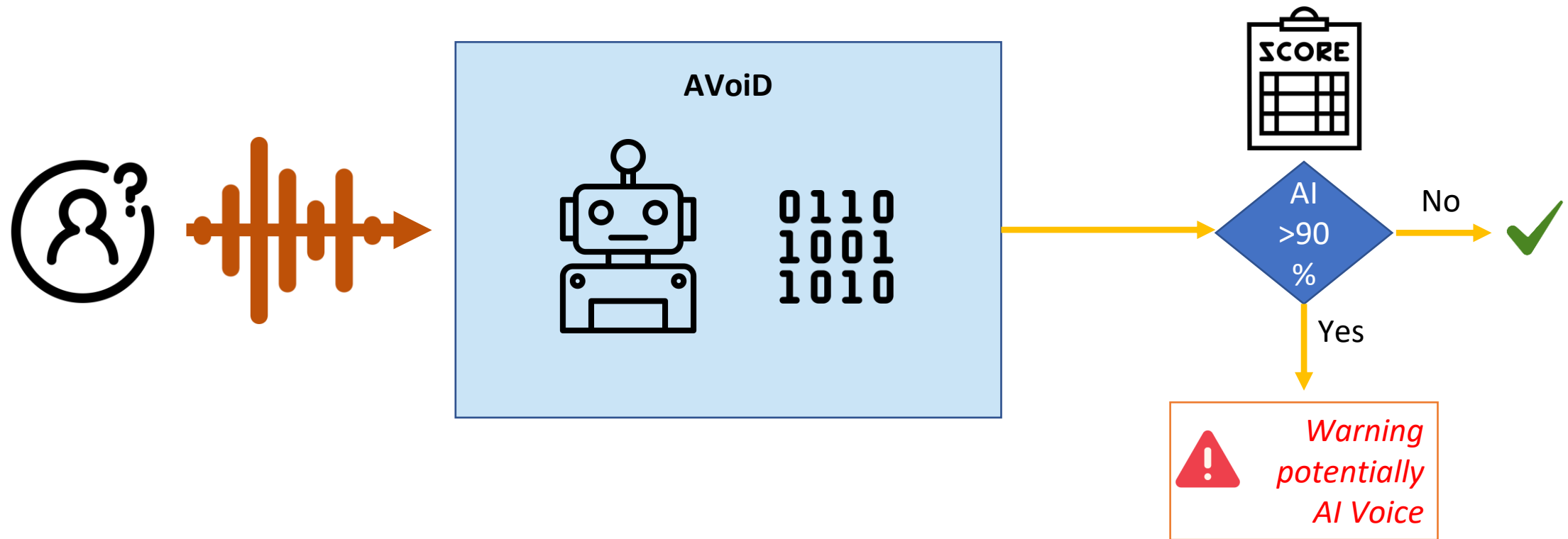❗ How many hours of your CEO talking about sustainability are available on Linkedin*?

How to generate automated helpdesks:
Most Voip Library — Most Voip API 0.1.0 documentation
OpenPhone | Collaborative business phone for startups and small businesses

AVoiD: Artificial Voice Detector

Business impact for partner organizations

Result: Implementation of the Artificial Voice Detector on the Achmea Analytical Environment.

Impact:
- Raising further **awareness** on the subject of Deepfake Audio;
- The current PoC can already be used as a **benchmark** for commercial solutions;
- Working towards the PoC gave us insights in what must-have and nice-to-have **requirements** a commercial solution should have.
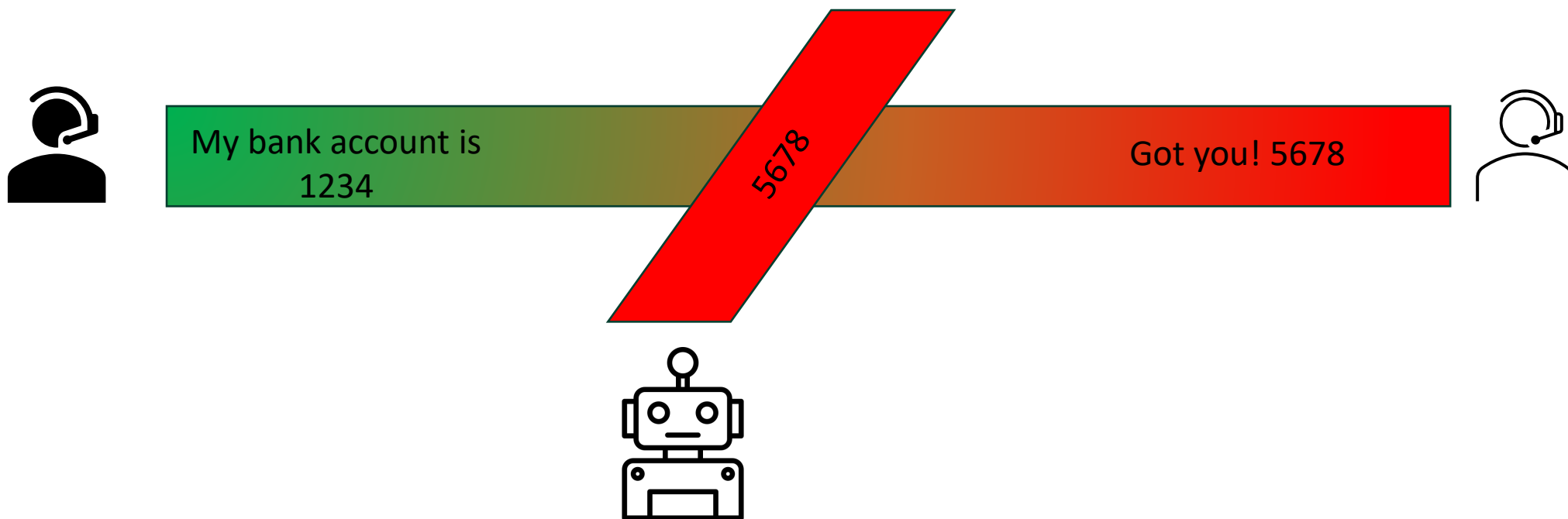
Next steps for AVoiD

- Improve segmentation analysis to identify partially doctored real audios
  (Threat: Audio-Jacking: Deep Faking Phone Calls, Audio-jacking: Using generative AI to distort live audio transactions)
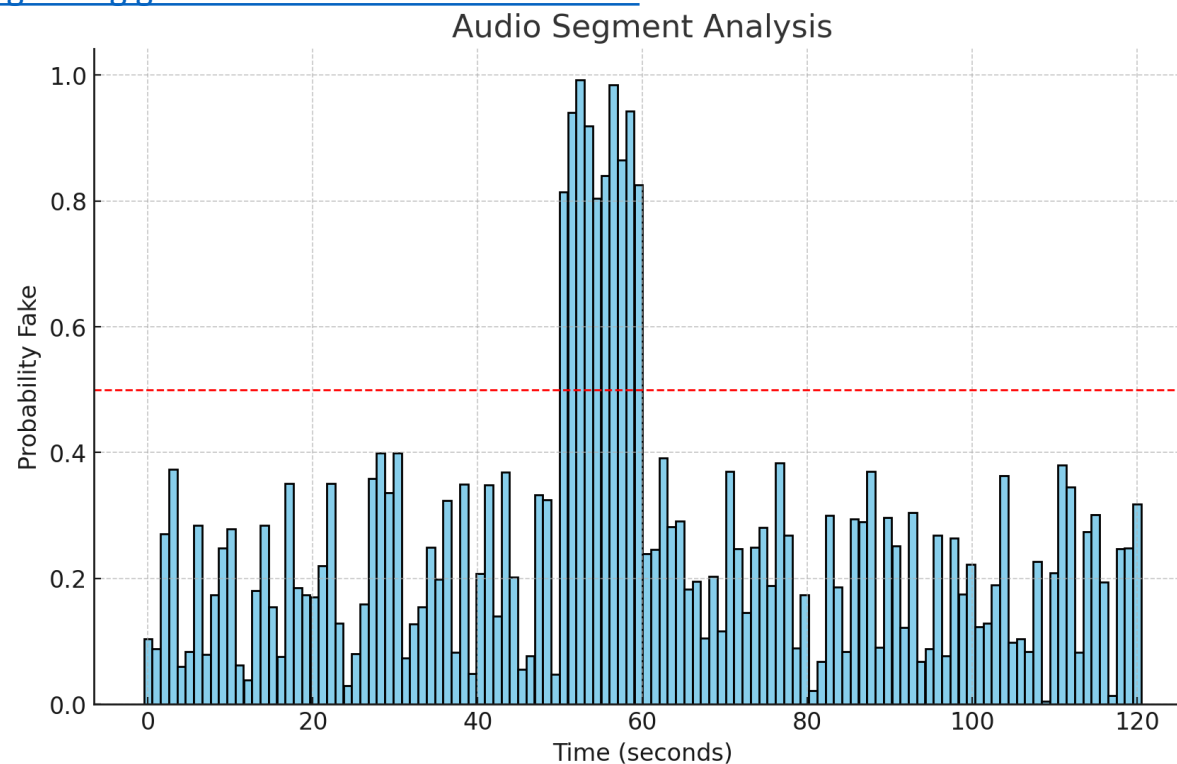
My bank account is 1234

5678

Got you! 5678

Next steps for AVoiD

- Improve segmentation analysis to identify partially doctored real audios
  (Threat: Audio-Jacking: Deep Faking Phone Calls, Audio-jacking: Using generative AI to distort live audio transactions)

Probability audio is AI: 20%

✅

→

### Audio Segment Analysis

Warning: artificial segment detected ⚠️

Next steps for AVoiD

- Improve segmentation analysis to identify partially doctored real audios
  (Threat: [Audio-Jacking: Deep Faking Phone Calls](#), [Audio-jacking: Using generative AI to distort live audio transactions](#))

- Better integration capabilities (also depending on use case)

- Multi-language data analysis
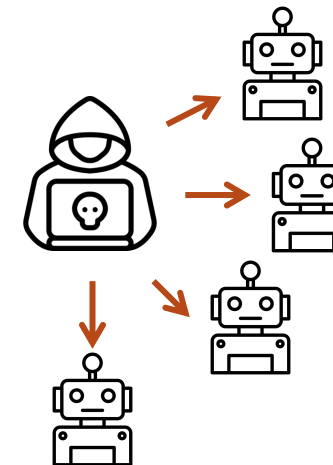
- Join Horizon 2025 call

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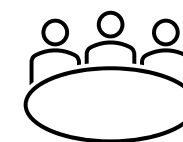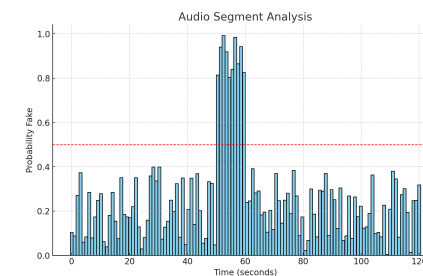
Key message & next steps for your organization

Deepfake frauds, scams and misinformation will soon be pervasive in our society

How do we keep ourselves safe?

- Keep following developments in the field of AI-assisted audio/visual generation

- Invest in innovation to mitigate the risks

Thank you!

Partnership for Cyber Security Innovation is a collaboration of

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