

## Voice Cloning

### Why in News?

Voice clone fraud has been on the rise in India.

### What is voice cloning?

- **AI voice cloning** – It is the process of creating a synthetic replica of a person's voice through machine learning and speech synthesis technology.
- It is called as voice deepfakes or audio deepfakes.
- **Objective** – To achieve a high level of naturalness that sounds exactly like a person's voice.

### Usage of Voice Deepfakes

- **Voice assistants** – Creation of personalized voice assistants, chatbots, video game characters, animated film avatars, custom call centre voices, and much more.
- **Language translations** – Meta's SeamlessM4T, can understand nearly 100 languages from speech or text and generate translations in real-time.
- **Protecting original voices** – Apple introduced a voice cloning feature to help people who may be in danger of losing their voice say to a degenerative disease.
- **Creating new songs** – YouTube's Dream Track partners with creators in the U.S. to allow them to create song clips featuring AI vocals with permission from pop stars.
- **AI Voice Scams** – Easy access to AI voice clones also spawned disinformation.
- **Rallying for votes in Election** – A Pakistan based political party used an AI-generated speech from the now imprisoned leader in an attempt to rally for votes virtually.
- **Generating hate speech** – Harry Potter actress Emma Watson voice reading out a portion of the Mein Kampf.

### How are voice clones done?

- It is a complex process that involves audio data, an algorithm to train on the data, and finally fine-tuning your cloned AI voice.
- **Requirement** – AI model will require audio data for the machine learning process to trigger.
- **Ways to share audio data** – Uploading an audio file or recording voice samples in the app.



- The recorded or uploaded audio data is then analyzed by our model to extract various acoustic features, such as pitch, tone, and rhythm.

- **Speech synthesis** - The analysed audio is used to train a speech synthesis model, such as a neural network.
- The model is trained on this data to pick up on the nuances and acoustic features of the user's voice.
- **Speech perfection** - Once the voice is cloned, the user has the option to continue refining the AI voice with various voice augmenting variables such as prosody, phoneme, and emotions.

*A report by Market US has revealed that the global market for these applications stands at \$1.2 billion in 2022 and is estimated to touch almost \$5 billion in 2032 with a CAGR above 15-40%.*

### What is the scenario of AI voice clone scams in India?

- **'The Artificial Imposter' Report**- India topped the list with the maximum number of victims.
  - 47% of surveyed Indians have either been a victim or knew someone who had fallen prey to the scam.
  - Scam in India is almost twice the global average of 25%.
- **McAfee Report** - 66% of Indian participants admitted that they would respond to a voice call or a phone call that appeared to be from a friend or family member in urgent need of money.
  - The most effective excuses used by the sender were that they had been robbed (70%) and involved in a car accident (69%).
  - 86% Indians were prone to sharing their voice data online or via voice notes at least once a week.

### What can be done?

- **Starting voice cloning challenges** - Public can be asked to send in their ideas to detect, evaluate and monitor cloned devices.
- **Adopting impersonation rules** - It will help deter deceptive voice cloning
- **Quickening regulators response** - The control measures be taken at the pace at which generative AI releases are moving.
- **Digitally signed videos** - To verify that content can be trusted.
- **AI voice clone detectors** - Advancing their development and promoting its active usage.
- **Cracking down social media platforms** to control the spread.
- **4 dangerous signs to watch out for**
  - Unexpected calls
  - Urgent requests
  - Unnatural speech patterns
  - Requests for money or personal information

### References

1. [The Hindu| Voice Cloning as Scams](#)
2. [Resemble.AI| Process of Voice Cloning](#)
3. [Times of India| Measures to control Voice Cloning Scams](#)

