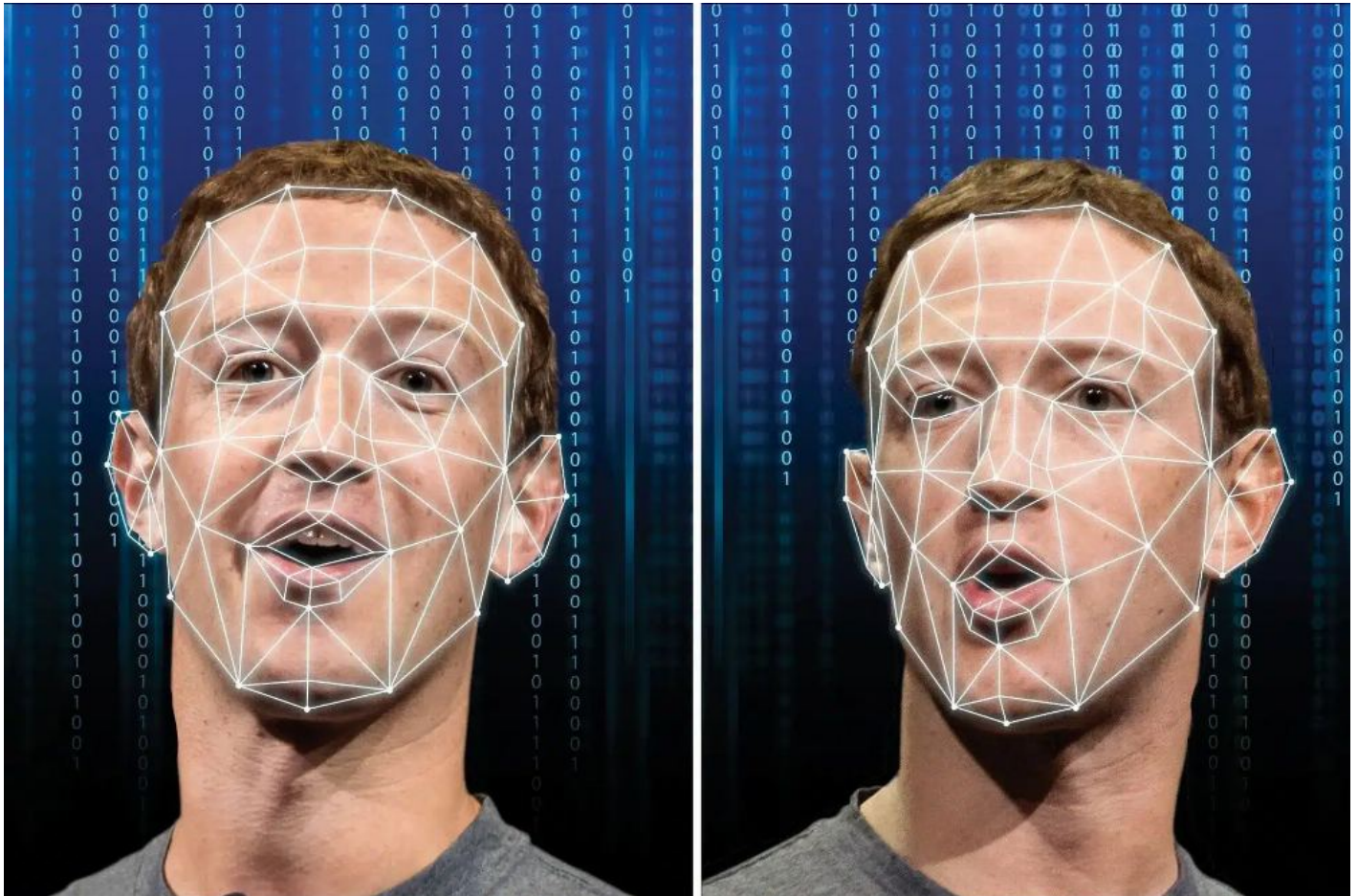


What are Deepfakes?

August 29, 2024 • vajiramandravi.com



About Deepfakes:

- Deepfakes are **synthetic media**, including images, videos, and audio, **generated by artificial intelligence (AI)** technology that **portray something that does not exist in reality** or **events that have never occurred**.
- The term deepfake **combines deep**, taken **from AI deep-learning technology** (a type of machine learning that involves multiple levels of processing), **and fake**, addressing that the **content is not real**.
- It **can create people who do not exist**, and it can **fake real people saying and doing things they did not** say or do.
- Background: The origin of the word “deepfake” can be traced back to 2017, when a Reddit user with the username “deepfakes”, posted explicit videos of celebrities.
- **Working:**
 - They are created by **machine learning models**, which **use neural networks** to **manipulate images and videos**.

- To make a deepfake video of someone, **a creator would first train a neural network on many hours of real video** footage of the person **to give it a realistic “understanding”** of what he or she looks like from many angles and under different lighting.
- Then **they’d combine the trained network with computer-graphics** techniques **to superimpose a copy of the person** onto a different actor.
- Deepfake technology is now being **used for nefarious purposes** like **scams and hoaxes, celebrity pornography, election manipulation, social engineering**, automated disinformation attacks, identity theft, and financial fraud.

Deep fakes differ from other forms of false information by being **very difficult to identify as false**.

Q1: What is machine learning?

Machine Learning, often abbreviated as ML, is a subset of **artificial intelligence (AI)** that focuses on the development of computer algorithms that improve automatically through experience and by the use of data. In simpler terms, machine learning enables computers to learn from data and make decisions or predictions without being explicitly programmed to do so.

Source: **South Korea battles surge of deepfake pornography after thousands found to be spreading images**

Source: <https://vajiramandravi.com/current-affairs/deepfakes/>

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