

What are Shallowfakes?

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About Shallowfakes:

- Like deepfake, shallowfake is also an act of **morphing people's pictures** and using them for malicious activities. But unlike deepfake, which is created by using advanced artificial intelligence (AI) software, shallowfake can be **created by simply** using **basic editing software**.
- They are **made with existing technologies**—for example, a conventional edit on a photo, slowing-down a video to change the speech patterns of an individual or more often, relying on mis-captioning or mis-contextualising an existing image or video, claiming it is from a time or place which it is not from.
- And precisely because of this easier way to create them, many experts consider shallowfakes to be **bigger threats than deepfakes**.
- **Why are they called shallow?** The term 'shallow' implies the quality of such fakes, which are lower in quality compared to deepfakes.
- They are **used to create a false proof of identity** or address, including photo ID documents like passports, driving licences etc.
- It is also used to **create fake supporting evidence** to support a claim or transaction, like contracts, agreements and invoices for services, no claims discount certificates, etc.

What are Deepfakes?

- Deepfakes are a **compilation of artificial images and audio** put together **with machine-learning algorithms** to spread misinformation and replace a real person's appearance, voice, or both with similar artificial likenesses or voices. The term "deepfake" combines the deep learning concept with something fake.
 - It can **create people who do not exist** and it can fake real people saying and doing things they did not say or do.
 - **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.
 - Deep fakes differ from other forms of false information by being **very difficult to identify as false**.
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Q1: What is Machine Learning?

Machine learning is an essential branch of artificial intelligence that employs data and algorithms to mimic human learning processes, gradually enhancing its accuracy. It is a cornerstone of the emerging field of data science. It involves training algorithms to find patterns in data, which enables them to make predictions or perform tasks without being explicitly programmed.

Source : More than deepfakes, shallow fakes should worry everyone

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

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