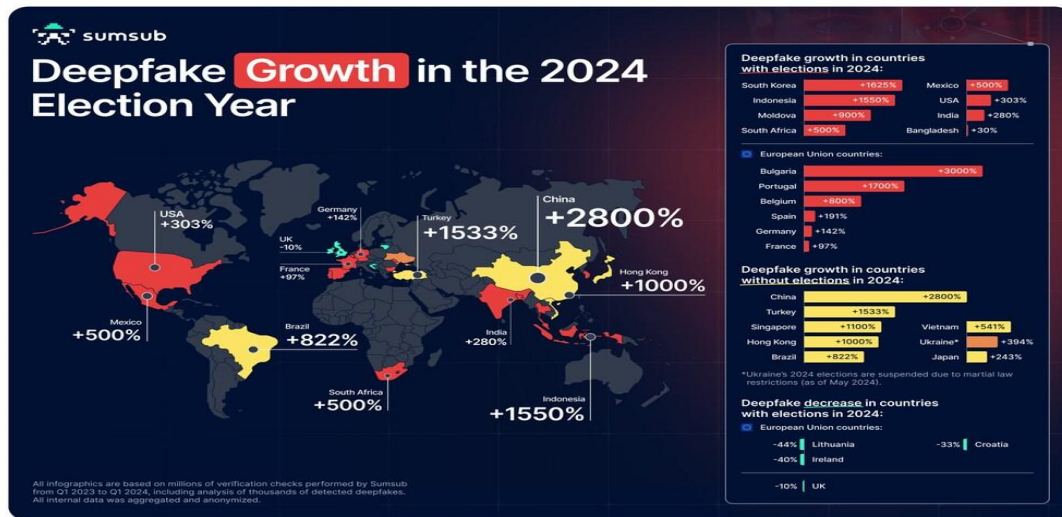


Understanding Deepfakes and Cheapfakes

In the digital age, fake videos and manipulated media are becoming more common. Two popular forms of such content are 'Deepfakes' and 'Cheapfakes'. Although both aim to deceive, they differ in how they are made and how convincing they are.



What are Deepfakes?

Deepfakes are artificially generated or altered visual or audio content created using sophisticated machine learning techniques such as **Generative Adversarial Networks (GANs)**. These technologies allow for the seamless substitution of faces, voices, and movements in multimedia, resulting in extremely realistic manipulations that are difficult to detect with the naked eye.

Deepfakes have evolved significantly, from experimental clips to high-fidelity forgeries that pose real-world threats in areas such as politics, cybersecurity, and media integrity.

Types of Deepfakes

1. Face Swapping

This involves replacing a person's face in a video or image with that of another individual. It's commonly used in viral content and spoof videos.

2. Voice Cloning

Through AI models trained on voice data, deepfakes can replicate a person's voice with high accuracy, often used in scam calls and fraudulent authorizations.

3. **Full-body Puppetry**

This technique animates the full body of a person to mirror another's gestures, posture, and expressions.

4. **Lip Syncing**

AI is used to generate realistic lip movements that are matched to alternate audio, making it appear as if a subject is saying something they never actually said.



What are Cheapfakes?

Cheapfakes are media manipulations created without artificial intelligence. These alterations typically involve **basic video or audio editing techniques** such as trimming, reordering scenes, slowing down or speeding up footage, or muting parts of the audio. While technically less complex than deepfakes, cheapfakes can be just as damaging, especially when shared widely and out of context.

They are frequently used to distort reality in political campaigns, fake news, and viral hoaxes due to their ease of creation and rapid distribution.

Types of Cheapfakes

1. **Speed Manipulation**

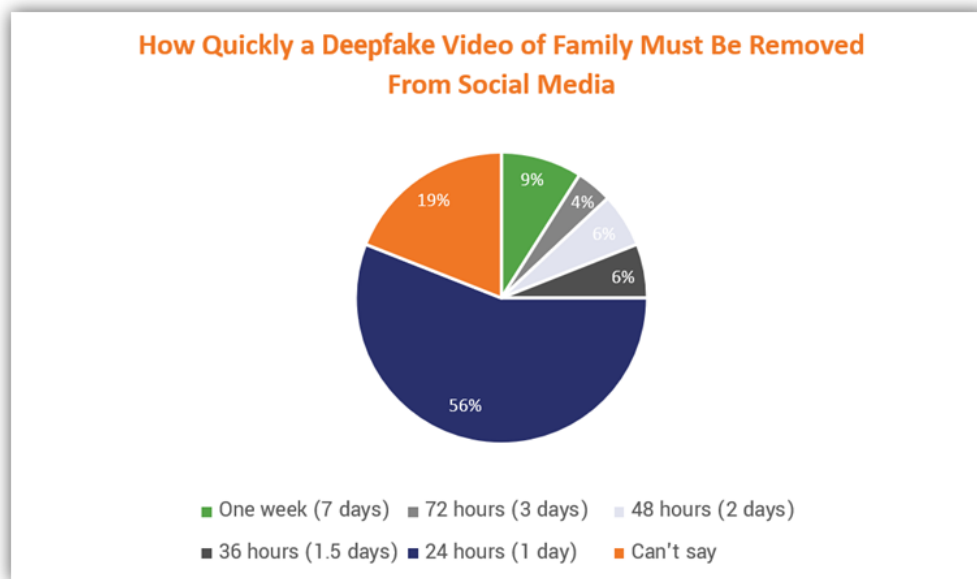
Altering the playback speed to distort speech patterns or physical behavior (e.g., making someone appear drunk or mentally unfit).

2. **Cutting and Reordering**

Removing or rearranging clips to change the original meaning or narrative context of the content.

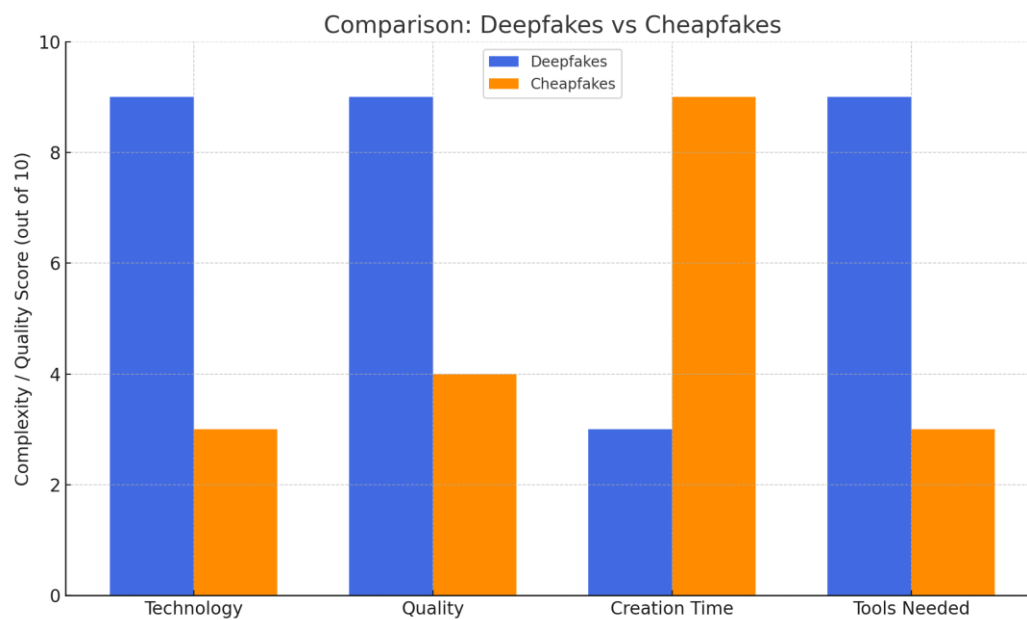
3. Audio Replacement or Muting

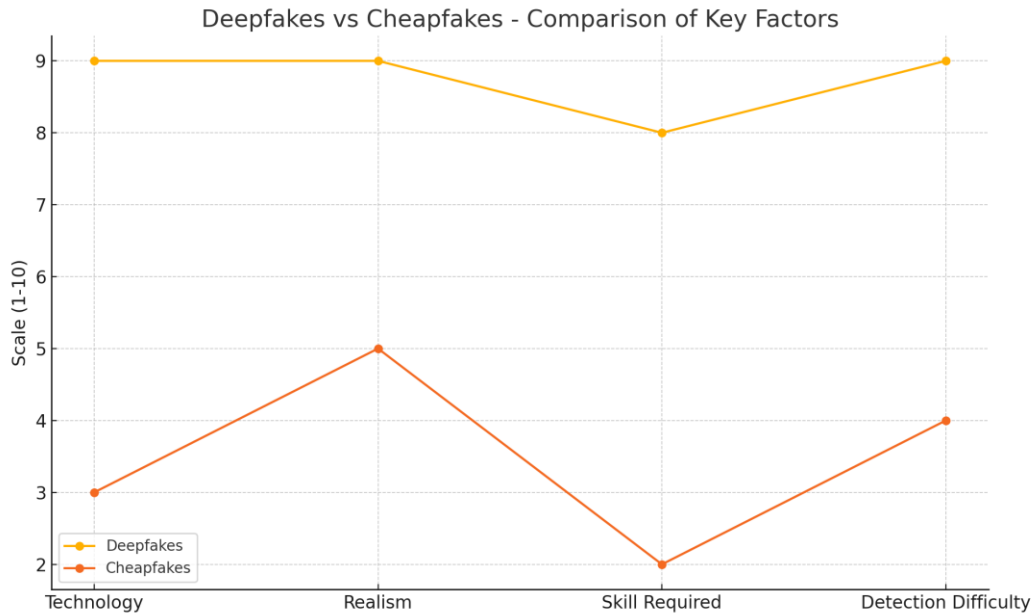
Silencing audio or adding unrelated sound to change how a scene is interpreted.



Visual Comparison: Deepfakes vs Cheapfakes

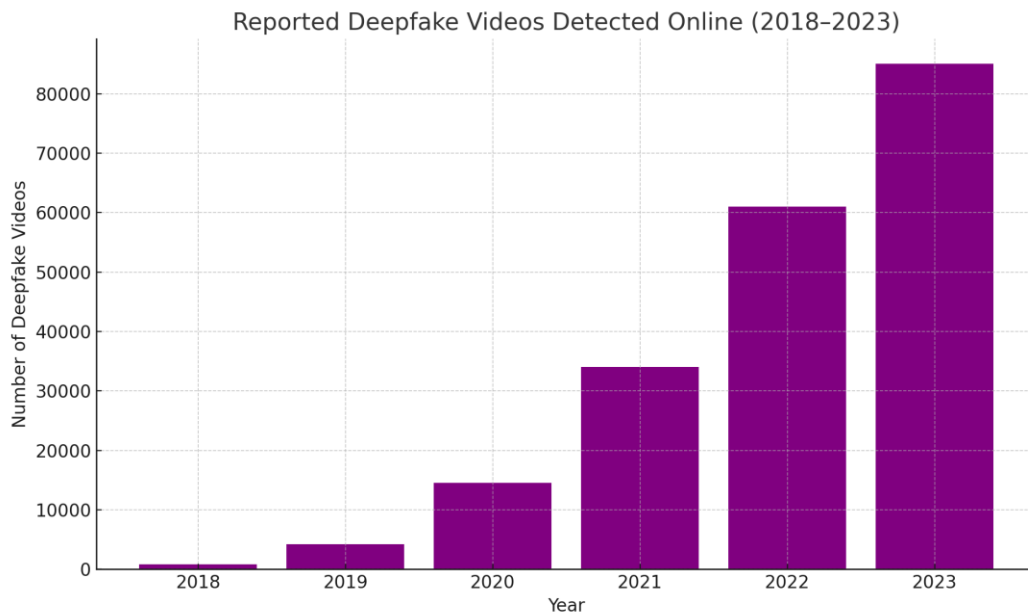
The graph below shows a comparison of key factors between Deepfakes and Cheapfakes:





Growth of Deepfake Content Over Time

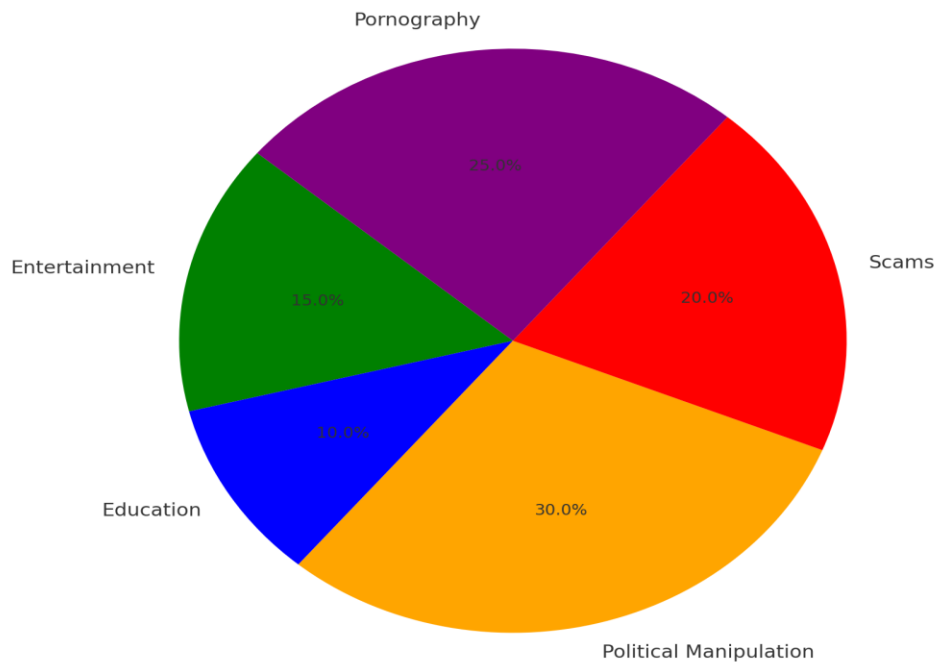
The number of deepfake videos detected online has increased rapidly in recent years. The bar chart below shows this trend:



How Are Deepfakes Being Used?

Deepfakes can be used for both good and bad purposes. For example, they are used in movies and education but also in scams and misinformation.

Distribution of Deepfake Usage by Purpose



Conclusion

Both deepfakes and cheapfakes represent serious challenges in the age of digital media. While deepfakes use complex AI systems to create highly realistic fake content, cheapfakes rely on simple editing to achieve similar deception. Recognizing their differences, use cases, and detection strategies is vital for media professionals, educators, policymakers, and the general public alike. Continued awareness, regulation, and technological countermeasures are necessary to preserve truth and trust in the digital world.

