

Deepfakes and the New AI-Generated Fake Media Creation-Detection Arms Race | Scientific American

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Falsified videos created by AI—in particular, by deep neural networks (DNNs)—are a recent twist to the disconcerting problem of online disinformation. Although fabrication and manipulation of digital images and videos are not new, the rapid development of AI technology in recent years has made the process to create convincing fake videos much easier and faster. AI generated fake videos first caught the public's attention in late 2017, when a Reddit account with the name Deepfakes posted pornographic videos generated with a DNN-based face-swapping algorithm. Subsequently, the term deepfake has been used more broadly to refer to all types of AI-generated impersonating videos.

While there are interesting and creative applications of deepfakes, they are also likely to be weaponized. We were among the early responders to this phenomenon, and developed the first deepfake detection method based on the lack of realistic eye-blinking in the early generations of deepfake videos in early 2018.

Subsequently, there is a surge of interest in developing deepfake detection methods.

[...]

Source: [Deepfakes and the New AI-Generated Fake Media Creation-Detection Arms Race - Scientific American](#)