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Deep fakes, artificial intelligence and misinformation

Subject of Interest:

Deep fakes, artificial intelligence advancement and information distribution

Possible Title:

Face swapping is only fun on Snapchat (I'm actually not serious about this title, I need help with this! Any ideas?

Thesis:

Deep fakes technology has advanced rapidly and contributed to the proliferation of misinformation in the society bringing about negative consequences for communication and privacy.

Main points to cover:

Deep fakes have become more popular in the last five years and people almost did not notice. These videos aim to show the viewer a message that is, in reality, not true. Computer programs are able to swap faces, and even sync audio, of people who usually have some kind of influence on the world, creating a video that is completely fake. As technology advances experts, and even ordinary people, have access to applications and software capable to create these clips. One of the most challenging parts about this matter is that deep fakes creators have become so skillful that is difficult for the natural eye to detect the fakeness of the video. This results in the distribution of misinformation and confusion among the society. Artificial intelligence has found its way to rapidly widespread the captures causing a number of difficulties, even harm in some cases, for celebrities and politicians. Privacy and integrity of individuals have been affected and it does not seem like an easy solution can be found. However, experts believe that

not only the content should, and certainly can be, authenticated before it spreads, but also the tools used to manipulate image and audio should be detected.

Sources:

- Chesney, Bobby, and Danielle Citron. "Deep Fakes: A Looming Challenge for Privacy,

 Democracy, and National Security." *California Law Review*, vol. 107, no. 6, Dec. 2019,

 pp. 1753–1819. *EBSCOhost*, doi:10.15779/Z38RV0D15J.
- Kertysova, Katarina. "Artificial Intelligence and Disinformation: How AI Changes the Way Disinformation Is Produced, Disseminated, and Can Be Countered." *Security & Human Rights*, vol. 29, Dec. 2018, pp. 55–81. *EBSCOhost*, doi:10.1163/18750230-02901005.
- Xinyi Ding, et al. "Swapped Face Detection Using Deep Learning and Subjective Assessment."

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 EBSCOhost, doi:10.1186/s13635-020-00109-8.