DeepFake Technology

Deepfake Technology uses some AI techniques and deep learning, to create convincing fake videos, images and audio recordings. They use thousands of real photos, facial expressions, voice patterns, mannerisms, to teach AI to simulate as close as possible the person itself. The DeepFake Technology, is not only used to involve real people faking unreal scenarios but also to create non-existent people.

Deepfakes are not manually edited by humans but created by advanced algorithms which merge in an almost perfect way existing footage and created images.

Actually, this is not that perfect because most of these creations are made in a very basic way, the deepfakes do not blink, the mouth when moving doesn't match with the speech, image flaws and many of the people's expressions are not so real.

There are some positives and negatives using this technology, they are used in entertainment and media for example, they are used to create realistic real characters to movies and videogames. Recreate historical characters, which is important in the educational aspect.

Accessibility is one of the areas where it is used to help people with disabilities, creating virtual speech for example.

But the negatives are substantially serious and dangerous, because this technology is used essentially to spread misinformation and fake news convincing people that they are seeing politicians and public figures spreading false information. To commit frauds, where they can create someone's image to bypass a security system. Revenge porn is a huge concern globally too, since it represents an overwhelming majority of creations.

Society will face several challenges, because this technology has advanced too quickly, and it has not prepared for its evolution. Most of them are linked to legal problems since most countries don't have an efficient legal system to fight and punish this problem.

This can have a psychological impact on our society, making it even harder to distinguish between truth and fake information, leading to increased skepticism, confusion, and distrust in media, authorities, and even personal relationships.

AI systems are needed to differentiate deepfakes, but the technology keeps improving, making detection harder, as it happens in areas like cybersecurity and medicine where the fight tends to always be seen trailing the problem.