

The role of art in shaping artificial intelligence ethics to general public

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Abstract

Deepfake is creating realistic forgeries that make people unable to distinguish reality from fiction, while filtering algorithms distort the perception by amplifying the interests of the user. From the way we perceive society to the way we perceive ourselves, the virtual environment is changing fundamental mechanisms of life. Due to the rapid growth of the virtual world and its hazy moral context, our society needs to build the groundwork of an ethical code for the online environment. Powerful and fascinating technologies are used to produce art that captivates and impresses the general public. The artworks highlight ethical problems that our society is facing, creating a thoughtful space of analysis, experience and debate around the moral concerns in the technological era. This paper contains a short analysis on some of the main threats of artificial intelligence along with the proposal of art as a way to approach technology ethics on a large scale.

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Summary

A complete and valid perspective, gathered from a multitude of different subjective information sources, is the perfect context in which a person can take decisions. The growth of social platforms made them slowly become the main source of information for a large percentage of people [6]. The information users receive is being filtered by artificial intelligence algorithms that rank each post based on likes, comments, and time spent watching in order to assure comfort and deliver “only” desirable content. This creates well-separated and polarized communities where the user's perspective is narrowed to its beliefs, amplifying the factionalism of the modern world [7,9].

The pleasurable posts the viewers see are not only filtered but they can also be forgeries. Deepfake has become a popular technology which allows the creation of fake media on a targeted person. Creating deepfake content is so easy that anyone, with no technical skills, can use it on websites like <https://deepfakesweb.com/> or <https://mmasked.com/>. This technology has already started to be weaponized to harass persons by creating deepfake pornography. Being a victim of deepfake can be a serious problem and due to the non centralised nature of the internet the fake content may never disappear, irreparably damaging the public image and mental health of the victim.

The distortion of information does not only affect the perception about society but also change the opinion and standards about the self. The way humans measure their success is by comparing with others [1]. Seeing society through the veil of social media affects self-esteem because people compare themselves with virtual profiles [4]. Artificial intelligence algorithms can remove imperfections, lighten the color of the skin, and modify body proportions, features that humans do use to display their perfect image. There is no surprise that photo editing behaviour is very popular [4] making people feel like everyone around has the perfect look. This is the cause

of increased dissatisfaction of people with their own body and is affecting persons from all ages [8].

The artificial intelligence advancements impact society as a whole, not only specialists who understand and develop these technologies. Our society needs a way of debating meaningful ethical problems on a large scale. We argue that the latest forms of art created using AI technology and promoted by organizations like ArsElectronica or NestaItalia, are a solution to involve the population in the analysis of complex ethical issues raised by technology advancements.

My work is an interactive art installation called "The profile" and a presentation of it can be found at <https://storage.rcs-rds.ro/links/c654e523-9ea9-4f62-abcf-884d08bb2ece>. "The profile" is composed of three parts that match the steps of creating an online identity.

First the user explores a virtual environment where he or she projects ideas in the physical world using its own body. He is becoming an active cog in the mechanisms of spreading fake, aggressive and sexualised content, being faced with some of the major social media trends that influence society. The content is structured in three circles of hell inspired by Dante's Divine Comedy: limbo, lust and anger.

The second part is agreeing the terms and conditions, allowing the software to use private data and narrow the users perspective, which is the modern Faustian bargain. The Faustian pact is essentially the renunciation of any form of self-determination, decision, free will and the transfer of decision-making authority to an external entity. It is a comfortable position, in which the truths are clear and come ready, nullifying the need for discernment. Today we witness the modern Faustian bargain: the information people receive is almost always in concordance with their beliefs, everything else being filtered by algorithms.

The third part is exploring the profile in which the viewer is confronted with a deepfake of his own body. The user can see itself like in a mirror but the software takes control over the image at random intervals, increasing the confusion between what is real and what is generated. Instead of an emotionally distant written article, the user experiences first hand the impact of private data manipulation being, for a short period of time, a victim of deepfake.

Technically, the skeleton that represents the alter ego of the subject in the first two parts is generated using Openpose [5]. When the user explores the circles of hell, the computer captures images of the body and its matching skeleton, which are used to train a Pix2Pix Generative Adversarial Neural Network [2]. The neural network creates realistic fake images of the user's body which are used in the last part of the installation.

The approach in which the viewer is placed as a central rational mind and confronted with ethical issues is what art excels at. Combining all senses in order to express feelings and create experiences that highlight the complex nature of today's ethical problems is what our society needs in order to have a general awareness and debate on ethics and morality in the virtual environment.

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