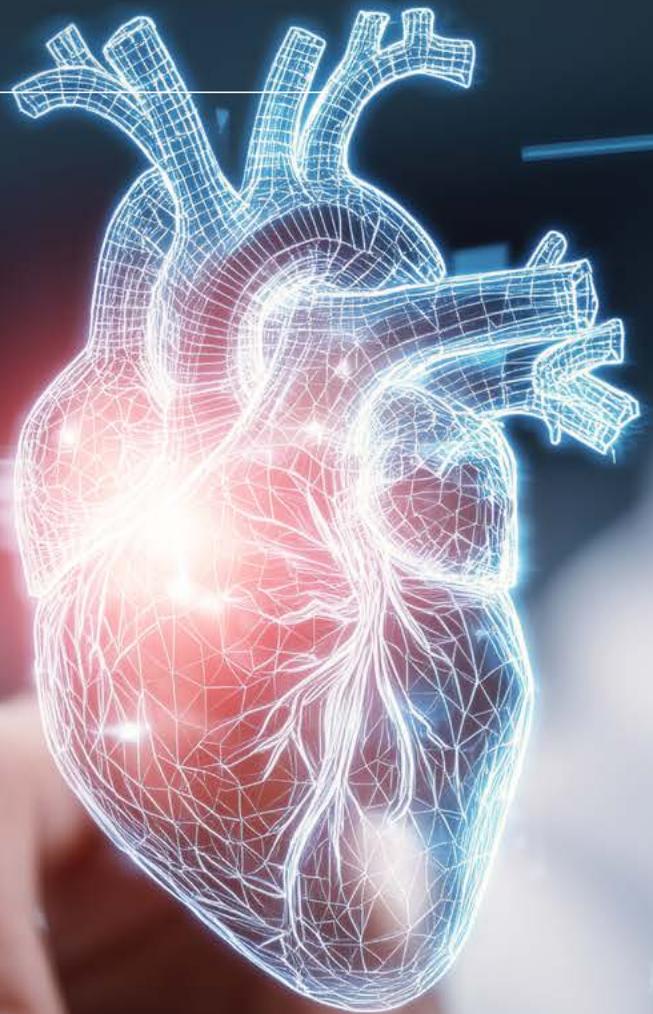


# Generative artificial intelligence for human rights: disregarded prosocial uses of deepfake technology and their connection to human rights

by Can Yavuz and Gert Vermeulen



## Introduction

Nowadays, it is difficult to escape conversations about generative artificial intelligence (GenAI). This widespread attention stems from its rapid advancement. A glance back at the dawn of the century demonstrates the scale of this progress. In 2002, the science fiction movie *S1m0ne* portrayed the story of a producer who created a digital actress to substitute the lead actress who had walked away from his film. That same year, in *Ashcroft v. Free Speech Coalition*<sup>1</sup>, the Supreme Court of the United States struck down a law that criminalised virtual child sexual abuse material on the grounds that it lacked photorealism. In the dissenting opinion, Justice Rehnquist warned that rapidly advancing technology would soon make computer-generated images indistinguishable from authentic ones. That day has arrived. Today, GenAI systems can create synthetic but hyperrealistic images, videos, and audio, referred to as deepfakes.

How society uses and regulates a disruptive technology is con-

siderably influenced by its public perception. In the case of deepfake technology, media coverage and academic discussions have substantially concentrated on its misuse,<sup>2</sup> often presented through eye-catching headlines. “AI could set us back 100 years when it comes to how we consume news<sup>3</sup>”, “Will deep-fake technology destroy democracy?<sup>4</sup>”, and “AI-assisted fake porn is here and we are all f\*\*ked<sup>5</sup>” were some of the many examples. This narrative has fostered the negative connotation of deepfake<sup>6</sup> and arguably reduced it to a threat against human rights.

There is no denying that deepfake technology has been used for malicious purposes. One of the first widespread (mis)uses of deepfakes was image-based sexual abuse, which was followed by its weaponization for disinformation, online child sexual abuse, fraud, and fabricated evidence. Nevertheless, focusing solely on the dark side of deepfakes presents an incomplete and potentially misleading picture. Deepfake technology has many (overlooked) prosocial uses that can help

the realization of human rights. Given that the narrative surrounding a disruptive technology may influence its use and its regulation, it is necessary to look at the other side of the coin to gain a more nuanced understanding. Thus, let us explore the often disregarded prosocial uses of deepfake technology and their connection to human rights.

## Prosocial uses of deepfake technology and their connection to human rights

The following explores the disregarded prosocial uses of deepfake technology and how they can contribute to the realisation of the freedom of expression, the right to education, the right to health, and the right to justice and security, respectively.

Regarding freedom of expression, deepfake technology unlocks opportunities for political speech. While behind bars, Pakistani politician Imran Khan used deepfake technology to deliver political speeches and

1 The Supreme Court of the United States, *Ashcroft v. Free Speech Coalition*, 535 U.S. 234, April 16, 2002.

2 Can Yavuz, “A Multidisciplinary Look at History and Future of Deepfake with Gartner Hype Cycle”, *IEEE Security & Privacy*, Vol. 2, Issue 2024.03, (May/June 2024). Alexander Godulla and others, “Dealing with Deepfakes - An Interdisciplinary Examination of the State of Research and Implications for Communication Studies”, *Studies in Communication and Media*, Vol. 10 Issue 1, (January 2021).

3 Jackie Snow, “AI Could Set Us Back 100 Years When It comes to How We Consume News”, MIT Technology Review, 7 November 2017.

4 Jennifer Finney Boylan, “Will Deep-Fake Technology Destroy Democracy?”, The New York Times, 17 October 2018.

5 Samantha Cole, “AI-Assisted Fake Porn is Here and We Are All F\*\*ked”, Vice, 11 December 2017.

6 Mariëtte van Huijstee and others, [Tackling Deepfakes in European policy](#), (Brussels, European Parliamentary Research Service, 2021).

run a successful campaign.<sup>7</sup> Deepfake technology can also be instrumental in activism, exemplified by the *Unfinished Votes* project. It digitally brought Joaquin Oliver — a 17-year-old victim of one of the deadliest school shootings in the United States of America — back to deliver one last message. In his deepfake, Oliver asks people to replace his vote in the next election for strict gun control laws.<sup>8</sup> Turning to satire, which also enjoys protection under freedom of expression, a noteworthy example is the deepfake web series *Sassy Justice*. It created deepfakes of fictionalised public figures and placed them into the world of a local journalist. The deepfake-powered series covers complex topics like disinformation, media independence, and nepotism in an engaging and light-hearted fashion.<sup>9</sup> Deepfake technology has the potential to enhance artistic expression as well. While this tool lowers the entry barrier for creative expression and empowers those lacking artistic skills, a growing number of artists use GenAI to create art.



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The right to education is another human right that can benefit from deepfake technology. This technology enables the smooth translation of auditory educational material across languages. Additionally, it can significantly lower the production costs of audiovisual educational content, making it more accessible and personalized for diverse learning needs. Deepfake technology can also provide a more interactive learning experience, particularly for visual learners. The Dalí Museum, which created

deepfakes of Salvador Dalí, is an example of these capabilities. The deepfake Dalí tells the story of his artwork and takes a selfie with museum visitors, creating lasting impacts on visitors.<sup>10</sup>

Deepfake technology presents innovative opportunities for the right to health. This is particularly true for health data sharing and medical research. The synthetic nature of deepfake can facilitate data masking, thereby contributing to privacy-preserving health data sharing. In some instances, the realism of deepfake health data can serve as a viable substitute for authentic data and support data augmentation in medical research.<sup>11</sup> Additionally, deepfakes can improve the quality of life for individuals with rare diseases. As an assistive self-visualisation tool, deepfake technology can be a remedy for aphantasia patients (people who cannot voluntarily generate visual imagery). Moreover, audio deepfake can enhance social interactions and well-being of people with speaking disorders by providing a per

7 Varg Folkman, "Pakistan's Imran Khan Uses AI to Make Victory Speech from Jail", Politico, 11 February 2024.

8 Change the Ref, "[UnfinishedVotes.com](https://www.youtube.com/watch?v=UnfinishedVotes.com)", YouTube, 2 October 2020.

9 Dave Itzkoff, "The 'South Park' Guys Break Down Their Viral Deepfake Video", The New York Times, 29 October 2020.

10 Dezeen, "[Museum Creates Deepfake Salvador Dalí to Greet Visitors](https://www.youtube.com/watch?v=MuseumCreatesDeepfakeSalvadorDaliToGreetVisitors)", YouTube, 28 May 2019.

11 Vajira Thambawita et al., "DeepFake Electrocardiograms Using Generative Adversarial Networks Are the Beginning of the End for Privacy Issues in Medicine", *Nature Scientific Reports*, vol. 11, Article number: 21896 (2021). Vera Sorin et al., "Creating Artificial Images for Radiology Applications Using Generative Adversarial Networks (GANs) - A Systematic Review", *Academic Radiology*, vol. 27, Issue (August 2020). Bingquan Zhu et al., "Deepfakes for Medical Video De-Identification: Privacy Protection and Diagnostic Information Preservation", *AIES '20: Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society* (2020). Hoo-Chang Shin et al. "Medical Image Synthesis for Data Augmentation and Anonymization Using Generative Adversarial Networks", *Simulation and Synthesis in Medical Imaging: Third International Workshop*, (2018).



sonalised synthetic voice, moving beyond the robotic voices used in traditional speech-assistive devices.<sup>12</sup>

In the context of justice and security, deepfake technology can offer useful applications. Its ability to create realistic and innovative facial reconstruction can aid forensic facial reconstruction. Similarly, deepfakes can reconstruct crime scenes to support criminal investigations. Finally, law enforcement authorities can use deepfake tools to identify and apprehend online child abusers.

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## Conclusion

Due to its misuses, deepfake technology understandably carries a negative connotation. Nevertheless, it is crucial to recognise that this technology is not solely a threat to human rights, but also an enabler for their realisation. In this light, deepfakes should be considered a dual-use technology, warranting a more nuanced and balanced public image that reflects its duality. Efforts to regulate this technology should likewise consider this duality and aim to minimise its misuses through proportionate measures while maximising its prosocial uses.

12 <https://projectrevoice.org/>.

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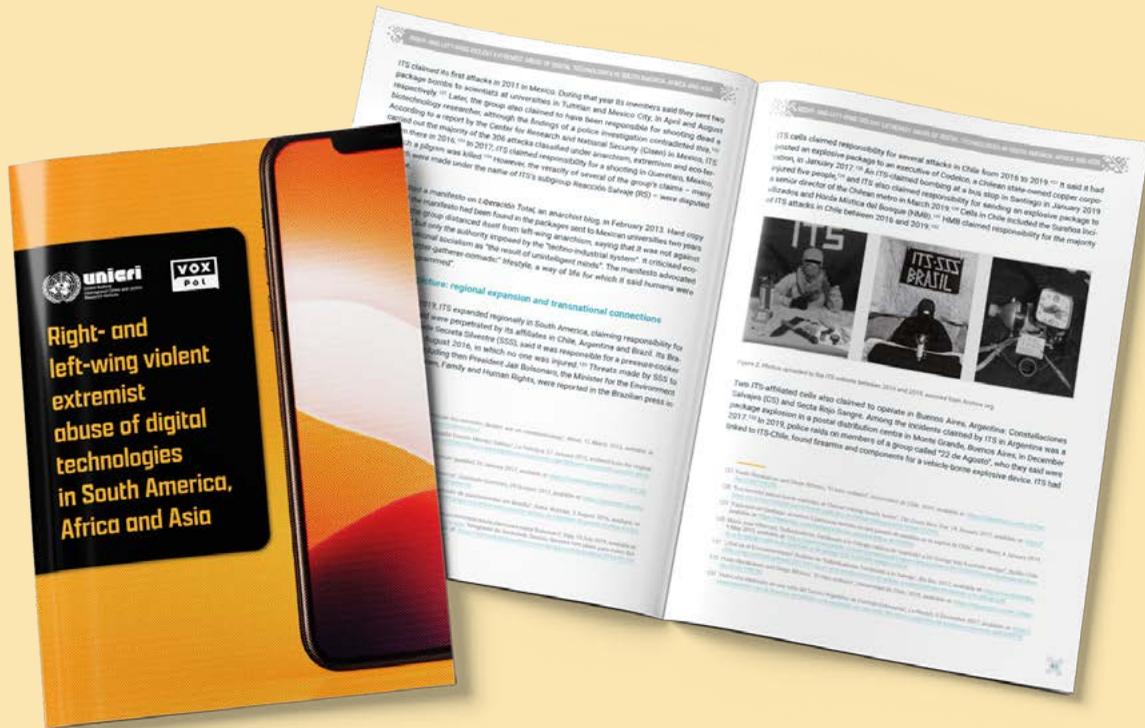
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