



Justice for Women: Deep fakes and Revenge Porn

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Abstract

Although manipulations of visual and auditory media are as old as media themselves, the recent entrance of deepfakes has marked a turning point in the creation of fake content. The ability to distort reality has taken an exponential leap forward with “deepfake” technology. This capability makes it possible to manipulated pictures, videos, and audio of real people saying and doing things they never said or did. Powered by the latest technological advances in artificial intelligence (AI) and machine learning, deepfakes offer automated procedures to create fake content that is realistic and resistant to detection, making it hard for the human observers to detect. The possibilities to deceive are endless, making deepfakes a rising thread to society, especially females as it is being weaponized against them to harass, intimidate, degrade, and undermine, in both their personal and professional lives.

Keywords: Deepfake, Revenge Porn, Machine Learning, Law, Deep Learning, Pornography, Artificial Intelligence, Fake News, Technology.

Introduction

Social media and artificial intelligence (AI) have largely been incorporated in today's environments and normal life.¹ We are constantly bombarded with information, some true, others fake. Social media has allowed to make all magically go viral a vivid photograph, an inflammatory fake version, an animation expanding on the fake, posts debunking the fakes, and stories trying to make sense of the situation.² While we scroll our social media we see news, images, videos, and more that had been altered to project a certain message. In most cases, we do not question this information, and take it at face value, as a result we cannot discern fact from fiction.

¹ Gatharia, H. (2020). “The Impact of Artificial Intelligence on Society the Dangers of Unregulated AI Technologies on Society”. <https://doi.org/10.6084/m9.figshare.13397387.v1>

² Horton, A. (2018) “A Fake Photo of Emma González Went Viral on the Far Right, Where Parkland Teens Are Villains”. https://www.washingtonpost.com/news/theintersect/wp/2018/03/25/a-fake-photo-of-emma-gonzalezwent-viral-on-the-far-right-where-parklandteens-are-villains/?utm_term=.0b0f8655530d.



create fake content that is harder and harder for human observers to detect¹¹. To make a deepfake video you will have to train a neural network with footage of a person, the more footage the more realistic the result will be as it will be able to mimic the act, mannerism, ticks, and other personality traits¹² that distinguish an individual. Afterwards they'd will combine the trained network with computer-graphics techniques to superimpose a copy of the person onto a different actor¹³.

Current advances in technology have made the deep learning (DL) models available for use in a wide variety of novel applications; for example, generative adversarial network (GAN) models can produce hyper realistic images, speech, and even videos. As technology continues to develop and innovate, new engines emerge to perfect deepfakes. One of this is deep-learning algorithms called generative adversarial networks (GANs).

GAN-generated faces are near-impossible to tell from real faces as it is sophisticated¹⁴ and high quality, making it the possible main engine in developing deepfakes soon. For now, most deepfake videos are generated by algorithms. The GAN network is established by identifying the desired output and creating a training dataset for the generator. Once the generator starts producing enough output, videos are fed to the discriminator. These technologies together create deepfakes, which works by incorporating and superimposing existing images and videos onto source images or videos using the GAN Network. You can manipulate audio and video clips, which are so realistic as to be indistinguishable from the real ones in human perception.¹⁵ At first, these technologies are used to analyze and predict only, but not to fabricate a human character called deepfakes, faking human expressions deeply.¹⁶

From Novelty to Jeopardy

Technology capable of allowing us to produce videos of events that never occur sound amazing. It allows us to create and display a fantasy, have fun pretending you are the main star in

¹¹ Kietzmann, J. & Lee, L. & McCarthy, I. & Kietzmann, T. (2019). "Deepfakes: Trick or Treat?" Business Horizons. <https://doi.org/10.1016/j.bushor.2019.11.006>

¹² Personality. (2021). Encyclopedia of Psychology. <https://www.apa.org/topics/personality>

¹³ Ohanian, T. (2019). "How Artificial Intelligence and Machine Learning May Eventually Change Content Creation Methodologies". SMPTE Motion Imaging Journal. <http://dx.doi.org/10.5594/JMI.2018.2876781>

¹⁴ N. T. D., I. S. N. and S. H. K. (2018) "DeepFakes: Forensics Face Detection from GANs Using Convolutional Neural Network", International Symposium on Information Technology Convergence.

¹⁵ Rana, Md & Sung, A. (2020). "DeepfakeStack: A Deep Ensemble-based Learning Technique for Deepfake Detection". <http://dx.doi.org/10.1109/CSCloud-EdgeCom49738.2020.00021>

¹⁶ Cheshan, J. (2021). "Deep Fake Technology Raise of a technology that affects the faith among people in the society -A Literature Review".

https://www.researchgate.net/publication/351082194_Deep_Fake_Technology_Raise_of_a_technology_that_affects_the_faith_among_people_in_the_society_-A_Literature_Review



a movie. And now several apps are free allow us to have access to deepfake face-swapping app that's able to place your image into scenes of a movies and/or TV shows after only uploading just a single photograph. The access and user friendliness of deepfakes has make it a toy to entertain.

What we don't realize is that we are allowing our image to be taken and saved in a data base. Jeopardizing our right to privacy¹⁷, image, honor and good name, as this data can be hacked and used to create videos and films with adult content¹⁸.

This may seem like an absurd idea to some, but in 2020 reports circulated that Chinese video sharing app TikTok parent company ByteDance created a feature that facilitated deepfakes. This tool allowed users to scan their face and transfer their image to videos.

"The app, which is designed to let users' face-swap onto a selection of source videos, requires TikTok users to create a detailed multiple-angle biometric scan of their faces" [...] "This raises some pretty serious concerns because TikTok is already in the limelight for sending data back to servers in China, potentially to be harvested by the Chinese government. Both the U.S. Navy and Army have banned the use of TikTok for servicemen and women; revealing the concerns those organizations have over the potential for ByteDance's apps to cause national security threats." said Ray Walsh, digital privacy advocate at ProPrivacy¹⁹.

Is all Good until it happens to you

We all have seen or at least been exposed to deepfake videos of public figures. While those in power clamors to combat political deep fakes, their pornographic counterparts are becoming part of the scenery in cyberspace. Using source material from Twitter, this article explores the relationship between political²⁰ and pornographic deep fakes, finding that they operate in similar ways to silence critical speech. This article recommends that responses to deep fakes address the underlying inequalities that lead this new technology to disproportionately target women.

Deepfakes provide for the manipulation of all manner of video, but risks include videos produced to incite political misrepresentation, voter manipulation, fraud, and revenge porn. The production of revenge porn deepfakes presents as especially dangerous, given the ability to transfer

¹⁷ Wittkower, D. E. (2016). "Lurkers, Creepers, And Virtuous Interactivity: From Property Rights to Consent and Care as a Conceptual Basis For Privacy Concerns and Information Ethics". <https://doi.org/10.5210/fm.v21i10.6948>

¹⁸ Flórez-Acero, D. & Duran, A. (2020). "Derecho a la intimidad y al buen nombre: Análisis desde las películas y videos con contenido para adultos." *Opción*, 35(25), 533–575. <https://doi.org/10.5281/zenodo.4784669>

¹⁹ Suciú, P. (2021). TikTok's Deepfakes Just The Latest Security Issue For The Video Sharing App. Retrieved 7 December 2021, from <https://www.forbes.com/sites/petersuciú/2020/01/07/tiktoks-deepfakes-just-the-latestsecurity-issue-for-the-video-sharing-app/?sh=2c1ed16470a2>

²⁰ Vaccari C, (2020) "Exploring the Impact of Synthetic Political Video on Deception, Uncertainty, and Trust in News. Deepfakes and Disinformation." doi:10.1177/2056305120903408



the face of any person onto an already existing pornographic video. Harm is worsened where the video is disseminated, via the internet or by social media²¹. An astonishing 96% of deepfake content on the internet is pornographic; spreading beyond public figures to private and ordinary individuals without the health and power to combat the perpetrator and cyberspace. Deepfake technology is being weaponized against women, harassing, intimidating, demeaning, undermining, and destabilizing them, both personally and professionally as even their intimacy, endeavors, and safety gets compromised.

There is a lack of resources, laws, and policies available to protect and aid victims of deepfakes and revenge porn. Individual victims are vulnerable to the easy and fast manner the image can be disseminated. It is a heinous and harmful action, and there is no guaranteed of the permanent removal of the offending images.

Deepfakes are a form of human image synthesis where a picture or image is imposed into a video to change the identity of those portrayed in it. The technology relies on machine learning or artificial intelligence (AI) to map an existing image, usually a photo of a person's face that can be easily taken from their social media and transferred to an existing video image. This is problematic as it allows the non-consensual production of a highly convincing video that can be perceived as a real video.

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²¹ Burkell, J., & Gosse, C. (2019). "Nothing New Here: Emphasizing the Social and Cultural Context of Deepfakes". <https://doi.org/10.5210/fm.v24i12.10287>



Easy Access: Revenge porn websites

One of the most know websites²² for revenge porn is “IsAnyoneUp”. This page invited users to post pictures of their exes to have revenge on them for the relationship going “sour”.²³ Exboyfriends were encouraged to upload private pictures of their relationships, some pictures with consent while others were taken without it.

In the United States the Communication Decency Act section 230 protects website owners from content posted by third parties, unless – as it will be explained in the article – the platform is built with the only purpose of creating unlawful content. Thus, to find a legal remedy, the only part that can be sued is the actual uploader, in other words the website is never considered liable for content posted by third parties.²⁴

Now with the creation of deepfakes, images and videos can be created without the victim not even realizing it. Pictures posted on your social media can be downloaded to create a nonconsensual footage of you impersonating a porn actor.²⁵ Revenge pornography, or nonconsensual²⁶ dissemination of sexually explicit material, has become a new cyber offence where the perpetrators target the sexual integrity of the victims²⁷ by sharing the sexually explicit media of a victim online²⁸, and therefore seriously damaging²⁹ both the sexual integrity and identity of the victim.³⁰

²² Dodge, A. (2018). “Online sexual violence, child pornography or something else entirely? Police responses to non-consensual intimate image sharing among youth. *Social and Legal Studies*”, 27(5), 636–657. <https://doi.org/10.1177/0964663917724866>

²³ Take Down “David Blade, Attorney at Law” and Isanybodydown.com — Who’s with me?. (2012). Retrieved 7 December 2021, from <https://randazza.wordpress.com/2012/10/30/lets-fuck-up-david-blade-attorney-at-law-andisanybodydown-com-whos-with-me/>

²⁴ J., Exon (1995). "Cosponsors - S.314 - 104th Congress (1995-1996): Communications Decency Act of 1995". www.congress.gov. Retrieved 2018-03-25.

²⁵ Vallina, P., Álvaro, F., Julien, G., Vallina-Rodriguez, N., & Fernandez-Anta, A.. (2019). “Tales from the Porn: A Comprehensive Privacy Analysis of the Web Porn Ecosystem.” *Internet Measurement Conference (IMC)*, Amsterdam, NL. <https://doi.org/10.5281/zenodo.3462051>

²⁶ Jørgensen, K. E., & Demant, J. (2021). “Shame, Shaming and Economy: A Theory Of Image-Based Sexual Abuse Within Different Online Sharing Environments”. *University of Copenhagen*. <https://doi.org/10.5210/fm.v26i4.11670>

²⁷ Kathryn Branch, Carly M. Hilinski-Rosick, Emily Johnson, & Gabriela Solano. (2017). “Revenge Porn Victimization of College Students in the United States: An Exploratory Analysis.” *International Journal of Cyber Criminology*, 11(1), 128–142. <https://doi.org/10.5281/zenodo.495777>

²⁸ Centelles V, Powers RA, Moule RK (2021). “An Examination of Location-Based Real-Time Dating Application Infrastructure, Profile Features, and Cybervictimization.”. [doi:10.1177/20563051211043218](https://doi.org/10.1177/20563051211043218)

²⁹ Harder, S. K., & Hasinoff, A. A. (2021). “Ashamed of Shaming? Stories of Managing, Deflecting, and Acknowledging Shame after Committing Image-based Sexual Abuse”. <https://doi.org/10.5210/fm.v26i4.11671>

³⁰ Šepec, M. (2020). “Revenge Pornography or Non-Consensual Dissemination of Sexually Explicit Material as a Sexual Offence or as a Privacy Violation Offence.” <https://doi.org/10.5281/zenodo.3707562>



Legal protections for victims of image-based sexual³¹ abuse in the United States remain inadequate. There is no federal law³² that criminalizes the sharing of sexually intimate material without a person's consent, and existing state laws are patchy and problematic, allowing the continuing of victim blaming.³³ Part of the reason for this problem may be that U.S. lawmakers and the public have yet to grasp that nonconsensual porn is a form of sexual abuse, with many of the same devastating, recurring, and lifelong consequences for victims.³⁴

Justice for Women

Pornographic deepfakes³⁵ have become part of the cyberspace, this synthetic porn has been known for the used of a celebrity likeness inserted into a porn performers body. All without having the consent of the person to use their image and benefiting from the monetary gains this media main obtains. Total number of video views across top four dedicated deepfake pornography websites was 134,364,438 in 2018, a total that has gotten higher now.³⁶

But as mentioned before, there are sites where exes, and non exes go to upload sexual content related to a female they know, for revenge, pettiness, or just fooling around. In these cases, he victim, is not a public figure, but an individual who doesn't have the opportunity to defend their name in the public arena, and who become more vulnerable and unable to obtain remedies or even defend themselves from the content displaying their image in an explicit matter.

The differing laws across countries and the nature of internet culture make any attempt to remove the deepfakes "a lost cause".³⁷ The accessibility of deepfake porno software, and user friendliness makes a go-to for individuals that aim to harass, and without the tools and mediums available for victims, most undergo this harassment solo, without the support and mentorship needed. Due to this issue being a novel one, states have not prepared locally to provide local

³¹ DeKeseredy, W. (2021) "Image-Based Sexual Abuse: Social and Legal Implications". https://www.researchgate.net/publication/349861030_Image-

³² Bartlett, G. (2018). "Revenge porn" law will allow people to sue those who share intimate photos. CBC News. <https://www.cbc.ca/news/canada/newfoundland-labrador/law-intimate-images-sharing-revenge-pornnewfoundland-1.4621141>

³³ Tegan S. Starr, & Tiffany Lavis. (2019). "Perceptions of Revenge Pornography and Victim Blame." <https://doi.org/10.5281/zenodo.3366179>

³⁴ Eaton, A. McGlynn, C. (2020) "The Psychology of Nonconsensual Porn: Understanding and Addressing a Growing Form of Sexual Violence." <https://doi.org/10.1177/2372732220941534>

³⁵ We Are Truly Fucked: Everyone Is Making AI-Generated Fake Porn Now. (2021). Retrieved 7 December 2021, from <https://www.vice.com/en/article/bjye8a/reddit-fake-porn-app-daisy-ridley>

³⁶ Ajder, H., Patrini, G., Cavalli, F., and Cullen, L. (2019) "The State of Deepfakes: Landscape, Threats, and Impact"

³⁷ "Scarlett Johansson on fake AI-generated sex videos: 'Nothing can stop someone from cutting and pasting my image'". The Washington Post. 2018-12-31. Retrieved 2019-06-19.



support to quarries. Yet this cannot be an excuse to help and prepare for this evolving tread and source of new jurisdiction.

As for the private sector, most should create policies that regulates content, and to which filters any suspicious media that maybe a deepfake, specially any with nudity.³⁸ What better defense for treating tech than tech troopers, filtering firsthand the content, imposing order, transparency, and most of all, legitimacy.³⁹

It is well known that tech evolves fast, while law and policy take its time. Instead of waiting for regulations, lets start advocating from grads roots, report anything you see suspicious, educate others of this tabu topic, and explain to them the perspective of the victim.⁴⁰ Gaining knowledge, and sparking it is part of the solution, solution that aims to teach and voice all who's image where used, and reputation was wreak.⁴¹

Objectives

The purpose of this research paper is to understand the impact deepfakes make in society and to discuss the legal provisions against these activities and increase awareness regarding the sharing of deepfake contents, especially as a mechanism of revenge pornography. This research examines and assesses revenge porn and deepfakes criminalization and civil legal remedies, as well as the inherent disparities that lead to disproportionately target women. This study classify different types of deepfakes, identifies risks and prospects, outlines a framework to confront deepfakes controversies, assist potential and present victims, and improve laws and policies. It is crucial to expose deepfakes, advocate for legal protection, and leverage trust to counter credulity, and amend the lawless of this tech.

Methodology

The documentary analysis method was used, applying the triangulation of authors, which allowed the gathering of causes, projections, and solutions against deepfakes malicious use and lack of accountability. Assessments were applied from the qualitative paradigm, based on research carried out fundamentally in the U.S., where deepfakes debates have advance and have developed into several laws criminalizing deepfakes pornography. Even Congress passed a bill to have several Federal Agencies issue reports on and bolster research into deepfakes, asking for recommendations that could lay the predicate for federal regulations of such media. Content

³⁸ Cole, S. (2018). "Pornhub Is Banning AI-Generated Fake Porn Videos, Says They're Nonconsensual". Vice.

³⁹ Lee, D. (2018). "Fake porn' has serious consequences".

⁴⁰ Harrell, D. (2019) "Fake-porn videos are being weaponized to harass and humiliate women: 'Everybody is a potential target'".

⁴¹ Cole, S. (2018). "Gfycat's AI Solution for Fighting Deepfakes Isn't Working". Vice. Retrieved 2019-11-09.



analysis of several articles and reports was utilized using the hermeneutical historical method and applying the inductive and deductive reasoning.

This reasoning allows us to develop a theory and testing an existing theory; allowing to move from a specific observation to broad generalizations, and vice versa. As a result, I can identify the conceptual bases on which the research is based, and what where the concerns and solutions of the author regarding deepfakes and revenge porn.

Findings/Results

Deepfakes are a form of human image synthesis where a picture or image is imposed into a video to change the identity of those portrayed in it. The technology relies on machine learning or artificial intelligence (AI) to map an existing image, usually a photo of a person's face that can be easily taken from their social media and transferred to an existing video image. This is problematic as it allows the non-consensual production of a highly convincing video that can be perceived as a real video.

Also known as “synthetic media”, deepfakes emerge in 2017 and in just a short amount of time has given rise to apps and other programs that facilitate amateurs to manipulate and create videos, images, and audio that impersonate another. In contrast, when it was created it was only used by researchers and academics who knew how to work proficiently with this technology. In 2017 the first deepfake related to porn was published on Reddit by a user called r/deepfakes, who used Google's open-source deep-learning library to swap porn stars bodies with the faces of female celebrities, illustrating sexual acts. The term “deepfake” comes from the user who created it, or at least popularized it and it stands for “Deep Learning and “ Fake”. The idea is to create multimedia content, typically videos, that present people to an act that they have never actually participated.⁴² The technology behind it is “Deep Learning” which is an innovative method known as generative adversarial networks (GANs); and consist of recognizing and exchanging faces in images and videos. The process begins by examining many photos or a video of someone's face and gestures, trains an algorithm that manipulates the data, and then that algorithm is used to map a person's face in a video. It also recognizes patterns in real audio or visual recordings of a particular person. This technology calculates how various points of a human face interact in the camera to convincingly approach a moving human being, including the ability to communicate verbally. The larger the library of content that a deep learning algorithm feeds on, the more realistic the forgery can be. It is a technology that is fed a diet of texts and facial images to produce a video.⁴³ Allows users to

⁴² Schwartz, O. (2018). You thought fake news was bad? Deep fakes are where truth goes to die. The Guardian. <https://www.theguardian.com/technology/2018/nov/12/deep-fakes-fake-news-truth>.

⁴³ Solsman, J. (2019). Deepfakes may ruin the world. And they can come for you, too. <https://www.cnet.com/news/deepfakes-may-try-to-ruin-the-world-but-they-can-come-for-you-too/>



play the text transcript of a video to add, bar or change the messages that come out of someone's mouth⁴⁴.

The creation of deep forgeries is based on two advances in machine learning: neural networks and Generative Adversarial Networks (GAN). Neural networks and networks reflect how the human brain works; GANs work by pitting two computer models of AI against each other. One network learns to identify patterns in a digital media clip, such as the face of a politician, and the second network serves as a viewer to find out whether an image or video clip is real or not. The second network gives feedback, and the first network uses it to improve the credibility of the deepfake video. Maliciously manipulated technology has the capacity to place anyone in a situation that never occurred or shows them saying something they never said; using it to deceive spectators. This technology is being weaponized to harass, intimidate, demean, undermine, and destabilize individuals, including intimate partners, making it appear in a pornographic video they did not participate in or consented to. This undoubtedly creates an atmosphere of distress that could ruin anyone's life, both personally and professionally as even their intimacy, endeavors, and safety get compromised. The innovations and advances associated with the deepfake technological arms race, due to their level of danger to falsify reality. For instance, researchers at Carnegie Mellon University, created a system that can transfer traits like facial expressions, tone of voice, and others, from a video of one person to another. In China, Baidu, and other start-ups including Lyrebird and iSpeech, have been selling voice cloning for commercial use on human-machine interfaces. Making this technology one with many purposes and uses.

Disturbing is the fact that like other forms of misinformation, deep falsifications can be detrimental to panic, sow distrust in political institutions, or produce other damaging results. Because of these potential harms to US lawmakers, they are concerned that fake videos could be used to harm national security. According to the American aristocracy, as the technology for creating counterfeits advances and becomes more accessible, it could pose a threat to the public discourse and national security of their country, with broad and worrying implications for active offensive measures campaigns aimed at the United States. The concern in the U.S. is that this technology can unduly destroy the reputation of any person and even provoke riots. It is handled as a hypothetical argument, "the construction of a video showing a US presidential candidate harassing children, a police chief inciting violence against a minority group, or soldiers committing war crimes." Therefore, it is concluded that "high profile people, such as politicians and business leaders, run a potential risk, given the number of recordings that are in the public domain."⁴⁵ The perception is that the collective media environment in which society is inserted has been fractured and is increasingly fragile, since the content of any false information can spread like a trail of powder. A study by the Massachusetts Institute of Technology found that while robots spread fake

⁴⁴ Vincent, J. (2019). AI deepfakes are now as simple as typing whatever you want. your subject to say. <https://www.theverge.com/2019/6/10/18659432/deepfake-ai-fakes-tech-edit-video-by-typing-new-words>.

⁴⁵ Howeroft E. (2018). How Faking Videos Became Easy and Why That's So Scary. <https://www.bloomberg.com/businessweek>.



articles and real articles at the same rate, fake articles reach 1,500 views almost six times faster than real ones.⁴⁶

The issue raised transcends as concern, -also in the North American context when there are other effects that could be created with the inappropriate use of deepfakes, by the fact that the spread of disinformation is something that is happening with increasing regularity as people choose the news that fits their world view. The red flag is that deepfakes are progressing rapidly, and this can lead to trust issues. Even authentic video content online can raise suspicions and questions about its validity. The result is that the forgeries circulating on social media could fuel disinformation campaigns, which could lead to severe violence and social unrest.

Discussion

The level reached by data science is an important step forward, in relation to the generation of learning algorithms that are increasingly closer to human thought, the improper use is their negative use, in which all the authors agree examined, what is different is the diversity of solutions to these damages, which undoubtedly enriches the discussion on the issue raised. The debate on the subject is an expression of the development of moral conscience in the face of new dilemmas generated by negative biases that are incorporated into the algorithmizing processes. It is observed as a limitation, a linear approach in the analyzes of the examined authors, no critical analyzes are appreciated from one author to another, in this sense, this research represents an advance that could be considered notorious, incorporating questions, such as that of the market crisis of ideas and thought that addresses that the concept of truth is being questioned, it also provides a critical balance and a proposal for solutions to the damage that deepfake could cause in its dark version.

Conclusions

If revenge porn harms people's dignity by relying on the distribution of sexual images of a person without their consent, technologies that can multiply this phenomenon will cause even more irreversible harm to the victims.⁴⁷ On the contrary, technologies such as deep learning or machine learning could help to suppress the practices of revenge porn. It is a new subject on which the bibliography is scarce.⁴⁸

Deepfakes are a technological evolution, expressing a radical change in the way information is produced, disclosed, and mishandled. The socialization by national actors, of the manipulation of the media for malicious purposes, are aimed at causing the information war to contribute to geopolitical ambitions. This could lead to this fact, poorly managed, becoming an

⁴⁶ Dack, S. (2019). Deep Fakes, Fake News, and What Comes Next. <https://jsis.washington.edu/news/deep-fakesfake-news-and-what-comes-next/>.

⁴⁷ Hwang, T. (2020), "Deepfakes: A Grounded Threat Assessment." <https://cset.georgetown.edu/wpcontent/uploads/CSET-Deepfakes-Report.pdf>

⁴⁸ Vega-Lozada, F. (2021). Inteligencia artificial y ciberviolencia de género: el caso de la pornografía no consentida, *Derecom*, 31, 173-180, <http://www.derecom.com/derecom/>



increasingly serious threat to individuals, organizations, and society, from disinformation. I be part of an unprecedented development in the ecosystem.

Science in general, and Artificial Intelligence (AI) in particular, should be put to provide knowledge of distorted technological processes that could be affecting the social environment, and the tools to intervene, with knowledge of cause and effect. It is important, to each emerging technological development, to print a social approach, in terms of accounting for the damages⁴⁹ that they could have in all their dimensions, that is, anticipating the facts and that it is not a casual use as in the case of deepfake, the one that alerts the problems that could be generated with the inadequate use of the technology. There are a variety of concerns regarding the solution of the problems that the malicious use of deepfake has been causing, for the most part, they focus on the technological component, which is not eluded, however, the severity of the problem requires, not only technological solutions, but comprehensive, multifaceted, which must have an anthropocentric approach, which regulates moral behavior, ensuring social coherence, in which a system of values, norms, principles and ideals that guide the behavior of individuals must prevail in society.

The fundamental concern is about the detrimental effect at least in the U.S is focused on public figures, politicians, and state officials; instead of individuals that are most vulnerable, females. In this environment, in the debate to confront deepfake, slowness is observed in the legal framework in relation to technological development. The dissemination of the problem at the local and regional levels, at the level of countries and continents should be a permanent task, it could be a tool for the moral education of society, to the extent that the distorted facts generated by disinformation are known. Preparing society in the knowledge of the risks and threats of disinformation is equivalent to being part of the solutions. Creating laws and policies that help victims aid the effects of deepfake and its use for revenge porn is a solution. The creation of mechanism to track and disease this type of content is a part of the solution.

The main conclusion is that the problems caused by the inappropriate use of deepfake is to be addressed through the educational work, laws and policies, and agencies that focused on this rising and treating technology.

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⁴⁹ Harder, S. K., & Hasinoff, A. A. (2021). "Ashamed of Shaming? Stories of Managing, Deflecting, and Acknowledging Shame after Committing Image-based Sexual Abuse". <https://doi.org/10.5210/fm.v26i4.11671>



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