

**Ethical Implications of the Deepfake of President Zelensky
in Russia-Ukraine War using the Utilitarian Moral Balance Sheet**

STS Research Paper
Presented to the Faculty of the
School of Engineering and Applied Science
University of Virginia

By

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May 9, 2025

On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

The Russo-Ukrainian War began in February 2014 and escalated tremendously in February 2022 when Russia launched a full-scale invasion of Ukraine. Amid this conflict, a deepfake video of Ukrainian President Volodymyr Zelensky surfaced on March 16, 2022. It falsely depicted him urging Ukrainian soldiers to surrender (Allyn, 2022, p. 1). This incident is the first of its kind, exemplifying the use of deepfake technology in modern warfare and raising critical ethical questions about the manipulation of information during conflicts.

Scholars have extensively examined the social and legal consequences of deepfake technology. However, there is a gap in the literature regarding the application of moral ethics to analyze specific cases like the Zelensky deepfake incident. This gap leaves readers without a comprehensive ethical framework to evaluate the incident's implications. By continuing to adopt the current understanding, readers may miss out on critical insights into the moral wrongness of the deepfake incident. Considering a utilitarian approach can provide a nuanced understanding of the ethical violations involved, emphasizing the broader impact on societal trust and the integrity of information.

This analysis employs utilitarianism and Jeremy Bentham's moral balance sheet. Utilitarianism evaluates actions based on their consequences, aiming to maximize overall happiness and minimize suffering. Bentham's framework provides a systematic approach to assess the moral utility of actions, considering factors such as intensity, duration, and certainty of the consequences.

The primary evidence includes the real and fake videos of President Zelensky, public opinions on news and social media platforms (Burgess, 2022, p. 1), and the deepfake incident of Russian President Vladimir Putin after that of Zelensky. These elements highlight the immediate

confusion and potential harm caused by the deepfake, reinforcing the argument for its immorality. In what follows, I argue that the Zelensky deepfake incident is immoral because it violates key principles of utilitarian ethics, specifically Bentham's moral balance sheet. This analysis will show how the deepfake's consequences outweigh any perceived benefits.

Background

The Russo-Ukrainian War started in February 2014 after Ukraine's Revolution of Dignity, which removed a pro-Russian president. Russia then took control of Crimea and supported rebels in eastern Ukraine (“Russo-Ukrainian War,” 2025). Tensions grew and this led to a full invasion by Russia on February 24, 2022. Russian President Vladimir Putin said the invasion was to demilitarize Ukraine and protect ethnic Russians. The war is still ongoing and has already caused many deaths and disputes over land, affecting global politics and security.

Literature Review

While several scholars have examined the implications and consequences of deepfakes, no consensus has emerged concerning the specific reasons why the consequences of deepfakers' actions are immoral according to the principles of utilitarianism. Scholars have not yet adequately considered the detailed ethical analysis of these principles in the context of the Russo-Ukrainian war. Even during the discussions regarding the Russo-Ukrainian war, most studies focus on its technical social aspects and legal challenges, rather than the moral consequences of using deepfakes for political misinformation. For example, Alanazi and Asif (2024) provide a comprehensive examination of deepfakes, discussing their creation, production, and identification (p. 49). They highlight the harmful social consequences of deepfakes, including their use in explicit content, coercion, and misinformation. Alanazi and Asif emphasize the need for legal regulations and advanced detection methods to mitigate these harms. However,

their analysis does not delve deeply into the ethical considerations of using deepfakes for political purposes. Building on this discussion, Sandoval et al. (2024) explore the impact of deepfakes on the criminal justice system, highlighting the threats they pose to evidence integrity and judicial processes (p. 41). They discuss the broader implications for trust in institutions and the need for advanced detection methods. While this review provides valuable insights into the legal and institutional challenges posed by deepfakes, it does not address the specific ethical implications of using deepfakes for political misinformation of the Russo-Ukrainian war.

From a utilitarian perspective, the ethical implications of using deepfakes for political misinformation can be assessed by considering the overall consequences of such actions. Utilitarianism, which focuses on maximizing overall happiness and minimizing harm, provides a useful framework for evaluating the moral responsibilities of those who create and disseminate deepfakes. The Zelensky deepfake incident had significant negative consequences, including the spread of false information, increased political tension, and potential harm to public trust and international relations. These outcomes suggest that the use of deepfakes for political misinformation is morally wrong, as it fails to maximize overall happiness and instead causes significant harm.

To summarize, current scholarship on deepfake technology fails to adequately address the ethical implications of using deepfakes for political misinformation through a utilitarian lens. Although some analyses discuss the technical, social, and legal aspects of deepfakes, they do not provide a comprehensive evaluation of the moral responsibilities of perpetrators in the context of the Russo-Ukrainian war. My research will advance understanding by providing a detailed ethical analysis of why the consequences of deepfakers' actions are immoral according to the

utility principle. This will address the current gap in scholarship by offering a comprehensive ethical framework to evaluate the immorality of deepfake consequences.

Conceptual Framework

My analysis of the ethical implications of deepfakes in the context of the Russo-Ukrainian war will draw on utilitarianism as described in Van de Poel's book *Ethics, Technology, and Engineering*. This framework allows me to evaluate the moral responsibilities of those who create and disseminate deepfakes by considering the overall consequences of their actions. Utilitarianism is a normative ethical theory that puts forward the notion where the rightness or wrongness of actions is determined by their outcomes. The primary principle of utilitarianism is to maximize overall happiness and minimize harm. According to Van de Poel (2011), utilitarianism involves calculating the net benefits and harms of an action to determine its moral worth (p. 34). Key concepts include the "utility principle," which chooses those actions that result in the greatest happiness for the greatest number of people, and the "hedonic calculus," a method for quantifying pleasure and pain resulting from actions. Jeremy Bentham, one of the founders of utilitarianism, introduced the concept of the "moral balance sheet," which is a "balance sheet in which the costs and benefits (pleasures and pains) for each possible action are weighted against each other" (Van de Poel, 2011, p. 45). Bentham proposed such a method to determine the utility of actions, similar to a cost-benefit analysis in the modern world. Essentially, he came up with six factors that affect the value of a pleasure or pain (Bentham, 1789, p. 30). They are as follows:

Intensity: The strength of the pleasure or pain produced by an action; **Duration:** How long the pleasure or pain lasts; **Certainty:** The likelihood that pleasure or pain will occur; **Propinquity or remoteness:** How soon the pleasure or pain will occur; **Fecundity:** The

probability that the action will be followed by sensations of the same kind: that is, pleasures, if it be a pleasure: pains, if it be a pain; **Purity:** The probability that the action will not be followed by sensations of the opposite kind: that is, pains, if it be pleasure: pleasures, if it be a pain; **Extent:** The number of people affected by the action.

Drawing on this framework, my analysis will assess the ethical implications of the deepfake incident by examining the overall consequences of the deepfake's creation and dissemination. By applying Bentham's moral balance sheet, I will evaluate whether the actions of the perpetrators satisfied or violated key utilitarian principles. In the analysis that follows, I begin by detailing the realness of the deepfake video and presenting various comments or reactions from the public on the deepfake video. Then, I apply Bentham's moral balance sheet to assess these consequences, determining whether the actions of the perpetrators can be justified based on their overall impact. This approach will provide a comprehensive evaluation of the ethical implications of using deepfakes for political misinformation, highlighting the moral responsibilities of those involved and demonstrating how the deepfake incident violates key utilitarian principles, leading to the conclusion that the consequences are not morally justified.

Analysis

Section 1: Fake and real image of President Zelensky

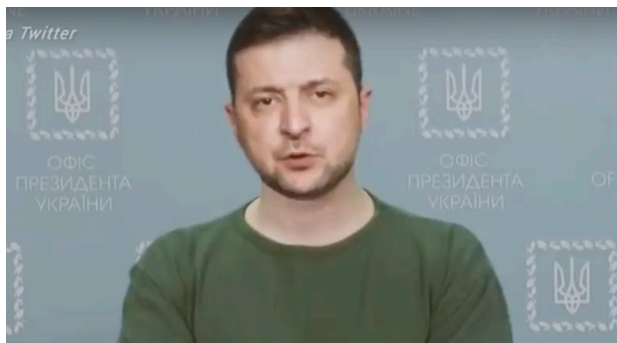


Figure 1: From Zelensky Fake, by News.com.au, 2022, YouTube Copyright 2022 by News.com.au.



Figure 2: The TV President turned War Hero, by The Washington Post, 2022.

The creation of the deepfake image of Zelensky violates three of Bentham's criteria: Certainty, fecundity, and purity. The two images above are side-by-side comparisons of President Zelensky. The left image (Figure 1) shows the fake Zelensky in the viral deepfake video, whereas the right one (Figure 2) is real. While they both look almost identical to each other, a closer look would prove otherwise. In the deepfake video on the left, Zelensky's head is noticeably larger than his body. Also, the slightly off lighting and pixelation around his head makes the image less sharp. During the video, the image is not consistent with the rest of the video. Some parts, such as the body and neck, stay stationary the entire time, whereas certain moving parts, such as the mouth, have rigid movements and awkward pauses that seem to not go smoothly as that of a real person.

First, certainty refers to the likelihood that the pleasure or pain will occur as a result of the action. A higher certainty means the outcome is more predictable (Van de Poel, 2011, p. 34). The deepfake's misleading nature creates uncertainty about the authenticity of videos. For example, if viewers cannot be certain whether a video of Zelensky is real or fake, they experience doubt and confusion. This uncertainty undermines the trust in visual media and important figures. The action (creating the deepfake) leads to unpredictable outcomes, violating the principle of certainty because it introduces doubt rather than a clear and predictable response.

Second, fecundity refers to the probability that the action will be followed by sensations of the same kind (Van de Poel, 2011, p. 35). For instance, an action that causes pleasure should lead to more pleasure, and an action that causes pain should lead to more pain. The deepfake has the potential to generate further misinformation and distrust. For example, once a deepfake is exposed, it can lead to a cascade of similar videos, each causing more confusion and mistrust. This means the initial negative sensation (mistrust) is likely to be followed by more negative

sensations (further distrust and misinformation). The action (creating the deepfake) has high fecundity in terms of negative outcomes, as it perpetuates a cycle of distrust and misinformation.

Third, purity refers to the likelihood that an action will not be followed by sensations of the opposite kind (Van de Poel, 2011, p. 36). For instance, an action that brings pleasure should not be followed by pain. The deepfake video is of poor quality, leading viewers to experience confusion. In this case, if someone initially believes the video is real, they might feel a sense of betrayal and mistrust once they realize it is fake. This sequence of negative sensations (confusion followed by mistrust) demonstrates a lack of purity. The action (creating the deepfake) is not pure because it leads to negative outcomes.

As I have shown, the deepfake video violates three of Bentham's criteria in the moral balance sheet. This leads to negative sensations, creating uncertainty, and perpetuating further negative outcomes. Therefore, according to Bentham's utilitarian framework, the action is morally problematic.

Section 2: Comments and reactions

The wide range of comments and reactions of Zelensky's deepfake video, with users expressing everything from outrage to skepticism, violates four of Bentham's moral principles: Intensity, propinquity, certainty, and fecundity. Notable comments included both expressions of strong support for Zelensky (Figure 3) and accusations of betrayal and calls for action against him, highlighting the video's polarizing effect. In this analysis, I will explore the public's response by analyzing comments that represent outrage or anger, skepticism, concern or mistrust, and calls for action.

The principle of intensity refers to the strength of the pleasure or pain produced by an action (Van de Poel, 2011, p. 34). The deepfake video generated intense feelings of outrage and

anger among viewers, reflecting a high intensity of negative impact. The comment “Да, злобный, чудовищный Маразм!” (Yes, evil, monstrous Insanity!) (“The Telegraph”, 2022) demonstrates strong emotional reactions towards the deepfake. Another user remarked, “Сколько же лжи вокруг со всех сторон ... Мир катится в бездну” (Translated to English: There are so many lies around on all sides ... The world is going into the abyss) (“The Telegraph,” 2022). This highlights the pervasive sense of betrayal and loss of hope in everything (“the world”).

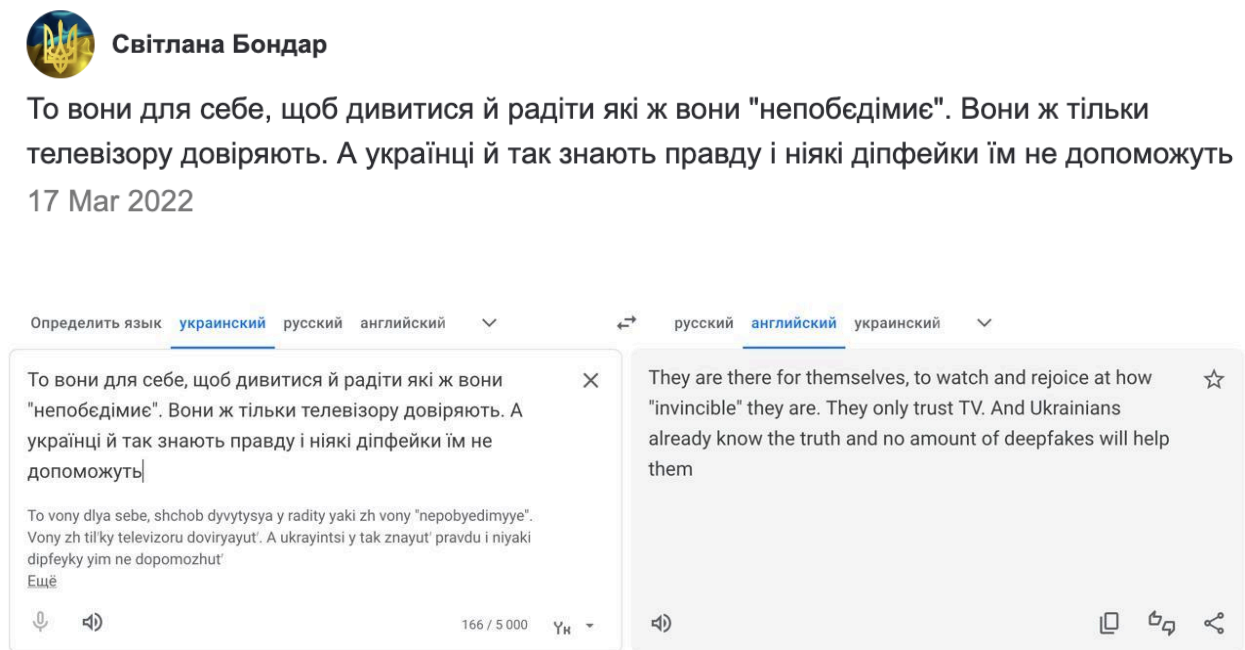
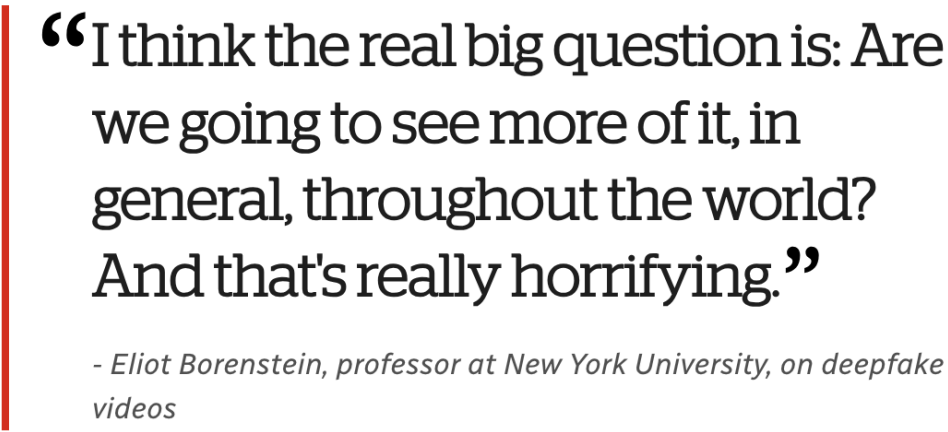


Figure 3: Screenshot of a Ukrainian comment from the deepfake video of President Zelensky and the message translated in English. Source: OK.ru (2024). Deepfake video of President Zelensky [Video]. OK.ru. <https://ok.ru/video/3331820358333>

Additionally, some comments reveal a defensive stance towards their culture and intense anger towards the situation. For example, in Figure 3, “they” likely refers to Russians, as the quote is in Ukrainian. The quotation marks around “invincible” indicate sarcasm. Words like “only” highlight an extreme view of Russians' sedentary and backward attitude. The last

sentence, with phrases like “already know the truth” and “no amount of deepfakes will help them,” expresses certainty, hope, and pride, though it may not be entirely negative. The evident sarcasm shows the person is channeling underlying anger and intensified passion. Moreover, since these are comments, the extent to which one can express anger is limited to words in capitalizations and punctuation marks. Suppressing these emotions, instead of expressing them through yelling and shouting, has been scientifically proven to be detrimental to heart health (Pillay, 2016, p. 1). These strong negative emotions indicate that the action (creating the deepfake) produces significant pain and mental distress, violating Bentham's principle of intensity.



“I think the real big question is: Are we going to see more of it, in general, throughout the world? And that's really horrifying.”

- Eliot Borenstein, professor at New York University, on deepfake videos

Figure 4: Screenshot of a professor discussing the dangers of deepfakes from "Zelensky and Putin deepfake video sparks outrage" by CBC News, 2022, CBC News (<https://www.cbc.ca/news/world/zelensky-putin-ukraine-war-deepfake-video-1.6391033>). Copyright 2022 by CBC News.

Certainty refers to the likelihood that pleasure or pain will occur as a result of an action (Van de Poel, 2011, p. 35). The deepfake's ability to create immediate and strong reactions, such as doubt about the authenticity of future videos, shows that the action reliably produces negative outcomes. Comments like the one in Figure 4 reflect a growing pattern of mistrust and doubt about the blurred line between reality and deepfakes. When a professor highlights a “real big

question” and expresses uncertainty with phrases like “are we going to see more of it in general,” it underscores the pervasive ambiguity and suggests that the prevalence of deepfakes is indeed increasing. Furthermore, the professor's use of terms like “throughout the world” and “really horrifying” emphasizes the global scale of the issue, not confined to a single country but affecting the entire world. The word “horrifying” significantly undermines confidence in humanity's ability to verify information. This has led to an unspoken competition where individuals must constantly outsmart AI in detecting deepfakes and outperform others to avoid feeling less knowledgeable.

Another user bluntly stated, "THAT'S WHY YOU ALL HAVE TO TAKE WHAT YOU ALL HEAR ON BOTH SIDES WITH A BUCKET OF SALT" (“Deepfake video of Ukraine President Zelenskyy surfaces, is it a propaganda war?,” 2022). This comment demonstrates a high certainty of negative impact, as the action (creating the deepfake) predictably leads to greater skepticism about what to believe. Historically, humans have relied on news agencies and various sources to discern the truth based on facts. Now that facts may not be reliable, trust in visual media and important figures could drop significantly, and people's perception of reality may become distorted. This constant back-and-forth, creating confusion and mistrust, violates Bentham's principle of certainty.

Propinquity refers to how soon the pleasure or pain will occur after an action (Van de Poel, 2011, p. 36). The immediate emotional reactions to the deepfake, such as confusion and mistrust, indicate that the negative impact follows the action very quickly. Since comments can be posted instantaneously on any live broadcast, we can assume they reflect the current emotional state of users at the time. One comment that exemplifies the principle of propinquity is: "You can tell it's fake if you know what you're looking at. My God, this is dangerous! Thank

goodness we all know Zelensky by now and that he would NEVER lay down or ask his people to like that! This is a nightmare" ("Deepfake' viral video of Ukraine's President surrendering goes viral on Facebook and YouTube," 2022). Even though the person acknowledges that the video is fake, it does not stop their quick onset of negative emotions, such as fear and anxiety, about the situation if Zelensky were not well understood in terms of his character. The emotional distress followed by relief occurs almost instantaneously after viewing the deepfake, leaving little time for viewers to process and verify the information.

Fecundity refers to the probability that an action will be followed by sensations of the same kind (Van de Poel, 2011, p. 37). Since the creator of the deepfake is unknown, the consequences of the deepfake—including comments—have the potential to generate further misinformation and distrust, leading to a cascade of similar videos and reactions. Two notable examples of misinformation are: "Just shows how scared Putin and the Russian military are" and "OR MAYBE IT WAS HIM." These hypotheses are entirely made up to make sense of the incident. On one hand, some (likely pro-war or pro-Ukrainian) assumed it was Putin and the Russian military who created the deepfake out of fear of losing the war. They believed the deepfake was a desperate attempt to fool Ukrainians into surrendering, giving Russians a chance to win. This commenter uses the deepfake to spread blame towards Putin and the war. On the other hand, some (likely anti-war) hypothesized that the video was indeed created by "Him" (meaning Zelensky) or someone on the Ukrainian side who wanted the war to stop. They believed the deepfake was made to portray Zelensky as urging surrender from the perspective of Ukrainians suffering in the war. This commenter uses the video to express the possibility that the video might be true, which is again entirely made up. These comments not only cause

misinformation (blaming either Russians or Ukrainians), but also polarize the argument between parties.

Another user noted, "Well if that is what they can do now, the mind boggles what can be done in the future." This comment shows that the initial negative sensation (mistrust) is likely to be followed by more negative sensations that call for action and further distrust. The possibility of more realistic deepfakes in the future, with no clear endpoint, perpetuates a cycle of distrust and misinformation. The action (creating the deepfake) has high fecundity in terms of negative outcomes, as it perpetuates a cycle of distrust and misinformation, violating Bentham's principle of fecundity. By analyzing these specific comments and their implications, we can see how the deepfake's impact violates four out of seven principles of Bentham's moral balance sheet. Since the consequences are not morally justified according to utilitarianism, the deepfake incident is immoral.

Section 3: Putin's Deepfake video

The deepfake incident involving Russian President Putin on March 20, 2022, perfectly illustrates the violation of the fecundity principle in Bentham's moral balance sheet. This video falsely depicted Putin announcing a Russian surrender, mirroring the misinformation tactics used against Zelensky. This video, like the Zelensky deepfake, was quickly debunked but not before causing significant confusion and concern among viewers. This section will analyze how the creation of Putin's deepfake violates the principle of fecundity, resulting in immoral consequences.

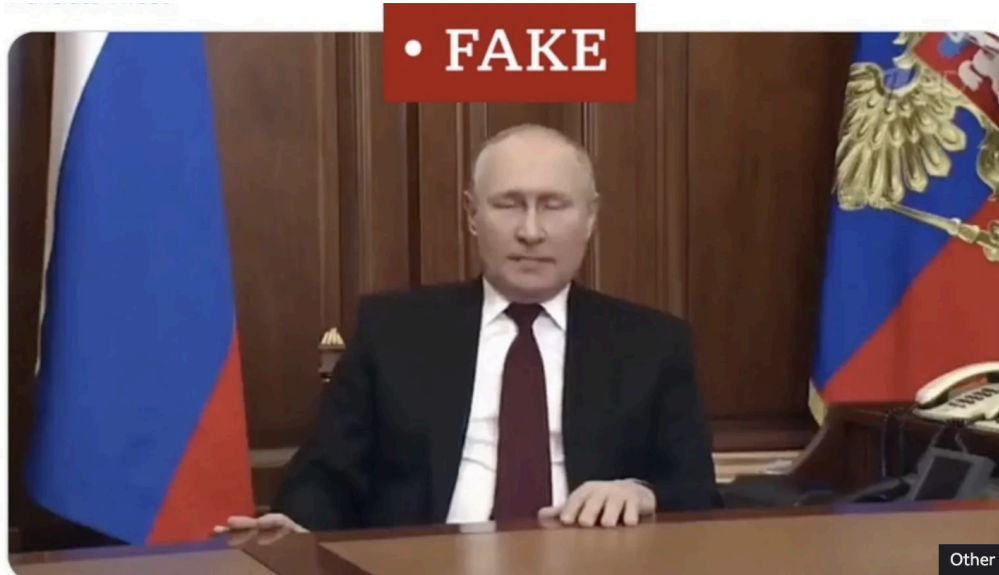


Figure 5: Screenshot of a deepfake video of President Vladimir Putin discussing the dangers of AI, from "Deepfake video of Zelensky and Putin sparks outrage" by BBC News, 2022, BBC News (<https://www.bbc.co.uk/news/technology-60780142>). Copyright 2022 by BBC News.

Note that the deepfake video of Putin (Figure 5) was designed to mimic a real announcement, complete with realistic visuals and audio, such as the Russian flag in the background and a formal suit and tie representative of Putin's usual attire. This suggests that the creators intended to deceive viewers into believing the false information. The realistic nature of the deepfake, including (this time) the correct head-to-body ratio, appropriate attire, and an office background, is a step up from the Zelensky deepfake, and makes it more difficult for viewers to distinguish between real and fake content. This leads to increased distrust in media and official communications. The erosion of trust is a direct consequence of the deepfake's creation and dissemination.

The evidence supports the argument that the creation of Zelensky's deepfake violates the principle of fecundity. Fecundity, in Bentham's moral framework, refers to the probability that an action will be followed by sensations of the same kind (Van de Poel, 2011, p. 37). The even more realistic and deceptive nature of the newer deepfake of Putin is a direct ripple effect of the

previous incident. With extreme claims, such as Russia "surrendering" right after Ukraine "surrendering," it increases the likelihood of further misinformation and distrust, leading to a cascade of similar videos and reactions. This chain reaction of misinformation undermines public trust and highlights the immoral consequences of using deepfake technology for deceptive purposes.

As I have argued, Zelensky's deepfake gave rise to similar deepfake occurrences, such as Putin's deepfake. Some might think that Putin's deepfake arose independently from Zelensky's, implying that Zelensky's deepfake did not contribute to Putin's. Therefore, fecundity does not necessarily hold true. However, this view fails to consider the proximity of the two events. The two deepfake events occurred only four days apart, which is not long enough for them to happen independently, given the massive widespread use of the internet and debate in news reporting agencies. The widespread media coverage of Zelensky's deepfake likely increased awareness of deepfake technology, facilitating the creation of Putin's deepfake. Moreover, the content of both deepfakes is almost identical, with both aiming to destabilize political situations, making it unlikely that they happened independently. While four days is still a short time, the tools and techniques used to create deepfakes are evolving rapidly with the use of AI. Deepfake technology now has advanced to the point where creating a convincing deepfake can be accomplished within two hours (Rowlands, 2024, p. 1). Therefore, the creation of one high-profile deepfake can quickly lead to the production of others, and even better ones at that. This explains the advancements in backgrounds and better "head-to-body" ratio in Putin's deepfake that followed Zelensky's in Figure 6.

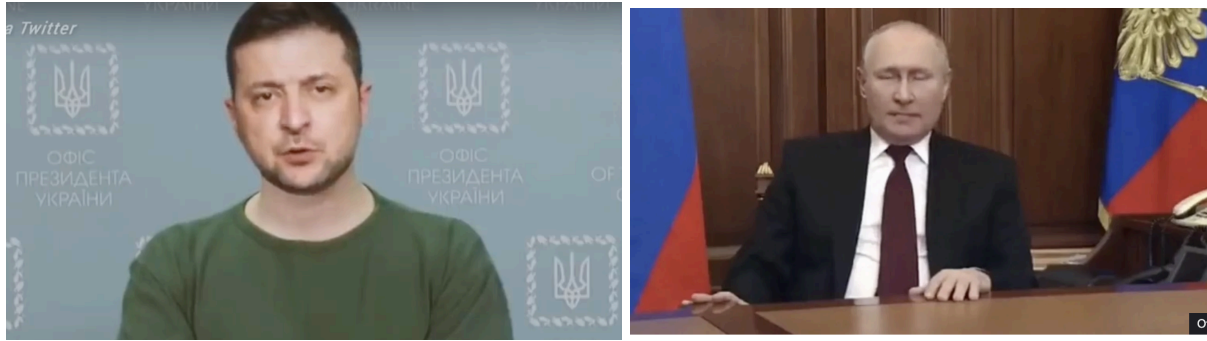


Figure 6: Side-by-side comparison of two deepfake images: Zelensky in Figure 1 (left) and Putin in Figure 5 (right).

Deepfakes have been shown to fuel misinformation and societal polarization, making it difficult for people to distinguish between real and fake content (Reardon, 2024, p. 1). This undermines public trust and can have serious consequences for democracy and social cohesion. Since this goes against the utility principle and hedonic calculus, the deepfake video is considered immoral as it fails to maximize happiness and instead increases overall suffering by spreading misinformation and eroding trust (Van de Poel & Royakkers, 2011, p. 45).

Conclusion

The deepfake video of President Zelensky is immoral because it violates at least five out of the seven key principles of utilitarian ethics in Bentham's moral balance sheet: Certainty, fecundity, purity, intensity, and propinquity. The deepfake's negative consequences—spreading misinformation, causing confusion, and undermining trust—far outweigh any perceived benefits, making it ethically unacceptable. This argument matters because it provides a new ethical framework for understanding the implications of deepfake technology in modern warfare. By applying utilitarian ethics, readers gain deeper insights into the moral wrongness of using deepfakes to manipulate information during conflicts. This understanding is crucial for scholars and professionals exploring the ethical dimensions of emerging technologies for analyzing potential future deepfake incidents. For professional engineering practice, this new

understanding underscores the importance of developing robust security measures to detect and prevent the misuse of AI technologies. Engineers and policymakers should prioritize ethical considerations in the design and implementation of AI systems to safeguard against the potential harms of deepfake technology.

When I asked my colleagues to identify the real image of Zelensky between Figures 1 and 2, many mistook the poor-quality deepfake for the real one, citing the real image's high resolution as a reason. In other words, with the unrealistically high-resolution deepfakes of 2025, the low resolution of the 2022 deepfake is seen as the same as simply a real image. This highlights the unsettling reality of how convincing deepfakes can be. I hope to raise awareness on the profound implications of a world where distinguishing between real and fake becomes increasingly challenging.

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