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DISINFORMATION WITH ARTIFICIAL INTELLIGENCE IN ALGORITHMIC SOCIETIES:AN ANALYSIS OF POLITICAL LEADERS

ALGORİTMİK TOPLUMLARDA YAPAY ZEKÂ İLE DEZENFORMASYON: SİYASİ LİDERLER ÜZERİNE BİR ANALİZ

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Abstract
This study analyses the propaganda visuals produced by governments and extremist groups with artificial intelligence, big data, and algorithms in the propaganda activities of algorithmic societies, especially during election periods when social turmoil plays a leading role. The study focuses on the contribution of these visual models to disinformation processes. In this context, there are two samples of the study: First one is: Disinformative images and videos produced with artificial intelligence image models for Donald Trump, the former President of the United States of America. The second one is: Disinformative images and videos produced for Kemal Kılıçdaroğlu, former leader of the Republican People's Party (CHP), a left-centred political party in Turkey, and circulated on social media. The visual contents produced in question were analyzed by the researchers with descriptive analysis method and these artificial intelligence-supported visuals were evaluated in terms of ethics and privacy by determining “the accuracy” of these visuals. The study aims to understand how the visuals produced with artificial intelligence impact the selection processes and to reveal the benefits and harms of these technologies.

Keywords: Algorithmic Society, Artificial Intelligence, Disinformation, Visual Design, Ethics.

Öz
Bu çalışmada, toplumsal çalkantıların başrol oynadığı seçim dönemlerinde algoritmik toplumların propaganda faaliyetlerinde, hükümetlerin ve aşırılık yanlısı grupların yapay zekâ, büyük veri ve algoritmalarla ürettikleri propaganda görselleri analiz edilmiştir. Çalışmanın odak noktası bu görsel modellerin dezenformasyon süreçlerine katkısıdır. Bu bağlamda çalışmada iki örneklem baz alınmıştır: Birincisi, Amerika Birleşik Devletleri eski Başkanı Donald Trump için yapay zekâ görüntü modelleri ile üretilen dezenformatif görsel ve videolar. İkincisi ise Türkiye'de merkez sol siyasi yelpazede yer alan Cumhuriyet Halk Partisi'nin (CHP) eski lideri Kemal Kılıçdaroğlu için üretilen ve sosyal medyada yayılan dezenformatif görsel ve videolardır. Üretilen görsel içerikler araştırmacılar tarafından betimsel analiz yöntemi ile irdelenmiş ve yapay zekâ destekli bu görsellerin “gerçekliği” etik ve mahremiyet açısından değerlendirilmiştir. Çalışma, yapay zekâ ile üretilen görsellerin seçim süreçlerini nasıl etkilediğini anlamayı ve bu teknolojilerin fayda ve zararlarını ortaya koymayı amaçlamaktadır.

Anahtar Kelimeler: Algoritmik Toplum, Yapay Zekâ, Dezenformasyon, Görsel Tasarım, Etik.

INTRODUCTION

Digitalization

Digitalization, complicated and controversial issue, basically; means transferring analog signals such as color, size, and tone into binary codes that can be processed by computers. The tendency of technology always changes the individual and his/her relationship with his/her environment. Transformation from economic to social life is evident in the ubiquity of communication and information technologies with multiple devices at the same time and the unstoppable progress in the field of techno-science. *"The possibility of convergence and convergence offered by digital technologies has driven all technical changes in media and communication"* (Gere, 2018, p. 16). Digitalization is not a concept that covers only the field of informatics but has a multifaceted characteristic that can find a place in all areas of social life. The scope of digitalization, related to the conversion of information from physical to digital format, and all the consequences that arise from it should be evaluated from a holistic perspective. *"From a societal perspective, digitalization refers to a fundamental change driven by digital technologies and encompassing all areas of social life"* (Kergel and Hedikamp-Kergel, 2020, p. 39-40). Digitalization, the concept, that has successes and failures at its roots, has a history of narratives, inventions, and predictions. *"To speak of the digital is to metonymically invoke the full depths of virtual simulacra, instantaneous communication, ubiquitous media, and global connectivity that make up much of our contemporary experience"* (Gere, 2018, p. 17). When discussing the concept of techno-based digitalization, considered synonymous with the communication revolution, what needs to be emphasized is that communication and communication culture have different sociological effects that can have different consequences. In this regard, Postman says, *"Our media are our metaphors. Our metaphors create the content of our culture"* (2010, p. 19, 24). According to him, the most fundamental basis for studying a culture is the observation of the tools of the culture under study. Indeed, in addition to the production of concrete messages, the media makes visible the metaphors that allow the installation of special/fake definitions of reality. Network communities formed at this point create a different cultural dynamic.

Algorithm and Algorithmic Society

Artificial intelligence, enabling human beings to think like machine computers, is an artificial communication system that can exhibit cognitive functions and/or autonomous behaviors such as perception, learning, establishing relationships between different concepts, thinking, reasoning, communicating, and inferring solutions to a problem in a subject. Augmented Reality, in which Brett King in his book examines the development of artificial intelligence technologies from a historical perspective. He categorizes the production of the computer brain under three main headings. In the first phase, which he calls machine intelligence, cognition is at the forefront, and in this context, basic machine intelligence is mentioned. King defines this intelligence as *"neural networks or algorithms that can make human-like decisions on highly specific functions and outperform humans based on comparative evaluation"* (King, 2016, p. 103). Artificial intelligence, which King defines as a mechanism with the decision-making ability of a human being, this intelligence is a picture of a machine with emotional qualities, including details such as tone of voice and facial expression. The concept King defines in his third phase is hyperintelligence. According to King, this stage is machines that understand concepts beyond human beings. King defines these machines as *"a sum of machine intelligence or machine intelligence that exceeds human intelligence, individually or collectively, to perform operations"*. The aim of artificial intelligence, known as computer systems that *"think like humans, behave like humans, think rationally and behave rationally"* (Balaban and Kartal, 2015, p. 16) and can engage in human behavior, is to make machines more useful. For this purpose, machine learning and deep learning, considered sub-branches of artificial intelligence, are among the phases of artificial intelligence.

Machine learning is an important part of the field of artificial intelligence and enables machines to improve their tasks using experience-based techniques and refers to artificial intelligence technology that allows computers to act and think like humans. With this technology, cognition is improved through the data and information processed by the system. Likewise, since behavioral patterns are detected with this technology, it becomes possible to make intelligent decisions without human involvement after a

while. Deep learning, which plays an important role in artificial intelligence, is a sub-branch of machine learning. This method involves a learning approach based on artificial neural networks, which are complex structures with multiple inputs, outputs, and hidden layers. Based on decades of research, deep learning was initially a slow-moving field due to the limitations of highly complex datasets and the significant cost of implementation methods. However, with the improvement of conditions in the last two decades, it has become commercially viable. Machine learning involves classification and recommendation systems from structured pattern data. Deep learning, on the other hand, is *"an artificial intelligence method that uses multilayer artificial neural networks in areas such as object recognition, speech recognition, natural language processing and is one of the types of machine learning"* (Yılmaz and Kaya, 2022, p. 1). Algorithms, capable of revolutionizing the cognitive comprehension of machines, are only possible through mass data processing and programming applications. Algorithms, as logical and control-based components, have become a techno-sociological subject with the advancement of artificial intelligence. Algorithms enable the processing and transformation of this data and play the role of determining what individuals will see during the day, what they will buy, what kind of information they will consume. They have shaping and determining effects on daily life practices. Data is a general term, based on research, and observation, and this information is obtained from many different environments such as the internet, social media, and sensors. *"There are many definitions of big data, defined as data sets that cannot be captured, managed, and processed by general computers within an acceptable scope"* (Apache Hadoop, 2010). *"The common component of these definitions is the 3Vs model, in which the distinctive features of big data are revealed. The 3Vs model consists of volume, variety, and velocity"* (Chen et al., 2012; Laney 2001; Zikopoulos et al., 2012). Volume refers to the aggregation of data masses ranging from terabytes to petabytes, and velocity refers to the timing for maximizing the commercial value of big data. The last concept of this model, variety, includes structured or semi-structured data (audio, video, web pages, text, etc.) and traditional structured data. In addition to this model, big data dimensions include other important concepts. *"These dimensions are veracity, variability and complexity, and value"* (Gandomi and Haider, 2014). Algorithms are complex computer-based epistemic procedures that vary depending on the context. These procedures are shaped by mathematics, logic, and statistical applications. In this way, *"the discourse around algorithmic governance often overlaps and intersects with discussions on data validation and artificial intelligence"* (Katzenbach and Ulbricht, 2019, p. 2). An important detail, that constitutes the basic assumption of this study, is that the techno-centered approach in such research dismisses a discriminatory perspective and social categorization that ignores the human factor training the algorithms and, accordingly, the social, political, and cultural conditions. The impact of algorithms is increasing in decision-making processes today and is becoming widespread in many critical areas of social life such as health, banking, security, electronic commerce, and information access. Artificial intelligence technologies are present in every aspect of business models and daily life. However, it also has negative effects in some cases like other technologies.

Some of them are:
-Increase in unemployment: Since the basis of artificial intelligence systems are technologies based on deep machine learning, it has revealed the risks of people becoming unemployed because it makes the jobs that people can do shorter, faster, and solution-oriented.

-Security issues: Artificial intelligence systems, when trained by malicious people, may not provide accurate and reliable results, and may cause effects that can directly cause outrage on individuals and societies.

- Individual privacy: The ability of artificial intelligence systems to rapidly store and analyze data may lead to the violation of the privacy rights of individual's private information,
- Social imbalance: Considering the ownership of artificial intelligence systems, the advantage of some groups over others in accessing this technology may cause a numerical gap, which may lead to numerical inequality.

- Ethical issues: Due to the ability of artificial intelligence technologies to store, analyze, and use all kinds of data, it may cause ethical problems for individuals, societies, and states.

Misinformation and disinformation

"Misinformation has been used very broadly to refer to misinformation and information distortion" (Oxford English Dictionary, 2020). *"Misinformation is currently used to describe misleading information that is created or shared without manipulative or malicious intent"* (Ireton and Posetti, 2018). *"Disinformation is defined as the deliberate dissemination of false information, including that provided by official institutions to a foreign power or the media, with the intent to influence the recipient's policy or opinion"* (Oxford English Dictionary, 2020). Disinformation, according to the US State Department, *"is defined as the deliberate dissemination of false information intended to mislead or cause harm, which is broadly consistent with other definitions of disinformation"* (Nemr and Gangware, 2019). *"Fake news is defined as news that conveys or contains false, fabricated or intentionally misleading information, or is characterized or read as such"* (Oxford English Dictionary, 2020).

Manipulation

Manipulation is a type of psychological and social influence that aims to change the perception or behavior of others through inefficient, deceptive, or even abusive strategies. *"Manipulation is a situation in which one person influences, consciously directs, and forces another person to behave against their will"* (Chapaux-Morelli & Couderc, 2017, p. 8-9).

Deepfake and Cheapfake

Deepfake and cheapfake, meaning digital face masking methods, have been very popular in new media platforms recently. Deepfake and cheapfake, a digital face masking method that emerged with the advancement of artificial intelligence, have attracted people's attention for a while. With this technique, in animated animations prepared with visual data sets taken from the faces of famous figures who died years ago, we can watch them talking, laughing, or crying on the screen, as if they are alive.

Figure 1. Paul Walker's facial made with deepfake and CGI technology (YouTube, 2019).

However, these deepfake and cheap fake techniques can sometimes be instruments open to abuse, like other technological innovations. It is possible that these digital masking methods can be used for political reputation assassination, blackmail, smear policy, or as a joke. For example, deepfake videos of former US Presidents Donald Trump and Barack Obama, prepared as a joke, were widely shared on social media, and even became the subject of news bulletins. Deepfake, as the name suggests, is a deeper and more effective way of masking. A person cannot understand that the images in question are fake unless he examines them carefully. However, some deepfake videos are so professionally prepared that sometimes it becomes almost impossible to distinguish them from the real thing. It cannot be understood unless it is confirmed by the person who is the subject of the video.

Figure 2. Cheapfake example of children with Tumo impressions (YouTube, 2020).

On the other hand, cheap fakes are images prepared with a relatively simple masking technique. It is not necessary to focus seriously on the images to understand that these types of videos are fake. One can 'easily' understand these videos at first glance without any need for expertise. For example, this absurd vimage, in which Donald Trump's face was used on children, is an example of a cheap fake. Although it is not always easy to understand such digital tricks, they can be detected as fake with some techniques. To do this, first of all, it is necessary to focus on the movements and facial expressions of the person in the video, the harmony of the mouth, nose, and eyes, the skin tone, in short, how much it resembles a 'natural human face'. Considering that the video was produced for a completely different purpose, far from reality, and therefore it had to be re-voiced, the fictional voice in the video should be exactly like the person's real voice. Artificial intelligence is not yet as skilled at imitating the human voice as it is at animating the human face. Therefore, the face in the video must flow in sync with the sound, but this usually does not produce successful results. Attention should be paid to the harmony between the mouth and nose. If the mouth of the person speaking in the video moves artificially without facial expressions, it can be said that there is a high probability that his face will be masked later.

The artificiality of the pose is also one of the details that give away a typical masking video. The fact that the person in the video remains 'fixed' with his body turned in one direction while his head and face are moving may give a clue that the video is not real. Situations such as eyes focusing in an irrelevant direction or not blinking at all are also suspicious points that should be taken into consideration. The voice is personalized and 'natural'. A vague (robotic) tone of voice also increases the possibility that the video is fake.

METHODOLOGY OF THE STUDY

Purpose, Method and Questions of the Study

This study aims to examine the role of visual content used for false, misleading, and targeted manipulation in propaganda activities, circulated in different environments through all kinds of mass media produced by the ruling and extremist groups with the help of artificial intelligence, big data, and algorithms. The study also aims to reveal the benefits of the artificial agenda created with artificial intelligence technologies through societies, especially in terms of raising awareness among voters against disinformative and manipulative information pollution, especially during election periods. As a branch of science that examines signs and proposes semiotic analysis is an important method of interpretation. Semiotics is actively practiced not only in literature but also in most branches of art and in almost all areas of life. *"Since semiotics means the science of sign strings, the concept of sign is, in principle, the foundation of this science"* (Guiraud, 2016, p. 8). The meanings created by the images containing propaganda manifestations rich in visual imagery used in the US Federal Election Commission 2024 Elections, May 14th, 2023, Turkish General Election periods were analyzed by semiotic analysis method through designs. In the study, these images, served with more, algorithms, big data, and artificial intelligence technologies and exhibit propaganda features, are also evaluated in terms of privacy and ethics. In this context, the researchers conducted an in-depth interview with an expert from Marmara University, one of Turkey's prestigious universities, to prevent the study from remaining speculative.

Based on these reasons, the study questions were determined as follows;

Q1: *"How do still and moving image models produced with artificial intelligence and algorithms within the framework of election and propaganda activities shape voter perception?"*

Q2: *"What kind of damages can still and moving image models produced with artificial intelligence and algorithms within the framework of election and propaganda activities cause in terms of privacy and ethics?"*

In this context, it can be said that the research aims to create a discussion on how and in what direction still and moving image models produced with artificial intelligence and algorithms can affect voter perception within the framework of propaganda activities carried out during election periods.

Universe, Sample and Limitations

The universe of the study consists of moving still images produced by big data, algorithms, and artificial intelligence by sovereign powers or extremist groups as a result of the overflow of propaganda activities into cyberspace during election periods when social conflicts are experienced.

In this context, given the size of the population in this study, due to the impossibility of reaching all the data in terms of time, the sample of the study consists of visual image models used in the US Federal Election Commission 2024 Elections and May 14, 2023, Turkish General Elections. The limitations determined within the scope of the study are as follows.

1- The research is limited to the US Federal Election Commission 2024 Elections and May 14th, 2023, Turkish General Election periods and the visual elements with rich content and background events and facts produced by the dominant power or extremist groups during these periods using artificial intelligence technology, big data, and algorithms, and with a random selection, provided that they are distributed equally by the researchers.

2- Due to the impossibility of reaching the entire main mass in terms of time and the foresight that there are many similar production and disinformation content circulated within the scope of new media tools, the sample of the research was determined by the selective method, the USA and Turkey, having different geography, culture, beliefs, etc., and the propaganda image models, served within the framework of election propaganda activities that took place in different periods and have misleading propaganda qualities were analyzed.

3- The variables addressed in the study are limited to the reliability and validity periods of the measurement tools used in the application. The limitation arising from the fact that not all of the research conducted in the field of social sciences has an experimental structure is also valid for this study.

Findings

Analysis of Images Produced with AI on the Arrest of Former US President Donald Trump

Artificial intelligence technologies, which provide great advantages in reaching voters with low costs, are frequently preferred in propaganda activities, especially during election periods. However, artificial intelligence technologies, which have recently been used by political actors and extremist groups, make it possible for chaos to occur in voter demographics. In this context, during the 2024 US Presidential election period, images of former US President Donald Trump produced using artificial intelligence technology were served through mass media. These images, which created a shock effect on the masses in a short period following the service, were circulated by social media users in a short time. Thus, the artificial agenda created was shared unconsciously by users, leading to the spread of a false perception of reality. However, when we look at the background of the incident in question, on March 19th, 2023, the announcement that Trump would be arrested via his social media account dropped like a bomb on the agenda and this announcement caused a debate between Republican congressmen and Democrats in Washington.

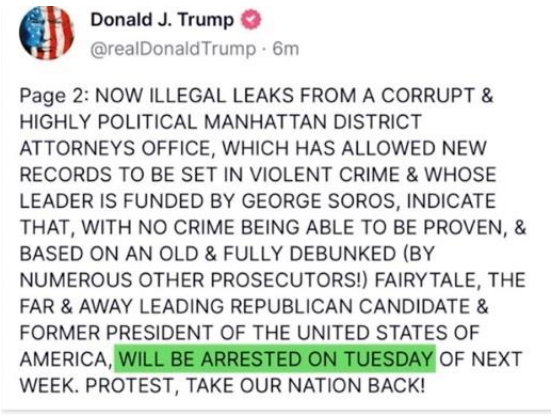

Figure 3. Screenshot of former US President Donald Trump's social media post on March 19, 2023 that the Manhattan District Attorney's Office in New York could arrest him on Tuesday (Reuters, 2023).

When former US President Donald Trump announced that he might be arrested in connection with the Manhattan District Attorney's investigation, social media platforms, particularly X, shared photos allegedly showing the moment of Trump's arrest by New York Police Department officers.

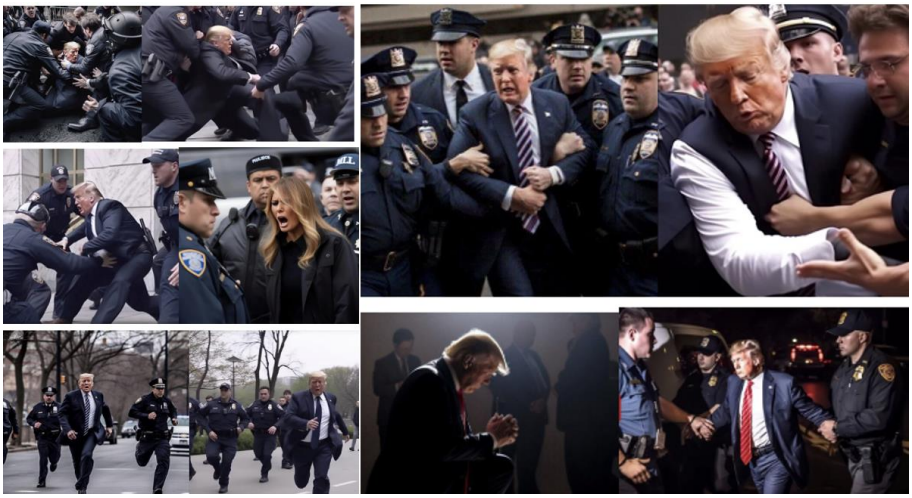

Figure 4. Former President Donald Trump being gang-banged by New York City police officers in riot gear (X, 2023a).

Table 1. Semiotic analysis of Donald Trump's visuals

Sign	**Signifier**	**Signified**
Figure	Donald Trump, Law enforcement, Melania Trump	The arrest of Donald Trump, Melania Trump's emotional reaction, Law enforcement doing its job.
Object	Coat of arms, uniform, weapon, gun, baton, clothing, outfit, car	Strength, weakness, power, helplessness.
Nature and architecture	Trees, roads and buildings, interior space	Although it is conveyed that the incident took place publicly in front of the eyes of the public, it is shown that the incident took place in outer space. What is intended to be conveyed with the interior space is helplessness, surrender, captivity.

Images of Donald Trump's arrest, produced with photorealistic artificial intelligence using Midjourney V5, were circulated on digital platforms and reached more than 4 million views in a short time. The hyper-real images of the visuals resemble staged artistic shots rather than snapshots. In these dramatic images, former President Donald Trump is portrayed as a criminal through the use of force by the state's repressive apparatus, and his reputation is damaged both in American society and in world public opinion. About the images, a leader who has marked an era is taken out of the system. The leader was pushed around, forced to kneel by force, and made ordinary. Moreover, Trump, known to be a Republican, therefore puts the audience with that view in an ordinary, helpless, powerless, guilty position. A series of photorealistic artificial intelligence images of Donald Trump's arrest went viral on the internet. These highly realistic images show the ingenuity of technology and its dangers at the same time. The dramatic footage shows the former president being pushed and shoved by a group of police officers before being taken to jail. The footage was shared after Trump was accused of allegedly paying hush money to a porn actress and quickly reached 4 million views.

Figure 5. Determining the accuracy of artificial intelligence generated images of Donald Trump.

When the images of former US President Donald Trump given above are examined in detail, as can be

understood from the detail numbered with 1, it is seen that the design of the regions containing text is unsuccessful in the images produced with artificial intelligence. In addition to this, the failure of artificial intelligence to produce emblems and logos that have real-world equivalents can be seen in the uniforms of police officers and the emblems on their caps in this image. When the images numbered 1 and 8 are taken into consideration, it is not possible to read and understand the expressions written on the coats of arms. In image number 2, Trump's hair appears soft, and it is physically seen that the hair is intact.

The distance from the natural appearance where her hair starts as well as the smoothness of her face gives a clue that the image was produced with artificial intelligence. At the same time, in image number 11, the exaggerated expression and smoothness on Melania Trump's face draw attention.

Moreover, in these images produced with artificial intelligence, the disproportion in the person's body and body movements and the unnaturalness of the movement are also noticeable in image number 10. Trump is shown as if he has three legs. In the images numbered 4 and 5, it is noteworthy that the hands are of a different size than natural, blurred and the joint movements of the fingers are unnatural. As can be understood from the general visuals, since the visuals choose US President Trump as the focal point, there are more flaws in objects and figures other than him. In image number 6, when the detail of the police officer's glasses is examined, it is seen that the face of the police officer blends into the glasses. When detail numbered 7 is examined, it is seen that Donald Trump has a gun belt belonging to the police on his waist.

Figure 6. All of the images shared were made by Eliot Higgins using Midjourney v5, screenshot shared on Higging's X platform on March 21, 2023 (X, 2023a).

The fake images of Donald Trump circulated on March 21st, 2023 by Eliot Higgins, founder of the Netherlands-based investigative journalism group Bellingcat, quickly became a hot topic on social media. Higgins' statement that he produced the images using Midjourney came a day later. During this time, disinformative information was widely shared by users around the world.

Figure 7. Eliot Higgins, founder of the Netherlands-based investigative journalism group Bellingcat, said he created the photos using the artificial intelligence image-making program Midjourney and that they were fake (X, 2023b).

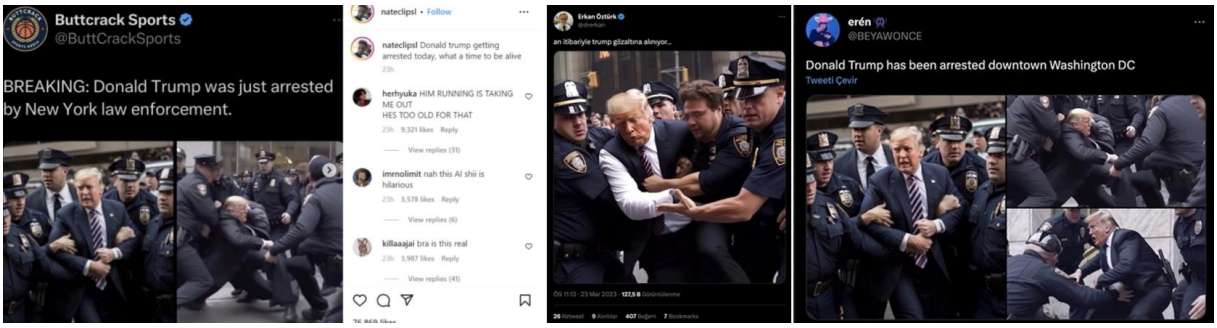

Figure 8. Screenshot of X users' comments on the claim that it shows the moment of Trump's arrest.

Many users retweeted the images and circulated them on different social media platforms. When it became clear that the images were produced by artificial intelligence, users continued to talk about this situation and reproduced the discourse. Therefore, the fact that these technologies started to be on the agenda through the aforementioned image reveals how disinformative information can spread in a short time and can be used as an effective propaganda weapon in directing the masses. During the election period, a company called Lokum Film produced parody videos of Recep Tayyip Erdoğan, the presidential candidate of the People's Alliance, and Kılıçdaroğlu, the presidential candidate of the National Alliance, using artificial intelligence technologies, which were brought to the agenda again during the election period and caused great debates on social media.

Figure 9. Screenshot of Kemal Kılıçdaroğlu's video produced by Lokum Film with artificial intelligence technology (TikTok, 2023).

Table 2. Semiotic analysis of the video of Kemal Kılıçdaroğlu

Sign	**Signifier**	**Signified**
Figure	Kemal Kılıçdaroğlu	Presidential candidate speech
Object	- Mustafa Kemal Atatürk portrait on the back - Suit	Loyalty to the CHP Party and the founder of the Republic of Turkey. - Formality, nobility.

Although the entire video takes place in the same space, Kemal Kılıçdaroğlu appears as the Presidential Candidate of the National Alliance. In the video, which is assumed to be in the interior space, Kılıçdaroğlu is shown in the chest plan. In this respect, an interaction between the audience is intended to be created with the help of gestures, mimics, and body movements. It is noteworthy that the presidential candidate frequently follows the discourse by using his hands. The fact that the presidential candidate closes his palms together can be interpreted as a sign of self-confidence. In the case of the artificial intelligence video showing Kılıçdaroğlu, it is seen that the gestures, lip movements, and body

movements of the presidential candidate are not natural. Likewise, skin tones appear different from the interior lighting. In such videos produced with artificial intelligence, the model used for the fake video produced by the algorithms preserves the lighting of the spaces. For this reason, the lighting is usually a poor match in the generated video. Moreover, there is no glare in the candidate's glasses and there is no indication of the natural physics of reflection in the glasses. Likewise, as indicated in detail numbered 2, it can be seen that the filter shifts in the movements in the candidate's neck area while the candidate continues his hand gestures. When the candidate speaks, the hair is different from the natural appearance of life. As a matter of fact, as in detail numbered 3, the hair does not move in any way while the head movements continue. In the relevant video, the candidate is also dubbed with a deepfake voice by the Turkish delight movie simultaneously with his hands, and the hand and body synchronization is quite weak, as in the details numbered 1 and 4, the blurring of the hands is noticeable. The fact that this video was circulated earlier, but the video was re-circulated during the election period is an indication of the reproduction of surreal images on social media channels. Moreover, it can be said that the images are very important in terms of showing the potential dangers of deepfake images. In addition, since such videos and photos produced with artificial intelligence technologies are at a level to convince voters who are not paying attention, it is possible to say that these technologies have the potential to deceive more voters in the future as a result of the continuous development of these technologies. In the 2023 Turkish Presidential Elections, the topics of artificial intelligence and deepfake were frequently mentioned by the candidates. On May 1st, 2023, it was shared by an X account (@ytc06). In the post, the user stated that he was experimenting to learn artificial intelligence tools and pretended to explain Kılıçdaroğlu's candidacy in English in the video in which he announced his candidacy in Turkish.

Figure 10. Screenshot of the statement made by user X named ytc06 on his account (Archive.md, 2023).

Figure 11. Screenshot of a TikTok user named chpvekili confirming that the video was produced by artificial intelligence with an annotated post on his account (TikTok, ty.).

However, on May 2nd, 2023, this video was re-shared on TikTok by a user named chpvekili with the caption “13th President of the Republic of Turkey @kemalkılıcdaroglu”. Other users assumed that Kemal Kılıçdaroğlu was speaking English in the video and that this video was original. It was later revealed that the owner of these statements, which were different on TikTok and X platforms, was the same person. The user posted on the X platform, “I am constantly experimenting to learn new AI tools. I introduced Kemal Kılıçdaroğlu's voice to the AI. I had the English version of Kılıçdaroğlu's speech announcing his candidacy dubbed by his voice. I had another AI add subtitles”. Although the user stated in the post that he had designed this with artificial intelligence, other users shared the videos without investigating the accuracy of the information. This reproduced the disinformation produced through manipulation.

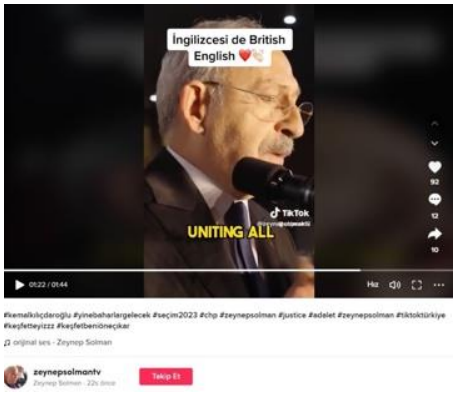

Figure 12. Example screenshot of a deepfake video produced by TikTok user named chpvekili with artificial intelligence and re-shared by voters (TikTok, ty.).

An analysis of this deepfake video, which received thousands of shares, shows that Kemal Kılıçdaroğlu's voice was imitated by artificial intelligence and that the images used in the videos were made using footage from the night Kılıçdaroğlu announced his candidacy.

Artificial intelligence-supported chatbots, which have gradually become visible in propaganda activities, have been used in these processes for a long time. Chatbots are mainly used by corporate companies or non-governmental organizations to transfer information to the target. The first of the chatbots, having two main models, is a rule-based model that has been around for about 25 years, where a certain number of questions and answers can be uploaded; the second is a natural language processing (Neuro-Linguistic Programming, NLP) based artificial intelligence supported chatbot with algorithms that can understand any free-format text written by users. Rule-based chatbots are simple but provide limited results. Used by banks, companies, or government agencies to provide information, they do not have answers outside the pre-planned flow. However, the most prominent feature of the second model is that chatbots such as ChatGPT and Bard are trained against possible questions, know how to answer, and can categorize questions and answers. Despite their handicaps such as variability and inconsistency, they have become a phenomenon that can be used for many purposes in the last five years.

The use of chatbots in political campaign processes is generally preferred by politicians to convey their thoughts and promises to voters. The aim here is to ensure that the answers are under control. For this reason, politicians prefer to control chatbots as a priority. However, the voters may perceive the lack of interaction in these chat rooms negatively. It is possible to say that these robots are quite functional, whether they are rule-based or artificial intelligence-supported chatbots in the secondary model. This is because both models allow politicians to stay connected with voters. From providing information about events to answering voter questions, from reminding voters where to vote to collecting information about what issues voters care about, thus allowing data such as potential voters and the success of political campaigns to be obtained. These robots were first used in the US Presidential Elections in 2020. On May 14th, 2023, a similar allegation came to the fore in the Turkish Presidential Elections. As a result of the statement made by Kemal Kılıçdaroğlu, the Presidential candidate of the Millet Alliance, on May 2nd, 2023, on his account on the X platform, Cambridge Analytica became a hot topic again.

Figure 13. Screenshot of the post made by Kemal Kılıçdaroğlu, Presidential Candidate of the People's Alliance, on his X account (X, 2023c).

Translation of the image: "2 days left to the last 10 days. Let me give my last warning. Fahrettin Altun, Serhat and his teammates Çağatay and Evren; the darkweb world you are trying to deal with will put you in the hands of foreign intelligence. Playing Cambridge Analytics is beyond your capacity, guys. This is my last warning!"

On May 2nd, 2018, Cambridge Analytica, a data analytics company, abused personal data by improperly using voter data collected without permission to influence the political preferences of voters in critical political elections in the UK and the US, ceased operations. The company was again on the agenda during the 2023 Turkish presidential elections. In a post on his X account, Kılıçdaroğlu pointed to Fahrettin Altun, the Presidential Communications Director, and said that he and his team were associated with the dark web and accused of "playing Cambridge Analytica is beyond your capacity". Fahrettin Altun, the head of communication at the time, rejected Kılıçdaroğlu's allegations and made the following statement on his X account regarding these baseless allegations.

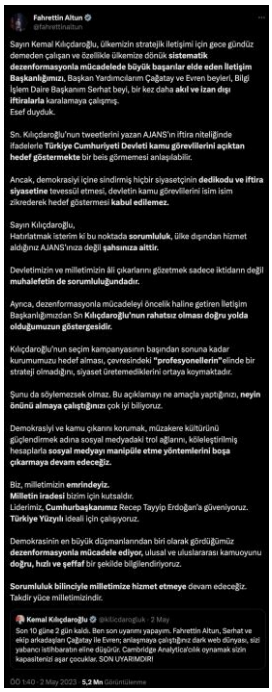

Figure 14. Screenshot of the post made by Fahrettin Altun, Head of Communications of the Republic of Turkey, on his X account (X, 2023d).

> *"It is understandable that the agency that wrote Kılıçdaroğlu's tweets sees no harm in openly targeting public officials of the Republic of Turkey. However, it is unacceptable for a politician who has internalized democracy to resort to the politics of gossip and slander, and to target public officials of the state by mentioning them by name." Mr. Kılıçdaroğlu, I would like to remind you that the responsibility at this point belongs to you personally, not to your agency from outside the country. It is the responsibility of not only the government but also the opposition to protect the best interests of our state and nation. Moreover, the fact that Mr.*

> *Kılıçdaroğlu is uncomfortable with our Communications Directorate, which has made the fight against disinformation a priority, is an indication that we are on the right track. The fact that Mr. Kılıçdaroğlu targeted our organization from the beginning to the end of his election campaign shows that the "professionals" around him do not have a strategy and cannot produce politics. We must also say this. We know very well for what purpose you made this statement and what you are trying to prevent. In order to protect democracy and the public interest and to strengthen the culture of negotiation, we will continue to frustrate the troll networks on social media and the methods of manipulating social media with enslaved accounts. We are at the disposal of our nation. The will of the nation is sacred to us. We trust our leader, our President Recep Tayyip Erdoğan. We are working for the ideal of the Turkish Century. We fight against disinformation, which we see as one of the biggest enemies of democracy, and inform national and international public opinion accurately, quickly and transparently. We will continue to serve our nation with a sense of responsibility. Our sublime nation has the right"* (Altun, 2023).

Artificial intelligence-supported systems can produce content that causes manipulative disinformation as well as deep fake images, can harm personal privacy by storing personal data without permission, and can not only influence election processes in this way but can be used as political discourse in another election process even 7 years after 2016, as seen in the Turkish General Elections. Of course, this situation may also allow for the creation of perceptions on the electorate. Henry Ajder, an expert on this subject, has evaluated the current artificial intelligence tools *"If you can fill internet platforms with sophisticated and very human-sounding discourses using bot accounts, this can play a role in taking over a field"* (Elçi, 2023). Even if the quality of the images produced is low, they carry the risk of having an impact on voters.

Examination of Artificial Intelligence Supported Visual Communication Tools in the Sample in Terms of Privacy and Ethics

The concept of privacy and intimacy, a semantically difficult concept, has been used with different meanings throughout history and has been referred to with different meanings depending on the context. In everyday language, the concept of privacy is not only an abstract expression but also refers to individual space in different forms. When we look at the social definition of the concept, unlike the peace of private life, it is not a case of seeking its justification only in individual (as opposed to collective) interests (Lokke, 2020, p. 24). One of the most important elements of privacy can be listed as the ability to control personal data and to decide how and in what way this information will be used, as much as possible by the person himself/herself, and to decide how much of his/her information will be known by others. *"The negative consequences that may arise from the deviation of data from the purposes for which it was collected or the purposes for which it was collected, i.e. the possibility of misuse of personal data or the situation that increases surveillance, carries the risk of causing a potential struggle for humanity"* (Eyüpoğlu et al., 2017, p. 179). In this context, the possibility of the risks of big data harming privacy is one of the issues discussed in the literature. When we look at the research, it is revealed that big data is focused on the possibility of harming others, and if this possibility is realized and causes direct or indirect damage to the person, it is unclear who will be held responsible for the damage. Similarly, personal data, which appears as a pile of data, may have the opportunity to expand the field of fraud. Today, *"information has a capital value, but the rights of data owners should be taken into consideration in the face of the possibility of such acquisition and use of information for other purposes"* (Eroğlu, 2018, p. 134-135). The traditionally known understanding of ethics is insufficient due to the structure of big data that causes possible privacy violations.

In today's world, where the exposure of objective reality to virtual reality intervention in patterned vital activities is deeply felt, technology-based outputs cause an increase in uncertainties between the fake and the real. The use of artificial intelligence and computer systems together drives the individual towards the direction he/she perceives thanks to that data among the large data sets in the search for the truth. Thanks to these technologies, the objective life culture, which talks about reality based on seeing and watching, can direct individuals toward the content they constantly see in virtual worlds. At this point, the lure of access and speed of virtual spaces leads to the emergence of deep falsities based on the

search for reality. These falsities can affect millions of people at the same time thanks to the ability to reach large masses quickly due to the widespread use of digitalization and can compel their followers to give their consent. In our world where the use of artificial intelligence and algorithms is increasing day by day, issues such as privacy of personal data, manipulation, disinformation, disinformation, and misinformation can be encountered widely, especially in chaotic environments such as elections. In this respect, since ethical concerns about the use of artificial intelligence and algorithms have the power to overshadow the fairness and transparency of elections, it is necessary to address the issues of privacy and ethics within the scope of the study. In this respect, while evaluating artificial intelligence-supported images in the context of privacy and ethics in line with the findings obtained from the study, the risk of the research remaining speculative was tried to be minimized by taking the opinions of a communication expert working as a faculty member at Marmara University within the scope of the study. A semi-structured questionnaire was prepared by the researchers and a timetable that was convenient for the expert was determined. The questions were transferred to a Word document numbered from 1 to 7 and sent to the relevant expert via WhatsApp. The expert answered the relevant questions on the same document in a short time and sent them to the researchers again via the same application. The questions asked by the researchers to the communication expert are as indicated in the table below.

Table 3. Question Form Prepared to be Used in the In-depth Interview Technique to Obtain Expert Opinion

NO	QUESTION
Q1.	Considering the propaganda visuals (videos, photos, etc.) produced using artificial intelligence technology, how do they direct the masses in the context of the reproduction of reality? What are your views on the subject?
Q2.	Do you think productive AI-enabled propaganda activities pose a threat to the democratic process and public discourse?
Q3.	Does AI reproduction of factual information, currently used by both state-sponsored actors and extremist groups, lead to a change in voter attitudes? Does it erode belief in objective truth?
Q4.	In this context, what would be your assessment on the ethical and moral dimensions of the issue?In this context, what would be your assessment on the ethical and moral dimensions of the issue?
Q5.	How do you evaluate the editing and dissemination of deepfake images of political actors in terms of ethics, data surveillance and privacy?
Q6.	Is it possible to prevent disinformation generated by AI? How can governments and the public have access to accurate information on such content, especially in politics? What are your suggestions on this issue?
Q7.	Do propaganda activities produced with AI technologies harm democracy?

Regarding question numbered 1 in the questionnaire, the expert communicator responded as follows; *"Propaganda visuals produced using artificial intelligence technology have important implications for how they manipulate the masses in the context of the reproduction of reality. This technology can shake the perception of reality with its ability to quickly edit and manipulate. When videos and photos are faked, people can be misled and make decisions based on misinformation. This could create an environment where questioning reality becomes commonplace in political processes and public discourse."* In this context, it is concluded that reality can be bent and twisted by artificial intelligence and algorithms, causing different perception environments on individuals and ultimately on the masses based on the service of false and misleading content. Regarding question number 2 in the questionnaire, the expert communicator responded as follows: *"I think that generative AI-generated propaganda activities pose a threat to the democratic process and public discourse. Such propaganda can manipulate public opinion and make it difficult for democratic processes to function in a fair and informed manner."* Regarding question number 3 in the questionnaire, the expert communicator stated that *"fake information generated by artificial intelligence can cause changes in voter attitudes and erode belief in objective truth. Such manipulations can influence people's political views and damage democratic processes"*. Regarding question number 7 in the questionnaire, the expert communicator gave a similar response.

The expert communicator concluded that *"propaganda activities generated by artificial intelligence*

technologies can harm democracy. Fake information and manipulative content can make it difficult for society to be informed in an informed and healthy way. This can disrupt the functioning of democratic processes and lead to distrust in society. Therefore, serious measures should be taken against such threats." In this context, it is emphasized that artificial intelligence-supported propaganda activities are a threat to democratic processes. Propaganda activities are one of the main effects of manipulating the emotions of the masses and arousing feelings such as fear and fear. It can be concluded that all kinds of content prepared within the scope of these activities can undermine trust in individuals and institutions, as well as have the potential to enable polarization among the masses. 4th and 5th questions in the questionnaire, the expert communicator was asked for his/her opinions on the evaluation of the use of artificial intelligence in terms of ethics and privacy, and the expert's response to question 4 was *"The use of artificial intelligence technology in political campaigns can lead to ethical and moral problems. Misuse of this technology can lead to information manipulation, and privacy violations and jeopardize democratic values. Therefore, it is important to establish and implement ethical and moral guidelines."* Similarly, in Question 5, the expert stated, *"The editing and dissemination of deepfake images of political actors is a major problem in terms of ethics, data surveillance and privacy. Such manipulations can jeopardize the reputation and privacy of individuals and create distrust in society."* In this context, based on the view that images produced with artificial intelligence may lead to ethical problems that could jeopardize democracy, it is necessary to accelerate studies on the measures that can be taken in this field.

Regarding question number 7 in the questionnaire, the expert communicator stated that it is very difficult to prevent artificial intelligence-mediated disinformation today, but it is possible. The expert communicator listed a series of measures to ensure that the political power and the public have access to accurate information. These are; "Media literacy training: Increasing the public's media literacy can help them recognize fake news and access accurate information.

Digital security measures: Technical measures can be taken to prevent the production and dissemination of fake content. Protection of freedom of expression: In combating fake information, fundamental human rights must be respected. Responsibility of internet platforms: Social media and other online platforms should take more responsibility to control and prevent the spread of fake content." In this respect, the importance of media literacy is once again emphasized.

CONCLUSION

The development of AI-enabled technologies and the fact that they can be used by everyone has led to the emergence of several risks. Who should control access to these technologies and what kind of risks they pose is the subject of another study. The aim of this study focuses on the effects of propaganda activities carried out by politicians and extremist groups using artificial intelligence technologies on public opinion, especially during chaotic periods such as elections. When it comes to the examinations made, it has been tried to reveal the threats that propaganda can pose to society by using artificial intelligence. Within the framework of the findings obtained, it has been revealed that such content, whether the images produced with artificial intelligence are parody content, whether they are produced by any user for testing purposes, or whether they are produced by politicians or extremist groups, such content causes misperception in society. As a result of the analysis, it was revealed that content such as disinformation, manipulation, and misinformation spread faster and are accepted, especially in cyberspace. Although the study is due diligence on propaganda, considering the content produced in the long term, it leads to the transformation of perception and targeted manipulation of individuals and societies. Revealing that such content is not true with proof and evidence increases the awareness of individuals. Moreover, this awareness of the individual allows users to be more resistant to propaganda by questioning the authenticity of the real and the fake. This situation is thought to encourage the elimination of the negative effects of artificial intelligence technologies, transparency, accountability, and critical approach. In this way, the user contributes to approaching the content with a media literate awareness by not believing everything they see and questioning its accuracy.

When the study is evaluated in the context of sustainability, the following conclusions can be reached.

1- In this century where reality and simulation are intertwined, the individual has to learn digital literacy. In this context, starting from the preschool period, the individual will act with the perception of digital literacy he/she has learned, will be able to approach events and phenomena critically, and will be able to make decisions with this awareness. Therefore, in the long run, digital platforms will be able to turn into a tool that serves humanity, rather than a purpose that directs people's perception.

2- The individual who gains digital literacy will be able to protect the integrity of the information ecosystem by being conscious of the content produced with artificial intelligence.

3- Printed materials used in propaganda activities carried out by politicians during election processes harm nature and thus the ecosystem. The utilitarian use of artificial intelligence-supported technologies reduces carbon emissions.

4- The use of images and statements of individuals with the help of algorithms carries legal risks. Therefore, fundamentally, artificial intelligence is not only a matter of economics and technology. The legal and even sociological risks of these technologies can cause serious harm to the individual and society. Unauthorized use of individuals' data without their consent may cause the individual to be subjected to offensive and derogatory behavior in the eyes of the public. This situation is an attack on the human rights and privacy of the person. At this point, the awareness to be created among users will increase the awareness of individuals and ensure the sustainability of phenomena such as ethics and human rights, thus enabling the formation of a more civilized digital society.

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