Semiotic Analysis of Perception Management through Technology-Assisted Training in the Military Field Study on Black Mirror TV Series

Fatih Uğur Biber
PhD Student, Girne American University, Faculty of Communication, Communication and Media Management. Kyrenia/ TRNC.
fatihugur.biber@std.gau.edu.tr
Orcid: 0000-0002-4122-222X

Muharrem Özdemir
Asst. Prof. Dr. Girne American University, Faculty of Communication, Department of Press and Publication, Kyrenia/ TRNC.
muharremozdemir@gau.edu.tr
Orcid: 0000-0003-1570-146X

Summary

Defense industry is one of the sectors that boosts technological advancement and act as a trigger. In this industry, where personnel training plays a vital role, supporting military training with technology provides a great advantage on the battlefield. When we look at the problems that need to be solved, it is seen that the soldier's devotion to duty, his sense of absolute obedience and the soldier's need to be free from emotional depression.

Recently, the masses have undergone intense migration movements due to the climate crisis, epidemics, hunger and wars. In this context, it seems that local people in the migrated region have a feeling of fear and hatred towards the newcomers. Mass media are the primary factors that cause this perception, called xenophobia.

In this study, how perception management can be done through mass media and what the consequences may be will be discussed from a dystopian perspective and using the semiotic analysis method. As an example, through the images and dialogues in the "Men Against Fire" episode of the Black Mirror series, it will be examined how the soldier's motivation to become conditioned to the task during the training process is provided with technological support, and how effective the media can be in the context of perception management. As a result of the research, the outrage that xenophobic thought will cause in society, the dangers that arise in case of loss of control, and the role of the media in this process will be revealed and solution suggestions will be offered.

Introduction

4.76 billion people are active social media users, it is possible to say that the digital world is a widespread communication channel. (Wearesocial, 2023) Social media, which is the main source of news and information and the main communication assistant for billions of people globally, has the potential to easily impact on user individuals. (Ahmed, Chen and Chib, 2021).

Due to the features of digital media such as being individualized and reaching everyone, instant sharing, snap sharing of photos, videos and audio recordings, and easy interaction within and between groups, it has become increasingly easier to direct people, groups or societies after perception management. Famous war strategist Sun Tzu said, "*The great success is to win by breaking the enemy's resistance without fighting.*" by emphasizing the importance of using propaganda and manipulation with his philosophy. (as cited in Ayhan and Çakmak, 2018)

Although the use of technology in military training, as in every field, may mean that it will complete existing deficiencies, it may also mean that it will create problem areas. It is envisaged that technological support, which provides benefits for overcoming problems experienced by military personnel such as composure, shooting skills and mission focus in a conflict environment, may also create some negative repercussions such as confidentiality and ethical problems.

Today, due to many reasons such as climate change, political crises, energy problems and civil wars, the number of people migrating around the world shows an increasing trend, reaching 218 million as of today (IOM UN Migration, 2022). Local people in the receiving countries; they generally have a hatred based on fear towards these immigrated people who have different cultures, languages, skin colors and ethnic structures. It is seen that this concept, called "xenophobia", is considered dangerous by masses such as political figures, ultra-nationalist movements (Karabulut, 2022) and spiteful crowds on social media, resulting in both regional and global problems.

In this study, the episode "Men Against Fire" which is the 5th episode 3rd season of the "Black Mirror" series, will be discussed, where the use of technology in the field of military training and the negativities it may create in the near future are presented through a dystopian (chaotic future) narrative.

Media and Communication Transforming with Technological Development
It is known that people have developed techniques that contain the messages they want to convey, using many communication methods since the neolithic times when they started living together. Mass communication has spread to wide areas thanks to traditional media organs such as newspapers, telegraph, radio and television. Especially in the early 1990s, mass communication became digital, and with social media, people began to share information, interact with each other, expand their social networks and establish virtual friendships. As the amount of sharing and diversity has become unlimited over time, social media has turned into a vortex that draws all humanity into itself.

The digital medium, known as the world of social media, has revealed that Marshall McLuhan's global village theory has become a reality, and has shown that it has become an area where world borders have relatively disappeared and social, cultural, economic and political values and information are easily made available for common use (Kapan and Üncel , 2020). The digital phenomenon, which has become two-dimensional with the recent rapid development of technology and the emergence of artificial intelligence and virtual reality environments, continues its evolution in three dimensions. In this context, the awareness of artificial intelligence, augmented reality, cloud technology, 5G speed internet and blockchain technologies is increasing. (Lee et al., 2021). Three-dimensional virtual world technology, which is expected to take more part in our lives in the near future, will make its impact felt in all areas, from art to industry, from the gaming industry to health. (Sun et al., 2022)

Conflicts Encountered in Military Training and Reflections of Technological Support
In military conflict situations, it is quite common for soldiers to encounter emotional problems, and these problems can manifest in a variety of ways. Many studies show that military personnel are under intense stress during conflict, which can cause emotional problems (Smith, 2017). Uncertainty, danger, and constant and high levels of arousal in conflict zones can make it difficult for soldiers to cope with emotional problems such as anxiety and fear. (Johnson, 2018). Additionally, it has been determined that traumatic events experienced during conflict can lead to serious emotional problems such as post-traumatic stress disorder (PTSD). (Brown, 2019).

However, emotional problems are a vital concern not only for military personnel, but also for soldiers' families. (Jones et al., 2016). The emotional depression that soldiers experience during conflict can cause problems such as anxiety, concern and depression in their families. This situation causes the complex relationship between the emotional health of military personnel and family dynamics (White & Smith, 2020). Understanding the effects of emotional problems on military personnel can help military leaders and healthcare professionals deal with these problems effectively. Appropriate support and resources must be provided to protect and improve soldiers' emotional health during conflict. (Taylor, 2015)

Technological three-dimensional visuals are produced in military areas where technological developments are most intense, and augmented reality performance has been revolutionary in the military training system as well as in different fields. Before a detailed analysis of the usage areas, the current development of virtual and augmented reality technology will be briefly examined.

The foundations of virtual reality (VR) technology date back to the mid-20th century. The first VR experiences began in the 1950s and early 1960s, with devices built by scientists and engineers. These days, they generally provide simple visual and audio feedback and are used for military training and research services.

In the late 1960s and early 1970s, some basic VR systems emerged, discovered by Ivan Sutherland and other researchers. Sutherland's "The Sword of Damocles" presents 3D images through a mounted system. However, since these systems are generally large and expensive, they are used only in research laboratories. (Künüçen and Samur, 2021)

In the 1980s, VR technology became more commercially available and several companies began releasing VR devices and applications. In particular, Jaron Lanier's VPL Research company has commercially produced and sold many VR technologies. During this period, VR was seen to be particularly involved in studies in the fields of agriculture, education and animation.

The development of VR technology came to a halt in the 1980s, but began to revive in the early 2000s. Increasing processing power, advances in graphics technologies, and the emergence of portable components such as smartphones have fueled a revitalization of VR. Today, VR technology is used in many fields, including education, entertainment, healthcare, military and industrial applications. (Künüçen and Demirci, 2021)

Virtual reality (VR) and augmented reality (AR) are advanced technologies that have spread rapidly in recent years and offer a wide range of applications in different fields. These technologies allow users to experience the virtual environment by interacting with the real world.

Virtual reality (VR) is a type of technology that transports users to a completely virtual environment. Users with the help of VR headsets or glasses find themselves in computer-generated 3D environments. These environments can be related to the real world or a completely imaginary environment, depending on the user's preference. Users can navigate, interact and have various experiences in these virtual environments. For example, VR technology is widely used in the gaming industry, education, healthcare, and simulation fields (Mestre & Ribeiro, 2019).

Augmented reality (AR) is a type of technology that enriches the real world with virtual elements. AR applications allow users to see the real world and add computer-generated graphics, text or other digital content to these images. AR is used especially effectively in fields such as education, retail, architecture and tourism. Users can use technology more effectively by experiencing AR applications through devices such as smartphones, tablets or special AR glasses. (Kasahara, & Prado, 2019).

In addition to other areas of use, the rate of use of virtual and augmented reality is increasing in military training. These technologies offer various ways to provide a more effective, impressive and safe environment for the training of military personnel. While virtual reality places users in a completely virtual environment, augmented reality enriches the real-world environment with virtual elements. The use of virtual reality technologies in military training can be listed as follows;

Simulations and Scenarios: Virtual and augmented reality enable military personnel to experience scenarios they may encounter in real life. This can be achieved through simulations specifically designed for various military activities such as combat operations, terrain reconnaissance, tactical maneuvers.

Medical Training and Injury Simulations: Virtual and augmented reality allow medical personnel to practically experience injuries and emergencies they may encounter on the battlefield. This provides significant assistance in improving medical response skills and being able to work more effectively in field conditions.

Team Collaboration and Leadership Training: Virtual and augmented reality can deliver interactive scenarios to improve team collaboration and leadership skills across military units. Military personnel can work in these environments to complete complex missions and make tough decisions together.

To look at some examples from militaries around the world, the US Armed Forces conducts various programs to improve the tactical and strategic skills of military personnel using virtual reality simulations, while the British Royal Army offers specialized training programs to simulate military operations in field conditions using augmented reality. Military personnel fight against virtual targets in a real-world environment through AR glasses. (Xinxiong Liu et al. 2018)

Perception Management, Xenophobia as a Hate Speech and Its Social Effects
Perception can simply be defined as the organization and interpretation of data carried by sensory organs in the brain. (Pustu, 2014, p.310) Perception means a person's understanding of the world. Being aware of what is happening around him, objects and situations, searching for and finding them when necessary, and arranging what he has obtained in a row means that the person has acquired perception (Gönenç, 2018, p.12). The entire process constructed to ensure that the perception process resonates with the individual is called perception management. In other words, perception management means creating, reproducing and managing the message intended to be given to the target audience or society for certain purposes (Başıbüyük, 2014, p.47).

When we look at the history of the concept of xenophobia, it is seen that it consists of the combination of the word "foreign" used in the Ancient Greek language as "xénos" and the word "phóbos", that is, "fear" (Oxford Standard English Dictionary, 2006). The literal meaning of Xenophobia is defined as "*extreme hatred and fear towards people of foreign countries*" (Cambridge Learner's Dictionary English–Turkish, 2023). The concept of xenophobia, which derives from the same formation as the concepts of Islamaphobia and racism, which are based on fear, is also examined by multiple disciplines such as psychology, anthropology, sociology, theology and economics

(Karabulut, 2022). Xenophobia is fed by stereotypical, monotonous thoughts. According to Rydgren's (2004) perspective, an illusion occurs at the cognitive level after lack of information and misinformation. The prejudiced approach that emerges in this process is the main factor that brings about fear and hatred towards foreign groups. When examined according to social psychology, it is seen that xenophobia expresses the prejudiced, critical and exclusionary perspective of a defined internal group towards the external group outside the structure that it categorizes in accordance with its own dynamics (Karabulut, 2022). Recently, this concept emerged as fear and subsequent hatred towards immigrant groups and has increased its recognition as an attempt for "superiority" based on cultural foundations (The UN Refugee Agency, 2020).

Advertisements and movies use subliminal techniques to create perception in all countries. In this way, reality and imagination are drawn. One who can control perception also controls what the target audience has. Mass media, on the other hand, have the power to shape perception, lifestyle and eventually everything by dominating the eyes, ears and brain (as cited in Ayhan and Çakmak, 2018). Famous American politician and writer Henry Kissinger said, "*It is not so important that something is real; but it is very important that it is perceived as real.*" expresses it as. (Arğın, 2018, p.93)

Perception managers and manipulation experts use information like a "punch" to stun the target audience and ensure that the audience they determine acts in line with the desired goal. Consciously selected and edited information and visuals are frequently used by media manipulators. (Gültekin, 2020).The most effective weapon that can be used for this purpose is mass media.

State authorities and company owners, who have media weapons in their hands, skillfully use this power to direct the audience to the target they want. For this reason, they do not hesitate even for a moment to use "experts" on programs, to manipulate news sources, to show only what they want to see of the truth, and to change the agenda by financing alternative media sources. (Herman and Chomsky, 2017). The concept of xenophobia, which entered the literature in the last century, has become an increasingly important concept today. Following the September 11, 2001 attacks against the Department of Defense (Pentagon) in Washington DC, the capital of the United States (USA), and the buildings called the Twin Towers in New York, US President George Walker Bush launched a campaign against terrorist organizations in Afghanistan. The war caused all Muslims to be seen as potential terrorists in society (Karabulut, 2022). A person named Balbir Singh Sodhi, wearing a headscarf, was killed in the US state of Arizona on September 15, 2001, on the grounds that he was a Muslim, and the murder suspect stated during interrogation that he killed the person in question to take revenge for the September 11 terrorist attacks. Thus, it revealed how far xenophobic perception management can evolve (Winters, 2002). In addition to the migration movement that started with the turmoil that broke out in Syria in 2011 and the subsequent civil war, the climate crisis and famine in African countries and Asian geography, and the increasing migration movements towards Mexico and the USA after the political crises in Central America also contribute to the spread of xenophobia in the world has been an extremely important factor. As a result of the manipulative statements and news about refugees made by ultra-nationalist groups in countries that receive intense immigration, it has become commonplace for some segments of society to regard refugees as enemies, and unfortunately, this situation has led to divisions.

Methods
Scenes selected from the series with the typical situation sampling method (Baltacı, 2018:251), which is a purposive sampling method used in evaluation studies where the effects of a certain application or program are investigated and which expresses situations that are not different from the universe with their basic features that have the ability to represent the universe, were used in Sassure's sign-signifier-signified Semiotic analysis will be made with the table to be created under the headings shown.

In semiotic analysis, sections taken from scenes are evaluated as an indicator. The objects, people, places and words in the sections are signifiers and show certain mental concepts (Devran, 2010). In this way, it is aimed to analyze the background meaning of an image or text rather than its clearly stated meaning. With the mentioned reading method, it is not possible to comprehend what is clearly shown, but how it is constructed and what its real meaning is. (as cited in Ayhan and Çakmak, 2018)

Black Mirror TV Series: Semiotic Analysis of "Men Against Fire" Episode
The TV series "Black Mirror", which was released in the United Kingdom in 2011, is about a dystopian world consisting of independent episodes, reflecting technology, modern social life and their effects on the individual. (Akgül and Şahin, 2022) The name of the series, which consists of 6 seasons and 27 episodes, means "Black Mirror" in Turkish. In the episode "Men Against Fire", which was released as the fifth episode of the third season of Black Mirror, a story is told through the near future life of a soldier named Stripe. The subject of the episode is

the process of extermination of a species called "roach", which is emphasized as a social threat, the realities faced by soldier Stripe and the problems that arise afterwards. The soldiers in the team, who are trained with high-tech equipment, have lenses in their eyes and an implant called "MASS" in their brains. Within the department, the *MASS* system has been described as the "*most powerful military weapon*." The team leader can convey the necessary orders for planning, informing and directing with the help of "augmented reality" technology, which means three-dimensional image, where real and virtual images can be presented simultaneously. All activities of soldiers, their vital values, and indicators in the field of shooting and training are supported by the "MASS" system. In the scenes where shooting training is presented to the audience, the accuracy of the shots and the soldier's success statistics after each shot are presented to the user. Thanks to this implant, soldiers can communicate with each other and access incoming intelligence reports instantly. It is presented to the audience that there are solutions to the emotional problems experienced by soldiers in real-world armies, that the soldier does not hesitate when shooting, does not feel any smell spreading around, does not hear the screams around him, and does not experience the feeling of remorse and fear felt when killing people.

The concept of "roaches", which constitutes the main subject of the series; It has been described as a zombie-looking creature that cannot speak, pollutes everything it touches, and creates great fear in society. It is understood that the soldiers' duty is to kill them.

Figure 1:Men Against Fire Section 1 (02:26)

Sign: Soldiers getting into a truck to go on duty
Signifier: Military truck bed, female soldier, mixed-race veteran, black junior soldier.
Signified: Xenophobic perception dialogue
Narrative: In the section where the team goes to the villagers after receiving notice that the enemy defined as "roach" has been seen, it is seen that Lennard, a hybrid senior soldier, scares Stripe, who is on the team's first "roach" hunting mission, about "roaches" with xenophobic expressions. In this scene, Lennard advises Stripe used that expression saying "*try not to shit your pants when you see one of them. This will only make them angry*." What is understood from this dialogue is these roaches look so bad that they scare the soldiers even if they are fully equipped and trained.

Figure 2: Men Against Fire Section 2 (03:06)

Sign: Team Commander Medina

Signifier: Team Commander Medina, five village men, one team personnel soldier.

Signified: Community, security forces.

Narrative: Team personnel reached a village in the forest area that was reported to have been attacked by a "Roach". Team Commander Medina tries to communicate with the villagers; but the villagers speak Danish. Therefore, the conversation starts when the commander activates the simultaneous translation electronic device in his equipment. In the dialogue, the villager said that the roaches might have come, and when Medina asked if they had seen them, he said that they had not seen them, but that they had heard them, that they had entered the warehouse and taken food, and that they could no longer consume this food themselves. From this section, it is understood that the villagers were afraid and disgusted even though they did not see the "roaches".
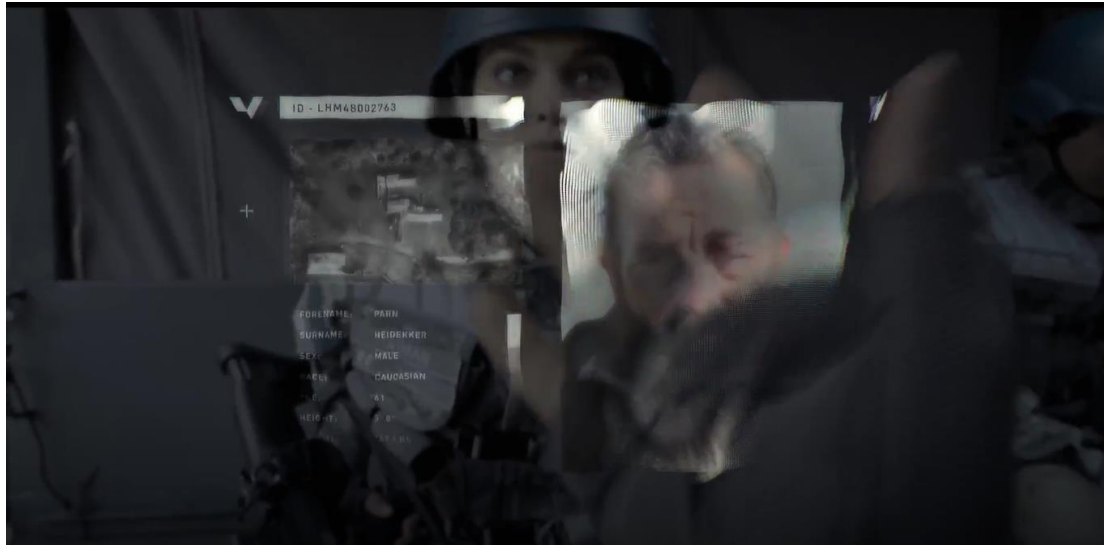

Figure 3: Men Against Fire Section 3 (05:16)

Sign: Briefing about Parn Heidekker

Signifier: A virtual image, female soldier named Raiman, soldier Stripe's hand

Signified: Briefing transmitted to soldiers via the MASS system.

Narration: With the information he received from the villagers, the team drives to the house of the clergyman Parn Heidekker, who helps the "roaches". It is seen that Stripe, who is on his first mission, is trying to understand the message reflected on the eye lens via MASS, so he is trying to hold the virtual image with his hand. This example is a simple example of such technologies that are likely to be available in the future and is considered useful for sharing intelligence simultaneously with the team.
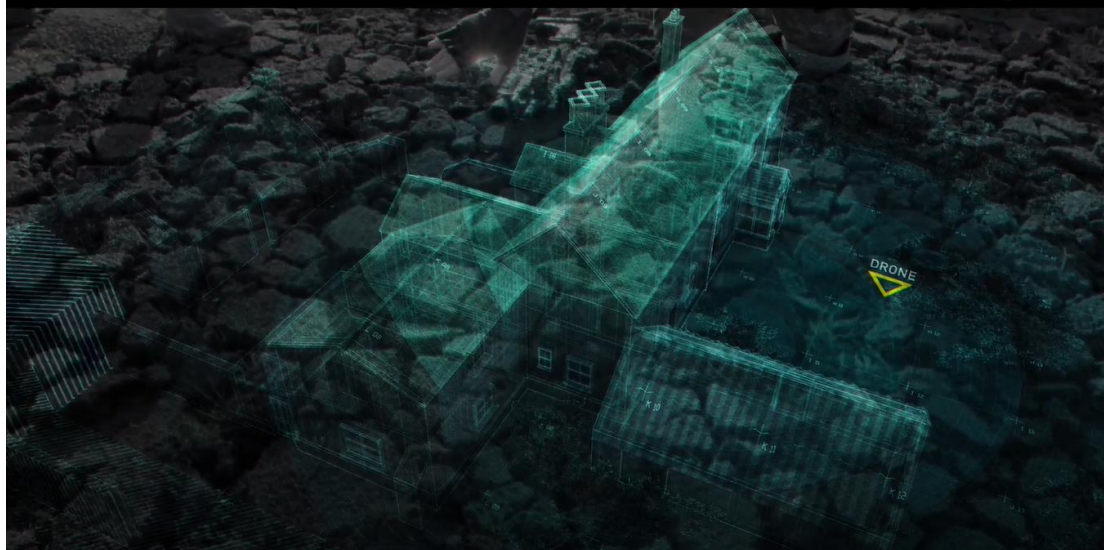
Figure 4: Men Against Fire Section 4 (06.49)

Sign: Operation Order

Signifier: Virtual view of the building and drone, woman's hand.

Signified: Giving the operation order

Narrative: It is seen that team commander Medina expresses the action style of the team going to an operation regarding the building they will enter by gathering his team around him. In order to transmit this order, the scan made by the device that the personnel in the previous section hit the building is useful, and the augmented reality image that each personnel can see allows the team to collectively understand the details.

Figure 5: Men Against Fire Section 5 (08:23)

Sign: Team Commander Medina's conversation with Suspect Parn Heidekker at the table

Signifier: A darkened room, Team Commander Medina, Parn Heiddeker, the Cross on the wall, sunlight leaking into the room, Medina's gun, composite helmet and candles on the table.

Signified: A mysterious room, a pious old man, a soldier extending a friendly hand.

Narrative: Team Commander Medina is seen talking to the suspect Parn Heidekker at his home. Team Commander Medina talks to Heiddeker about where the "roaches" are hiding and explains his opinions about the "roaches". In his speech, Team Commander Medina started to give information about "roaches" by saying *"...It is not their fault that they are like this, the dirt in their blood made them like this, this disease they carry..."* Additionally, *"...If we cannot stop roaches in the next 5, 10, 20 years, children will continue to be born and reproduce like this. "This cycle of pain will continue, and so will this disease."* With his statement, he emphasizes that roaches are harmful to society, that they spread the disease in their blood by breeding and that they have to be stopped. Towards the end of his speech, Medina said, *"You cannot see them as humans... If humanity is to continue living in this world, we must destroy them."* He states harshly to Parn Heidekker that the being he refers to as "roaches" is a type of human, but that they must be destroyed for the continuity of the human race.

Figure 6: Men Against Fire Section 6 (11:08)

Sign: Roaches
Signifier: 3 zombie-looking screaming beings
Signified: "Roach"
Narration: During his search at home, Stripe checks behind the curtain and encounters roaches. These roaches, which have human bodies but have extremely frightening faces, behavior and sounds, try to shine a flashlight that shines green light on the face of soldier Stripe. Meanwhile, Stripe kills one of the roaches by shooting it. While one is attacking Stripe, the other is running away. Roaches, which have been mentioned since the beginning of the series and which the villagers fear even though they have not seen them, are presented to the audience for the first time in this scene.

Figure 7: Men Against Fire Section 7 (13:18)

Sign: Green Light
Signifier: Flashlight-like device, Killed Roach's hand
Signified: The invention that broke the Mass system
Narrative: In their first encounter from behind the curtain, the "roach" extends the green light-emitting device in his hand towards Stripe.Stripe, who took the flashlight emitting green light from the hand of the "roach" he killed after the fight, is seen to be disturbed by the reflection of light into his eyes while examining the flashlight. Stripe, experiencing tinnitus and mild dizziness, throws the device on the ground.

Figure 8: Men Against Fire Section Section 8 (17:21)

Sign: Target practice
Signifier: Gun sight, Shooting accuracy indicator, target
Signified: The evolution of shooting training
Narrative: Soldier Raiman, who could not hit the target during the operation, is seen training in the shooting field with Stripe. Thanks to the MASS implant, in the image coming to the eye lens, it is seen that there are values such as the location of the gun sight on the targets in the shooting area and the shooting hit rate. Thanks to virtual reality (VR), the shooter can see the accuracy of his shots and the results of the mission, and it is easier to follow his development.

Figure 9: Men Against Fire Section Section 9 (20:31)

Sign: Medical Examination
Signifier: A virtual apple tree, Stripe's hand, the doctor's image in the background
Signified: Control of the MASS system
Narrative: Team Commander Medina sends Stripe, a soldier who failed the shooting field and sports test, to a doctor. The doctor performs some tests during his examination. One of these is the test of touching the apples in the apple tree figure created with augmented reality. With this test, it is possible to check the transfer status of images created with augmented reality technology in the MASS system to the lens.

Figure 10: Men Against Fire Section 10 (28:23)

Sign: Soldier Stripe waking up from sleep in the ward area.
Signifier: Ward, soldier Stripe sitting on his bed, sleeping military personnel
Signified: Change of story
Narrative: Soldier Stripe is seen waking up due to the problem the green light caused in the MASS system. It is observed that Stripe, looking at his other friends, is surprised by their eye and hand movements. The audience is presented with the perception that Stripe, who is uneasy about his situation, will have a different situational awareness from this moment on.

Figure 11: Men Against Fire Section 11(30:28)

Sign: Stripe, a soldier smelling a handful of grass
Signifier: Soldier Stripe kneeling on the ground, an old-style car, a large building.
Signified: Beginning of normalization
Narrative: After his fight with the "Roach", it is seen that the soldier Stripe, who had problems with his MASS system due to the green light shined on his eye, began to feel different emotions from his other friends as time passed. The disappearance of the virtual image during the mission briefing, the realization that he could smell the grass, the feeling of fear, anxiety and help when the team commander Medina was shot, and the fact that he started to hear bird sounds reveal the fact that the MASS system suppresses human emotions.

Figure 12: Men Against Fire Section 12 (36:13)

Sign: Stripe and Raiman fighting
Signifier: Raiman, Stripe, an empty room
Signified: Soldier Stripe, freed from MASS influence, and Raiman, soldier under MASS control
Narrative: Soldier Stripe, who has different views and feelings from other soldiers, now sees the beings defined as "roaches" as civilians. Therefore, Stripe attacked Raiman to protect civilians. As a result of the double fight, both soldiers were injured and Raiman fainted. It is seen that the beings described as "roaches" since the beginning of the episode are actually humans, but due to the MASS system, the soldiers see them as "roaches" and enjoy killing them due to the effects of the system. It is understood that Stripe, like every soldier who has the perception that civilians are sacred, is trying to protect civilians, now called "roaches", due to the MASS system being disabled.

Figure 13: Men Against Fire Section 13 (43:17)

Sign: "Roach"
Signifier: A woman, soldier Stripe, bunker background.
Signified: A woman known as so-called roache, soldier Stripe lying on the ground, frightened.
Narrative: It is understood from Stripe's dialogue with the civilian Catarina, who wakes up in a shelter used by "roaches" in the scene, that he faces the truth. Catarina told Stripe how the "roache" process started.

Figure 13: Men Against Fire Section 13 (50:48)

Sign: Dialogue between soldier Stripe and psychiatrist Arquette
Signifier: Seated doctor and Stripe
Signified: Explanation of the actual situation
Narrative: In the scene on the screen, the dialogue between the soldier Stripe, who is waiting in a surveillance room, and the barracks psychiatrist Arquette is observed. During this dialogue, there are expressions that decipher the subject of the series.

Conclusion And Recommendations

The episode " Men Against Fire ", the 5th episode of the 3rd season of the Black Mirror series, produced by Charlie Brooker and directed by Jakob Verbruggen, in which the use of technology and mass communication devices is presented from a dystopian perspective in each episode, was examined with the semiotic analysis method. With this example, an episode is presented to the audience about the duty of soldiers, whose sense of conditioning has been increased and cleared of emotional feelings after technology-supported training and perception management, to clean the beings defined as "roach" from society.

The study shows how high-tech supported applications are used during military training and duty. In sections 2, 3, 4 and 8, which are analyzed semiotically, it is seen how technology is used in phases such as communication with civilians, intelligence sharing, operation preparation and shooting training. In this way, awareness of the task is increased and the operational process is accelerated.

When examined with the semiotic analysis method, it is observed that the sign "roach" is defined as the enemy and the existing fear is felt quite intensely in the society until the real meaning of the concept is revealed. Villagers were used as indicators to represent the society. Although the people living in the village do not see the "roach" with their own eyes, they want the destruction of the village warehouse plundered by "these roaches", and the fearful behavior of women and children reflects the impact of xenophobic messages given through mass media on society with a different approach.

Catarina, speaking representing the sign "roaches" in section 13 of the analysis, conveyed to the audience in a simple and understandable way how the process of being perceived as an "roach" began and continues. In the DNA scanning carried out upon the decision taken by the management, a perception management was carried out at a level that would allow the killing of people who were thought to pose a problem for the next generation, and to ensure this, the perception in the society was managed through mass media. As understood from the statement of soldier Lennard in the series, the idea of killing millions of people has been normalized.

When we look at the details of the sections, it is understood from the dialogue with Psychiatrist Arquette in section 14 that a process was initiated to cleanse the weak race from the world after the war. According to the results, it was imposed through all means of communication that these people were diseased and should be purged from society. The perception is created that the identities of the people referred to as "roach" in the conversation have somehow disappeared and that their right to life has been taken away due to genetic reasons. As can be understood from Arquette's statements, it is seen that the people defined as "roach" in society are actually individuals, but as a result of the mass screening and analysis carried out after the war, the massacre process was initiated in order to keep future generations disease-free and healthy, and the MASS system was used to prevent the soldiers who could do this from experiencing difficulties.

Just as the Hutu tribe, which controlled the media during the genocide that occurred in Rwanda in 1994, described the Tutsis, whom they saw as enemies, as "roaches" and reflected the genocide they supported with the perception of 'cleansing their own people', in the series, the groups that were believed to be enemies of society through the mass media. It is referred to as "roach". In the series, the message that perception management by advanced mass media organs in the future may lead to new genocides is put forward from a dystopian perspective. (https://barisozcan.com/kara-aynadan-yansiyan-korku-black-mirror-s03e05/ Access Date 10 August 2023).

In this context, the trend of xenophobia, which continues in different geographies today, is becoming difficult to control with the help of mass media devices, and moreover, it seems to be fueled (The UN Refugee Agency, 2020). In this study, how this process may intensify in the future is reflected from a dystopian perspective. Digital media platforms, where unlimited information can be shared, the accuracy of information needs confirmation, and hate speech can spread uncontrollably, emerge as the easiest way to find mobility (Bursztyn et al., 2019). It should be foreseen that the chaotic situation that will occur when the xenophobic perception is managed by the state may lead to painful consequences that will go down in human history.

Increasing the level of digital media literacy and new media literacy of individuals, primarily in education and training institutions, will reduce the impact of ordinary perception management attacks. In order to minimize hate speech and prevent its spread through digital media, "hate crime" must be legally defined and have criminal sanctions. In order to reduce the problems that cause refugee crises, which have increased recently, taking measures through international actors such as the EU, the USA, China and the Russian Federation, through the UN, and reducing xenophobia by integrating refugees living in different countries into society is an important step and prevents the genocide, which is the subject of the chapter. It is thought that there will be strong action to pass. In this context, the trend of xenophobia, which continues in different geographies today, is becoming difficult to control with the help of mass media devices, and moreover, it seems to be fueled (The UN Refugee Agency, 2020). In this study, how this process may intensify in the future is reflected from a dystopian perspective. Digital media platforms, where unlimited information can be shared, the accuracy of information needs confirmation, and hate speech can spread uncontrollably, emerge as the easiest way to find mobility (Bursztyn et al., 2019). It should be foreseen that the chaotic situation that will occur when the xenophobic perception is managed by the state may lead to painful consequences that will go down in human history.

To ensure the security of countries, the use of technology in the training and monitoring of serving military personnel should be encouraged and maintained. However, when defining a target, it is important that it does not violate international law and ethical values.

References

Ahmed, S., Chen, V.H.H., Chib, A.I.(2021) Xenophobia in the Time of a Pandemic:Social Media Use, Stereotypes, and Prejudice against Immigrants during the COVID-19 Crisis, International Journal of Public Opinion Research,2021(3), 637-653.

Akgül, B. and Şahin, M. (2022). A Semiotic Study on the Critique of Technology: The Example of the Black Mirror Episode Hated in The Nation. New Media , 2022 (12) , 17-35 .

Arğın, E.,(2018). Perception Management and Social Media: A Review on the 2017 Constitutional Referendum, PhD Thesis, İnönü University Institute of Social Sciences.

Ayhan, A. and Çakmak, F. (2018) Reflections of Perception Operations Against Turkey on Digital Media. Akdeniz University Faculty of Communication Journal, (AKİL) November (30) p. 11-35

Baltacı, A. (2018). A Conceptual Review on Sampling Methods and Sample Size Issues in Qualitative Research. Bitlis Eren University Social Sciences Institute Journal, 251.

Başıbüyük, O., (2014), Perception Management and the Role of Social Media in Information Warfare, Bilal Karabulut, (Ed.), in Perception Management, (1st edition), , 39-63, İstanbul.

Bursztyn, L., Egorov, G., Enikolopov, R., Petrova, M.(2019), Social Media and Xenophobia:Evidence From Russia, Nber Working Paper No.26567, National Bureau of Economic Research.

Brown, A. (2019). The impact of trauma exposure on mental health in military personnel: A review of the literature. Military Medicine, 184(1-2), e114-e121.

Cambridge Learner's Dictionary English–Turkish: https://dictionary.cambridge.org/dictionary/english-turkish/xenophobia, (Access Date: 19 March 2023)

Devran, Y (2010). News Discourse Ideology. Istanbul: Title Publishing Group

Gönenç, Ö. (2018).Perception Management in Media. Istanbul: Der Publications.

Gültekin, M. (2020). Perception Management and Manipulation. Istanbul: Pınar Publications.

Herman, E. S. and Chomsky, N. (2017). Manufacturing Consent. Istanbul: Bgst Publications.

https://barisozcan.com/kara-aynadan-yansiyan-korku-black-mirror-s03e05/ (Access Date: 10 August 2023)

https://wearesocial.com/us/blog/2023/01/the-changing-world-of-digital-in-2023/ (Access Date: 08 August 2023)

IOM Un Migration (2022), World Migration Report 2022, International Organization for Migration, Switzerland, https://publications.iom.int/books/world-migration-report-2022 , (Access Date: 13 April 2023)

Johnson, B. (2018). Understanding the emotional impact of conflict on military personnel. Journal of Military Psychology, 26(3), 207-215.

Jones, C., Smith, D. and White, K. (2016). The role of family support in coping with stress among military personnel. Military Behavioral Health, 24(4), 369-377.

Kapan, K. and Üncel, R. (2020). The Effect of Developing Web Technologies (Web 1.0, Web 2.0, Web 3.0) on Turkey Tourism. Safran Journal of Culture and Tourism Research, 3((3)), 276-289.

Karabulut, B. (2022). A Comparative Analysis of Islamaphobia, Xenophobia and Racism in the Context of Human Rights. Süleyman Demirel University Social Sciences Institute Journal, 118-139

Kasahara, S. and Prado, H. (2019). Augmented Reality (AR) applied in education: A systematic review. Brazilian Journal of Education, Technology and Society, 12(2), 1-19

Künüçen, H. H. and Samur, S. (2021). Realities of the digital age: An evaluation of virtual, augmented, mixed and extended realities. New Media, 2021(11), 37-62.

Künüçen, H. H. and Demirci, A. (2021). Communication Education and Augmented Reality Application: Example of Radio, Television and Cinema Department. New Media, (10), 87-106.

Lee, L. H., Braud, T., Zhou, P., Wang, L., Lin, Z., Xu, D.,et al (2021). All One Needs to Know Metaverse: A Complete Survey on Technological Singularity, Virtual System,and Research Agenda. Journal of Latex Class Files, 1-66.

Mestre, A. P. and Ribeiro, P. (2019). Virtual reality in health system: A systematic review. Studies in health technology and informatics, 262, 347-354.

Oxford Standard English Dictionary. (2006). New York: Oxford University Press.

Pustu, Y. (2014). Perception Management: A Conceptual and Theoretical Perspective. In B. Karabulut, Perception Management p. 310.

Rydgren, J. (2004). The Logic of Xenophobia. Rationality and Society, 123-148.

Taylor, R. (2015). Providing support for military personnel's emotional well-being during deployment. Military Medicine, 180(4), 401-407.

The UN Refugee Agency.(2020), Guidance on Racism and Xenophobia., https://www.unhcr.org/protection/operations/5f7c860f4/unhcr-guidance-on-racism-and-xenophobia.html, (Access Date:12 April 2023)

Smith, E. (2017). Stress and coping mechanisms in military personnel during conflict. Journal of Traumatic Stress, 30(5), 491-499.

Sun,J., Gan,W., Chao, H.C., Yu.,P.S., (2022). Metaverse: Survey, Applications, Security, and Opportunities. ACM Comput. Surv. 1, 1, 35 pages.

White, L., & Smith, A. (2020). Family dynamics and emotional health among military personnel. Journal of Family Psychology, 34(2), 187-195.

Winters, J. (2002). Why We Fear The Unknown. Psychology Today: https://www.psychologytoday.com/intl/articles/200205/why-we-fear-the-unknown

Xinxiong Liu et al., 2018 IOP Conf. Ser.: Earth Environ. Sci. 170 032155