



## IT AND VIRTUAL WARFARES: EFFECTS OF GAMING TECHNOLOGIES

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Computer games are an extremely popular form of entertainment, attracting millions of players with their dynamic gameplay and the ability to interact with the virtual world. For example, the total spending of US consumers on video games in 2022 amounted to \$47.5 billion, with 41% of players choosing action games [5, 6]. Games with historical themes have always been a popular genre among gamers, including games that recreate the real historical events of the Russian invasion of Ukraine.

In 2014, for the first time, the game "Combat Mission: Black Sea" was the first to recreate the events of the conflict between Ukraine and Russia, focusing on the occupation of Crimea by the Russian army. Through interactive experience, players can interact with real events, indirectly experience the atmosphere of terrible military everyday life, and share the suffering and feelings of the Ukrainian people. Later, games such as Ukraine War Stories, Death from Above, Ukrainian F Army, Musk Vs Putin, Glory to the Heroes, The Point of No Return, etc. were created to allow players to interact with various aspects of what has been happening in Ukraine in the war zone in recent years.

In some cases, the use of simulation games contributes to the development of gamers' skills and abilities. For example, a German company has created a computer game called Death from Above, a simulation of a drone in the war in Ukraine that destroys Russian equipment and soldiers and restores communication [1].

One of the missions, collecting washing machines, is an analogy to the events of the beginning of the invasion, when the Russian army looted the occupied Ukrainian territories, taking away everything of value. Hopefully, the game will inspire some of the players to support fundraising for the Armed Forces, for drones, and perhaps to master aerial reconnaissance in the ranks of the Armed Forces themselves.

Computer games about the war in Ukraine allow players to look at certain historical events and the role of certain historical figures and experience them from a perspective, to better understand the context and role of specific individuals in the events. For example, the fighting game Musk Vs Putin shows Elon Musk in the ruins of Mariupol, confronted by Ramzan Kadyrov and Vladimir Putin [2]. Games should develop players' analytical skills and critical thinking, teach them to understand cause and effect, and help them feel how their decisions affect the course of history.

The emotional experience and moral dilemmas faced by the players shape their worldview and understanding of the world around them [3]. For example, in 2020, Russian schoolchildren were convicted in Russia, with the charges including virtual arson of an FSB building in the game "Minecraft". The Russian Federation cannot allow its citizens to feel freedom and creativity even in the virtual space, they can only dream about the topics promoted by Russian propaganda. However, back in



2021, the Russian Federation created the game "Liberation War in Novorossiya", whose very name illustrates the narratives that the developers are trying to convince players of. The factors of influence of computer games about Russia's war against Ukraine on people's minds are shown in Table 1.

Table 1 – Factors of influence of computer games about war on people's minds

Factors	Description
Formation of stereotypes about the enemy	Stereotypes about representatives of the Russian army can influence attitudes in real life and the perception of real military events
Maintaining a fighting spirit	The game can influence the perception of the heroization of military actions of the Ukrainian Armed Forces and maintain a fighting spirit among players
Psychological effect of immersion	Deep immersion in the virtual world of the conflict can change feelings, emotions, and perception of reality regarding the situation between Russia and Ukraine
Increasing the level of aggressiveness	Possible increase in the level of aggressiveness in real life
Socialization of military values	Computer games can contribute to the development of certain values that can influence attitudes and behaviour in real life

It is important to understand that the impact of a game on consciousness and morality can be different for each player, and it also depends on the individual characteristics and ethical beliefs of gamers, which is a complex ethical issue that requires a careful approach. In particular, the visual novels *Ukraine War Stories*, which are based on real events and eyewitness accounts, describe the lives of civilians who found themselves in Russian-occupied territory (Bucha, Gostomel, Mariupol) in early 2022 [4]. These painful and terrible pages of history, recreated in the game, should attract the attention of the world community and shape attitudes toward the Russian army of looters, murderers, and occupiers.

**Conclusions.** Gaming in the context of games about the war in Ukraine demonstrates a significant impact on perception, behavior, consciousness, and ethical standards. It is important to keep in mind that this influence can be both positive, promoting deep reflection, and negative, generating stereotypes and emotional imbalance. Further research and consideration of ethical aspects is key to ensuring the responsible use of gaming in the modern socio-cultural context.

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