

# VIRTUAL REALITY IN WORLD AND LATVIAN SCIENCE FICTION

**BĀRBALA SIMSONE**

Bārbala Simsone, PhD, Independent researcher,  
e-mail: Barbala.Stroda@gmail.com

Bārbala Simsone is a literary scientist, one of the leading specialists in Latvia regarding genre fiction. Her doctoral thesis (2007) was devoted to the mythological aspects of English and Latvian fantasy prose. She has published two books: "Geography of the Imagination: Mythical Paradigm in English Fantasy Prose" (2011) and "Monsters and Metaphors: Insight in the World of Horror Fiction" (2015). Her research papers have been published in Latvian, Lithuanian, Estonian, Polish and Danish academic editions. Her research interests concern genre fiction (especially fantasy, science fiction and horror genres), gender studies and Latvian original fiction. Bārbala Simsone regularly publishes book reviews in the most prominent culture press editions of Latvia. She works in the publishing house "Zvaigzne ABC Publishers" as the Head of Department for the Latvian Language and Literature.

## ABSTRACT

The objective of this article is to examine the depiction of virtual reality and the pertinent storytelling characteristics in science fiction written by foreign and Latvian authors. In world science fiction, the idea of virtual reality and computer-generated worlds as a particular segment of reality appeared as early as after World War II, yet it was after the evolution of a specific sci-fi subgenre, known as cyberpunk, that it became especially popular. The novel “*Neuromancer*” by William Gibson (1984) is considered as the defining oeuvre of this type of science fiction. Writers did, however, continue to study virtual reality not only using the peculiar *noir* aesthetics pertaining to cyberpunk, but also in works of a lighter character. Nowadays the concept of virtual reality appears in YA [young adult – ed.] literature dealing with topics related to computer gaming as well as part of another popular science fiction branch, the dystopia. This article looks into several acclaimed YA novels published in the recent years and containing both computer-game related and dystopian elements.

Until now, in the not-so-wide array of Latvian science fiction the idea of virtual reality has received little attention, but this article inspects the science fiction works written over the last five to six years (2010–2016), in which virtual reality is assigned a comparatively significant role, thus reflecting current global trends. This article examines the different aspects of virtual reality explored in the works of Latvian sci-fi writers and seeks and analyses the parallels of the said works with the aforementioned universal tendencies – especially regarding the dystopian traits.

**Keywords:** computer games, cyberpunk, dystopia, science fiction, virtual reality

## INTRODUCTION

In this article, my objective is to examine the depiction of virtual reality and the pertinent storytelling characteristics in literary works of the science fiction genre. First, I will provide a brief description of the essence and development of virtual reality, as well as a few of the relevant global trends that have developed in the recent years. In the second section of the article, I will inspect Latvian works of science fiction that have examined the subject of virtual reality and will search for traits that characterize the interpretation of virtual reality within these works and can be aligned with the tendencies defined in the first part of the article. In the analytical section of the article, the comparative method has been used to reveal the similarities and differences between the works of world and Latvian sci-fi authors that have been written in the same genre and for the same target audience. The analytical part also seeks to answer the question: To what extent are global trends present and relevant in original Latvian science fiction?

In 2017, it seems, there is no more doubt that the virtual era has insinuated itself in nearly all aspects of our everyday life. Such notions as “virtual environment”, “virtual time”, and “virtual friends” have become commonplace; we talk about cyberspace, cybersecurity, cybercrime, even cybersex. Interactive computer gaming has experienced speedy development, offering gamers not only 3D graphics but also sensory-motoric immersion, simulating various actions: such as riding a motorcycle, piloting an airplane, etc. Apart from gaming, the possibilities offered by virtual reality rapidly acquire popularity in other spheres such as journalism, social media, sports and music; virtual reality is explored by tourism and even healthcare industry. The life of the modern person seems to be divided into two parts – real and virtual – and the latter has been steadily gaining importance. Since literature acts as a reflection of current events, it cannot avoid this topic. The question of virtual reality, just like the majority of the technologies that have a prominent impact on people’s lives and perceptions, has become one of the standard themes of science fiction, too.

The term “virtual reality” has traditionally been defined as “a realistic and immersive simulation of a three-dimensional environment, created using interactive software and hardware, and experienced or controlled by movement of the body” (Virtual Reality 2017a), or “an artificial environment which is experienced through sensory stimuli (as sights and sounds) provided by a computer and in which one’s actions partially determine what happens in the environment”

(Virtual Reality 2017b). Science fiction authors broaden this definition and consider virtual reality to be nearly any type of simulated environment generated by a computer and able to create a consistent illusion of reality in the human mind by using feasible or imagined means. It should be noted that in computing terminology the terms “virtual reality” and its look-alike “simulated reality” are usually set apart. Simulated reality denotes instances where computer-generated environment creates an illusion of reality so complete that the human mind cannot separate it from actual reality. In the case of virtual reality, however, the person is aware that everything he or she sees is a game, simulation, or similar type of environment projected in cyberspace. In this article, though, I will be using the term “virtual reality” to talk about both these concepts, as in the literary works in question they often overlap or are merged together. Thus in this article the notion of virtual reality is used to encompass all models of illusive environments described in science fiction, directly linked with existing or imagined computer technologies, and imitating actual reality, regardless of whether the literary character recognizes the reality as virtual or not.

In world science fiction, the concept of virtual reality and computer-generated environment as a distinct segment of reality is relatively new. It is true, though, that the idea of artificial intelligence that is equal or even superior to ours – which has served as a foundation for the notion of artificial and possibly conscious environment – has been present in literature since early nineteenth century when Mary Shelley wrote her celebrated novel “Frankenstein, or, The Modern Prometheus”. Writers have long since been interested in the consequences that could befall humankind if we were to invent a machine that would surpass us in terms of intellect, as well as the formation of a fully technological society, which implies a number of possibilities to influence and even control human mind by means of these technologies: the idea of controlling human consciousness by means of highly developed technologies is present in the dystopias written by such world-famous authors as Aldous Huxley and George Orwell as well as others. Seeing that “[t]he idea of the virtual reality has often been linked with game-playing” (Virtual Reality 2016), some researchers have even named Lewis Carroll’s “Through the Looking Glass” as one of the earliest examples of virtual reality in fiction, since the world that Alice enters through the mirror is based on actual game, the chess; however, modern theories insist that the game principle implied in virtual reality should necessarily be “machine-mediated” (Ibid.).

The notion of “artificial reality” first appeared just after World War II (the term “virtual reality” was not invented until 1989). It took, however, considerable development of the actual science for science fiction to include virtual reality among its regular themes, since before then writers could base their theories only on rather implausible speculations. As soon as actual technologies began to exceed the wildest predictions of the genre, cyberspace and virtual reality became one of the staples of science fiction and have preserved this position ever since.

The first science fiction writer to describe virtual reality without using the actual name for it was Stanley G. Weinbaum. In his story “Pygmalion’s Spectacles” (1935), Professor Ludwig invents a pair of goggles that enable the wearer to watch “a movie that gives one sight and sound. Suppose now I add taste, smell, even touch, if your interest is taken by the story. Suppose I make it so that you are in the story, you speak to the shadows, and the shadows reply, and instead of being on a screen, the story is all about you, and you are in it” (Weinbaum 2006). In the following years, many science fiction writers used this approach (although they did not yet mention the term itself) to create virtual worlds that offered escape from the dreary reality. Virtual reality initially served as a symbol for an existence free of the governing powers, laws, and rules. Escaping into such reality meant escaping oppression, and cyberspace became a sort of “artificial paradise”.

However, the concept of virtual reality saw rather radical changes over the years – not from the practical aspect (which was, of course, enhanced by actual technological progress, allowing writers to base their descriptions of virtual reality not only upon their own imagination, but also on real and existing technologies that in turn opened up many more possibilities for extrapolating these technologies), but from the moral standpoint. Artificial worlds, originally viewed as an escape from reality, in the hands of science fiction writers began to take on a darker hue. Virtual reality was increasingly often portrayed as an environment that could potentially cause a dangerous dependency or a tool that could be used to manipulate with users’ minds; the latter is successfully revealed, for example, in the highly popular movie trilogy “The Matrix”, released in the late 1990s. The plot of the trilogy is based on the supposition that all reality perceived by humans is, in fact, a computer simulation created by sentient machines with the aim to subdue the human population and use the heat and electrical impulses of their bodies as an energy source.

Another fact that bears mentioning: after this “change in direction” the popularity of literature featuring virtual reality soared, and this

concept quickly became a staple in fiction geared towards all age groups, including children and young adults.

## VIRTUAL REALITY IN WORLD SCIENCE FICTION: CYBERPUNK

The depiction of virtual reality in science fiction still remains inconsistent, but I would like to briefly outline two trends that are completely different, yet both have become relevant in the last thirty years. The first is cyberpunk, which gained popularity in the late 1980s and early 1990s, while the second trend encompasses dystopian YA novels that feature computer games as part of the plot. The concept of virtual reality is, of course, also widely explored in science fiction works outside these two subgenres, but I have chosen them to illustrate a tendency of the genre that has since become its own antithesis. Initially, it was cyberpunk fiction that introduced wide readership to the concept of cyberspace (virtual reality) and established its key characteristics; moreover, it created a series of nuanced associations that, from that point onward, would be forever linked to the portrayal of virtual environment in science fiction (traits of space, time, and setting, polarity among characters). The latter tendency, that of dystopian YA fiction, in turn, paints virtual reality according to an aesthetic codex that is somewhat similar to that created by cyberpunk nearly thirty years in the past, yet the accompanying moral perspective is almost completely different.

With the birth of cyberpunk in the second half of 1980s, the concept of virtual reality in literature saw its first and biggest wave of popularity. The novel “*Neuromancer*” by the American writer William Gibson, published in 1984, is considered to be the defining work of the genre. Written in a curious *noir* style, the novel reveals a world where it is possible for people to connect to cyberspace – a computer-generated environment where humans interact with machines, showing how bleak and lonely the world has become when human values are replaced by technology. The protagonist of the novel is a washed-up computer hacker Case who, by linking his nervous system to cyberspace, is able to access a global virtual world full of information stored in the shape of three-dimensional illusions. An unfortunate event in cyberspace damages Case’s nervous system, thus preventing him from further virtual excursions. Cut off from his main source of income, Case lives in Japan, barely getting by until he receives an “offer he can’t refuse”. Naturally, it leads him back into cyberspace and toward unpredictable adventures.

Of course, it is evident that cyberpunk is, in a way, just a slightly modified take on of the fantasy genre concept of parallel universes or “secondary worlds” accessible only to the chosen heroes. What cyberpunk did was to combine this idea with the possibilities offered by the twentieth century technologies. The title of the novel contains a rather obvious analogy with the word “necromancer”, i.e., a wizard who can summon spirits of the deceased; in cyberspace Case is shadowed by a “ghost” of a dead hacker. But cyberpunk is notable for fusing the concept of alternate realities with the postmodern disillusionment of the late twentieth century, thus allowing for a wide interpretation of such postmodern metaphors as divided consciousness, fragmented and unreliable perception, the idea of a person as a mechanism or a device, etc. It became even easier for readers to identify with cyberpunk protagonists because the action took place in present day or not-too-distant future and used a familiar metropolitan setting.

Literary analysts studying the science fiction genre consider the emergence of cyberpunk to be the most important innovation in the genre since the so-called *New Wave* revolution in the 1960s’ science fiction. In essence, cyberpunk offered a dramatically different worldview even within the paradigm set by the genre itself: “Cyberpunk offers an alternative vision of virtual reality, one where its primary goal is not reproduction but augmentation and transformation. In “*Neuromancer*”, William Gibson hints at many of these possibilities.” (Bailenson et al 2007, 148) Cyberpunk was declared a basis for a mass countercultural movement and even an aesthetical manifesto; it became associated not only with literature, but also with movies, games, comics, and even fashion styles fitting in with a certain aesthetics. As stated by literary analyst Sergey Berezhnoy, “The main achievement of cyberpunk as a movement was neither the creation of fundamentally new themes or techniques (virtual space, nanocybernetics, artificial intelligence, etc.), nor the juxtaposition of anarchistic individuals with powerful corporations – all that already existed before. What cyberpunk did, though, was find the exact proportion of the said themes and techniques as well as the exact tone that struck a nerve with the readers, got under their skin, gained their complete trust... and immediately after that revealed rather unpleasant yet undeniable truths about themselves and humanity as a whole” (Berezhnoy 2012). One of the most notable ideologists of cyberculture Bruce Sterling uses an unconventional analogy to express the essence of cyberpunk: “Anything that can be done to a rat can be done to a human being. And we can do most anything to rats. This is a hard thing to think about, but it’s the truth. It won’t go

away because we cover our eyes. *This is cyberpunk*" (Sterling 2008, 322). Interestingly enough, at the time when cyberpunk boomed the actual internet was still scarcely used, slow, and unpopular, and writers themselves were as unfamiliar with it as were their readers, so in the early works "the credibility of the virtual landscape was achieved by exclusively literary means" (Berezhnoy 2012). Or, as stated by Andrew Liptak, "Gibson not only understood and apparently predicted how the internet would eventually work, but went another step further and imagined exactly how someone might enter and interact with it, in one of the more relevant and vivid descriptions of the technology" (Liptak 2016). As technology developed, some literary analysts believe that engineers used concepts found in cyberpunk literature as the basis for creating online environment: "Cyberpunk became a sort of action program for the formation of virtual reality" (Berezhnoy 2012). However, as soon as cyberpunk became a mainstream genre, it lost its unique character and essentially stopped existing in its original form. As literary analyst Ronalds Briedis points out: "With the evolution of computer technology and the Internet becoming a global network, cyberpunk became a trend, provoking countless rip-offs of the seminal literary works and the appearance of cyberpunk computer games, movies, *anime*, and *manga*, as well as a subculture of "true" cyberpunks who, in an attempt to emulate the symbiosis of human flesh and technology seen in cyberpunk worlds, underwent plastic surgery to implant microchip simulacra in their bodies. Meanwhile the pioneers of the movement, plagued by a Frankenstein complex, were clamoring that cyberpunk was dead" (Briedis 2007).

Cyberpunk fiction created a relatively small but stable and aesthetically peculiar segment in world science fiction. Meanwhile, the phenomenon of virtual reality was more and more intensely explored by writers in other genres as well. In recent years this concept has surfaced in science fiction dealing with the topic of computer games and geared toward young adults, and also as part of another popular subgenre of science fiction – the dystopia. Therefore, in order to illustrate the viability of this trend in modern literature, I will be discussing several YA novels where virtual reality is depicted as a world inside a computer game and possessing dystopian traits.

## VIRTUAL REALITY IN WORLD SCIENCE FICTION: YOUNG ADULT DYSTOPIAS

YA fiction about computer games usually blends issues that concern most teenagers – school, relationships with their peers, the romance of first love – with the tempting yet often dangerous parallel reality found in computer games, which closely resembles or equals virtual reality. One of the most imaginative science fiction works of this type is the series “Ender’s Game” by Orson Scott Card, first published in 1985. The novel “Ender’s Game” is of futuristic character – it is set in distant future where Earth has already suffered two invasions of an insectoid alien species. The international space fleet prepares for the next invasion attempt by training a new generation of soldiers, picking out the individuals best suited for warfare. Being the third child in his family in a world where strict two-child policy is implemented, Andrew “Ender” Wiggin is sent off to a residential war school where he must learn battle skills in simulated fight scenarios, virtual space, and in contact with his vicious peers. Ender exhibits outstanding strategic abilities and quickly becomes a master of the game and commander of an army composed of his own schoolmates, but he is still merely a pawn in the game the school administration officers play with the cadets. The concept of the game is the key point of the novel – the simulations play out life-and-death scenarios in both virtual and actual reality. In the meantime Ender plays another, private computer game – as the rules of the genre dictate, it makes him take action in an unknown environment, see the phrase “Game Over” on the screen over and over again, and start anew, seeking another way. The concept of game in its various aspects – Ender’s private game where he plays out his own personal problems in search of a solution; his relationships with schoolmates and friends as a game; the overlapping of game in virtual space and reality in the climax of the novel – has been used by the author as an extensive metaphor revealing the fusion of virtual and actual reality and the risks provoked by such a fusion, as well as the complex inner world and emotional growth of a boy.

Computer game as a captivating as well as dangerous form of alternate reality and a means for the author to reveal the intricacies of teenage life appears in several other YA novels popular at the beginning of the new millennium. One of them is “Erebos”, a thriller written by Austrian author Ursula Poznanski and published in 2012. The protagonist is sixteen-year-old Nick, an ordinary student at an ordinary school in present-day London. His day-to-day life is comprised

of school, friends, and basketball practice until he notices something weird going on among his classmates – there is a flat package circulating from hand to hand, and everyone who receives it starts acting strange. When Nick receives the package, it alters his life. It contains the computer game “Erebos”; the fascinating plot quickly pulls him in, yet the game seems to be surprisingly well informed about Nick’s life and problems. “Erebos” begins issuing tasks Nick must carry out in real life, it commands, threatens, and punishes – it seems to be run by an AI that slowly bends the player’s mind to its own will. Step by step, the game reveals itself to be a means of manipulation with a brilliant mind behind it – the mind of a man, not machine – that uses game-addicted teens for his own benefit. The computer game serves as a smoke screen, a way to exploit the teens as pawns in a different game – the revenge carried out by the cruel creator of “Erebos” in real time.

Ernest Cline’s novel “Ready Player One”, published in 2011, spins a slightly similar tale. In the year 2044, the world is ravaged by an energy crisis, unemployment, and poverty, so people seek refuge from the stark reality in cyberspace. A virtual world called Oasis has been created, and over time it has evolved from a mere computer game to a hub of socialization, business, work, and education for the bigger part of the society. Teenage Wade has grown up using the simulation and has dedicated his life to figuring out the reality of Oasis. Wade’s singular goal is to solve the riddle left inside the game by its creator James Halliday – to find the secret puzzles concealed within Oasis (“Easter eggs” scattered throughout the virtual world) and crack them, because, as everyone in the story knows, the first one to do it will inherit the billionaire’s entire fortune. Of course, such a prize implies that players will use any means necessary to obtain it, and the virtual world of the game slowly penetrates the real life: gamers try to bully each other into quitting, and when that does not work they resort to physical destruction of their opponents; the power of virtual reality is so great that it overshadows morals and respect for the law. Thus, the virtual reality as depicted in this novel has become an immense degrading force.

In a way, it is possible to distinguish a link between a virtual reality and dystopian features also in the highly popular YA trilogy “The Hunger Games”, which headlined the dystopian “boom” in YA science fiction. Granted, the environment where the teen protagonists are planted to fight each other to the death is not simulated but real (even though it can be technologically altered much faster than it would be natural), but this bizarre competition is televised and watched in real time by nearly all inhabitants of the futuristic

nation, while the authorities monitor the “games” and steer them in their desired direction. Because of this, it is possible to draw parallels between “The Hunger Games” and the aforementioned novels: the environment in which the teens fight each other is, in a way, virtual, as it imitates actual reality but does not reflect it faithfully, while spectators watch the competition as a reality show; moreover, they can manipulate it like a computer game – for example, by granting extra privileges to their favorite contestants. “The Hunger Games” are not a computer game, but the spectators seem to perceive them as one, so this provides grounds for affirming that the concept of virtual reality is present in these novels as well.

All these YA novels exhibit the aforementioned interesting deviation from the innovations and conception of virtual reality brought to science fiction by the cyberpunk revolution. Cyberpunk envisioned virtual reality as a symbol for freedom, an environment unrestrained by corporations and independent from the demands imposed by the outside world. Paradoxically, with the accelerated development of real-world virtual reality, cyberspace has been ascribed significantly different qualities, as attested by the said YA novels: often by means of computer games, it has turned into an environment that enslaves, represses, and controls, or at least provides such opportunities to anyone who has power to manipulate it. Sci-fi writers’ prediction that virtual reality would one day prevail over actuality is slowly coming true, but the writers view it as happening in a rather grim fashion. The freedom offered by the “unreality” of the virtual world, the ostensible impunity and anonymity of the cyber-environment allow for an unrestrained display of both the noblest and most undignified aspects of the human character – as obviously demonstrated by the infamous comment sections of different web portals, and confirmed by literary works penned during the zenith of social media and online communication.

## VIRTUAL REALITY IN LATVIAN SCIENCE FICTION

In the rather modest collection of Latvian science fiction works, the concept of virtual reality has been touched upon quite sparsely. However, as the range of domestic science fiction grows, the last five-six years have seen the publication of several sci-fi works that prominently feature virtual reality, thus reflecting, at least to some extent, the trends of world literature. Virtual reality has been discussed in both short stories and novels.

One of the first examples of Latvian fiction to focus on computer games is the novella “Spēle” [The Game] by Dace Šteinberga. While visiting a cybercafé, the teen heroine acquires a CD with a computer game on it and, for all intents and purposes, becomes addicted to it. As she plays, though, she does not realize that the trio of characters – Marija, Melisa, and Miks – are real people, her fellow teenagers, who have been pulled into the game by bright blue objects they have received from a mysterious bypassing lady: one of them has been handed a cell phone, another has found a seemingly forgotten wallet lying on a bench in a park. By touching these objects, the teens lose consciousness and wake up trapped inside the game. In reality, their bodies are kept prisoner in a strange building and only their minds take part in the game.

In the strategy game, the teens must survive in a historical environment, fight supernatural creatures, and familiarize themselves with the world of Latvian and world mythical tales. In all their adventures they are accompanied by Vadātājs [the Trickster], who is actually the anonymous player. It is interesting that the teens trapped inside the game realize that everything they see is not real, and they are actively trying to discover the identity of the player; that would let them leave the game. This is the first example of Latvian fiction that features a computer game as a major plot device, and although the novella is mainly just an entertaining adventure story, it already demonstrates the tendencies that will become prominent in later works of Latvian science fiction dealing with the topic of virtual reality: cyberspace is shown as a threatening alternate universe, imprisonment that the computer game characters must escape at any cost, the addiction of the gamer, and a dystopian universe that all the heroes can escape only by returning to actual reality.

The idea of virtual reality has been featured in select science fiction short stories. In the titular story of the anthology “Zilie jūras vēršī” [Blue Sea Oxen] Džeina Tamuļeviča describes a world that extrapolates current obsession with social media – with the help of future technologies it has been made into a tangible alternate world. The unnamed female protagonist lives a quiet, monotonous, and bleak life; the only thing that makes it interesting is constant communication and news in various social sites (all the networks mentioned in the story, such as *Instagram* and *Foursquare*, actually exist), which offer everything she lacks in reality: gripping activities, beautiful scenery, real friends. “All it took was connecting your central nervous system to your phone, and you landed in a captivating movie without any drama or negativity” (Tamuļeviča 2015, 11). Technology companies offer to supply all citizens with an illusion of an exquisite

and active life to share across social media while in reality they are still stuck in routine, because the important thing is not to actually live these experiences but to create an impression on others. As a result, people often lack the time and energy to enjoy the technologically created miracles at their disposal – they are in too much of a hurry to share them on social media. The most important task is keeping your phone charged at all times, because if the battery dies “you are left alone with your thoughts and [...] thrown out of the party and back into your rough and rather shabby reality” (Tamuļeviča 2015, 13). A wide range of applications provide the user’s brain with simulations of everything they can imagine – from dinner at a five-star restaurant to relaxation by the sea. In the universe of the story, meeting up with friends means simply “logging into the same program” (Tamuļeviča 2015, 17). The plot is driven by the belief that something is finally happening for real, but ultimately it turns out to be nothing but “a glitch in the program” (Tamuļeviča 2015, 23). The dystopian story realistically portrays the modern obsession with virtual environment, slowly substituting reality by illusion until everything that would qualify as “real” can actually turn out to be imagined. Step by step, the human mind and consciousness merge with computer network, until humanity as a whole can be questioned; at the end of the story, the heroine is revealed to be an android.

In the anthology “Purpura karaļa galmā” [In the Court of the Crimson King] the concept of virtual reality is discussed in the story “Snaudas eksperts” [Slumber specialist] by Artūrs Dedzis. The story takes place in a futuristic prison where a group of thirty inmates are locked together inside a projected environment that imitates extreme survival. “Slumbers – that’s what the author and director of the project, Dr. Harris, called the sessions where, with the help of a specifically designed technology that controlled neurons in the brain, people were held in an induced, yet highly stable state of sleep with lifelike dreams. The objective of the project, he said, was to regularly submit the inmates of our prison to Slumber, thus saving prison resources” (Dedzis 2012, 220–221). Of course, the prisoners confined to virtual reality quickly form a community with its own problems – rivalry, conflicts, survival challenges – as the community is located in simulated wilderness where everything necessary for survival must be obtained by primitive methods. After the main character – the designated “Slumber Host” in whose mind everyone else is imprisoned – dies in one of the conflicts, in the real world his biological body perishes as well, while his consciousness awakens as a complex, incorporeal computer program that could be further used to impose the “resource saving”. The story clearly illustrates

virtual reality as a means of holding the human mind and consciousness hostage, which, with the use of the right technologies, allows not only for the physical but also – and more effectively – spiritual subjection of a person. The story also addresses the idea of absolute moral ambiguity of machines and technology (previously explored only in world science fiction) – that is to say, even the most developed form of artificial intelligence is incapable of moral reasoning. As humans possess this ability, it allows them to use technology for either good or bad purposes, and the writers often express their fear about the latter.

The relationship between virtual and actual reality is present in several stories of the anthology “Dubultnieki un citi stāsti” [Seeing Double] by one of the most imaginative young modern sci-fi writers Toms Kreicbergs. One of the concepts that is present in several of Kreicbergs’ stories is the so-called “jack-stream” – a probable future technology that links together the minds of several people in a natural or induced state of sleep, allowing them to hear and experience the life of the other person from a safe perspective. As the author explains, “the human process of thinking is, essentially, an unending conversation with oneself. For instance, while solving a math problem, you have a thought, the next one answers the first, the following thought again answers the previous one, then a third voice jumps in and suggests you should go get something to eat, another one outyells it, and so on. I came to the natural conclusion that conversations between people are literally an attempt to broaden their minds, to include other, different voices in this inner dialogue. From this idea it took me but one step to design jack-stream – if there was a technology that allowed people to communicate in a manner where they were unable to separate their inner “voice” from another, their minds would be essentially *jacked* together.” (Kreicbergs 2011, 107) In several stories this concept lets the author delve into a topic that in science fiction always supersedes technology – the relationship with oneself and with others, and with the current era. In the story “Domājošas sievietes muļķu pulks” [A Thinking Woman’s Crop of Fools] Kreicbergs investigates what would happen if jack-stream was used for industrial purposes, as the female protagonist “rents” her mind for a price. In the story “Atkal būt vieniem” [To Be Alone Again] he explores the possibilities jack-stream would open up for criminally inclined individuals. In the titular story of the anthology, a Russian-born Latvian named Sasha and an American called John have been sharing a mind ever since they were children, but the real issue is with how Sasha’s family perceives “sharing” their brother and son with a stranger. The variations are countless, and each of them allows

the author to explore a person's relationship with themselves, others, and the current circumstances from an unusual angle. Admittedly, the technology of jack-stream technology differs from virtual reality, but the methods are similar – the human mind and consciousness are influenced by technology, thus altering their perception and submitting it to manipulation, that is to say, limiting their freedom. In Kreicbergs' stories, however, instead of describing jack-stream as wholly negative, the author highlights the aforementioned moral ambiguity of technology: depending on the user, every technological innovation can be used in a constructive or destructive manner.

The future "virtualization" of our planet is one of the topics addressed in the YA novel "Septiņdesmit piecas dienas" [Seventy Five Days] by Ilze Enģele. In the futuristic city of Metropolis it is mandatory for all immigrants and inhabitants to wear digital glasses or contact lenses that, on the one hand, seemingly make life easier, as any kind of information can be accessed momentarily through a kind of *Google* browser that is always hovering in front of one's eyes. On the other hand, though, it turns out that the information displayed by the device does not always correspond with objective reality. All the information concerning each person is registered and available to the authorities, making it a perfect control mechanism, and the seemingly flawless façade hides an Orwellian world that harbors class division, total control, and the loss of humanity. Metropolis is obsessed with youth, beauty, and fashion: there are "gene booths" on every street corner that offer to change the color of customers' eyes, hair, and skin; fashion trends change at a break-neck speed, and nearly all residents of the city do their best to conform to these artificial standards. The false splendor slowly corrupts the relationships and soul of Heidi, a young girl who has come to Metropolis to work and get her "big break": the illusory brilliance becomes more important than her friends, family, values, and even basic morals. Heidi's relationships and communication with people migrate to the virtual world, for example, parties with her friends largely take place online since they are cheaper and easier to achieve. The citizens of Metropolis mock the people still living outside the technologically enhanced city in the so-called Wild Valley where life is not computerized and people choose their occupation according to their own preferences and even enjoy such archaic forms of entertainment as the theater. Heidi is slowly going under, losing her identity and breaking all her principles just to remain in the illusion of perfect life a little while longer. A glitch in the program reveals it actually is an illusion; for a split second Heidi glimpses reality as it is: grim and ghastly. Metropolis is but a crumbling

city without any color, fancy costumes, or any of the things that she found so alluring; all the brilliance was just a trick of the glasses. The conclusion of the novel, however, leaves open the question – which one of the realities was actually real and which was virtual? The direction of the plot correlates with that of the world YA novels discussed in the first part of the article, where virtual reality acts as a means of mind control and a dangerous illusion, as opposed to the real world.

The issue of virtual reality is also addressed in the novel “Laimēs monitorings” [Happiness by the Mile] by Laura Dreīze – a look at the future of our planet in the digital era. In a city ruled by a cruel government two illegal groups of young rebels live side by side. They are involved in a peculiar competition – trying to catch a mysterious van that can somehow dispel people’s misery. At the same time, these rebels are hoping to overthrow the governing regime. Accessing the Internet, which in the novel is known as the Web, is only safe for a person who is equipped with special implants (because connection is secured via electrical impulses sent through wires that are directly attached to the person’s body), but the rebels have neutralized their implants, as they simultaneously serve as a surveillance and control mechanism. After one of these young adults is trapped inside the Web during an illegal virtual expedition, Avery, the protagonist of the novel, must enter cyberspace – that is, put her mind on the line to connect to the Web, knowing that in case of a glitch the electrical impulses may cause irreversible damage to her brain. Avery’s adventures in cyberspace are quite similar to those that the characters navigate in real life, but the way the virtual world is portrayed is rather interesting – it is nearly indistinguishable from reality, yet there are subtle details reminding that it is actually but an illusion. “The world around her rippled. Alarmed, Avery rubbed her eyes. At once, everything returned to normal, as if nothing had happened. People went on with their business, the traffic resumed, and the massive LCD screens on the buildings continued to transmit a wide range of advertisements. But Avery realized at once what she had just witnessed. A system update. That could mean only one thing. She was not in the real world anymore” (Dreīze 2011, 174–175). This scene mainly serves to further the plot (in cyberspace Avery meets a stranger, and later their meeting plays a significant part in plot development), but the omnipresence of the Web that allows to immediately identify anyone who has accessed it illegally points to the same idea that Enģele’s novel discusses from a different viewpoint – virtual reality is seen as a control mechanism, an illusion that threatens adequate perception of reality. The Web is just another

way for the totalitarian government to exercise control over not only the bodies, but also the minds of its citizens. Additionally, the use of implants to access cyberspace can be viewed as the author's paying homage to the cyberpunk tradition that often used the same method.

The novel "Digitālo neaizmirstulīšu lauks" [The Field of Digital Forget-Me-Nots] by Ellena Landara also explores the link between virtual reality and control. The protagonist is a teenage girl Airii who is living in the futuristic city of Niron – a seemingly harmonious place. Each citizen has an implanted bio-mechanism that monitors all bodily functions and in case of emergency calls for medical assistance. The people of Niron do not realize that this convenient device is actually overseeing their every step, and one of its features allows the switchboard to use special programs in order to penetrate a person's mind and influence their thoughts, creating a false perception of reality, essentially a virtual one. After a tragedy at work Airii encounters an underground resistance movement and learns that her own life and the lives of other citizens are built almost entirely on technologically fabricated lies, and she herself carries source code that could help the rebels overthrow the controlling regime. Once again, this novel emphasizes the issue of the "web" – even if the motivation for connecting all citizens in a unified network of information seems nothing but positive, it also permits the government or other controlling forces to use this connection for altogether different purposes. It may be interesting to note that these concerns are to be met also in real life: although at the moment, mind control via implanted mechanisms is only found in science fiction, people in reality have also expressed their concern about what the consequences might be if the authorities could access all the information about any person at any given time. The possibility that these technologies could also create an artificial reality in the person's mind only serves to heighten this concern.

## CONCLUSION

I realize that the number of examples given is too small to draw comprehensive conclusions concerning the portrayal of virtual reality in Latvian science fiction; however, it is possible to distinguish some tendencies and parallels with the previously viewed world science fiction works.

As the corpus indicates, all the literary works that are mentioned in this article and contain descriptions of virtual technologies are written by young authors – which is logical because it is the millennial

and the successive generations that are the most knowledgeable when it comes to virtual environment. It is interesting to observe, though, that in nearly all these works the attitude, the authors exhibit towards their portrayed virtual worlds, is decidedly negative – the writers view computerized environment as a threat to a truthful perception of actual reality, as a means of deceit and control, an illusion that destroys lives and relationships. It is therefore possible to conclude that, being inseparably connected to this environment in their everyday life, the young writers still do not trust it. This observation is consistent with a similar trend in globally popular YA science fiction with dystopian characteristics: both foreign and Latvian writers choose to emphasize the dangers virtual reality presents, as it can supplant actual reality in the users' minds as well as break into the real world and alter it – such parallels are clearly visible, for example, when comparing the works by Ellena Landara, Ilze Enģele and Ernest Cline, all of which concentrate on the possibilities of influencing people's – particularly young people's – perception of reality via means of virtual technologies, and point out that consequently not only their mindset but also moral values get dangerously overturned. Several authors have also chosen to emphasize the alienation brought about by the extensive use of virtual reality: it is interesting to note that, for instance, nobody denies the fact that excessive computer gaming can cause the player's isolation from the world (which is in fact the underlying admonition of Ursula Poznanski's novel); whereas the use of social networks seems to have a twofold effect: on the one hand, these networks are meant to bring people closer and alleviate communication, on the other hand (as illustrated vividly by Džeina Tamuleviča's story) they can be used to create a fictional identity that hinders actual relationships rather than aids them.

It follows that the topic of moral ambiguity of virtual technology has also been highlighted in both world and Latvian science fiction works. The Latvian authors, on the one hand, appear to follow the Western writers' tendency to express apprehension about the ever more speedily developing virtual technologies and their actual and probable impact on people's everyday lives and minds; on the other hand, authors, such as Toms Kreicbergs, in their works also point at the fact that, similarly to other technologies in the past, which also used to cause some anxiety, the possibilities offered by virtual reality can be exploited in various ways, and the threat level virtual reality poses mostly depends on the person or institution controlling cyberspace. However, some of the writers (Dreiže, Tamuleviča and Enģele) seem to imply that there is a certain possibility that computer environment can be perceived as at least partially sentient being capable of

making its own decisions and acting independently of the user's wishes – so these particular literary works are proposing a different take on yet another of the ever-popular science fiction tropes: the moral aspects and consequences of creating artificial intelligence. It is possible to conclude, then, that the majority of the Latvian science fiction featuring virtual reality corresponds with the dystopian subgenre, so significant parallels can be observed with similar novels written by foreign authors.

Conversely, for the time being Latvian writers do not seem to be attracted by cyberpunk, especially not the peculiar cyberpunk aesthetics; there is still no Latvian equivalent to William Gibson's work to be discussed. This can, however, be explained: since at the time when cyberpunk experienced its peak of popularity outside the USSR there was practically no original Latvian science fiction and cyberpunk did not penetrate the iron curtain separating world literature tendencies from those predominant in the Soviet Union, this genre in its original form has been of next to no influence to Latvian authors. Consequently, the aspects of virtual reality as means to escape the present world into a more independent and sincere reality have not been reflected in Latvian science fiction works at all. The specific aesthetic turn of the classic cyberpunk works has found but a superficial reflection in some of the works under discussion, mainly emphasizing the tangible aspects of cyberpunk environments (such as dark and dreary urban landscapes and body implants allowing the person to connect to the virtual space, i.e. almost exclusively material nuances) but almost completely ignoring the postmodern aesthetics and possible metaphoric interpretations of these facts. In short, the few cyberpunk features that are to be met in Latvian authors' science fiction works, serve mainly illustrative rather than symbolic purposes.

Another, rather peculiar, conclusion is that the majority of Latvian authors under discussion with the sole exception of Dace Šteinberga have not been attracted by the topic of computer gaming which unlike cyberpunk is both well-known and widespread in Latvia. However, this perhaps might be explained by the fact that social media currently are much more popular means of entertainment than gaming, which in turn might be viewed at least by the younger generations as slightly dated.

Finally, it must be pointed out that there are other aspects of the virtual environment that still remain nearly untouched by Latvian authors: for instance, the phenomenon of blogging, or cyberharrassment; there is also a lack of more comprehensive approach to the social networks which gradually gain ever growing importance in

people's everyday lives. Nevertheless, in all likelihood the apparition of literary works exploring these subjects is just a matter of time.

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