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A comparison of technologies in our world and the world of dystopian science-fiction: The Machine Stops

VS.

Do Androids Dream of Electric Sheep?
vs.
Ready Player One

Bakalářská práce

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V Olomouci dne 8. 4. 2023
Filip Turns

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Abstract

The bachelor's project is concerned with an in-depth analysis of three selected titles of the dystopian science fiction genre – The Machine Stops by Edward Morgan Forster, Do Androids Dream of Electric Sheep? by Philip Kindred Dick, and Ready Player One by Ernest Christy Cline. It focuses on technologies and their role in the fictional worlds, especially on their primary purpose and impact on society, but it also examines the authors' motivations to write and consequently publish said books. The theoretical section defines and explains the terms "utopia", "dystopia" and "science fiction" in more detail. It also captures the development of the dystopian novel and science fiction and their gradual merging into a single genre. The section is followed by the description of the individual authors' lives and works and the critical reception of their selected works which indicates their relevance and quality. With the use of in-depth text analysis, the practical section describes and analyzes technologies of these works of fiction. The analysis for each title is structured into three main parts – a general description and purpose of the technologies followed by their influence on the fictional society, and finally is completed with an interpretation of the author's motivations to create the selected works of fiction. An amount of technologies is compared with technologies of the real world or with similar technologies within the other titles. The project has come to a conclusion that despite technology being one of the center motives every time, it always holds a different role and is not always utilized as means to "warn" against the dangers of modern technology which is a frequent phenomenon within the given genre. The most prominent similarity across all of the works is the theme of social isolation which is caused by technology even though, paradoxically, its purpose is to connect people with each other. At the same time, it is necessary to mention the diversity of the authors' motivations to write the works of fiction – the fact that only Edward M. Forster utilized the explicit warning against dangers of technology in his work breaks down the original assumption that every author had this particular intent.

Introduction

Technological progress has merely provided us with more efficient means for going backwards. – Aldous Huxley

Throughout history, the continuous advancement of technology has always sparked interest and raised doubts at the same time – people have often considered modern technology as means to make life more convenient and comfortable, but others have perceived it as something capable of negatively transforming humanity forever. This feeling of an imaginary technological dystopia has strongly resonated in literature since the beginning of the 20th century – a point in history which marked the Second Industrial Revolution.

The aim of the bachelor's project is to analyze the technological aspect in three selected works of British and American origin – *The Machine Stops* (1909) by Edward M. Forster, *Do Androids Dream of Electric Sheep?* (1968) by Philip K. Dick, and *Ready Player One* (2011) by Ernest C. Cline. The works of fiction fall under dystopian science fiction which seems to be a popular genre for technological cautionary tales.

The project is divided into two main sections – theoretical and practical.

In regard to the theoretical section, I intend to firstly define and explain the meaning of the relevant terms "utopia", "dystopia" and "science fiction". Subsequently, I find it necessary to delineate the separate developments of the dystopian novel and science fiction to later explain their eventual fusion and describe the newly created genre. The authors' lives and works, as well as critical reception of their selected works of fiction, are also important to include as they can bring closer the context of their writing processes. Due to increasing relevance of the genre in popular media, a short chapter is devoted to describing dystopian fiction outside of literature.

In the practical section I plan to utilize qualitative text analysis to understand and describe technologies present within the fictional worlds. Due to the comparative essence of the project, it is crucial to search for similarities and differences between the individual works but also to detect any real-life technological counterparts. The analytical structure for each one consists of three parts – a description of technology and its purpose, its impact on society and characters, and interpretation of the author's motivations to write and publish their work.

I. Theoretical section

1. Dystopian Science Fiction as a literary genre

To elaborate on the genre's development as well as other related topics in the subchapters below, it is necessary to firstly introduce an assortment of terms which are related to dystopian science fiction and its development, as well as their definitions: *utopia*, *dystopia*, and *science fiction*.

Historically, the word 'utopia' was coined by the author Thomas More in 1516. More used this word to refer to the island described by Raphael Hythloday, a Portuguese sailor, but also to name his book *Utopia* which was released in the same year. In result, this caused two initial usages of the word to come into existence – to suggest an imaginary place that resembles Paradise in its characteristics, and to refer to utopian literature, a new literary form (Vieira, 2010, p. 4).

In a contemporary sense, 'utopia' carries slightly different meanings across separate domains – *The Cambridge Companion to Utopian Literature* offers four definitions:

- (1) "the content of the imagined society", i.e. a subjective perspective on which elements one would expect to be (or not to be) present in the world for it to be considered a perfect society
- (2) "the literary form into which the utopian imagination has been crystallized" —this meaning is considered very limiting as it excludes other texts that carry utopian ideals and perspectives but do not strictly conform to More's narrative model,
- (3) "the function of utopia", i.e. the agitational effect that utopian novels tend to have on its reader, causing them to want to make a change in their own society (making this particular definition exclusive for utopia in a political context),
- (4) "the desire for a better life, caused by a feeling of discontentment towards the society one lives in" (Vieira, 2010, p. 6).

The term 'dystopia' refers to "a fictional portrayal of a society in which evil, or negative social and political developments, have the upper hand" (Claeys, 2010, p. 107). The definition does not explicitly include technological dominance – however, this element can be implicitly considered as one of the sources of such "negative social and political developments".

Lyman Tower Sargent's definition describes dystopia as "a non-existent society described in considerable detail and normally located in time and space that the author intended a contemporaneous reader to view as considerably worse than the society in which the reader lived". The meaning of this word is commonly attributed to the term 'anti-utopia' as well. However, the author gives 'dystopia' and 'anti-utopia' two separate definitions, the latter being described as a term that is intended to be perceived as a criticism of social dreaming (or 'utopianism') and specific utopias (Sargent, 2006, p. 15).

In comparison with 'utopia', 'dystopia' is a relatively new word in terms of common usage. It is a general belief that the term was used for the first time by John Stuart Mill in one of his parliamentary speeches from March 1868 where he criticizes the Irish government's property policies (Mill, 1850, p. 247). However, Sargent challenges this belief by presenting a discovery made by Deirdre Ni Chuanacháin who noted that the word initially appeared in an anonymous poem *Utopia: or Apollo's Golden Days* (publishment attributed to Lewis H. Younge in 1747). Despite the term being misspelled as 'dustopia' (Younge, 1747, p. 4,6,21) due to wrong usage of Greek letters, it was used in clear contrast with 'utopia' which had already been an established word at that time (Sargent, 2006, p. 15).

'Science fiction', also abbreviated as 'sci-fi', is a term used for works of fiction that speculate about possible futures or alternative contemporary realities. To date, no definition that could be considered as generally undisputed has been established. There is, however, a fairly high number of approaches taken by various authors in an attempt to describe the genre.

In *The Encyclopedia of Science Fiction*, the "Definitions of SF" entry provides various definitions, quoting various authors – for instance, Hugo Gernsback's description of sci-fi states that it is "a charming romance intermingled with scientific fact and prophetic vision" in reference to authors such as Jules Verne or Herbert G. Wells. John W. Campbell's quote in the encyclopedia claims that sci-fi literature attempts to explain or discover different phenomena in the same way as science generally does, but in the form of

a written story. Norman Spinrad is quoted to simply classify sci-fi as "anything published as science fiction" (Clute and Nicholls, 1993, p. 311-314).

For the purpose of this thesis, as well as to avoid any ambiguities, the terms 'utopia', 'dystopia' and 'science fiction' will be used in accordance with the custom-made definitions below.

Utopia is a fictional society holding subjectively desirable qualities which usually indicate an immensely high level of the society's prosperity and well-being, deeming it ideal when such qualities are compared to those of a contemporary society (i.e. the society in which the comparing individual resides).

Dystopia is a fictional society holding subjectively undesirable qualities which indicate an immensely low level of the society's prosperity and well-being, deeming it flawed or corrupt when such qualities are compared to those of a contemporary society (i.e. the society in which the comparing individual resides).

Science fiction, abbreviated as **sci-fi**, is a form of fiction, typically set in the relative future, which utilizes science in its story to either create new forms of technology and scientifical concepts or further expand on already existing ones. It also explores their potential impact on the individual or society as a whole. Sci-fi usually employs one or more of the following components: futuristic science and technology, extraterrestrial life, space or time travel, the existence of fictional worlds and parallel universes.

1.1 Development of Dystopian Science Fiction as a Literary Genre

Dystopian science fiction, as the name implies, combines elements and characteristics of two separate literary genres – the dystopian novel and science fiction. A fusion of such nature has existed on the other side of the ideological spectrum as well in the form of utopian science fiction. To establish the characteristics of the dystopian science fiction novel in the next subchapter, the developments of its two origin genres have to be described separately first.

The following section describes the development of the dystopian novel. Considering the main topic of the thesis as well as the choice of novels for literary analysis, the section is going to focus mainly on the modern iteration of this genre which, apart from other aspects, places a relatively larger focus on technology and its impact on societies within the genre's works of fiction.

The redefinition and popularization of the dystopian novel is typically credited to Yevgeny Zamyatin's novel *We* (1924) by academics such as Tom Moylan (2000, p. 121) or Philip Stoner (2017, p. 1), as well as by Encyclopedia Britannica ("Russian Literature", n.d.). Additionally, Moylan mentions E. M. Forster's story *The Machine Stops* (1909) and describes it as "an early example of the dystopian maps of social hells that have been with us ever since". He also brings up the novels *Nineteen Eighty-Four* (1949) by George Orwell and *Brave New World* (1932) by Aldous Huxley, referring to them alongside Zamyatin's book as works of fiction that exemplified the canonical form of the modern dystopian novel (Moylan, 2000, p.121).

Ideas of dystopia and the dystopian genre itself had existed for a long time prior to the aforementioned novels above. However, it was Zamyatin who modernized this concept and laid the foundations for other authors. The Russian author took a new creative direction due to the political climate of Lenin's reign in Soviet Russia. The political leader deemed it necessary for all domestic artworks to promote Marxist ideas which would contribute to the unification of Soviet Russia (Hutchings, 1982, p. 91).

Zamyatin's We was not the first work of fiction that contained anti-establishment ideas. Previously, he had written similarly opinionated essays which had resulted in his arrest various times. However, We had an intimidating effect on publishers within the Soviet Union because of the possible consequences they would be met with if they released this particular work of fiction. Because of these circumstances, Zamyatin sent a copy of his novel to England in 1924. There, We was met with positive acclaims – its publishment followed up almost immediately after (Stoner, 2017, p. 2).

The numerous dystopian tropes in Zamyatin's novel – the oppressive government's absolute rule, the totalitarian restriction of free thought and arts, the conflict within an individual's mind in contrast with the status quo, the existence of a provocative female character that influences the main character, or an ending that would generally be considered unsatisfactory and depressing – served as groundwork and a source of inspiration for future authors such as Aldous Huxley or George Orwell (Stoner, 2017, p. 2-9). The second author mentioned explicitly pointed out the influence of *We* on his novel *Nineteen Eighty-Four* (Orwell, 2008). Furthermore, in a review of *We*, Orwell compared Huxley's *Brave New World* to Zamyatin's work, stating that "both books deal with the rebellion of the primitive human spirit against a rationalised, mechanised, painless world" (Orwell, 1946).

Zamyatin and Orwell's works of fiction both involved a disturbing prediction of how severe a totalitarian government can become. Both authors were witnesses to actual iterations of such regimes – Zamyatin saw the potential risk in the reign of the communistic Soviet Union, and Orwell, his British "counterpart", observed the rising power of Nazi Germany during the Second World War. Although these two totalitarian powers had clashed with each other, together they shared one thing – a utopian desire, a concept which was observed as dangerous by both of the authors and served as inspiration for their renowned works of fiction (Stoner, 2017, p. 13-14).

After the end of the Cold War, the creation of dystopian literature underwent a change in its readers' demographic, shifting its focus towards younger adults. Stoner's claim attributes this general development to Lois Lowry's *The Giver* (1993) which was, despite not being the first dystopian novel for young adults, the most successful iteration of fiction targeting this demographic. Notwithstanding the fact that *The Giver* builds its fictional world and story on some tropes that had initially been established by Zamyatin, the key element of a "warning" or a "prediction" is absent. Novels by the aforementioned authors had mainly been written with the intent of informing its readers of the possibility of a totalitarian government, deriving inspiration from contemporary regimes. In contrast, *The Giver* is more focused on understanding and learning from the past (Stoner, 2017, p. 15).

The trope of self-exploration in dystopian fiction for young adults has become noticeably more prominent. Additionally, the bleak ending trope which used to be identifiably typical for works such as *Nineteen Eighty-Four* experienced a degree of redefinition. New novels, including *The Giver*, started including a sense of ambiguity in their endings which would not be perceived as depressing, but rather hopeful in comparison with previous dystopian novels (Stoner, 2017, p. 16-17).

Regarding the dystopian novel's new focus on young readers, Stoner mentions a number of reasons for this phenomenon – higher political awareness and involvement, widespread use of technology among younger generations, and, as stated above, the trope of self-exploration and its expansion which has possibly had an influence on the increase of young female readers as well (Stoner, 2017, p.18-21). Philip Reeve claims that this trope's expansion appeals to the common tendency of young people to rebel against the authority, be it parents or teachers (Reeve, 2011).

In closing about the development of dystopian literature, it is apparent that the shift in the demographic of dystopian novel readers has caused essential changes in what dystopian novels have been attempting to convey. Whereas dystopian works of fiction in the more distant past had primarily served as political critique as well as means to warning the general public about totalitarian regimes, its successors have started putting a bigger focus on aspects concerning one's self-identity and position in the contemporary world.

The following section describes the development of the sci-fi novel. The same reasons given in the introduction of the previous segment apply – therefore, only the relatively recent developments of the literary genre will be described (from the turn of the 19th and 20th century to the near present) with a focus on technology and dystopian themes within science fiction.

"The greatest novelist to have worked in the science fictional idiom" is the description given by Adam Roberts to characterize H. G. Wells. This claim is further supported by various arguments – the author is credited for the ability to enliven his stories using modern techniques, as well as for the eloquence and thought-provoking storytelling in his best books. Due to such reasons, Wells is deemed to be superior to other writers of science fiction. *The Time Machine* (1895), *The War of the Worlds* (1898) and *A Modern Utopia* (1905) are provided as examples of Wells' most prominent works of fiction (Roberts, 2016, p. 199-200).

In *The Routledge Companion to Science Fiction* (2009), John Rieder describes the creative process of H. G. Wells and its significant impact on the genre of science fiction. He states that Wells' accumulation of various tropes that had already been widespread in literature (such as time travel, future wars, extraterrestrial travel, utopian ideals or large-scale natural disasters) resulted in the establishment of what is currently identified as "early science fiction". To elaborate on the aforementioned tropes, Rieder mentions works such as *The Island of Doctor Moreau* (1896), *The Invisible Man* (1897) or *The Star* (1897) (p. 23-25).

With the beginning of the 20th century, the emergence of modern technology seemingly caused a divide between the Modernist high-brow movement and its low-brow counterpart – the popular-cultural artists. While the formerly mentioned group approached the new technological advancements with hostility, the latter did the opposite, welcoming modern technology with excitement. However, Roberts stresses the point that there were exceptions such as the high-brow Futurist movement which celebrated the arrival of modern machines, especially those that served as means to make travelling faster and more convenient (such as motor cars and planes) or, as he calls them, "machines of speed" (Roberts, 2016, p. 227-230).

Taking into consideration the dystopian genre, a parallel to science fiction in the thesis' context, a greater degree of attention will be given to the anti-machinists, or the so-called "machine bashers", who promoted, to a degree, dystopian ideas in their works due to their disdain towards advanced technology. This particular group exhibited various forms of aversion towards it – some of them feared that the growing mechanization of society would reduce people to "mere cogs in a machine", others believed that the widespread popularity and use of

technology was responsible for a seemingly alarming loss of connection to the natural, organic, and spiritual aspects of life (Roberts, 2016, p. 232).

According to Valentine Cunningham, the most significant novel regarding this new problematic was Aldous Huxley's *Brave New World* (1932). He suggests that this work of fiction represents the anxiety about the prevalence of materialism which was caused by the rise of machines and technology, and places the authors Charles Williams, Wyndham Lewis, Peter Fleming and Julian Symons alongside Huxley (1988, p. 399). Farah Mendlesohn does the same as Cunningham, mentioning Karel Čapek's *RUR* (1920) and Yevgeny Zamyatin's *We* (1924) next to *Brave New World* (2009, p. 56).

With the knowledge acquired so far, it can be assumed with reasonable confidence that the anti-machinist movement's initial ideas had notable impact on the subsequent emergence of the dystopian novel's technological subgenre.

Science fiction at this point was still generally regarded as a "pulp genre" and its works of fiction seemed to lack depth. Authors such as John W. Campbell, Isaac Asimov, Robert A. Heinlein or Theodore Sturgeon intended to challenge the stereotype and endow the genre with profound aesthetical and stylistic improvements, as well as scientific accuracy. They did so by contributing to the *Astounding* sci-fi magazine which Campbell edited from 1937 to 1971 (Sterling, n.d.). With the foundation of the Milford Conference in 1956, an annual meeting of science fiction writers (Bedford, n.d.), the genre started to steadily shift towards mainstream literature (Latham, 2009, p. 80-83).

During the 1960s and 1970s, the "New Wave" movement emerged in science fiction as a response to the genre's creative exhaustion and the seemingly disappointing reality of space travel (such as the launch of the Sputnik satellite in 1957 or the Apollo mission in 1969) which did not appear to truly reflect the intriguing stories of science fiction. Authors began incorporating themes of transcendence and messianism in their novels, imbuing the genre with a deeper spiritual dimension.

In the context of this thematic shift, Roberts points out the connection between the aforementioned tropes and space travel, describing it as an event that "inflected the idiom of SF as transcendence, a metaphorisation of a more literal escape velocity" but turned out to be "mundane" in reality. He provides examples of novels which are now considered "classics" of the New Wave movement, such as Frank Herbert's *Dune* (1965), Robert A. Heinlein's *Stranger*

in a Strange Land (1961) or Philip K. Dick's novels *Do Androids Dream of Electric Sheep?* and *Ubik* (1969) (Roberts, p. 334-336).

In the 1980s and 1990s, written science fiction slowly ceased to be the dominant form in terms of audience consumption, and began to be outbalanced by more modern mediums, the most popular ones being cinema, TV and computer games. Clute remarks that while some classical authors such as Jack Williamson, Frederik Pohl, Heinlein or Asimov remained relatively active with their writing, many other authors who gained recognition later, i.e. in the 1970s, "did not follow in that course". Among other novels, he mentions William Gibson's *Neuromancer* (1984) which introduced the concept of cyberpunk – a subgenre characterized as a description of the "novels and stories about the information explosion in the 1980s". Some older writers regarded it as "an abandonment of the sf story" – Clute agrees with this claim (2003, p. 64-68).

In its most recent developments, science fiction is described by science fiction critic Gary Wolfe as a genre that has metaphorically evaporated and consequently condensed beyond its original boundaries (Wolfe, 2010). Its features and tropes which used to be exclusive to sci-fi have become an aspect that appears in almost all works of fiction. The phenomenon of sci-fi features being utilized outside of literature that is considered purely sci-fi appears to reflect the "need for art to deal with an increasingly technological, alienated and mediated social reality" (Roberts, p. 479-480).

To draw a parallel to the previous section within this chapter, Roberts similarly remarks that sci-fi works of fiction with dystopian features seem to dominate the literary and popular scene especially in the case of young adult fiction. Apart from the series mentioned in the previous paragraph, Roberts lists series such as James Dashner's *Maze Runner* (2009-2011) or Veronica Roth's *Divergent* (2011-2013). He argues that the reason for such immense popularity of dystopian sci-fi for young adults lies in the ability of such novels to explore and interrogate, among other things, the ability (or inability) of humans to adapt to radical changes in the world, similar to the radical changes during adolescence (Roberts, p. 482-504).

1.2 Genre Characteristics

Mark. R. Hillegas' claim suggests that the negative impact of technology and science on society as a theme in dystopian novels experienced an immense influx of popularity amongst authors directly after the publishment of *Nineteen Eighty-Four* (1949). To support this statement, he offers numerous examples of novels which followed the trend, such as Isaac Asimov's *The Caves of Steel* (1954), James Blish's *A Case of Conscience* (1958), Ray Bradbury's *Fahrenheit* 451 (1961) or Philip K. Dick's *Solar Lottery* (1955) (1961, p. 241-242).

The novels which Hillegas mentions can be interpreted in their entirety as the emergence of dystopian science fiction as it is generally recognized today. Utilizing the information that has been introduced in the thesis so far, an enumeration below will set boundaries to describe and delimit the genre.

Dystopian science fiction novels generally share the following characteristics:

- Necessary fictionality of the story, as well as its society and the world in general
 the novel does not explicitly criticize contemporary reality.
- Importance of novel's relevance to present time period (meaning the time period which the author wrote the book in).
- Prediction or warning against the negative impact of technology and science on the world and society.
 - o It is typically exaggerated to intensify the story's meaning and/or message.
- Strong emphasis on detailed world-building to create immersion for the reader.
- Description of fictional society in its entirety individual characters are usually portrayed as a result of the conditions that influence them.
 - The characters also serve as a medium to describe the world around them, as well as how it functions.
- Introduction of a dominant, powerful and virtually obstinate system/entity which
 controls or in some other way dominates the fictional society and can be set on
 the top of said society's hierarchy.
 - The system/entity is generally described in detail by both the narrator and characters in the story.
 - It is mostly portrayed as a government which utilizes extreme forms of total rule (mostly totalitarianism or authoritarianism) – democracy is practically rejected.

- Ambiguous or unsatisfactory ending which can be used to point out the fictional society's immutability.
 - O The ending can have either a depressing or hopeful tone both can apply across different stories.

2. Authors

The following subchapters serve to describe the lives of three authors – Edward Morgan Forster, Philip Kindred Dick and Ernest Christy Cline. Furthermore, the critical reception of their works which have been selected for literary analysis in the practical part of the thesis is included for each author.

2.1 Edward Morgan Forster (1879-1970)

2.1.1 Life and Work

Edward M. Forster was born in 1879 as an only child to the family of Edward M. Llewellyn Forster and Alice Clara "Lily" Forster (Geni.com, 2023). His father, an architect by profession, passed away when Forster was still at a very young age, leaving a sizeable enough inheritance for the family to live in comfort (The British Library, n.d.).

In 1883, Forster and his mother moved to the county of Hertfordshire. The Tonbridge School that he had been attending as a child contributed greatly to his criticisms of the contemporary English public school system later on. Forster's stance towards education gained a much more positive temper during his studies at King's College in Cambridge where he was allowed to cultivate as an intellectual and adopt a sense of individualism and healthy skepticism (Encyclopedia Britannica, 2023).

After studies, Forster and his mother travelled to Italy. This trip greatly influenced him and inspired him to write *A Room with a View* in 1908. Apart from the aforementioned literary work, he also utilized Italian themes in his novel *Where Angels Fear to Tread* (1905). Forster's trips to India in the years of 1912 and 1921 similarly had a great effect on his literary creation, allowing him to publish *A Passage to India* in 1924 (The British Library, n.d.).

Forster's membership in the "Bloomsbury group" made it possible for Forster to contribute to various discussions on an aesthetic and philosophical level with other prominent persons, such as writers Virginia and Leonard Woolf or the philosopher G.E. Moore whose *Principia Ethica* (1903) had a strong influence on the group and its members (Encyclopedia Britannica, 2022).

The author's homosexuality was strongly mirrored in his work *Maurice*. This novel had been finished over sixty years before his death, somewhere between the years 1913 and 1914 – the primary reason for this delay was the fact that for a major part of Forster's life, homosexual acts were illegal and punishable by imprisonment. The general public did not have any knowledge of Forster's homosexuality or the novel itself until 1971, the year that Forster died. *Maurice* was published relatively shortly after his passing (Wyatt-Brown, 1983, 111-112).

2.1.2 General Description and Critical Reception of *The Machine Stops*

The Machine Stops is a science fiction short story of 12300 words (to the nearest hundred). It was initially published in 1909, the early stage of Forster's writing career, in the Oxford and Cambridge Review (Forster, n.d.).

The story is a narrative of a futuristic society that is solely dependent on an omnipotent technological entity. This entity is referred to simply as "the Machine" and its task is to provide for its inhabitants, taking care of their basic physical comforts as well as their more advanced, spiritual needs. The short story exposes the reader to a world of isolation, rigid technological dependency and the resultant decline of humanity and individualism in people and society (Forster, n.d.).

In a WIRED article, Randy Alfred describes the short story as "a chilling tale of a futuristic information-oriented society that grinds to a bloody halt, literally. Some aspects of the story no longer seem so distant in the future" (Alfred, 2010).

In a BBC review, Will Gompertz interprets the workings of the Machine and its society in *The Machine Stops* as strikingly similar to the isolation procedures and increasing popularity of video conferencing at the expense of human contact in real life – the consequences of society adapting to the recent COVID-19 pandemic (Gompertz, 2020).

Cat Fitzpatrick from Fantasy Book Review remarks that the dependency of society on technology does not necessarily originate from some sort of disastrous event that would force people to migrate underground, leaving them the only option of having to rely on the Machine's resources. She suggests that this was done voluntarily by them, for their own convenience of having everything done for them by technology (Fitzpatrick, n.d.).

2.2 Philip Kindred Dick (1928-1982)

2.2.1 Life and Work

Philip K. Dick was born as a twin in 1928 in Chicago, Illinois. However, only 41 days after birth, his twin sister passed away. This tragic event had a massive influence on his works of writing later on. Dick's parents, Joseph Edgar Dick and Dorothy G. Kindred (Geni.com, 2022), divorced five years after his birth – as custody had been granted to his mother, they moved to California together. (Famous Authors, n.d.).

For a brief time period, Dick worked as a radio show host. Afterwards, he studied at the University of California in Berkeley. However, Dick's studies only lasted for a year before he decided to focus on producing literature, marking the start of his writing career around 1952 (Encyclopedia Britannica, 2022).

The first novel published by Philip K. Dick was *Solar Lottery* (1955), roughly three years after the start of his career. For the next decade, he sustained his creative spirit by creating works of writing, such as *The World Jones Made* (1956), *The Man Who Japed* (1956) or *Eye in the Sky* (1957) (Philip K. Dick Bibliography, n.d.). In 1962, Dick published *The Man in the High Castle* which earned him the highest award in the world of science fiction (Philip K. Dick Biography, n.d.).

Before Philip K. Dick died, his name and reputation had not exceeded the spheres of science fiction much. In the final years of his life, he was afflicted with mental illness and the consequences of drug abuse. The recognition of Dick's literary creation widened at the brink of the 21st century, earning him the title of a "master of imaginative, paranoid fiction in the vein of Franz Kafka and Thomas Pynchon" (Encyclopedia Britannica, 2022).

Apart from *Do Androids Dream of Electric Sheep?*, many of Dick's works of writing have been adapted in movies and TV shows, such as *We Can Remember It for You Wholesale* (released as *Total Recall* in 1990 and 2012), *Second Variety* (released as *Screamers* in 1995) or *The Minority Report* (released in 2002 under the same title) (Encyclopedia Britannica, 2022).

2.2.2 General Description and Critical Reception of *Do Androids Dream of Electric Sheep?*

Do Androids Dream of Electric Sheep?, one of the most well-known novels by Philip K. Dick, was first published in 1968. Its story served as source material for the adaptation *Blade Runner*, which was released fourteen years afterwards, in 1982 – coincidentally, this was also the year that Philip K. Dick passed away due to a stroke (Philip K. Dick Biography, n.d.).

The novel's story is set in the future San Francisco devastated by nuclear war, as well as the rest of the world has been. Most of the animal species have gone severely endangered or extinct, rendering them exceptionally expensive and therefore prestigious to own. In off-world colonies, human-like androids are constructed – however, a group of androids (also referred to as replicants) rebels and escapes to Earth. As a result, they are pursued by a bounty hunter – Rick Deckard. *Do Androids Dream of Electric Sheep* raises a question of how authentic a machine – in this case, an android or an electric animal – must be for others to consider it a real self-conscious being (Dick, 2010).

In his literary review, Theo WolfTiger from The Guardian appreciates the gradually increasing but smoothly flowing pace of the novel's story which is complemented by a number of "completely unexpected twists". The reviewer also praises Dick's effort to construct a believable civilian society which is "sorely lacking in many other sci-fi novels". However, amongst other things, the reviewer criticizes the novel for its disarrayed ending which he also considers too open (WolfTiger, 2015).

Jason Koornick mostly focuses on the faithfulness of the novel's adaptation, *Blade Runner*. He holds the film in fairly high regard and especially underlines the enjoyable acting performances done by Harrison Ford and Sean Young. Although some key differences and omissions are mentioned, Koornick considers the adaptation "true enough to Dick's vision outlined in the novel". Apart from the film, he deems *Do Androids Dream of Electric Sheep* a classic in the world of science fiction (Koornick, n.d.).

Arthur S. Poe points out the existence of a seemingly symmetrical relationship between the humans and the androids, as both sides consider the other side sentient and therefore dangerous despite pursuing the same thing – a place where they can comfortably exist and feel safe. This phenomenon is described by Poe as "the subtle cycle of irony that wonderfully manifests itself through the pages of the novel" (Poe, 2021).

2.3 Ernest Christy Cline (1972-)

2.3.1 Life and Work

Ernest Cline was born in 1972 in the town of Ashland, Ohio as the eldest child of Faye Imogene Cline and Ernest Christy Cline (*Ernest Christy Cline* (*b. 1972*), archived in 2015). His younger brother, Eric T. Cline, is an EOD technician in the Explosive Ordnance Disposal unit of the United States Marine Corps (*Ernie's Blog*, 2008, archived in 2017).

In a Mother Jones interview, Cline talks about an incident from 1973 when he was roughly one year old. A tornado struck in the area of Wheeler, Ohio. At that time, Cline lived in a trailer with his family. Cline was directly pulled from his mother's arms by the tornado which would later set him down, with no injuries sustained. However, his mother was wounded during the windstorm and suffered a disc rupture. This incident was also reported in an unknown newspaper, most likely a local sort (Mechanic, 2015).

Cline also describes his childhood experience of growing up in a rural trailer park which later partially served as inspiration for the setting of *Ready Player One*, his most famous novel. Furthermore, he provides context surrounding his inspiration for writing the novel *Armada* (2015), calling back to his childhood obsession with the *Star Wars* series (Mechanic, 2015).

Later in his youth, Cline developed an enthusiasm for the board game *Dungeons & Dragons*, as well as movies by John Hughes. The director's screenplays were used by Cline as practice material to teach himself screenwriting. In 1996, he finished writing *The Adventures of Buckaroo Banzai Against the World Crime League*, a movie script which, apart from other works, used elements from the science fiction movie *Buckaroo Banzai* (1984). The screenplay garnered a considerable amount of attention from the movie's fans who would send him e-mails asking about the release date of the movie – however, Cline's script has never been made into a film (Hamburger, 2014).

Cline's first original screenplay *Fanboys* was his first immense success. Harry Knowles, a film critic, praised the script, referring to it as "the best piece of writing he had ever read about what it means to be a fan and to love cinema". The review caught the attention of Kyle Newman who would later become the director of the movie *Fanboys* (2009). Matt Perniciaro learned about the script through *Ain't It Cool News* and in 2001, he started working together with Cline as the film's producer (Hoffman, 2018).

In June 2016, Ernest Cline married his girlfriend Cristin O'Keefe Aptowicz who is a poet and writer of nonfiction, known for writing the biography *Dr. Mütter's Marvels: A True Tale of Intrigue and Innovation at the Dawn of Modern Medicine* (2015). The couple has known each other since 1998 when they met in Austin, Texas as contenders in the National Poetry Slam (New York Times, 2016).

2.3.2 General Description and Critical Reception of Ready Player One

Ready Player One, Cline's first and most famous novel to date, was first published in 2011 (Cline, Ready Player One, 2012). The novel's movie adaptation was released seven years later, with Steven Spielberg as its director, Ernest Cline as the screenwriter and Zak Penn as his co-screenwriter (IMDb, n.d.).

The dystopian novel, set in the year 2045, tells the story through the eyes of a young passionate gamer, Wade Watts. America, the location of *Ready Player One*, has been afflicted by a number of serious issues – a widespread energy crisis caused by the scarce supply of fossil fuels, extinction of animal species due to severe climate change, as well as high unemployment, low quality of life and war. A globally popular virtual reality simulation called "the OASIS" serves as an indirect replacement for the World Wide Web, also referred to as the Internet. When the creator of the OASIS dies, a contest for its inheritance commences, attracting the attention of a massive corporation which sees the ownership of OASIS as an opportunity to exploit its users for financial revenue. *Ready Player One* can be perceived as a critique of soulless corporations, as well as a cautionary tale of how easily society can become able to avoid facing the harsh reality of the physical world if they have the means to do so – in this case, an immersive virtual reality environment where they can comfortably abandon their "real identity". (Cline, 2012).

In a New York Times literary review, Janet Maslin positively appraises Cline's capability of creating a "perfectly accessible" narrative, despite the novel's immense number of references to various videogames, movies, music and other pop-culture media from the 1980s era (Maslin, 2011).

Annalee Newitz from Gizmodo points out the vast range of potential readers who might appreciate *Ready Player One*, even if they have not been introduced to literary science fiction before. Apart from the novel's easy reading accessibility, Newitz appreciates the appropriate flow of Cline's storytelling and his ability to showcase the world of *Ready Player One* to the reader in a fluid, absorbable fashion (Newitz, 2011).

In an NPR review, Michael Schaub commends Ernest Cline for being able to instantly engage the reader with *Ready Player One*'s plot and setting, as well as maintain the high level of engagement throughout the novel. Schaub primarily gives credit for this phenomenon to "the author's energetic, deeply felt narrative" which "makes it almost impossible to stop turning the pages" (Schaub, 2011).

3. Dystopian Science Fiction Outside of Literature

Works of dystopian science fiction have served as groundworks for movie and TV show directors, as well as videogame developers, to create adaptations. The most prominent novels have furthermore influenced creators in these entertainment industries and provided them with inspiration to create new works.

The movie industry in the late 20th century saw an example in novels that would be, in a consensus, considered "classics" of the genre, such as *Blade Runner* (1982) by Ridley Scott and *Blade Runner* 2049 (2017) by Denis Villeneuve, both originally based on the 1968 novel *Do Androids Dream of Electric Sheep* by Philip K. Dick. Other examples worth mentioning in this period are 1984 (1984) by Michael Radford based on Orwell's *Nineteen Eighty-Four* (1949) and *A Clockwork Orange* (1971) by Stanley Kubrick who adapted Anthony Burgess' novel of the same name released in 1962.

The trend of adapting dystopian science fiction novels did not lose traction even after the beginning of the new millennium. Moviemakers and show creators seemed to recognize and appreciate the potential of the genre's works. This level of regard was even shown in the case of the most prominent movie directors, Steven Spielberg, who filmed both *Minority Report* (2002), based on Dick's *The Minority Report* from 1956, and *Ready Player One* (2018) which followed the story of Cline's novel of the same name, published in 2011. Suzanne Collins' *The Hunger Games* (2008-2010) was also adapted into a movie series by directors Gary Ross and Francis Lawrence. It seems plausible to conclude that dystopian science fiction in popular media has kept a fairly steady momentum even in present time – *The Handmaid's Tale* (2017-) by Bruce Miller or the new installment of the *Hunger Games* series which will have been released in November 2023 are appropriate examples of this.

In the last few decades, videogames have also been a popular medium to utilize the genre. Within the industry, the element of direct adaptation has been, in most cases, set aside, allowing for original series such as *Fallout* (1997-2018), *Half-Life* (1998-2020), *Metal Gear* (1987-2018), *Metro* (2010-2019), *Deus Ex* (2000-2017), as well as the *Wolfenstein* series (1981-2019). Some videogames were not released as part of a series, but rather as standalone installments. The decision pattern of releasing independent videogame titles (i.e. not being part of a series) has been more significant in recent times with games such as *Orwell* (2016), *Detroit Become Human* (2018), *Death Stranding* (2019), *Cyberpunk* 2077 (2020) or *Stray* (2022).

II. Practical section – Literary Analysis

The practical section of the thesis is dedicated to the analysis of technologies within the selected works. A significant focus will be given to the purpose which they serve as well as their impact on the fictional societies. An additional subchapter for each title will attempt to accurately interpret the authors' probable motivations for the inclusion of new and, in some cases, modification of existing technologies. Furthermore, historical context will serve as supportive evidence for some claims related to this subchapter.

For reader's clarity, "**technology**" is defined by the author of the thesis as "items and machines created and used by humans for their convenience, efficiency, productivity, or as a result of their adaptation to the new conditions of society and the world".

4. Overview of Technology in *The Machine Stops*

From a chronological standpoint, *The Machine Stops* includes both existent technologies contemporary to the author and technologies which would be, in this context, considered highly advanced and even futuristic. The former category utilizes grounded down inventions such as airships, pneumatic post, bells or speaking-tubes which likely resemble telephones; the latter portion introduces a number of modern and, in present day, strikingly relevant technologies – automated rooms located underground and equipped with various utilities, devices offering wireless audiovisual communication, a convenient car transport system and, most importantly, an enormous central entity which controls and provides all of the aforementioned objects and items – "the Machine".

To reduce sentence condensation caused by bibliography references, any following citations of the short story *The Machine Stops* by E. M. Forster will only contain the referred page number – all remaining in-text citations will follow the standard in-text citation system.

4.1 Description and Purpose of Technology

This subchapter describes the short story's technologies in more detail and analyzes their main purpose (or purposes).

The vast majority of humanity in the short story lives underground, and people reside individually in rooms of identical size and shape – a hexagon. In their entirety, the rooms seem to resemble a beehive, and Forster explicitly compares their shape to the cell of a bee. A single room contains no freestanding furniture with the exception of an armchair and a reading desk. Despite the presence of a soft radiance, fresh air and music there are no visible devices which would create such conditions (p. 1). All the features are mutually identical within each room since any form of alternation would have to be applied in every single one of them (p. 4).

The room is equipped with all the necessary appliances and machinery which can be controlled with various buttons and levers. It provides for the inhabitant's basic needs – the author explicitly states that food and medicine are transported inside the room via pneumatic tubes (p. 12), but it is reasonable to assume that the same system is used for all the other items as well, such as clothing. Regarding hygiene, the inhabitant can make use of a bathtub which protrudes from the floor with the press of a button – depending on which one of the two buttons is used, it is filled with either warm and fragrant or cold water (p. 3).

Furthermore, the room offers services and products which are meant to improve one's quality of life in senses spiritual, cultural and social – it delivers literature, music for the purpose of meditation, and ensures the availability of communication with other people by means of speaking-tubes – thanks to them, the inhabitant can connect to the rest of society without the necessity of physical contact (p. 3). If they wish to isolate themselves instead, they can do so with the turn of the isolation knob which disables all input and output through the speaking-tube (p. 1).

The concept of a multifunctional domicile in Forster's short story is strikingly similar (and therefore comparable) to smart homes – this term refers to a "convenient home setup where appliances and devices can be automatically controlled remotely from anywhere with an internet connection using a mobile or other networked device" (Hayes, 2022). The transport of commodities such as food, clothing and medicine can be compared to today's delivery services which are, thanks to their convenience, significantly popular and vast in variety (electronics, furniture, ready-made meals, groceries etc.).

Such long-distance communication is not conducted exclusively with the use of speaking-tubes – inhabitants can also use a handheld round device which transmits an audiovisual signal to the other recipient, and vice-versa. The mechanism works independently on the isolation knob's state (p. 1). It is not able to display one's face in full detail – therefore, it is virtually impossible for an individual to detect the other caller's subtle mimics (p. 3). Additionally, a pneumatic tube post service may be used as well to communicate (p. 2).

The manner in which the device works is comparable to videoconference services such as Skype or Zoom. With such services it is not always possible to consistently study a person's face expressions in detail due to connection issues or bad video quality, similarly as it is described in the short story.

Transportation within the Machine is fairly convenient and comfortable – with the press of a button, a car arrives to the domicile. It is controlled with signals (most likely hand signals) and uses the same armchair model as the one in the hexagonal rooms (p. 6). A fairly comparable real-life equivalent is the self-driving car whose first model was created in 1939 by General Motors (Tomorrow's World Today, 2021). Outside of the Machine, the only orthodox way of travelling around is either on foot with a respirator or by airship since the outside world seems to be inhospitable for the people living underground (p. 3). This invention had existed for almost sixty years by the time Forster released the short story (Encyclopedia Britannica, n.d.).

All of the technologies mentioned so far (excluding the airship system) are created, provided and maintained by the Machine – an enormous entity which is considered the central power to its underground inhabitants. While most of its functions are purely automatic, the Machine is managed by the Committee which is further divided into the Central Committee, the main governing body of the Machine and publisher of the Book of the Machine, and the Committee of the Mending Apparatus which is responsible for maintaining and repairing the Machine with the use of an advanced mechanical system called the Mending Apparatus.

The Machine may be the most remote apparatus in *The Machine Stops* when compared with the real world in search of an equivalent. Unlike other technologies in the short story, the Machine seems to carry a more symbolical meaning – possibly, the most sensible interpretation would be to consider it as an embodiment of all modern technology which forces people to subconsciously become more and more reliant on its existence and convenience. A deeper analysis will follow in the two following subchapters.

4.2 Impact of Technology on the Society of *The Machine Stops*

The manner in which the society of *The Machine Stops* is transformed is mostly reflected in their reliance on technology. The cause for this is most likely the fact that the Machine provides for virtually all of the people's needs – from the most basic ones such as hunger to more advanced such as the social or spiritual need.

The Machine's "hospitality" – which many people would consider overgenerous – has a significant impact on the people living in its realm – as all of their needs (including the social need) are taken care of, the underground inhabitants are essentially discouraged from seeking out any human interaction beyond their own rooms. This phenomenon encompasses communication with one's own family, as is seen in the following passage where Kuno calls his mother Vashti (p. 1-2):

"Be quick!" she called, her irritation returning. "Be quick, Kuno; here I am in the dark wasting my time." But it was fully fifteen seconds before the round plate that she held in her hands began to glow. A faint blue light shot across it, darkening to purple, and presently she could see the image of her son, who lived on the other side of the earth, and he could see her. "Kuno, how slow you are." He smiled gravely. "I really believe you enjoy dawdling." "I have called you before, mother, but you were always busy or isolated. I have something particular to say." "What is it, dearest boy? Be quick. Why could you not send it by pneumatic post?

The excerpt primarily displays Vashti's impatience and aversion to having a personal conversation with Kuno, her own son. She deems her upcoming lecture about Australian music far more important and considers the five-minute dialogue with Kuno a waste of time. Judging by her behavior, it would be reasonable to assume that people living in the Machine's premises generally place a far greater emphasis on being simultaneously connected with the whole community over talking to only one person at a time.

In present time's context, the excerpt resembles the society's need to connect with the rest of the world by using the Internet – especially social media. It would be reasonable to assume that similarly as Vashti, a vast amount of people nowadays would consider this type of widespread connection more important over the kind which is more personal and intimate.

The devotion of society to the Machine is so intense that they regard it as a sort of deity. In the story, Vashti chants "*O Machine!*" multiple times – at one point she does so while kissing the Book of the Machine as some sort of ritual (p. 4-5):

Sitting up in the bed, she took it reverently in her hands. She glanced round the glowing room as if some one might be watching her. Then, half ashamed, half joyful, she murmured "O Machine! O Machine!" and raised the volume to her lips. Thrice she kissed it, thrice inclined her head, thrice she felt the delirium of acquiescence.

Vashti's act indicates the manner in which the Machine solely tends to the society's need of spirituality. As the book of the Machine contains instructions that people need to essentially solve any of their problems (p. 4), it may as well be regarded as the only necessary piece of literature for them to properly exist and function. Its characteristics and reception are similar to religious volumes such as the Bible, the Torah or the Qur'an. Kuno criticizes Vashti for her obsession with the Machine at one point, telling her that she is "beginning to worship the machine" but she fiercely denies it (p. 11).

People of *The Machine Stops* are systematically selected to lack physical strength – "*Each infant was examined at birth, and all who promised undue strength were destroyed*" (p. 11). The main reason for this is the supposed desire of a physically strong individual to connect with nature. Such a person would apparently lead an unhappy life in the Machine's conditions, and therefore is immediately euthanized after their birth. One exception that is shown in the short story is the character of Kuno – he regularly exercises to be able to explore the old world above and therefore is stronger than the ordinary individual (p. 11, 13).

The society's connection to nature is practically non-existent – to people, including Vashti, nature is unfamiliar and outlandish to such a degree that it terrifies them. Due to the fact that Forster's society spends the vast majority of its life underground, there is a substantial disconnect from anything natural. The only things people know and wholeheartedly accept are those that are mechanical and provided by the Machine. When Vashti travels in an airship to meet Kuno, she views nature outside as terrifying, even if it is just a ray of sunlight entering the window next to hear seat (p. 8):

Unless she was careful, it would strike her face. A spasm of horror shook her and she rang for the attendant. The attendant too was horrified, but she could do nothing; it was not her place to mend the blind.

At the end of the short story, the Machine collapses and comes to an unpredicted halt. As people have lost the ability to take care of themselves and their needs without its assistance, they cease to exist in the same manner and perish almost immediately afterwards (p. 24-25) since they have essentially lost their capability to live (and survive) as independent individuals. This event serves as a pinnacle to the Forster's premise – a society which is fully dependent on technology simply cannot function without it.

4.3 Technology and Author's Motivations

The short story was released by Forster in 1909, a time when the role of technology was becoming more and more significant in worldwide context – this period is referred to as the Second Industrial Revolution. Groundbreaking inventions such as the radio, the airplane or the automobile, the camera and many others were still relatively modern in Forster's time. Technological advancements ensured more effective production of goods, faster and more convenient travel, and strengthened worldwide connection between people by means of communication (Richmond Vale Academy, 2022).

It is probable that many people in the world believed that the advancement of technology was the way to get closer to the desirable utopian future. However, as the story *The Machine Stops* suggests, Forster was likely skeptical of this general vision – he saw the negative potential of technology which would cause people to be more isolated and alienated from each other as a result of their reliance on machines. He imagined that putting too much trust in technology would drastically change the humanity's character and identity – it would become disconnected from nature, from each other, and possibly most importantly, from themselves as individuals.

5. Overview of Technology in Do Androids Dream of Electric Sheep?

The novel by Philip K. Dick places an intense focus on introducing futuristic and highly advanced technologies such as humanoid robots, authentic electric animals and colonies situated on other planets, for example the planet Mars. Compared to Forster's short story, Dick portrays real-life, contemporary technologies purely as remnants of the past (p. 15), reminders of the world before it was drastically changed, physically and socially, by nuclear war.

In the same manner as in Chapter 4, any citations of the novel *Do Androids Dream of Electric Sheep* will only contain a page number correspondent to the presented descriptions and interpretations.

5.1 Description and Purpose of Technology

During a major nuclear war referred to as World War Terminus (WWT), most people on Earth died instantly while some succumbed to radiation dust poisoning later on. The majority of humans who survived, including corporations, departed to live in colonies on Mars while the rest remained on Earth (p. 11). Rick Deckard, a bounty hunter who hunts deviant androids for money is one of those people who stayed.

The first technology introduced to the reader is the Penfield Mood Organ, a device that offers a wide spectrum of emotions and moods which are referred to by different numbers. Some of them are very specific, such as moods numbered 3 or 888 which Deckard suggests to his wife to "dial" (p. 4):

"Dial 888," Rick said as the set warmed. "The desire to watch TV, no matter what's on it." "I don't feel like dialing anything at all now," Iran said. "Then dial 3," he said. "I can't dial a setting that stimulates my cerebral cortex into wanting to dial! If I don't want to dial, I don't want to dial that most of all, because then I will want to dial, and wanting to dial is right now the most alien drive I can imagine; [...]"

To safely navigate the outside, people can use the Mountibank Lead Codpiece – a protective piece of clothing which utilizes lead to protect the wearer's genitals from being sterilized due to radiation, and additionally filters radiation dust (p. 5, 14). Various accessories meant for protection from harmful radiation have existed since the beginning of the 20th century (Museum Medizintechnik, n.d.). A real-life garment which exclusively protects one's genitals, however, does not seem to exist.

Since most animals have become extinct due to WWT, they are highly valued and therefore sold as a rare commodity to portray one's social status. An alternative to live animals is the electric animal, which is considerably cheaper and, in most cases, hard to distinguish from a real animal if not closely inspected; it is also considered tremendously impolite to ask someone whether their animal is "genuine" (p. 5). These animals are able to function for long periods of time, considering that they are electric – for example, a cat has a battery that lasts for 10 years (p. 56). They also have the capability of simulating illness thanks to their "disease circuits" (p. 56-57).

Androids were formerly referred to as Synthetic Freedom Fighters before their modification to serve humans in space colonies – each human within those colonies has a right to own one by UN law (p. 12). They are highly advanced machines that have become so authentic that it is almost impossible to tell them apart from humans. Nexus-6, the newest model, has a brain that is incredibly advanced and, in terms of intellect, comparable to the human brain. All the androids (with a few exceptions) are not permitted to leave the space colonies; if any one of them escapes, they are targeted by bounty hunters on Earth who are assigned to "retire" them, i.e. destroy them by any means necessary. The newest type, Nexus-6, is almost impossible to distinguish from a human.

It is, however, possible to tell androids and humans apart by various means – the one most commonly used by Rick Deckard being the Voight-Kampff Empathy Test which detects one's capability of empathy by asking questions specifically designed to trigger an empathetic response in the subject, such as "You are given a calf-skin wallet on your birthday" (p. 38).

Androids, even the most advanced ones, are not able to feel such an emotion. The Voight-Kampff test serves as a replacement for the intelligence tests which have become obsolete due to the androids' high intellect. Although, it is hinted that androids can feel pain (p. 157).

A newer and more reliable kind of test is the Boneli Reflex-Arc Test. The principle of it is explained on page 95 – "the reflex-arc response taking place in the upper ganglia of the spinal column requires several microseconds more in the humanoid robot than in a human nervous system".

The most certain method of detecting an android is also the most painful one – the bone marrow analysis. Rick Deckard briefly explains it to Rachael Rosen (p. 41), an android who is legally permitted to reside on Earth as it is property of the Rosen Association (p. 47).

Long-distance communication is carried out with the use of "vidphones". Similarly to Forster's short story, they are devices which transmit an audiovisual signal. A call realized by a vidphone is called a "vidcall", and on many occasions it is initially intermediated by a switchboard operator before the two parties are connected (p. 85).

One of the most prominent technologies is the empathy box – it can be described as a black device with two handles and a screen. When a person grasps these handles, they "merge" with every person who is also using an empathy box at the given moment, allowing them to feel a sense of unity and connectedness. The process is called "fusion" and falls under a spiritual movement called Mercerism which will be briefly described in Subchapter 5.2. Using an empathy box, a person can "share" their emotions and other people can experience them as well, for example when Rick buys a real goat, his wife urges him to share the news using the empathy box (p. 136):

"This'll be just for a moment. You hardly ever undergo fusion; I want you to transmit the mood you're in now to everyone else; you owe it to them. It would be immoral to keep it for ourselves."

The concept of the empathy box distinctly resembles today's social media where people can share news, emotions, opinions and their thoughts with other people, even if they are virtually just faceless strangers – this helps them feel connected to the rest of the world despite the lack of direct human contact. In a sense, it can also be compared to virtual reality as the device seemingly "transfers" its users into a different world where they can, to a degree, interact with others.

Alongside standard pistols such as the .38 Magnum revolver (p. 74), the most commonly used weapon in the novel is the laser tube, a device which fires a laser beam strong enough to blast a hole through a body, for example when another bounty hunter kills Luba Luft, one of the escaped androids that Rick Deckard was supposed to hunt down (p. 61).

Transportation is mostly realized with the use of hovercars – except for the fact that they can fly, not much else is said about them in the novel. The conception of vehicles with flying capabilities has been a fairly common feature in stories of science fiction and has possibly been one of the most anticipated technologies for decades. Henry Ford, founder of Ford Motor Company, had also predicted the inevitable emergence of such a technology in 1940 – 28 years before the release of Dick's novel: "Mark my word. A combination airplane and motor car is coming. You may smile. But it will come" (Popular Science, 2001).

5.2 Impact of Technology on the Society of *Do Androids Dream of Electric Sheep?*

The following subchapter will attempt to capture the effect of technology on society as a whole. However, there are two additional aspects to be addressed – how it affects the doubtful bounty hunter Rick Deckard and John Isidore, the empathetic but mentally deficient civilian. It is necessary as the novel's story is exclusively told through their perspectives.

Technology has had a drastic effect on the survivors of World War Terminus, an enormous nuclear conflict which, supposedly forever, transformed the Earth into an irradiated ruin. The majority of its inhabitants left for space colonies on other planets as they were safer and more convenient to live in; to further convince the remaining population to emigrate, advertisement campaigns were organized (p. 5):

The saying currently blabbed by posters, TV ads, and government junk mail, ran: "Emigrate or degenerate! The choice is yours!"

The primary leverage these advertisements have on its audience is the fact that the nuclear dust, despite being weaker than before, causes the individual's intellectual and genetic properties to deteriorate, deeming them infertile and mentally deficient. Such people are referred to as "specials" or "chickenheads", and are excluded from "normal" society (p. 12):

Once pegged as special, a citizen, even if accepting sterilization, dropped out of history. He ceased, in effect, to be part of mankind.

The widespread extinction of fauna has caused even the most common species to skyrocket in value. In consequence, animals have become a symbol of prestige, improving the social status of any person that owns a live one. The less fortunate individuals can own an electric equivalent whose appearance is seemingly the same – these animals, however, hold a drastically lower value than its living counterparts. Due to this, a large social divide has formed – people are often unwilling to disclose their electric animal's true identity as they would be considered "lesser" by the rest of society, and those who own a real one consider themselves socially superior. Barbour, a horse owner, expresses seemingly deep pity for his neighbor Rick Deckard who reveals that his own sheep is indeed electric, calling him a "poor guy" and asking him if it has "always been this way" (p. 8).

Since the world, previously brimming with life, has mostly been deserted due to extraterrestrial colonization, many remaining individuals experience a significant degree of loneliness – therefore, they tend to feel more isolated. This seems to apply twice as much in the case of "specials", a good example being the character of John Isidore who lives completely alone in a building that used to house thousands of people (p. 11).

The most popular way of dealing with loneliness and isolation seems to be the usage of an empathy box as it "merges" all its users together and connects them spiritually. The technological religion referred to as Mercerism correlates with the users of empathy boxes. It centers around Wilbur Mercer, a Christ-like figure who experienced great suffering climbing up a hill while having rocks thrown at him.

The increasingly authentic sentience and human-likeness of androids has a crucial impact on society, but it is most remarkable in the case of Rick Deckard. As a bounty hunter, it is his duty to eliminate any androids who have escaped to Earth, but as the novel progresses, his violent interactions with them cause him to reflect on the morality of killing sentient beings. He deeply contemplates the reason why androids flee from space colonies (p. 145):

Do androids dream? Rick asked himself. Evidently; that's why they occasionally kill their employers and flee here. A better life, without servitude.

Nearing the end of the novel, Deckard decides to resign from his job as he cannot cope with taking androids' lives any further.

The character of John Isidore is, as mentioned before, a very lonely one. As he had failed a mental faculties test before, he is excluded from society, similarly to androids. Paradoxically, unlike them, he appears to be an extremely empathetic individual. Even though his own physical and mental limitations are a direct result of technology (WWT), he is fascinated by the advanced technology of androids and is drawn to their human-like qualities. At one point, he learns that Roy Baty and Pris Stratton who he shelters from bounty hunters are androids (p. 129):

"You're androids," Isidore said. But he didn't care; it made no difference to him. "I see why they want to kill you," he said. "Actually you're not alive." Everything made sense to him, now. The bounty hunter, the killing of their friends, the trip to Earth, all these precautions. "When I used the word 'human,'" Roy Baty said to Pris, "I used the wrong word." "That's right, Mr. Baty," Isidore said. "But what does it matter to me? I mean, I'm a special; they don't treat me very well either, like for instance I can't emigrate."

5.3 Technology and Author's Motivations

The main idea to write the novel came from the author's research for his novel *The Man in the High Castle* (1962). As Dick studied various documents about the Nazis, he noticed that despite their high intelligence they lacked emotional depth to such a degree that they could not be referred to as normal humans; Dick would refer to them as "robots" or "androids". By the time he was writing *Do Androids Dream of Electric Sheep* (1968), he had realized that the nature of a Nazi's personality was dangerously lethal to such a degree that he considered it impossible to change or "cure" them in any way. Because of this, the only viable option, according to Dick, would be to fight and eliminate them (YouTube, 2017, 3:28-5:10). However, he also raises an interesting rhetorical question which captures one of the main messages of his novel (5:11-5:35):

Now, the problem then would be that would we become like the androids in our very effort to wipe them out, you see? Would we inhale the contagion in the very act of trying to abolish the contagious element? So a further problem is then created [...] the paradox of "if you kill a person because he's inhuman, do not become inhuman in the act of killing him".

As the nuclear bombing of Japanese cities Hiroshima and Nagasaki was one of the most infamously significant historical events that caused the end of the Second World War, it is likely that Dick saw inspiration in the extreme lethality of atomic bombs and therefore decided to include them in the novel for world-building.

The last aspect worth mentioning is the introduction of the empathy box and Mercerism. This can be interpreted as an attempt to prevent creative exhaustion which was typical for the New Wave movement time period (as mentioned in Subchapter 1.1).

Considering the tone of Dick's writing as well as his reported research on the Nazis, it is fairly evident that he did not utilize highly advanced technology to warn the public of it – at least primarily, as Forster had done in his short story *The Machine Stops*. Dick's novel seems to be more of a philosophically imbued response to the cold, calculated and highly inhumane practices of Nazi Germany during the Second World War.

An article by The Jewish Chronicle emphasizes on various aspects which resemble Jewish history, culture and religion in both the novel and the film adaptation *Blade Runner* (1982). Interestingly, unlike the thesis' suggested interpretation, the author delineates the bounty hunters (or blade runners) as the Nazis and the androids as the Jews (Abrams, 2022).

6. Overview of Technology in Ready Player One

Technology-wise, *Ready Player One* seems to be the most grounded out of the three selected works. While the author has greatly extended on the possibilities of virtual reality, other technologies that are present in the novel lack in the extravagancy that Forster and Dick managed to capture in their works. This, however, does not necessarily make the novel worse in terms of quality.

In the same manner as in Chapter 4 and Chapter 5, any citations of the novel *Ready Player One* will only contain a page number correspondent to the presented descriptions and interpretations.

6.1 Description and Purpose of Technology

The main technological highlight of *Ready Player One* is the OASIS (Ontologically Anthropocentric Sensory Immersive Simulation) – a massive virtual reality (VR) network which is used globally by the vast majority of the population on a daily basis. It is accessible to anyone with an internet connection, a VR visor and haptic gloves. The network is owned and maintained by GSS, or Gregarious Simulation Systems. However, there is also the User Council which is chosen through the OASIS elections, similar to general government elections (p. 201).

The OASIS is highly comparable to the "metaverse", a large virtual reality network which was presented by Mark Zuckerberg in 2021. He perceives it as "the successor to the mobile internet" (Milma, 2021).

There is an enormous number of different worlds and planets which players can visit. Each player has their own avatar which they can customize to look however they want, from realistic representations of themselves to fantastical creatures – however, this usually costs money.

The OASIS has its own economy which is based on a virtual currency called "credits" – compared to real-life currencies such as the dollar, pound, euro or yen, it is incredibly stable and higher valued (p. 27-28). With credits, players can buy various items (weapons, magical artifacts etc.), clothing and vehicles. They can also teleport between different worlds for a fee (p. 31) or order food and drinks in virtual restaurants which is then delivered to the player in real life (p. 220).

Anonymity is an important aspect of the network – the user's real name, fingerprints and retinal patterns are stored on their account, but such information is encrypted and unavailable to anybody, including GSS employees (p. 28). While the network is generally recognized as a videogame, it is also used for education through the use of the OASIS public school system. It seems to be a generally better option since public schools in real life are underfunded and overcrowded (p. 31).

Visors used to enter the OASIS have many variations in different price ranges. The one that Wade initially uses resembles swimming goggles and therefore blocks out all external light. It contains earbuds that automatically plug inside the user's ears and two built-in stereo microphones (p. 26). He describes the wireless variation as "light-years ahead of the clunky virtual-reality goggles available prior", most likely comparing them with the real-world VR visor which would be objectively behind in terms of technological advancement.

Users are also required to use haptic gloves so they can control their own avatar. Complemented by the visor, they make the player feel as if they were actually interacting with the virtual world around them, ensuring a seamless, immersive experience (p. 58). The picture is drawn right into the user's retinas – in the case of more expensive models at a very high framerate and resolution (p. 192). Thanks to the "emotion feature", the system (i.e. visor and haptic gloves/equipment) is able to scan the user's facial expressions and body language, making their avatar mirror them in the OASIS (p. 30).

Haptic technology to navigate oneself in the OASIS is not only limited to lightweight gloves – there are outfits with haptic capabilities covered with an entire exoskeleton as well as "a network of artificial tendons and joints that could both sense and inhibit" one's movements, such as the Shaptic Bootsuit. This piece of equipment allows the player to feel stimuli that happen inside of the OASIS, such as punches or gunshots for a painful but authentic experience (p. 192). Furthermore, the player can use an expensive "omnidirectional treadmill", i.e. a device that allows them to move in any direction while staying in one place (p. 193). The last major piece of technology regarding this technological area is the "Shaptic Technologies HC5000 fully adjustable haptic chair" (p. 191-192):

It was suspended by two jointed robotic arms anchored to my apartment's walls and ceiling. These arms could rotate the chair on all four axes, so when I was strapped in to it, the unit could flip, spin, or shake my body to create the sensation that I was falling, flying, or sitting behind the wheel of a nuclear-powered rocket sled hurtling at Mach 2 through a canyon on the fourth moon of Altair VI.

Some clothing such as jeans or sweaters is labeled as "dichotomy wear" – this means that it is wired specifically for OASIS use, making it more convenient to control the virtual avatar (p. 300).

Other accessories which improve one's quality of life when using the OASIS are the 360-degree AboundSound audio system, the Olfatrix "smell tower" which generates around two thousand different odors (p. 192) and the ACHD, or "anatomically correct haptic doll" for sexual encounters inside the OASIS (p. 193):

ACHDs came in male, female, and dual-sex models, and were available with a wide array of options. Realistic latex skin. Servomotor-driven endoskeletons. Simulated musculature. And all of the attendant appendages and orifices one would imagine.

In cities, people can travel by "autocabs" – automatic taxis. The customer enters the vehicle, types out a desired address on the touchscreen and a synthesized voice calculates and reports the estimated time to reach the destination (p. 165). Vehicles that travel outside of large cities (such as long-distance buses) are reinforced with metal plates and bulletproof glass; additionally, they are protected by guards. OASIS visor connectivity is also available. Wade describes the bus that he takes to Columbus as a "rolling fortress" (p. 163).

Hotels (such as the one Wade checks in at after arriving in Columbus, p. 164) provide "one-room efficiency apartments" which have virtually no furniture – they only offer OASIS connectivity and, especially in Wade's case, high security with the help of some technological advancements which will be described in the next and last paragraph. Other than that, the only other distinct features of these rooms are a small "ergonomic kitchen" and an embedded toilet and shower unit (p. 191).

In terms of security, there is a number of ways to protect oneself. Wade's apartment in Columbus has an airtight armor-plated vacuum sealed WarDoor which is made out of titanium (p. 191, 270). The whole room is reinforced with a titanium alloy SageCage which protects the walls, floor and ceiling. To avoid any direct physical contact, Wade's interactions with other people (such as delivery service) are done with the help of a steel-reinforced airlock which is able to scan parcels for their contents (p. 191). Weapons and even body armor can be bought, for example, in vending machines referred to as "defense dispensers". Firearms' control is modified with a fingerprint scan feature which only allows the user to fire it. This feature is similar to the one present in Dick's novel (p. 73-74). They also have a built-in timer that prevents them from firing for 12 hours – a "cooling-off period" (p. 300-301).

6.2 Impact of Technology on the Society of Ready Player One

Cline offers relevant social critique on humanity's inability to advance technologically without damaging planet Earth in the process, for example by the immoderate use of fossil fuels. The society situated in the near future of 2045 is burdened with global warming, widespread poverty and unemployment, war and constant violence, and a forthcoming depletion of critical resources (p. 17-18).

Due to a widespread housing shortage, most people live in "the stacks", a modified, more space-conserving version of a trailer park where the trailers are stockpiled on top of each other (p. 21):

Every stack in our park stood at least fifteen mobile homes high (with the occasional RV, shipping container, Airstream trailer, or VW microbus mixed in for variety). In recent years, many of the stacks had grown to a height of twenty units or more. This made a lot of people nervous.

Possibly the most striking and impactful aspect of the world of *Ready Player One* is the incredibly dominant role of the OASIS – basically everyone uses it to connect with other people. In Wade's case, there are evident signs of excessive use of the system – he recognizes this and calls himself an "OASIS addict" (p. 30). Since the virtual reality network is not exclusively used for gaming but also education, online conferences and other social interactions, people are practically forced by peer pressure to partake. The assurance of anonymity also helps make the society of Cline's novel more inclined to take part in the virtual world (p. 28). Referring back to the first paragraph of this subchapter, it is also apparent that many people see the OASIS as means of their escapist tendencies – it is a convenient tool to help them avoid the irreversible consequences of modern humanity and technology in the outside world.

Almost every technology in the novel is somehow tied to the OASIS – it is evidently the central point of Cline's attention as he gradually introduces more and more devices, machines and systems which either provide or modify interaction with the virtual reality network (referred to in the previous chapter). Wade, as well as other characters, spends so much time in the OASIS that it negatively affects his health (p. 30):

My bankrupt diet of government-subsidized sugar-and-starch-laden food was a contributing factor, but I was also an OASIS addict, so the only exercise I usually got back then was running away from bullies before and after school.

Social isolation plays a significant role in *Ready Player One* – there is barely any direct physical interaction between people – most of the time, the reader sees what is inside the OASIS through Wade's eyes, and when Wade is not using the OASIS, he is usually on his own. This aspect greatly intensifies the theme of escapism which is almost always present in the novel.

As the OASIS essentially dominates the world and its society, it consequently attracts the interest of corporations such as the IOI, especially after the death of James Halliday, founder of GSS. In his farewell video, he launches a contest to find the "easter egg" – the first player to locate it inherits the whole virtual network along with all Halliday's possessions. IOI sees this as an opportunity to gain ownership of the OASIS and transform it into an intensively monetized VR network with a monthly subscription, devoid of anonymity and free speech. Many people, including Wade, see this as an outcome which would destroy the network's essence of freedom forever (p. 33):

The moment IOI took it over, the OASIS would cease to be the open-source virtual utopia I'd grown up in. It would become a corporate-run dystopia, an overpriced theme park for wealthy elitists.

IOI serves as the main antagonist entity in the novel and is portrayed as a villainous, cold organization which sees no issue in resorting to evil measures to acquire what it wants. It has significant power over the lives of people, inside or outside of the OASIS, and coerces them into debt so they become eligible for "mandatory indenture" (p. 270).

The higher degree of availability of weapons, defensive mechanisms and other measures for protection seems to be an adaptive response to the skyrocketing rate of violence in the world of *Ready Player One*.

6.3 Technology and Author's Motivations

While the essence of Cline's novel appears to be primarily derived from his fascination with popular media, videogames and technology, there is a noticeable degree of sharp social critique, especially regarding relevant global problems mentioned in Subchapter 6.2. However, unlike *The Machine Stops*, for example, the theme of a "warning against technology" does not seem to be of much significance throughout the rest of the novel. There is always a higher degree of fascination rather than caution.

As the book took Cline around 10 years to finish, it is reasonable to say that his novel was not a reaction to the emergence of modern virtual technology – the first headset which marked this imaginary milestone would be the Oculus Rift whose first model was officially released on March 2016 (Lang, 2019). Coincidentally, the Oculus corporation's foundation was announced in the same month that the novel was released – August 2011. Modern VR headsets as they are known today, however, had still not existed at that time (Shepherd, 2018).

To conclude this brief subchapter, it is fairly clear that Cline's intent to write *Ready Player One* did not primarily stem from the need to warn people of modern technology or the dangers of virtual reality. This claim can be confidently supported with a quote of Cline from one of his interviews with Slate Magazine (Brogan, 2015):

Virtual reality would be the ultimate escape, a copy of reality that's the way you want it to be, which makes human beings dodge to some degree, but it's also dangerous, as the real world, where our real lives happen, becomes less urgent.

But I wasn't trying to write a cautionary tale with Ready Player One -I was just trying to write a fun science-fiction action adventure story in the vein of the stories I loved.

Conclusion

Reflecting back to the project's introduction, I believe that I have succeeded in providing an elaborate and descriptive analysis of the technological aspect in the selected works of fiction, and that I have sufficiently drawn comparisons between the fictional technologies and their real-life counterparts to understand the works' true nature. Despite the fact that they all fall under the same literary genre, I have found that technology plays a noticeably different role in each title and is not always used as means to tell a technological cautionary tale, especially in Cline's novel.

The most striking similarity that I deem important of mentioning is the fact that in every analyzed work, the theme of social isolation is virtually omnipresent. Even though the inclusion of such a theme may not have always been intentional, all three works seem to have reached a similar conclusion – while the intent of modern technology is to bring humanity closer together, it unavoidably contrasts with its real consequences where people appear to be even more isolated from each other than before.

Regarding the theoretical section, I think that I have successfully laid the groundworks to analyze the technological aspect of the works of fiction more easily in the practical section. Nevertheless, in some cases, it has been fairly difficult to truly understand the nature and role of technology in the titles when conducting qualitative text analysis. I had expected the authors' writing motivations to be similar, if not the same – to warn the public of the dangers of technology. After deeper research, however, I have found that not necessarily to be the case as the only title which would fit the description of a "technological cautionary tale" is Forster's *The Machine Stops*. In comparison, as Dick wrote *Do Androids Dream of Electric Sheep* to capture the cold and calculated demeanor of the Nazis during the Second World War, the novel did not seem to serve as an explicit warning against the dangers of technology. The absence of a warning similar to Forster's short story is also evident in Cline's novel *Ready Player One* as he has decidedly stated that he "was not trying to write a cautionary tale".

I find the practical section to have been the most challenging part of my research process, as it necessitated an in-depth understanding of the nature and essence concerning the impact that technologies had on the individual fictional societies.

Résumé

Bakalářská práce se věnuje hloubkové analýze tří vybraných titulů žánru dystopického science fiction – Stroj se zastaví od Edwarda Morgana Forstera, Sní androidi o elektrických ovečkách? od Philipa Kindred Dicka a Ready Player One: Hra začíná od Ernesta Christy Cline. Primárně se zaměřuje na technologie a jejich roli v daných fiktivních světech, a to hlavně na jejich účel a vliv na společnost, ale také zkoumá motivace autorů k napsání a následnému vydání těchto knih. Teoretická část definuje a hlouběji vysvětluje pojmy "utopie", "dystopie" a "science fiction". Taktéž zachycuje vývoj dystopického románu a science fiction a jejich postupné spojení v jeden žánr. Následuje popis života a díla jednotlivých autorů a kritické ohlasy k jejich vybraným dílům, čímž je naznačena jejich relevance a kvalita. Praktická část pak za pomocí hloubkové textové analýzy popisuje a analyzuje technologie těchto děl. Analýza je u každého díla strukturována do tří hlavních částí – obecný popis a účel technologií, následně jejich vliv na fiktivní společnost a nakonec je završena interpretací motivací autorů k vytvoření vybraných děl. Množství těchto fiktivních technologií je porovnáváno s technologiemi reálného světa či podobnými technologiemi v ostatních titulech. Práce dospěla k závěru, že přestože jsou technologie vždy jedním z ústředních motivů, zaujímají pokaždé jinou roli a nejsou vždy využity jako prostředek k "varování" před nebezpečím moderních technologií, což je v daném žánru častým úkazem. Nejnápadnější podobností napříč všemi díly je námět sociální izolace, která je technologiemi způsobena, přestože je paradoxně jejich účelem lidi mezi sebou spíše propojovat. Zároveň je nutno zmínit různorodost motivací autorů k napsání daných děl – fakt, že explicitní varování před nebezpečím moderních technologií uplatnil ve svém díle pouze Edward M. Forster ve Stroj se zastaví boří původní domněnku, že takový záměr měl každý z autorů.

Annotation

Jméno a příjmení	Filip Turna
Katedra nebo ústav	Ústav cizích jazyků
Vedoucí práce	Mgr. Petr Anténe, M.A., Ph.D.
Rok obhajoby	2023

Г	T
Název práce	Komparace technologií v našem světě a ve světě dystopického science- fiction: Stroj se zastaví vs. Sní androidi o elektrických ovečkách? vs. Ready Player One: Hra začíná
Název v angličtině	A comparison of technologies in our world and the world of dystopian
	science-fiction: The Machine Stops vs. Do Androids Dream of Electric
	Sheep? vs. Ready Player One
Anotace práce	Bakalářská práce se věnuje hloubkové analýze tří vybraných titulů žánru
	dystopického science fiction - Stroj se zastaví od Edwarda Morgana
	Forstera, Sní androidi o elektrických ovečkách? od Philipa Kindred
	Dicka a Ready Player One: Hra začíná od Ernesta Christy Cline. Je
	rozdělena na dvě hlavní části: teoretickou a praktickou část. Cílem
	teoretické části je přiblížit vývoj dystopického románu a science fiction
	a jejich následného spojení v jeden žánr, popsat život a dílo vybraných
	autorů a nastínit přesah tohoto žánru mimo literaturu. Praktická část
	popisuje a analyzuje technologie vybraných děl. U těchto technologií je
	pak popsán jejich účel a vliv na fiktivní společnost. Každé dílo je
	završeno interpretací motivace autora k jeho vytvoření.
Klíčová slova	utopie, dystopie, science fiction, moderní technologie, společnost,
	britská literatura, americká literatura, Edward M. Forster, Philip K. Dick,
	Ernest Cline
Anotace v angličtině	The bachelor's project is concerned with an in-depth analysis of three
	selected titles of the dystopian science fiction genre – <i>The Machine Stops</i>
	by Edward Morgan Forster, Do Androids Dream of Electric Sheep? by
	Philip Kindred Dick, and <i>Ready Player One</i> by Ernest Christy Cline. It
	is divided into two main sections – theoretical and practical. The aim of
	the theoretical section is to expound the development of the dystopian
	novel and science fiction and their subsequent combination into one
	genre, describe the life and work of the selected authors and delineate
	the genre's overlap outside of literature. The practical section describes
	and analyzes technologies of the selected works. Then, the technologies'
	purpose and influence on the fictional society is described. Each work is
	then completed with an interpretation of the author's motivations to
	create it.
Klíčová slova v angličtině	utopia, dystopia, science fiction, modern technology, society, British
	literature, American literature, Edward M. Forster, Philip K. Dick, Ernest
	Cline
Přílohy vázané v práci	-
Přílohy vázané v práci Rozsah práce Jazyk práce	39

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