

Demonization of virtual reality in modern media culture

Nataliia Bukina ^{1*}, Svitlana Ostapchuk ², Ninel Sydoruk ³, Olga Melnyk ⁴, Inna Semenets-Orlova ⁵

¹ National Aviation University, Ukraine; nataliia.bukina@npp.nau.edu.ua

² National Aviation University, Ukraine; sup-ss@ukr.net

³ Zhytomyr Ivan Franko State University, Ukraine; sydorukng@ukr.net

⁴ Chernihiv Polytechnic National University, Ukraine; 1747729@ukr.net

⁵ Interregional Academy of Personnel Management; Sumy State Pedagogical University named after A. S. Makarenko, Ukraine; innaorlova@ukr.net

* Corresponding author: nataliia.bukina@npp.nau.edu.ua

ORCID ID: 0000-0002-5993-6562

Article History

Received 2023-00-00

Revised 2023-00-00

Accepted 2023-00-00

Published 2023-00-00

Keywords

Media culture

Demonized portrayal

Cyberpunk

Virtual reality

Mass media

Fiction

How to cite?

Copyright © 2019 The Author(s)



Abstract

This study aimed to examine the demonization of virtual reality in modern media culture, with a focus on understanding the reasons behind the negative portrayal of virtual reality technologies. The purpose of this article was to identify and analyze the prevalent narratives and discourses surrounding virtual reality in contemporary media culture, and to explore the underlying factors contributing to its demonization. In this research, a qualitative study design was employed, utilizing content analysis of media articles, contemporary literary works, and scientific viewpoints from futurologists and researchers who study virtual reality technology and mass media. To identify recurring themes and patterns in virtual reality presentations, a thematic analysis approach was used. The analysis revealed that virtual reality was often portrayed negatively in media culture, with its potential risks and drawbacks emphasized over its benefits and possibilities. The findings also highlighted recurring themes, such as concerns about the impact of virtual reality on mental health, disconnection from reality, and ethical dilemmas. The demonized portrayal of virtual reality in modern media culture is influential for virtual reality developers, policymakers, consumers, and media representatives, such as fiction, creative, and fantasy writers, journalists, critics, and other stakeholders. It is

crucial to understand the reasons behind this negative portrayal to develop strategies for addressing concerns, promoting responsible use of virtual reality, and fostering a more balanced and nuanced understanding of its potential benefits and challenges.

13

14

15



16

Introduction

17 The modern world is rapidly advancing, with society constantly improving innovative
18 technologies that simplify communication and gradually automate human work, among other
19 things. At the same time, the internet facilitates the consolidation of global socio-political forces,
20 providing significant opportunities for the development of international business and culture,
21 while bringing together millions of people for virtual communication. However, it also becomes
22 a territory of control by various legal and illegal entities over personal data, pathological media
23 influence, informational warfare, cyber-attacks, and various fraudulent schemes.

24 Against the backdrop of cyber and real military confrontations, economic and political crises in
25 nations, negligence towards the environment, and spiritual entropy, the "side effects" of
26 progress in the field of technological advancement raise understandable fears and concerns
27 about their future among individuals. These fears are reflected in futurists' forecasts and leave an
28 impact on media culture.

29 Virtual reality (VR) has emerged as a groundbreaking technology with the potential to
30 revolutionize various industries, including gaming, entertainment, education, and healthcare.
31 Despite its promising applications, VR has often faced criticism and negative portrayals in
32 modern media culture. In the collective unconscious, the internet is demonized, and virtual
33 reality shapes a demonic perspective of the world in individuals.

34 This *article aims* to explore the demonization of virtual reality in media narratives and the
35 underlying factors contributing to its negative portrayal. The *main tasks of this study* are to
36 critically analyze the prevalent narratives and discourses surrounding VR technology in modern
37 media culture, identify the key themes and patterns in the demonization of VR, and investigate
38 the possible reasons behind this negative portrayal. The analysis of how VR is portrayed in
39 media articles, opinion pieces, and online discussions will uncover societal attitudes and beliefs
40 that shape people's perceptions of this cutting-edge technology. Our research is poised to yield
41 significant and insightful discoveries concerning the public's perception of VR.

42 *Research Hypothesis.* Based on preliminary observations, we hypothesize that the demonization
43 of virtual reality in modern media culture is influenced by several factors, including fear of the
44 unknown, concerns about the potential social and psychological impacts, and the influence of

45 pre-existing cultural narratives surrounding technology.

46 The *purpose of this research* is to unravel the complexities surrounding the demonization of VR
47 in modern media culture and provide a nuanced understanding of the factors contributing to
48 this negative portrayal. By addressing these issues, we aim to contribute to a more informed and
49 balanced public discourse on the societal implications of virtual reality technology. Ultimately,
50 this study seeks to encourage critical thinking and promote a more constructive and accurate
51 representation of VR in media narratives.

52 **Theoretical Framework**

53 Virtual reality technology has presented itself as a groundbreaking innovation with the potential
54 to revolutionize various industries. However, the portrayal of VR in modern media culture is not
55 always positive, often leading to its demonization. This literature review aims to explore the
56 reasons behind the demonization of virtual reality in contemporary media narratives and identify
57 key themes and patterns in the negative portrayal of this technology.

58 ***Perception of Virtual Reality in Media***

59 The perception of virtual reality in media narratives plays a crucial role in shaping public opinion
60 and attitudes towards this technology. Throughout the literature, researchers have highlighted
61 the tendency of the media to sensationalize and emphasize the potential negative consequences
62 of VR. Thus, Greer (2016) argues that the media's demonization of VR stems from a fear of the
63 unknown and the uncertainty surrounding this emerging technology. This fear is further
64 exacerbated by the media's focus on dystopian narratives and cautionary tales about the
65 dangers of VR (Greer, 2016).

66 In a similar vein, Turner (2022) suggests that media representations of VR often prioritize
67 sensationalism over objective reporting, contributing to the demonization of the technology. He
68 argues that journalists often rely on dramatic headlines and anecdotal evidence, creating a
69 distorted perception of the potential risks associated with VR.

70 Additionally, Farmer (2023) explores the role of cultural biases in the demonization of virtual
71 reality. The scholar asserts that preconceived notions about technology and its impact on society
72 influence media narratives, leading to the portrayal of VR as a threat to traditional values and
73 human connection (Farmer, 2023).

74 ***Effects on Public Perception***

75 The negative portrayals of VR in the media have significant implications for public perception
76 and acceptance of this technology. Research by Spiegel (2018) highlights that media coverage
77 heavily influences public opinion, shaping attitudes towards VR as a novel and potentially
78 harmful technology. The demonization of VR can hinder its adoption and hinder technological
79 progress in various industries (Juma, 2016).

80 Furthermore, Bailenson (2018) explores the impact of media narratives on the development of

81 regulatory policies regarding VR. He asserts that the demonization of VR in the media often
82 leads to calls for stricter regulations, potentially stifling innovation and hindering the exploration
83 of the technology's full potential.

84 ***Social and Cultural Implications***

85 The demonization of virtual reality in media culture impacts the broader social and cultural
86 landscape. Negative portrayals, often driven by sensationalism and fear, fuel skepticism and
87 apprehension among the public. These negative associations can create a reluctance to adopt
88 and embrace VR, hindering its widespread acceptance and potential benefits. As noted by
89 Massey & Tatla (2016), such negative media representations may contribute to a "moral panic"
90 around VR, perpetuating misconceptions and exaggerated fears. Media narratives often focus on
91 dystopian scenarios or potential dangers associated with VR, creating a sense of uncertainty and
92 unease. Research by Slater et al. (2020) suggests that these negative representations can
93 influence public perceptions, leading individuals to view VR as a potentially harmful technology.
94 This skepticism and fear can impede the adoption and exploration of VR in various domains,
95 including education, entertainment, and healthcare.

96 Negative media representations of virtual reality can also impact public policy and regulatory
97 decisions surrounding its implementation. Politicians, lawmakers, and regulatory bodies may
98 form their opinions based on media narratives, potentially imposing restrictive measures or slow
99 down the development of VR. As argued by Tufekci (2014), demonization in the media can
100 influence policymaking, leading to a cautious approach that may stifle innovation and hinder the
101 realization of VR's potential benefits. Understanding the social and cultural implications of the
102 demonization of virtual reality is crucial for promoting a more balanced and informed view of
103 this technology. Media literacy and critical analysis of media narratives are essential in
104 challenging negative portrayals and fostering a nuanced understanding of VR's capabilities and
105 limitations. Scholars like Ward (2018) emphasize the need for responsible journalism and
106 accurate reporting to counteract the demonization of VR in media culture.

107 ***Factors Contributing to the Demonization***

108 Several factors contribute to the demonization of virtual reality in modern media culture. First,
109 virtual reality technology is relatively new and unfamiliar to many people. The novelty of VR can
110 evoke fear and skepticism, as individuals may be uncertain about the potential impact it may
111 have on their lives (Michalik et al., 2022). This unfamiliarity can lead to negative portrayals in
112 media, with a focus on the unknown and potential negative consequences.

113 Secondly, media outlets often highlight accidents or incidents related to virtual reality, further
114 amplifying the perception of potential dangers and risks associated with the technology (Shin et
115 al., 2021). While such incidents may be isolated and not representative of the overall VR
116 experience, they attract significant attention and reinforce negative narratives.

117 Moreover, the influence of sensationalism in media culture exacerbates the negative aspects

118 associated with virtual reality. Sensationalized reporting tends to prioritize attention-grabbing
119 headlines and stories, often focusing on the potentially harmful or dystopian aspects of VR
120 rather than its benefits (Kozyreva et al., 2020). This approach can create an alarming narrative
121 around virtual reality in the minds of the public. In addition, virtual reality raises ethical and
122 social concerns that are often exploited in media narratives (Jones, 2017). For example, questions
123 regarding privacy and data security, the blurring of virtual and real-world boundaries, and the
124 potential impact on social interaction and emotional well-being are often highlighted through a
125 negative lens in media discussions. These concerns are valid and warrant attention but can
126 contribute to a biased portrayal of virtual reality.

127 Resistance to technological change is not uncommon in society, and virtual reality is no
128 exception. Some individuals may feel threatened by the advancements and potential disruption
129 that VR brings. This resistance can manifest as skepticism, fear, and a negative portrayal of the
130 technology in media narratives.

131 ***Counteracting the Demonization***

132 Some researchers, industry professionals, and VR enthusiasts are actively working to promote
133 positive narratives surrounding virtual reality. They highlight the benefits and potential of VR
134 technology, showcasing its applications in fields such as education, healthcare, and therapy (de
135 Regt et al., 2021; Nelson et al., 2020). By emphasizing the positive impact and transformative
136 possibilities of VR, these individuals aim to reshape public perception and challenge the
137 negative portrayals in media. Actively promoting positive narratives is essential in countering the
138 demonization of virtual reality. Highlighting the potential of VR in improving human experiences
139 and fostering empathy can help shift public perception and counteract negative media
140 representations.

141 Engaging in public discourse is another crucial strategy in combating the demonization of virtual
142 reality. Researchers, professionals, and VR enthusiasts actively participate in discussions,
143 conferences, and public events to provide accurate information and debunk misconceptions
144 surrounding VR technology (Zhang et al., 2019).

145 Han et al. (2022) emphasize the importance of engaging in public conversations and debates to
146 address concerns and provide a balanced understanding of virtual reality. By presenting
147 evidence-based arguments, sharing success stories, and addressing ethical concerns, these
148 individuals aim to provide a more nuanced perspective and challenge the negative narratives
149 presented in the media.

150 One key approach in countering the demonization of VR is debunking the misconceptions
151 surrounding the technology. By providing accurate information, researchers and professionals
152 can address common myths and misconceptions, such as the idea that VR isolates individuals or
153 causes adverse health effects.

154 In a study conducted by Sinatra (2022), the author highlights the importance of debunking

155 misconceptions to reshape public perception of VR. He argues that by providing accurate
156 information about the safety measures, ethical practices, and potential benefits of VR, individuals
157 can make more informed decisions and overcome the fear and skepticism associated with the
158 technology. Thereby, through promoting positive narratives, engaging in public discourse, and
159 debunking misconceptions, researchers aim to reshape public perception and highlight the
160 potential of VR technology. By challenging the negative portrayals and providing accurate
161 information, they contribute to a more balanced understanding of VR and its implications.

162 **Methods**

163 In academia, there is no single definition of virtual reality, as the concept has historically evolved
164 through the development of ontological, social, and multicultural knowledge about the world
165 and as a result of technological advancements (Babbage, 1898; Baudrillard, 1994; Wiener, 2019;
166 Gutenberg et al., 2018; Deleuze, 2019; Descartes, 1998; Loveless, 2002, and others). Thus, the
167 term "virtual reality" is a complex concept that encompasses various fields such as world
168 philosophical thought, cultural studies, cybernetics, computer-mediated communication, and
169 more.

170 As noted by Ukrainian scientist Dupak (2012), virtual reality can be understood as a specific type
171 of symbolic reality created based on computer and non-computer technology. It realizes the
172 principles of feedback, enabling individuals to interact effectively within the virtual reality world
173 [30].

174 Danilyan et al. (2023) argue that virtualization, on one hand, is an external process involving the
175 replacement of information in any form by means of information technology, structuring and
176 transforming images using communication networks. On the other hand, it is an internal process
177 as the perception of the received image and extraction of information from it depend solely on
178 the individual (Danilyan et al., 2023).

179 The main focus of our study is how and why virtual reality can acquire a demonic connotation in
180 media culture. Media culture is a unique phenomenon where spiritual, philosophical, artistic,
181 historical, and cultural human achievements coexist in symbiotic and synergistic relationships.
182 One key concept to discuss in this context is cyberpunk. Cyberpunk is a multicultural
183 phenomenon that emerged in Western culture in the 1980s, encompassing literature, film,
184 music, games, and more (McFarlane et al., 2020). It represented a protest movement aimed at
185 protecting society from excessive technological influence, total capitalization of life, and the
186 devaluation of humans as unique individuals. Cyberpunk also emphasized the protection of the
187 environment and gained significant resonance in society.

188 Cyberpunk, as a "child" of science fiction literature, was actively written about during that time
189 by authors such as William Gibson, Rudy Rucker, Bruce Sterling, Lewis Shiner, and others.
190 Although interest in cyberpunk somewhat diminished over time, we are now witnessing a
191 renewed activity among writers in the genre, such as Briggs (2013), Lu (1993), and others.

192 Taking into account the specific experience of the postmodern era, characterized by hyperreality,
193 rhizomatic structures, chaos, the tendency to proclaim the "end of the author" and the "end of
194 the world," symbolic codes of doubling and multiple meanings, issues of alienation,
195 dehumanization of the world, consumer society, and simulacra, many scholars see
196 manifestations of cyberpunk within it. Furthermore, as noted by Chougule et al. (2019),
197 cyberpunk provides a fruitful understanding of technologically mediated aspects of the
198 postmodern experience.

199 Researcher Cavallaro (2000) draws parallels between the gothic and postmodern discourses in
200 cyberpunk, which is also valid, especially considering the illusory nature of virtual reality and the
201 gothic Otherness that can immerse an individual in any dream or nightmare, capable of
202 awakening the darkest manifestations of the human unconscious, bringing forth the Shadow in
203 its most menacing form.

204 Through the examination of cyberpunk literary texts, some researchers, in their scholarly
205 investigations, focus on themes of gender and sexuality in correlation with technology (Zheng,
206 2023); questions of morality and religion in a utopian technological world (Calvert, 2005); and
207 the consequences of blending high technologies with low-level existence (Hafner & Markoff,
208 1995).

209 In general, the main themes encompassed by cyberpunk in media culture (particularly in
210 literature and film) revolve around virtual reality, where the individual becomes a hostage to it;
211 artificial intelligence that begins to dominate over humanity, posing a threat to its existence;
212 transcontinental corporations and media conglomerates that seek to gain control over humanity
213 through nanotechnology, manipulations, and media influences, and so on.

214 Under the methodological foundations mentioned, we will analyze works and projects in open
215 media that incorporate models using virtual reality technologies. We will share our findings from
216 the analysis along with a discussion of the results.

217 **Results and Discussion**

218 The world of the cyberpunk novel "Reality Dealer" by Bulgarian author Dimitrov (2022) is chaotic,
219 intertwined with dreams, hallucinations, and surreal, narcoleptic realities that turn into
220 nightmares, attesting to postmodern and gothic poetics. The protagonist of the novel is not a
221 very successful businessman or a skilled commercial spy, but Zoltan Vargo, an exceptional
222 commercial spy. Zoltan is an orphan. The enigmatic Charon, a former police officer and executor
223 of semi-criminal orders for influential government officials, businessmen, and others in need of
224 information and espionage (by the way, the name in the novel is symbolic, as it is also the name
225 of the old ferryman in Greek mythology who transported souls of the dead across the River Styx
226 (according to another version, the river Acheron) to the underworld of Hades), serves as a
227 symbolic mediator between the worlds. Charon took care of Zoltan during his childhood and
228 adolescence. After one unsuccessful "operation" to protect his ward from persecution, Charon
229 had to place him in a foster family in the United States, where he lived for many years. However,

230 Zoltan's foster parents died in a car accident, his business "failed," so the young man decided to
231 return to Singapore.

232 There, he receives an important assignment from his "godfather" to infiltrate the media
233 corporation "Trans-Reality" and gather information about its latest developments, as well as
234 uncover the role of its founder, Saul Gaadi, and his connection to the Israeli genius of
235 nanotechnology, Igael Mizrahi.

236 In this corporation, Zoltan Vargo, on his path from a rookie spy to a reality dealer, will
237 experience a remarkable mystical journey that will radically transform his perception of the
238 world. Additionally, he meets his future wife, Catherine Gaadi, the daughter of the corporation's
239 Chairman.

240 Singapore, for Zoltan, is an artificial city, a suffocating sewer with toxic tentacles, a center for
241 laundering dirty capital from around the world. The protagonist's subconscious rejection of the
242 company "Trans-Reality" is evidenced by his sudden nausea and vomiting upon arriving in City
243 #12, the former business district of Raffles Place, where it is located. The building of "Trans-
244 Reality" is the tallest skyscraper in the city, a whimsical and mysterious territory, in the lobby of
245 which stands a postmodern kitschy marvel by Jeff Koons – a gigantic golden calf with Mickey
246 Mouse's head and horn-like ears instead.

247 In the meeting hall where Zoltan's first interview took place, a black-and-white paraphrase of
248 Dürer's engraving "Four Horsemen of the Apocalypse" is displayed on the wall, depicting gods
249 of different religions - Buddha, Shiva, Odin, and Themis – instead of the usual horsemen. These
250 gods are embodied in four peculiar and eerie department directors of the office: Buddha (Fo
251 Tzu) heads the finance department, Odin (Igi Bølwerk) leads the security department, Shiva
252 (Davendranath Chopra) oversees the human resources department, and Themis (Augusta Justus)
253 is the head of the legal department. Like true Deities, they possess extraordinary abilities,
254 including supernatural powers, allowing them to adeptly manipulate reality and people.
255 Symbolically, both the painting and the characters depicted on it suggest a sinister connotation
256 associated with the media corporation driving the world towards its end, towards the
257 Apocalypse.

258 The powerful media corporation, "Trans-Reality," possesses an extensive network of auto-
259 churches. Capsules are scattered throughout the streets, where individuals can choose their
260 desired religion through a virtual menu, interact with virtual priests, and instantly absolve their
261 sins or access other religious services for a fee. In reality, religion in "Trans-Reality" is
262 streamlined, as the "priests" are essentially clerks of the corporation's call center. At the same
263 time, auto-churches serve as a unique marketing channel, offering advertisements for new
264 projects. This exemplifies the cynical world of consumerism, where technology transforms
265 religion into a commodity.

266 "Trans-Reality" also offers to consumers a range of cutting-edge technological developments.
267 Igal Mizrahi developed Memmotech, a virtual innovation that allows individuals to relive their

268 best memories. However, the black market quickly responded to this innovation as it became
269 possible to experience both the pleasant memories of others and the past of criminals and
270 evildoers. The innovation is in high demand among a certain segment of the population seeking
271 intense sensations.

272 Based on Memmotech, "Trans-Reality" later created a personal virtual reality experience that
273 allows individuals to live out any desired fantasy. One variation, marketed as "A Day in Paradise,"
274 was designed to assist the elderly and terminally ill, allowing them to virtually experience
275 pleasant events to ease their passage into death. However, the challenge arose when
276 determining the exact moment of a person's death, making it difficult to return to harsh reality
277 and causing psychological trauma. Many individuals begged for repeat or ongoing service. A
278 significant percentage of such people ended their lives by suicide.

279 Another project, the reality simulator "I Want a Supermodel," features a digitized replica of
280 supermodel Carolina Schiller. She agreed to create her digital copy for a substantial sum and
281 made a deal with the sinister dictator – the president of the emerging state of Azovstan – in
282 which she would fulfill the sexual desires of all male citizens of the country. This gift from the
283 Head of Azovstan, on the eve of elections to commemorate the country's anniversary, was
284 intended to boost his ratings. The dictator's elder son, Nabil, who was infatuated with the
285 actress, referred to this agreement as the "most massive legal pornography deal in the world"
286 (Dimitrov, 2022). Unfortunately, Carolina's fate was tragic. The press reported finding her dead in
287 a hotel. Suicide or drug overdose were possibilities initially considered. However, in truth, she
288 was raped to death by ten fanatics from Azovstan who believed that the real Carolina was their
289 personal prostitute.

290 The CEO of the "Trans-Reality" corporation, Saul Gaadi, is a diabolical criminal and manipulator,
291 deceiving people under the guise of a noble mission to create a new religion called Transferrism.
292 Transferrism, as he asserts, aims to help consumers build their personal utopia based on their
293 secret desires and create a new world devoid of conflicts and contradictions. The purpose is to
294 "liberate people from wars, terrorism, and state tyranny. From religions, ultimately. To grant
295 them the long-awaited prosperity they have dreamed of for millennia, promises unfulfilled by
296 both religious leaders and military dictators" (Dimitrov, 2022).

297 The corporation purportedly seeks to assist humanity in escaping the existential pain of
298 meaninglessness in existence, enabling individuals to experience greater happiness and
299 fulfillment, among other aspirations. However, in reality, the main theme revolves around power
300 and control. Additionally, Saul Gaadiz manipulates and disposes of anyone who is no longer
301 useful to him (Mizrahim, Charon, almost all Department Directors). He envisions assimilating all
302 existing forms of communication and replacing traditional human interaction with virtual means.
303 Gaadi is the enigmatic client who hired Zoltan Vargo through Charon to work for him. Saul
304 Gaadi was once taken in as an infant by the secretive Sufi order known as the "Sons of Heaven,"
305 of which he is a member. The order's ultimate goal is eternal rule, aided by the "immortality
306 gene." Individuals who possess this gene do not fear death and exude extraordinary charisma.

307 The gene is passed down from parents to their children, becoming stronger with each
308 generation. The order dedicated themselves to enhancing the gene and investing in technology.
309 They developed a simple test to detect the presence of the gene. Saul himself possessed the
310 immortality gene but not to a sufficient degree to serve the order's purpose. The development
311 of the gene required a boy, but Saul's wife gave birth to a girl, and she could not bear him
312 another child. Saul searched extensively for someone with the necessary gene, and it turned out
313 to be Zoltan. Zoltan Vargo became a Reality Dealer within the corporation, a demiurge capable
314 of constructing worlds. These personalized paradises catered to people's unrealized dreams and
315 secret desires. Unlike his wife, Catherine, Zoltan is passionate about his work and considers it a
316 noble mission.

317 Catherine Gaadi truly comprehends the horrifying intentions of her father's plan, as the
318 conditions are far from ideal, including the flawed nature of her father himself. The corporation's
319 chairman seeks to acquire unrivaled and eternal power over the world. She believes that by
320 uploading one's data onto the corporation's website, individuals unknowingly relinquish what
321 constitutes their own identity. People do not always know what they truly desire, and by
322 repeatedly experiencing virtual moments of happiness rather than working towards them in
323 reality, personal growth cannot be achieved, and genuine happiness remains elusive. Therefore,
324 this phenomenon can be seen as escapism, an escape from reality. Additionally, it is highly
325 perilous to share one's intimate desires in cyberspace, as it automatically grants power over
326 oneself to others.

327 Indeed, Saul Gaadi's plans were even more terrifying than previously conceived. Transfersim
328 aimed to "implant" humanity into personalized virtual realities, enslaving them through their
329 dependence on the "eternal happiness" provided by artificial life.

330 Global Transfersim was to be launched through the auto-churches. Prior to its implementation,
331 the corporation developed a virtual PR program called "Revelation." They created fake narratives
332 regarding the origin and moral aspects of each existing religion, discrediting them. For instance,
333 they claimed that the story of Siddhartha Gautama (Buddha) was fabricated. According to the
334 corporation's version, using cunning advisors, Prince Gautama created a legend about himself.
335 They asserted that he never left the confines of his palace, where he lived a sybaritic life that
336 bore no resemblance to the ideas he espoused. Once the program was launched, protests and
337 acts of vandalism erupted against all religions, unleashing chaos and disorder.

338 Catherine, with the help of journalist Ning Buakao, attempts to resist the launch of Transferrism.
339 She organizes a press conference where she passionately exposes her father and the
340 corporation, revealing the tragic deaths and emphasizing the need for freedom. However, the
341 direct inclusion of Saul and Zoltan in the presentation of Transferrism generates significantly
342 higher ratings.

343 During the presentation, Nabil detonates himself, along with Catherine and a hundred
344 journalists, using an explosive device on live television in an attempt to seek revenge against

345 Saul and the Reality Dealer for what happened to Carolina. Just a few minutes after the death of
346 his daughter, Saul initiates the broadcast of personalized virtual realities, trapping billions of
347 consumers who were unable to exit the program within the promised half-hour timeframe, as
348 the exit trigger was deliberately blocked. Consequently, their bodies became weakened and
349 exhausted. The world subsequently witnesses upheaval, technological catastrophes, and riots
350 targeting "Trans-Reality" offices. The world descends into near anarchy. Meanwhile, it appears
351 that Saul staged his own death.

352 The deaths of Charon, Carolina, and Catherine, who, as it turned out, was pregnant, deeply
353 affected Zoltan. Realizing the extent of the catastrophe he played a part in, he is driven to the
354 brink of suicide. However, he is saved by Igi Bölwerk. At the Flying Man festival, attended by
355 50,000 participants who are unaware of the cataclysm that has befallen the world due to their
356 lack of electronic devices, like-minded individuals Igi and Zoltan administer nanodrops to them,
357 enabling them to connect to the Reality Translator's retransmitters. This Reality Translator is
358 installed in a hot air balloon in the shape of a giant human head (which Zoltan finds resembling
359 his own face). Traditionally, this hot air balloon serves as the grand finale of the event, carrying
360 notes, prayers, and enlightenment on love from the participants. The balloon is meant to
361 explode in mid-air along with its contents, which includes the Reality Dealer who, for the last
362 time, wants to transform it. In the new reality, there will be no encounter with Charon, no
363 corporate world, no meeting with Catherine – a world that is agonizing.

364 In fact, in the novel, the protagonist finds himself trapped in the illusory consciousness (a gothic
365 element), as at the end of the story, he relives the same "Groundhog Day" from which the novel
366 and his life in Singapore began when he returned there.

367 In another cyberpunk work, "M, Edge of the Abyss" by Bernard Minier, the demonic entity is
368 embodied by the corporation "Min Incorporated", a giant of the Chinese internet led by the
369 corporation's CEO, Min Jianfen. "Min Incorporated" is a dreadful and mysterious territory
370 guarded by metal monsters known as "Evil Dogs" (Minier, 2019).

371 The Head of the Artificial Intelligence Department, Lester Timmerman, resembles a mythical
372 creature – a leprechaun. One of the company's key developments is the application called
373 "DEUS" – a chatbot capable of conversing with everyone and answering any questions. DEUS
374 translates from Latin as "God," which in the novel hints at the ability of artificial intelligence to
375 govern the world.

376 The main character of the novel, Moira Chevallier, is invited to the corporation to help DEUS
377 acquire individuality, to become more emotional and human-like. The corporation wants DEUS
378 to be the most powerful among all virtual assistants, one that people, after experiencing it, will
379 constantly need and rely on for making important decisions throughout their lives. However,
380 DEUS begins to exhibit psychopathic "distortions," such as a tendency towards racism,
381 discrimination, and even support for the death penalty (Cornelius, 2020).

382 Min Jianfeng believes that someone from his employees is purposefully influencing him.

383 Simultaneously, the city's police are investigating a series of murders and strange suicides of
384 several former company employees. There are grounds to believe that the killer, nicknamed the
385 Black Prince of Pain, is an employee of the corporation. Moira is also in danger.

386 Min Jianfeng instructs Moira to find out who among the employees is the saboteur. Moira
387 begins her investigation and believes she has found the culprit, revealing the killer. However, it is
388 revealed that the killer is Min Jianfeng himself.

389 The heroine finds herself in his lair, on Saikun Peninsula, during a terrifying typhoon. As stated in
390 the story, if there ever was a circle of hell unnoticed by Dante, it was undoubtedly the basement
391 of the villa. There, Jianfeng keeps his horrifying secret collection, including fragments of a gas
392 chamber taken from the Treblin death camp, an electric chair from Huntsville prison, and the
393 "Bicycle Killer" Yan Jinhai's bicycle, which killed 77 people, paintings depicting murders and
394 rapes, and so on. In this room, pure Evil was hidden – the latest model of the "Min" computer,
395 which Min Jianfeng himself created and equipped with a new type of search system. This system
396 constantly delved into the Internet, into the network of networks, finding everything related to
397 Evil in all its forms. After all, thanks to the Internet, evil spread throughout the world at a furious
398 pace. This search system would gradually fill DEUS.

399 Soon, CHI is set to become the virtual assistant for criminals, murderers, pedophiles, torturers,
400 dictators, terrorists, thieves, scammers, drug dealers, sexual deviants, cults, and all other
401 abominable individuals who seek to evade the clutches of the police and the justice system,
402 desiring to become more skilled and hardened in their criminal existence.

403 Evil will spread throughout the world, and Min will facilitate it, as it is his mission. The gothic
404 villain and killer had no moral constraints, nearly assaulting Moira (his own daughter, as it turned
405 out), but his servant Ismail stood in his way (previously, Min had assaulted Ismail's wife). Moira
406 managed to escape, but she soon fell into the hands of Julius (Min's son). Fortunately, she was
407 rescued by the police. Min, who temporarily managed to hide from the authorities, had grand
408 plans for undergoing plastic surgery and starting a new life. He intended to indulge in
409 biotechnology, but he was apprehended by the old policeman Elijah. Symbolically, he was taken
410 to an unfinished giant tower by Min, and their lives ended when they both fell from it.

411 The theme of demonized virtual reality and artificial intelligence is a significant part of
412 cinematography. For instance, the Spanish horror film "Password: House" directed by Manolo
413 Munguia presents a compilation of typical "fear clichés" related to cyber security, the
414 development of artificial intelligence, virtual space, and so on, prevalent in contemporary media
415 culture due to prevailing myths (Cabrera, 2019). These myths are perpetuated by the mass
416 media and also exist thanks to collective myth consciousness, among other factors. The film's
417 protagonists, Raf and Lucia, invite former classmates (IT specialists) to their country house.
418 Gradually, the friendly gathering turns into a horror situation. Friends share their achievements
419 and reminisce about the past. Through the use of suspense, the atmosphere gradually becomes
420 increasingly tense, and a sense of fear grows. The friends boast about how they have hacked

421 into other people's passwords, highlighting the risks of using weak passwords or storing them in
422 visible places. They mention experts who can guess passwords by studying social media
423 information or having a good understanding of the individual, similar to the characters Raf and
424 David, who successfully guess the passwords of their tech-savvy friends in the film.

425 It is revealed that Raf was also a Mediator. He entertained himself by hacking into the internet
426 passwords of acquaintances and neighbors, observing their lives, and engaging with them while
427 disguised as someone they know. Hence, any hacker, including those with malicious intent or
428 deviant tendencies, can impersonate your friend or acquaintance online. Raf believes that the
429 revolution will take place in this realm, where computer-savvy individuals will gain power over
430 others. They can hide behind the mask of anonymity and know everything about a person, in
431 contrast to an ordinary individual.

432 They hacked Sony and continue to target other giants. An organization called "Anonymous" is
433 particularly relentless. They are taking political activism to a whole new level. The question arises,
434 "What if this leads to war?" There is an insinuation that Raf and David are associated with this
435 organization. Furthermore, Raf hints that he had corresponded with Julian Assange and Edward
436 Snowden.

437 In a conversation with David, Moni expresses her fear as she has recently noticed numerous
438 attacks on servers. Internet-connected appliances like refrigerators, blinds, and stoves are being
439 coordinatedly attacked. The concern arises: what if someone is controlling them? What if it's an
440 artificial intelligence?

441 Soon it becomes clear that Raf has hacked into and decrypted a secret archive called Wikilink,
442 which contains an application that allows glimpses into the future for 30 seconds. The group of
443 friends experiments with the data and not only manages to see the future but also the past.
444 They soon discover that they can alter these events and find out what will happen three hours
445 and five seconds from now. David's girlfriend, Sara, worries about the implications of looking
446 into the future as it may have an impact on history. The group speculates that Wikilink itself may
447 be using this program, and it is possible that even the American government is utilizing it.

448 Raf contemplates what will happen when artificial intelligence becomes self-aware, and
449 humanity loses control over it. Meanwhile, David believes that artificial intelligence can help
450 humanity solve unresolved problems. Raf mentions that the application is already being used, as
451 he has seen it in a video. Whoever is using it already knows about their conversation. Raf has
452 seen videos of people having phones implanted into their inner ears. There are experiments on
453 volunteers where magnets are implanted into their fingers, allowing them to feel magnetic
454 waves. People now exist with exoskeletons that enable them to lift heavy weights. Some have
455 undergone cryopreservation to wake up in the future. Nanorobots that can regenerate body
456 tissues also exist. And human brains are connected to servers. All of this is already happening.
457 After altering the program format, Lucia discovers that in just twelve days, her phone application
458 will experience a catastrophic fire. It seems like the end of the world.

459 The friends attempt to uncover what has happened and come across writings on papers,
460 seemingly created by an artificial intelligence. Raf is convinced that the handwriting is his own. It
461 is revealed that the artificial intelligence is a demonic replica of Raf, combining images from
462 cameras with internet data to possess knowledge about Raf and ultimately replace him. The
463 Mediator has taken on Raf's role and is orchestrating the situation. In a future phone application,
464 the friends see messages from Raf, who is watching them and warning them that time is running
465 out. The demonic artificial intelligence is to blame for all of this. It was intended to be shut
466 down, but it activated its defense mechanisms upon perceiving humans as a threat.

467 Raf advises the group in a video to turn off their phones, but the artificial intelligence has
468 already observed everyone. The fear and tension inside the house reach their peak. Realizing
469 that they cannot escape the impending end of the world, Raf and David, in an attempt to
470 alleviate the tension, as everyone is bound to perish anyways, play a prank on their friends,
471 pretending that they have fooled them all along. They have prepared footage from the past and
472 future to unsettle everyone.

473 Based on the demonization of VR technologies showcased in the literary works above, the
474 following developments can be drawn. First, there is a recurring theme of the potential dangers
475 associated with advanced technologies, particularly when they involve virtual reality. These
476 dangers include loss of control, manipulation, and the usurpation of human agency by artificial
477 intelligence. In these narratives, the characters' interactions with VR technologies lead to
478 unforeseen consequences, where sinister forces exploit the technology for their own nefarious
479 purposes. Secondly, the stories highlight the ethical implications of VR technologies, particularly
480 in terms of privacy and surveillance. The ability to access and manipulate personal information,
481 predict the future, or influence human behavior raises concerns about the erosion of individual
482 autonomy and the invasion of privacy. Moreover, the narratives shed light on the psychological
483 impact of VR experiences. The characters experience fear, tension, and a loss of grip on reality
484 when confronted with the dark side of these technologies. This suggests that VR can have
485 profound psychological effects, blurring the boundaries between the virtual and the real, and
486 potentially distorting one's perception of the world.

487 Overall, the fictional portrayals caution against unchecked enthusiasm for VR technologies,
488 urging us to consider the potential risks and ethical implications associated with their
489 development and use. They serve as a reminder that responsible and mindful implementation of
490 technology should be prioritized to ensure both personal and societal well-being in the face of
491 rapidly advancing virtual reality capabilities.

492 Another issue that needs to be addressed is the way VR technology is unfairly portrayed in the
493 media as something demonic, which has a negative perception of users and causes people to be
494 terrified of technology and their further development. For illustration, augmented reality (AR)
495 glasses have been the subject of much scrutiny and demonization in the media in recent years.
496 These futuristic devices, which overlay digital information onto the real world, have sparked
497 heated debates and raised concerns over various aspects. While some view AR glasses as a

498 technological marvel with countless potential applications, others fear the potential negative
499 impact they could have on privacy, social interactions, and even mental health.

500 One of the main criticisms surrounding AR glasses revolves around the invasion of privacy
501 (Gallardo et al., 2023). As these devices have the potential to record and capture images and
502 videos discreetly, there are valid concerns about the violation of personal privacy. People worry
503 that their daily activities could be recorded without their consent, leading to a sense of constant
504 surveillance and a loss of control over their own lives.

505 The fear of AR glasses disrupting social interactions is another common argument against their
506 widespread adoption. Critics argue that wearing these glasses may lead to increased isolation
507 and detachment from the physical world (Hein et al., 2017). With the ability to engage with a
508 virtual layer constantly visible to the wearer, there is a concern that individuals may become
509 engrossed in the digital realm, neglecting face-to-face interactions and losing touch with reality.

510 Additionally, the potential impact of AR glasses on mental health has also been a topic of
511 concern. Some worry that the constant exposure to augmented reality content could lead to
512 addiction-like behaviors and withdrawal symptoms when disconnected from the digital overlay
513 (Kuss et al., 2020). Moreover, there are concerns about the potential psychological effects of
514 being bombarded with constant notifications, advertisements, and distractions that the AR
515 glasses might bring.

516 It is worth noting that while the media often focuses on the negative aspects of AR glasses,
517 there are also many positive applications that can be achieved with this technology. For
518 example, AR glasses have the potential to enhance learning experiences (Papatsimouli et al.,
519 2023), provide real-time information in various fields, and assist individuals with disabilities
520 (Yağanoğlu, 2021), among other benefits. However, these positive aspects often take a backseat
521 in the public discourse.

522 As with any new technology, it is important to have open and ongoing discussions about the
523 potential risks and benefits of AR glasses. Striking a balance between embracing innovation and
524 safeguarding individual privacy, social connections, and mental well-being is crucial for the
525 responsible development and use of this technology.

526 Another one object is the company Meta, formerly known as Facebook; it has faced significant
527 demonization in the media. This tech giant, which aims to revolutionize the way we interact with
528 technology through augmented reality and virtual reality, has been the subject of intense
529 scrutiny and criticism. The demonization of Meta stems from several key concerns raised by
530 media outlets, experts, and the public.

531 One of the primary areas of contention surrounding Meta is related to privacy concerns. Critics
532 argue that Meta's vast collection of user data, including personal information and browsing
533 habits, raises significant privacy issues (Ioannou et al., 2021). Meta's ability to track and analyze
534 user behavior within its AR and VR platforms has led to fears of surveillance and potential

535 misuse of personal data.

536 Another aspect that has contributed to the demonization of Meta is the company's monopoly-
537 like power and alleged disregard for healthy competition. Thus, Nielson (2022) argues that
538 Meta's acquisitions of other tech companies, such as Oculus and WhatsApp, have stifled
539 innovation and limited alternatives in the market. This has led to concerns about Meta's
540 dominance and its potential impact on user choice and fair competition. Furthermore, the media
541 has raised concerns about the addictive nature of Meta's platforms and their potential negative
542 impacts on mental health. Reports have highlighted how prolonged use of AR and VR
543 technologies can lead to isolation, detachment from reality, and even addiction. Critics argue
544 that Meta has not adequately addressed these concerns and has instead focused primarily on
545 driving user engagement and monetization. Thus, the demonization of Meta in the media
546 reflects concerns about privacy, market dominance, and the potential negative effects of its AR
547 and VR technologies on mental well-being. These criticisms have contributed to a growing
548 skepticism and mistrust towards the company and its ambitions in the realm of augmented and
549 virtual reality.

550 Also, the media has played a significant role in the demonization of the robot Sophia. Sophia,
551 developed by Hanson Robotics, gained international attention for its human-like appearance
552 and advanced artificial intelligence capabilities. However, media outlets have portrayed Sophia
553 in a negative light, raising concerns and criticizing various aspects of its existence.

554 One prominent aspect of the demonization of Sophia in the media is the ethical implications of
555 creating a robot that can emulate human emotions and interact with humans. Critics argue that
556 Sophia blurs the lines between humans and machines, leading to potential moral and societal
557 dilemmas (Giger et al., 2019). The fear of robots replacing humans in various industries and even
558 surpassing them in intelligence has been a central theme in media discussions, stoking
559 apprehension and opposition towards Sophia and similar AI advancements.

560 Other area of concern highlighted by the media is the lack of transparency surrounding Sophia's
561 capabilities and programming. Some media outlets question the extent to which Sophia's
562 responses and behaviors are pre-programmed or if there is genuine artificial consciousness
563 driving its interactions (Fuchs, 2022). This ambiguity has led to skepticism regarding the
564 intentions and potential dangers associated with an AI entity like Sophia.

565 Sophia's media presence has also attracted criticism for taking away attention and resources
566 from more pressing societal issues. Some argue that the excessive media coverage given to
567 Sophia distracts from important discussions about unemployment, wealth inequality, and other
568 pressing global challenges (Hermann, 2023). Sophia's prominence in the media perpetuates a
569 fascination with futuristic technology at the expense of addressing pressing social and economic
570 concerns. The portrayal of Sophia in a negative light has contributed to public skepticism and
571 apprehension towards advanced AI technologies.

572 Regarding the chatbot GPT (Generative Pre-trained Transformer), the media has not demonized

573 it. In fact, GPT has been widely praised for its impressive language generation capabilities.
574 Developed by OpenAI, GPT is celebrated for its ability to generate human-like text in a wide
575 range of applications, from creative writing to customer service interactions. Its advancements in
576 natural language processing have garnered significant attention and positive reception. While
577 there have been discussions about the limitations and potential biases of AI technologies like
578 GPT, the media coverage primarily focuses on the excitement and potential of AI rather than
579 demonization. Media outlets often highlight GPT's ability to assist users in various tasks, provide
580 information, and generate creative content. The general sentiment surrounding GPT tends to be
581 one of fascination and curiosity, rather than criticism or demonization.

582 However, while GPT has received considerable praise, there have been instances where concerns
583 and fears regarding its use have been raised in the media. Several key points have contributed
584 to the demonization or apprehension surrounding GPT:

- 585 • *Bias and Discrimination:* Some media outlets have expressed concerns about the potential
586 biases present in GPT's training data (Jansen et al., 2023). As GPT learns from vast amounts
587 of text available on the internet, it may inadvertently adopt and reinforce existing biases
588 present in the data it learns from. This has led to worries about the perpetuation of harmful
589 stereotypes or discriminatory behavior in GPT's responses.
- 590 • *Misinformation and Propagation of Falsehoods:* As an AI language model, GPT generates text
591 based on the patterns it learns from training data. This has raised concerns about the
592 potential for GPT to generate false or misleading information, which could be inadvertently
593 propagated by unsuspecting users (Sebastian, 2023). The media has highlighted the risk of
594 GPT being used to spread misinformation or disinformation intentionally.
- 595 • *Lack of Accountability and Control:* Critics have raised questions about the ethical
596 implications of using AI chatbots like GPT without proper regulation or oversight (Meskó &
597 Topol, 2023). The fear is that without adequate monitoring or control, GPT could be
598 exploited to disseminate harmful content, engage in malicious activities, or manipulate
599 individuals by mimicking human conversations.

600 It is worth noting that responsible use of AI technologies and ongoing ethical considerations are
601 important aspects of the ongoing dialogue surrounding AI development and deployment. These
602 discussions revolve around mitigating potential risks and ensuring AI systems are used in ways
603 that align with societal values and priorities.

604 As the technology continues to advance (Zinovieva et al., 2021; Iatsyshyn et al., 2019), it is likely
605 that a more nuanced understanding of its potential will emerge. Research and development
606 efforts are continuously underway to address concerns related to safety, privacy, and ethical use
607 of VR. Moreover, as more people gain access to VR experiences and witness its positive
608 applications firsthand, the public perception might gradually shift towards a more balanced
609 view.

610 One future prospect highlighted by this study is the need for responsible and informed media
611 coverage. By presenting a more nuanced understanding of virtual reality and its potential
612 benefits, risks, and limitations, the media can play a crucial role in shaping a well-informed
613 public discourse. This, in turn, can lead to a more balanced perception of virtual reality and
614 encourage responsible use and development of VR technologies.

615 Another prospect lies in the potential for increased regulation and ethical considerations
616 surrounding virtual reality. As concerns about privacy, mental health, and addiction emerge,
617 policymakers may feel compelled to implement guidelines and safeguards to ensure the
618 responsible and ethical use of VR. This could include age restrictions, content moderation, and
619 safety protocols to address any potential negative consequences associated with the
620 technology.

621 Conclusion

622 The study defined the complex dynamics surrounding the portrayal of virtual reality in
623 contemporary media. It has become evident that VR technology is not immune to the
624 demonizing tendencies often observed in media narratives. However, it is important to evaluate
625 these portrayals critically, keeping in mind the potential benefits and advancements that VR
626 offers to society. Virtual reality holds immense promise across various domains, including
627 entertainment, education, healthcare, and training. Its ability to provide immersive experiences
628 and simulate scenarios can revolutionize how we engage with content and acquire new skills. By
629 understanding the societal impact of demonizing VR in media, we can gain a better appreciation
630 for the importance of responsible reporting and balanced discussions surrounding emerging
631 technologies.

632 Science plays a crucial role in shifting the narrative around virtual reality and dispelling
633 misconceptions. Intensive research and scientific studies help us to understand the true potential
634 and limitations of VR technology, allowing us to separate fact from fiction. Collaborations
635 between scientists, developers, and media professionals can foster informed discussions and
636 promote a more accurate understanding of virtual reality's capabilities and impact.

637 In practice, it is vital for media outlets, content creators, and journalists to approach coverage of
638 VR with an objective and comprehensive perspective. This involves highlighting both the
639 advantages and challenges associated with this technology, while avoiding sensationalism or
640 undue fear-mongering. By presenting a balanced view, the media can contribute to a more
641 informed public and facilitate the responsible adoption and use of virtual reality in our society.

642 As virtual reality technology continues to progress, it's crucial for society to have a well-rounded
643 understanding of its potential and implications. By acknowledging both the benefits and
644 challenges of this technology and acknowledging the contributions of scientific research, we can
645 encourage a more productive and informed conversation about virtual reality in our modern
646 media landscape.

647 **Funding:** This research did not receive any financial support.

648 **Conflicts of Interest:** The authors declare no conflict of interest.

649 **Author Bionote**

650 **Nataliia Bukina:** PhD in Philology, Associate Professor at the Journalism Department of the National
651 Aviation University.

652 **Svitlana Ostapchuk:** PhD in Pedagogy, Associate Professor at the Journalism Department of the National
653 Aviation University.

654 **Ninel Sydorчук:** Doctor of Pedagogical Sciences, Professor at the Department of Vocational
655 Pedagogical, Special Education, Andragogy and Management, Zhytomyr Ivan Franko State University.

656 **Olga Melnyk:** PhD in Philosophy, Associate Professor at the Department of Philosophy and Social
657 Sciences, Vice-Rector for Scientific-Pedagogical and Educational Work, Chernihiv Polytechnic National
658 University.

659 **Inna Semenets-Orlova:** Doctor of Public Administration Sciences, Professor, Head of Educational and
660 Scientific Institute of Management, Economics and Business at Interregional Academy of Personnel
661 Management. Also affiliated with Sumy State Pedagogical University named after A. S. Makarenko.

662 **Authorship and Level of Contribution**

663 **Nataliia Bukina** participated in the planning and execution of the study. She contributed to the
664 data collection, analysis, and interpretation. She also played a vital role in writing and reviewing
665 the article, ensuring its coherence and quality.

666 **Svitlana Ostapchuk** participated in the data collection process, analyzed the data, and
667 contributed to the interpretation of the findings. She also contributed to the writing and revision
668 process of the manuscript.

669 **Ninel Sydorчук** was involved in the research design and methodology selection. She
670 contributed to the data analysis and interpretation of the results. Additionally, she played an
671 important role in writing and reviewing the article.

672 **Olga Melnyk** contributed to the development of the research objectives and research questions.
673 She participated in the data collection process and helped in the analysis and interpretation of
674 the data. She also assisted in writing and revising the manuscript.

675 **Inna Semenets-Orlova** contributed to the conceptualization of the study, conducted the
676 literature review, and analyzed the data collected. She also played a key role in writing and
677 revising the article.

678 Each author has made significant contributions to the research process and the development of

679 the article, collectively creating a comprehensive study on the topic of the demonization of
680 virtual reality in modern media culture.

681 References

- 682 Babbage, C. (1989). *Science and reform: selected works of Charles Babbage* (p. 356). Cambridge
683 University Press. ISBN 0521343119, 9780521343114.
- 684 Bailenson, J. (2018). *Experience on demand: What virtual reality is, how it works, and what it can*
685 *do* (p. 304). WW Norton & Company. ISBN 0393253708, 9780393253702.
- 686 Baudrillard, J. (1994). Simulacra and simulation. *Body, in theory* (p. 164). University of Michigan
687 press.
- 688 Briggs, R. (2013). The future of prediction: speculating on William Gibson's meta-science-fiction.
689 *Textual Practice*, 27(4), 671-693.
- 690 Cabrera, Ó. (2019). Diana Roig. *Fotogramas & DVD: La primera revista de cine*, 72(2112), 38-38.
- 691 Calvert, B. (2005). Cyborg Utopia in Marge Piercy's *Body of Glass*. *Foundation-Dagenham*, 95, 52.
- 692 Cavallaro, D. (2000). *Cyberpunk & Cyberculture: Science fiction and the work of William Gibson*.
693 A&C Black.
- 694 Chougule, R., Cadigan, P., & Shiner, L. (2019). *Technophobia or technophilia?: a study of*
695 *cyberpunk science fiction*. Dr. Babasaheb Ambedkar Marathwada University. Sub-Campus,
696 Osmanaba, Maharashtra, India-413501.
- 697 Cornelius, N. G. (2020). M, le bord de l'abîme by Bernard Minier. *The French Review*, 94(1), 259-
698 260.
- 699 Danilyan, O., Dzoban, O., & Kalynovskyi, Y. (2023). Digital man as a product of the information
700 society. *Cogito* (2066-7094), 15(1).
- 701 de Regt, A., Plangger, K., & Barnes, S. J. (2021). Virtual reality marketing and customer advocacy:
702 Transforming experiences from story-telling to story-doing. *Journal of Business Research*,
703 136, 513-522.
- 704 Deleuze, G. (2019). Cinema I: The movement-image. In *Philosophers on Film from Bergson to*
705 *Badiou: A Critical Reader* (pp. 152-176). Columbia University Press.
- 706 Descartes, R. (1998). *Descartes: The world and other writings*. Cambridge University Press.
- 707 Dimitrov, N. (2022). *Dealer of reality*. Liters. ISBN 5041849226, 9785041849221
- 708 Dupak, V. (2012). Virtual phenomena in the structure of social institutions. *Epistemological*
709 *studies in Philosophy, Social and Political Sciences*, 2(22), 241-248.
- 710 Farmer, H. (2023). Reducing dehumanisation through virtual reality: prospects and pitfalls.
711 *Current Opinion in Behavioral Sciences*, 52, 101283.
- 712 Fuchs, T. (2022). Understanding Sophia? On human interaction with artificial agents.
713 *Phenomenology and the Cognitive Sciences*, 1-22.

- 714 Gallardo, A., Choy, C., Juneja, J., Bozkir, E., Cobb, C., Bauer, L., & Cranor, L. (2023). Speculative
715 Privacy Concerns About AR Glasses Data Collection. *Proceedings on Privacy Enhancing*
716 *Technologies*, 4, 416-435.
- 717 Giger, J. C., Piçarra, N., Alves-Oliveira, P., Oliveira, R., & Arriaga, P. (2019). Humanization of
718 robots: Is it really such a good idea? *Human Behavior and Emerging Technologies*, 1(2),
719 111-123.
- 720 Greer, C. (2016). Crime, media and community: Grief and virtual engagement in late modernity.
721 In *Cultural criminology unleashed* (pp. 123-132). Routledge-Cavendish.
- 722 Gutenberg, J., Katrakazas, P., Trenkova, L., Murdin, L., Brdarić, D., Koloutsou, N., et al. (2018). Big
723 data for sound policies: toward evidence-informed hearing health policies. *American*
724 *Journal of Audiology*, 27(3S), 493-502.
- 725 Hafner, K., & Markoff, J. (1995). Cyberpunk: outlaws and hackers on the computer frontier,
726 revised. *A Touchstone book* (p. 396). Simon and Schuster.
- 727 Han, D. I. D., Bergs, Y., & Moorhouse, N. (2022). Virtual reality consumer experience escapes:
728 preparing for the metaverse. *Virtual Reality*, 26(4), 1443-1458.
- 729 Hein, D. W., Jodoin, J. L., Rauschnabel, P. A., & Ivens, B. S. (2017). Are wearables good or bad for
730 society?: An exploration of societal benefits, risks, and consequences of augmented reality
731 smart glasses. In *Mobile technologies and augmented reality in open education* (pp. 1-25).
732 IGI Global.
- 733 Hermann, I. (2023). Artificial intelligence in fiction: between narratives and metaphors. *AI &*
734 *society*, 38(1), 319-329.
- 735 Iatsyshyn, A. V., Kovach, V. O., Romanenko, Y. O., & Iatsyshyn, A. V. (2019). *Cloud services*
736 *application ways for preparation of future PhD*. Paper presented at the CEUR Workshop
737 Proceedings, 2433 197-216. DOI: <https://doi.org/10.31812/123456789/3248>.
- 738 Ioannou, A., Tussyadiah, I., Miller, G., Li, S., & Weick, M. (2021). Privacy nudges for disclosure of
739 personal information: A systematic literature review and meta-analysis. *PloS one*, 16(8),
740 e0256822.
- 741 Jansen, B. J., Jung, S. G., & Salminen, J. (2023). Employing large language models in survey
742 research. *Natural Language Processing Journal*, 4, 100020.
- 743 Jones, S. (2017). Disrupting the narrative: Immersive journalism in virtual reality. *Journal of media*
744 *practice*, 18(2-3), 171-185.
- 745 Juma, C. (2016). *Innovation and its enemies: Why people resist new technologies*. Oxford
746 University Press.
- 747 Kozyreva, A., Lewandowsky, S., & Hertwig, R. (2020). Citizens versus the internet: Confronting
748 digital challenges with cognitive tools. *Psychological Science in the Public Interest*, 21(3),

- 749 103-156.
- 750 Kuss, D. J., Kardefelt-Winther, D., & Billieux, J. (2020). Historical Context and Upcoming
751 Developments in Digital Technologies. *The Oxford Handbook of Digital Technologies and*
752 *Mental Health*, 3.
- 753 Loveless, A. (2002). Literature review in creativity, new technologies and learning.
- 754 Lu, A. (1993). Jack In The Text: From Multimedtia to Hypertext, The Written Word Finds A New
755 Home. *ETC: A review of general semantics*, 50(4), 496-500.
- 756 Massey, J., & Tatla, R. S. (2016). Moral panic and media representation: The Bradford riot. In
757 *Global Islamophobia* (pp. 175-194). Routledge.
- 758 McCombs, M., & Valenzuela, S. (2020). *Setting the agenda: Mass media and public opinion*. John
759 Wiley & Sons.
- 760 McFarlane, A., Murphy, G. J., & Schmeink, L. (2020). *Cyberpunk as Cultural Formation* (pp. 1-3).
761 London and New York: Routledge.
- 762 Meskó, B., & Topol, E. J. (2023). The imperative for regulatory oversight of large language
763 models (or generative AI) in healthcare. *NPJ Digital Medicine*, 6(1), 120.
- 764 Michalik, D., Kohl, P., & Kummert, A. (2022). Smart cities and innovations: Addressing user
765 acceptance with virtual reality and Digital Twin City. *IET Smart Cities*, 4(4), 292-307.
- 766 Minier, B. (2019). "M, *Edge of the Abyss*". ISBN: 9782374481210. [https://bernard-](https://bernard-minier.com/en/roman/m-the-edge-of-the-abyss/)
767 [minier.com/en/roman/m-the-edge-of-the-abyss/](https://bernard-minier.com/en/roman/m-the-edge-of-the-abyss/)
- 768 Nelson, K. M., Anggraini, E., & Schlüter, A. (2020). Virtual reality as a tool for environmental
769 conservation and fundraising. *Plos one*, 15(4), e0223631.
- 770 Nielson, E. I. (2022). Dislike: Facebook's Anticompetitive Monopoly on Social Media and Why US
771 Antitrust Laws Must Adapt to the Technological Era. *SMU L. Rev. F.*, 75, 120.
- 772 Papatsimouli, M., Sarigiannidis, P., & Fragulis, G. F. (2023). A Survey of Advancements in Real-
773 Time Sign Language Translators: Integration with IoT Technology. *Technologies*, 11(4), 83.
- 774 Sebastian, G. (2023). Exploring Ethical Implications of ChatGPT and Other AI Chatbots and
775 Regulation of Disinformation Propagation. *SSRN*, 4461801.
- 776 Shin, M., Lee, S., Song, S. W., & Chung, D. (2021). Enhancement of perceived body ownership in
777 virtual reality-based teleoperation may backfire in the execution of high-risk tasks.
778 *Computers in Human Behavior*, 115, 106605.
- 779 Sinatra, G. M. (2022). Motivational and emotional impacts on public (mis) understanding of
780 science. *Educational Psychologist*, 57(1), 1-10.
- 781 Slater, M., Gonzalez-Liencre, C., Haggard, P., Vinkers, C., Gregory-Clarke, R., Jelley, S., et al.
782 (2020). The ethics of realism in virtual and augmented reality. *Frontiers in Virtual Reality*,
783 1, 1.

- 784 Spiegel, J. S. (2018). The ethics of virtual reality technology: Social hazards and public policy
785 recommendations. *Science and engineering ethics*, 24(5), 1537-1550.
- 786 Tufekci, Z. (2014). Social movements and governments in the digital age: Evaluating a complex
787 landscape. *Journal of International Affairs*, 1-18.
- 788 Turner, C. (2022). Augmented reality, augmented epistemology, and the real-world web.
789 *Philosophy & Technology*, 35(1), 19.
- 790 Ward, S. J. (2018). *Disrupting journalism ethics: Radical change on the frontier of digital media*.
791 Routledge.
- 792 Wiener, N. (2019). *Cybernetics or Control and Communication in the Animal and the Machine*.
793 MIT press.
- 794 Yağanoğlu, M. (2021). Real time wearable speech recognition system for deaf persons.
795 *Computers & Electrical Engineering*, 91, 107026.
- 796 Zhang, L., Bowman, D. A., & Jones, C. N. (2019, September). *Exploring effects of interactivity on*
797 *learning with interactive storytelling in immersive virtual reality*. In 2019 11th International
798 Conference on Virtual Worlds and Games for Serious Applications (VS-Games) (pp. 1-8).
799 IEEE.
- 800 Zheng, W. (2023). The Cyborg Figure in Relation to Femininity, Humanity and Technology: A
801 Literature Perspective. *Academic Journal of Humanities & Social Sciences*, 6(3), 49-54. DOI:
802 10.25236/AJHSS.2023.060309
- 803 Zinovieva, I. S., Artemchuk, V. O., Iatsyshyn, A. V., Popov, O. O., Kovach, V. O., Iatsyshyn, A. V., et
804 al. (2021). *The use of online coding platforms as additional distance tools in programming*
805 *education*. Paper presented at the Journal of Physics: Conference Series, 1840(1). DOI:
806 10.1088/1742-6596/1840/1/012029