

International Scientific-Methodological Electronic Journal 'Foreign Languages in Uzbekistan'', 2024, vol. 10, No 1, pp.235-244

https://journal.fledu.uz

ISSN: 2181-8215 (online)

THE CONCEPT OF CYBERPUNK AS A VISION OF THE FUTURE WORLD IN SCIENCE FICTION GENRE

Ilhom Dilmurodovich NISHONOV

Teacher English Philology faculty Uzbekistan State World Languages University Tashkent, Uzbekistan

KIBERPUNK TUSHUNCHASI ILMIY FANTASTIKA JANRIDAGI KELAJAK DUNYOSI HAQIDAGI TASAVVUR SIFATIDA Ilhom Dilmurodovich NISHONOV

Oʻqituvchi Ingliz filologiyasi fakulteti Oʻzbekiston davlat jahon tillari universiteti Toshkent, Oʻzbekiston

КОНЦЕПЦИЯ КИБЕРПАНКА КАК ВИДЕНИЯ МИРА БУДУЩЕГО В НАУЧНОЙ ФАНТАСТИКЕ

Ильхом Дилмуродович НИШОНОВ

Преподаватель
Факультет английской филологии
Узбекский государственный университет мировых языков
Ташкент, Узбекистан ilhomnishonov898@gmail.com

UDC (UO'K, УДК): 82-311.9

For citation (iqtibos keltirish uchun, для цитирования):

Nishonov I.D. Kiberpunk tushunchasi ilmiy fantastika janridagi kelajak dunyosi haqidagi tasavvur sifatida // Oʻzbekistonda xorijiy tillar. — 2024. — 10-jild. — № 1. — B. 235-244.

https://doi.org/10.36078/1587921781

Received: January 25, 2024 **Accepted:** February 17, 2024 **Published:** February 20, 2024

Copyright © 2024 by author(s). This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/



Abstract. The fast-paced advancement of technology in recent times has made it an indispensable part of our everyday routine. Almost all spheres of our life are connected with technology, starting with our smartphones, which we use in our daily lives, until supercomputers, which aid people in researching the universe around our planet. This trend shows no signs of slowing down. Cyberpunk, a science fiction subgenre, delves into the potential consequences of technological progress on individuals in the future. This genre describes the future where technology will be intertwined with people's daily routines and even affect their external appearance. Cyberpunk delineates the future where the assimilation of humans and technology will be inevitable. Although technology has the potential to enhance society, it also threatens our liberty. Due to the rapid formation of technology, some people even argue that artificial intelligence will dominate the world soon. This article explores the origins and development of cyberpunk literature, which is a subset of science fiction. It delves into the distinctive features of cyberpunk as a literary subgenre and examines previous research on the topic. Additionally, the article analyzes the perspectives of scholars on the cyberpunk genre.

Keywords: cyberpunk; science fiction; technology; future; features; virtual reality.

Annotatsiya. Soʻnggi paytlarda texnologiyaning jadal rivojlanishi uni kundalik hayotimizning ajralmas qismiga aylantirdi. Hayotimizning

235

barcha sohalari texnologiya bilan bogʻliq devarli smartfonlarimizdan boshlab, sayyoramiz atrofidagi koinotni tadqiq qilishda odamlarga yordam beradigan superkompyuterlargacha kundalik hayotimizda foydalanamiz. Bu tendensiya sekinlashuv belgilarini koʻrsatmaydi. Ilmiy fantastika bir qismi boʻlgan kiberpank kelajakda texnologik taraqqiyotning shaxslar uchun potensial oqibatlarini o'rganadi. Ushbu janr kelajakni tasvirlaydi, bu yerda texnologiya odamlarning kundalik hayoti bilan chambarchas bogʻliq va hatto ularning tashqi koʻrinishiga ta'sir qiladi. Kiberpank inson va texnologiyani assimilyatsiya qilish muqarrar boʻlgan kelajakni belgilaydi. Garchi texnologiya jamiyatni rivojlantirish imkoniyatiga ega boʻlsa-da, u bizning erkinligimizga ham tahdid soladi. Texnologiyaning jadal shakllanishi tufayli ba'zi odamlar hatto sun'iy intellekt yaqinda dunyoda hukmronlik qiladi, deb ta'kidlaydilar. Ushbu maqola ilmiy fantastikaning bir qismi boʻlgan kiberpank adabiyotining kelib chiqishi va rivojlanishini oʻrganadi. Ushbu maqola kiberpankning adabiy janr sifatida oʻziga xos xususiyatlarini va mavzu bo'yicha oldingi amalga oshirilgan tadqiqotlarni o'rganadi. Bundan tashqari, maqolada olimlarning kiberpunk janridagi fikrlari tahlil qilinadi.

Kalit soʻzlar: kiberpunk; ilmiy fantastika; texnologiya; kelajak; jamiyat.

Аннотация. Стремительное развитие технологий в последнее время сделало их неотъемлемой частью нашей повседневной жизни. Эта тенденция только возрастает. Киберпанк, поджанр научной фантастики, исследует потенциальные последствия технического прогресса для людей в будущем. Этот жанр описывает будущее, в котором технологии будут переплетаться с повседневной жизнью людей и даже влиять на их внешний вид. Киберпанк очерчивает будущее, в котором ассимиляция людей и технологий будет неизбежной. Хотя технологии обладают потенциалом для улучшения общества, они также угрожают нашей свободе. В статье исследуются истоки и развитие киберпанковской литературы, которая является подмножеством научной фантастики. В ней рассматриваются отличительные особенности киберпанка как литературного поджанра и рассматриваются предыдущие исследования на эту тему. Кроме того, в статье анализируются взгляды ученых на жанр киберпанк. Ключевые слова: киберпанк; научная фантастика; технологии; будущее; общество.

Introduction

In the 20th century, the convergence of advanced technology, literature, and the realms of film and television production transformed science fiction into a substantial and integral component of popular literature. Throughout the 20th century, the genre of science fiction experienced a notable surge in popularity. This era was characterized by significant societal shifts and technological advancements, making science fiction a fitting literary vehicle for exploring change. The science fiction genre sparks the imagination of readers by offering an opportunity to delve into uncharted territories of the future and fantastic realms. Within this genre, a unique and thought-provoking stage, postmodernism, emerged in the second half of the 20th century. This new sci-fi stage intricately weaves its way into the fabric of speculative fiction, continually pushing the boundaries of imagination through technological breakthroughs. In 1980,

the intersection of postmodernism and technological progress within science fiction constituted a developing new subgenre called "cyberpunk in an era marked by rapid advancements.

Cyberpunk emerged in the postmodernism epoch of science fiction, as well as a social phenomenon formed under the influence of advances in technology and urban culture of the 1980 s. D'Ammassa (6, 538) pointed out that the cyberpunk movement arose from the "New Wave" of the 1970s and drew inspiration from its authors. Aldiss and Wingrove (1, 200) mentioned that before settling on the term "cyberpunk", this subgenre of science fiction changed several names, including "Radical hard science fiction", "Technology Outlaws", "New Wave of the Eighties". "Neuromantics", "Group of Mirror Shadows" and simply "Movement". One of the main ideas cyberpunk regression of human society against the background of technological progress. In addition, the world of cyberpunk is about bringing urban discourses back to the streets, where fashion, vice and urban life can take center stage. Cyberpunk science fiction is the successor to traditional science fiction. It portrays the gloomy atmosphere of the 1980s Western world that was shaken by rapid technological advancement. These works depict the social environment of the late 20th century, known as the Postmodern Era. According to Hollinger (7, 29–44) cyberpunk can be viewed as a reflection of the postmodern state of the science fiction genre. While traditional science fiction may explore the tensions between natural and artificial, human and machine, it often reinforces these boundaries, with humans at the forefront. Cyberpunk, on the other hand, challenges these distinctions, much like postmodernism, making it a particularly pertinent form of science fiction for our postindustrial, postmodern world. They blur the boundaries between high and popular culture, between the authentic and the fake, and between the real and the virtual.

Main part

Cyberpunk is a subgenre of science fiction literature that originated in the United States. It is characterized by a blend of advanced technologies and techno dystopia and is considered a typically postmodern narrative. The term "cyberpunk" refers to both a specific type of science fiction and the characters that inhabit the computer underworld. To understand the origins of cyberpunk, it's essential to explore its literary precursors that laid the groundwork for this subgenre. Jules Verne and H.G. Wells are widely recognized as the earliest influences on cyberpunk. Written in the latter half of the 19th century, their narratives attempt to portray extraordinary adventures as scientifically plausible, thus predicting future trends in the genre. In Wells' case, his work specifically aims to ground fantasy in a thorough understanding of scientific and technological concepts. The main theme of Wells' masterpieces was the combination of science fiction and techno-dystopia. The correlation between science fiction and techno-dystopian perspectives on current and future societies will take on renewed significance with the emergence of cyberpunk.

The term "cyberpunk" refers to a subgenre of science fiction. The term itself is a portmanteau of cybernetics and punk. It combines two seemingly incompatible entities, computer science and the punk subculture, creating a single whole. Csicsery-Ronay Jr. (4, 221–240)

argued that "cybernetics" presents a paradox, serving as both an elevated vision of human control over chaos and a mundane extension of the mechanical workings of multinational capitalism. Hence, cybernetics encompasses elements of natural philosophy, necromancy, and ideology. In contrast, the second half of the word has different meanings when compared to the first half. According to Hebdige (9, 208), the appearance associated with punk culture was typically frail and gaunt, representing a rejection of established norms. In this context, the term "punk" refers to youth, a sense of isolation, and a deliberate detachment from the established order. Thus, the combination of these two terms gave rise to a new term called "cyberpunk". Dery (5, 75) contended that the expression "cyberpunk" originated from critic and editor Gardner Dozois, who employed it for the portrayal of high-tech science fiction that surfaced in the eighties, as discussed in a 1984 Washington Post article. However, Bruce Bethke initially introduced the term in 1980, using it as the title for his short story published in Amazing Stories in 1983.

Cyberpunk literature explores the development of computing, information, and biotechnology technologies in a world where individuals are isolated and fragmented. It examines the merging of high and popular culture and the natural and artificial worlds while blurring the line between reality and virtuality. These narratives reflect the cultural setting of the late 20th century, known as the "Postmodern Era". In "The human use of human beings: Cybernetics and Society" (15, 224), Wiener delves into the machine's potential in domains traditionally considered exclusive to humans, cautioning against the selfish exploitation of these possibilities in a world where, to human beings, human things are all-important. Wiener asserts that the modern era commences with the age of exploration, a period often perceived as marked by virtuous progress. He suggests an alternative view of the modern era as one characterized by consistent and unbridled exploitation of both natural resources and the marginalized "primitive peoples" deemed conquered. Wiener posited the notion that both biological and mechanical entities function as self-regulating systems, sharing a fundamental connection through their reliance on control and communication mechanisms. Furthermore, Wiener categorized evolution of machines into four distinct stages: the golemic (representing a pre-technological era), the age of clocks (spanning the seventeenth and eighteenth centuries), the age of steam (encompassing the late eighteenth and nineteenth centuries), and the age of communication and control (characterizing the era of cybernetics). Postmodernism, in its critique, challenges the concept of colonization and questions the exploitation of humanity through what is commonly hailed as "progress". Consequently, postmodernism emerges as a response to and a rejection of the exploratory and progressive tendencies associated with modernism. In this perspective, postmodernism serves as a critical lens through which to scrutinize and contest the historical practices of exploration and so-called advancement championed by modernist ideologies. Slusser and Shippey (14, 282) highlighted a fundamental question that lies at the heart of cyberpunk in the postmodern era: "What characteristic of humanity defines us as human?". This question is crucial for cyberpunk, and it arises frequently when real people encounter artificial intelligence, androids,

cyborgs, computer-generated bodies, mutants, and replicants, as it seeks to determine precisely what differentiates the natural from the artificial.

McCaffery (11, 125) contended that cyberpunk, born from an amalgamation of righteous anger, incisive humor, technological expertise, and inventive form, systematically distorts our perception of identity and location. He also noted that within the cyberpunk realm, reality becomes a malleable construct, subject to manipulation and distortion. conventional boundaries that separate the tangible from the intangible blur give rise to a world where perceptions are fragmented, and certainties are Personality, once a resilient core, succumbs commodification process, metamorphosing into standardized products with predetermined life spans. These products, like fleeting commodities, are stripped of the organic intricacies that define individuality. It challenges our understanding of what is genuinely real and valuable in human existence. In the realm of cyberpunk, the stability of reality and personality crumbles when reduced to commodities—sanitized and recyclable entities destined for planned and swift obsolescence. Within the enigmatic domain of cyberpunk, reality transforms into a complex mosaic of uncertainty. This genre intricately unravels conventional notions of self and place, leaving us adrift in a landscape where the distinctions between authenticity become indiscernible.

The core of cyberpunk extends beyond the artistic process; it purposefully disrupts our conventional grasp of reality. In the cyberpunk universe, the disruption of reality is not just a plot device but a central theme. It forces us to re-examine our perception of the world and consider the socio-technological landscape we live in. As we explore the intricate narratives and immersive worlds created by cyberpunk, we are confronted with the unsettling idea that our understanding of reality is not fixed but rather a flexible entity that can be influenced by innovation and societal evolution. Cyberpunk goes beyond being just an art form and serves as a thought-provoking exploration of the ever-changing boundaries between what is real and what is imagined in the tapestry of human experience. It assembles a bewildering kaleidoscope, challenging the fundamental underpinnings of our existence and perception. Fundamentally, cyberpunk serves as an architect of distortion, methodically dismantling our assured comprehension of both tangible and intangible facets of life. It probes our grasp of authenticity versus artificiality, persistently delving into the very essence of human worth.

Cyberpunk concentrates on developing methods for cybernetic enhancements to human capabilities, emotions, and behaviors within the broader context of symbolizing the technosphere and mass culture. It draws upon advancements in digital technologies and articulates a dissenting stance against the technosphere's dominance in its estranged manifestation. This is only one of the features of this subgenre of science fiction.

Huereca (12, 192) described the following features of cyberpunk:

- artificial intelligence,
- cybernetic myths and digital epics,
- virtual reality,
- the hegemony of corporate control.

A common theme in cyberpunk worlds is the contrast between the potential benefits and the dangerous consequences of artificial intelligence. Artificial intelligence in cyberpunk literature is presented as an essential element that actively explores the relationship between man technology (2, 55–70). In the cyberpunk, artificial intelligence (AI) plays a crucial and often eerie role. It is intricately woven into the narrative, exploring advanced technology, societal structures, and the essence of humanity. The portrayal of AI in cyberpunk literature is multidimensional, showcasing both its potential benefits and the significant risks associated with the integration of intelligent machines into society. Images of self-awareness and intelligent machines, as well as issues of ethics and control over these technologies, are often found. In these worlds, large corporations have significant power and often use advanced Als for various purposes, such as manipulating data or enforcing security. The depiction of these AIs as both highly capable and potentially dangerous highlights the risks of entrusting such intelligence with significant responsibilities. In the world of cyberpunk, artificial intelligence is commonly used to create dark and technologically advanced societies where it can act as a tool to control or confront humanity.

Cyberpunk frequently comprises a series of myths centered around cybernetics and digital epics. This literary genre frequently delves into a universe where technology, cybernetic enhancements, and digital alterations hold significant sway over both society and individuals. Through these narrative elements, cyberpunk delves into themes such as the erosion of identity, governmental manipulation, identity dynamics in the digital realm, and ethical quandaries stemming from the overwhelming impact of technology (3, 56). Cybernetic myths are a vital part of the cyberpunk narratives. These myths often center around characters who experience significant changes through cybernetic enhancements. By combining artificial components with the human body, these myths raise essential questions about identity, agency, and the very nature of existence. In such stories, characters navigate a world where cybernetics blur the lines between humans and machines, causing them to face existential dilemmas and redefine traditional notions of humanity. Cyberpunk literature often includes digital epics that take place in cyberspace. These stories transport readers through virtual landscapes where data and information become real entities. Through these digital journeys, cyberpunk authors explore the complexities of a virtual world that either reflects, amplifies, or challenges the real world. They delve into themes like consciousness, the nature of reality, and the effects of humanity's involvement in the digital world. Cyberpunk literature uses cybernetic myths and digital epics as a means to explore the complex relationship between humanity and technology. As the genre evolves, it not only considers the possibilities of a hyper-technological future but also delves into fundamental questions about what it means to be human in a world where the lines between organic and artificial are constantly being redrawn. By looking through the lens of cyberpunk, we embark on a speculative journey that challenges our understanding, ignites our creativity, and encourages us to contemplate the intricate relationship between the human soul and the ever-advancing world of technology.

McCarthy (13, 154) mentioned that virtual reality is often presented as an additional level of reality, where technological progress allows characters to explore and create new worlds or even fight for their survival in the digital space. He also noted that this technological tool is often used to address issues of identity, identity loss in virtual worlds, and the impact of technology on human psychology. In the cyberpunk world, it's possible to connect the human brain directly to the computer through neural electrodes or sockets located behind the ear. These sockets allow for the insertion of chips that give access to digital memory. This connection allows humans to enter an intimate relationship with computers and gain access to cyberspace, the ultimate virtual space. In this space, humans can interact with others and construct entire worlds out of data. As Hayles (8, 330) noted, cyberspace is created by transforming a data matrix into a landscape where narratives can unfold. In cyberpunk literature, one of the main challenges presented is the loss of identity within virtual environments. As characters interact with hyper-realistic simulations and virtual realms, the distinction between their authentic self and their digital avatar becomes blurred. The struggle for self-discovery and the preservation of individuality are key themes, reflecting modern fears about the potential dehumanizing effects of prolonged immersion in virtual spaces. The narrative often raises questions about the impact of virtual experiences on one's sense of self, challenging the boundaries of what it means to exist in a world where reality and simulation intertwine. The depiction of virtual reality in cyberpunk literature is filled with ethical dilemmas, illustrating the complex challenges that arise when technology intersects with the moral fabric of society. The creation of immersive and often addictive virtual experiences raises questions about the consequences of escapism and the potential for individuals to become detached from the tangible world. The ethical considerations extend to exploiting virtual environments for illicit activities, such as cybercrime and black market dealings, highlighting the dark side of technologically mediated experiences.

Cyberpunk literature frequently depicts the dominance of corporate control as a pivotal element in future societies (10, 31). This genre actively delves into and portrays scenarios where corporations wield significant influence, exerting immense power over not only the economy and politics but also the daily lives of individuals. The theme of corporate control is a prevalent and defining feature in cyberpunk literature. This recurring theme is present in techno-dystopian worlds and depicts a future where large corporations gain unparalleled power, influencing not only economic landscapes but also societal structures. In the world of cyberpunk, the idea of corporate control goes beyond just economic power. These megacorporations are portrayed as massive entities that are deeply intertwined with the political system. They use their influence to manipulate the government and create policies that serve their own interests. This blending of economic and political power creates a dystopian reality where corporations have enormous influence over the mechanisms that govern society. From an economic standpoint, cyberpunk literature envisions a world where a small number of powerful corporations have monopolized entire industries. This economic monopoly leads to a stark divide in

society, where the majority of people are left struggling with scarcity and socio-economic disparity. At the same time, a small, privileged elite holds all the wealth. Cyberpunk literature delves deeply into the far-reaching consequences of corporate dominance on society, making it a prominent theme. The characters in these stories are often portrayed as part of resistance movements, fighting for individual freedom against corporate hegemony amidst societal upheaval. As they navigate a complex web of corporate machinations, their battle against corporate control becomes synonymous with the preservation of fundamental human rights.

Conclusion

In conclusion, the emergence of cyberpunk marks a pivotal moment in the science fiction landscape. Its unique power dynamics and intentional distortion of reality push the boundaries of the genre in new and exciting ways. The emergence of cyberpunk as a new subgenre of science fiction has brought about a significant and enduring cultural shift that has profoundly impacted the way we perceive and interact with technology, society, and the future. Cyberpunk, which originated in the 1980 s, has gone beyond its literary roots to become a multifaceted cultural phenomenon. It has left a lasting impression not only on the fields of literature and cinema but also on art, music, and our collective imagination. Cyberpunk has both reflected and influenced the anxieties and possibilities of its time and has become a defining element of contemporary culture. Beyond just a literary movement, cyberpunk also serves as a cultural reflection that challenges social norms and perceptions. As a fresh wave of sci-fi, it continues to captivate audiences and transport them to a world where technology, humanity, and an enigmatic future come together to reimagine the art of storytelling and human experience. Embracing the ethos of cyberpunk means diving into an ever-evolving universe that inspires us to question, imagine, and explore the infinite possibilities of our future. Cyberpunk is constantly evolving to reflect the ever-changing technological landscape. It has stood the test of time by adapting to new technological paradigms while retaining its core concerns and thematic richness. As we approach unprecedented technological advancements, cyberpunk serves as both a warning and a source of inspiration, prompting us to consider the ethical dimensions of innovation and the possible consequences of our decisions.

The cyberpunk genre has made a significant impact on science fiction literature by presenting distinct themes and concepts. It creates a world where technology is an integral part of life, and its impact on humanity is not always positive. Cyberpunk has a unique ability to penetrate the reader's consciousness by combining scientific and technological aspects with social reality. This offers an opportunity to explore the loss of personal and collective identity, the control of corporations and the state over individuals, and ethical dilemmas in the context of technological progress. With its various themes and unique presentation of ideas, cyberpunk continues to inspire readers and writers, provoking thoughts about the future, technology, and human nature. It remains an important phenomenon in science fiction literature. Furthermore, cyberpunk literature explores the social and moral

consequences of technological advancements, adding a poignant layer to its narratives. Its characters are grappling with the aftermath of body augmentation, artificial intelligence, and the erosion of privacy. Themes of identity, existentialism, and loss of individual agency permeate the genre, compelling readers to confront what it truly means to be human in an increasingly digitized world. In essence, the unique and conceptual features present in cyberpunk literature surpass the boundaries of traditional storytelling. It acts as a speculative lens through which we scrutinize our present, ponder our future, and navigate the ethical landscapes of technological evolution. As we delve into the complex narratives and visionary worlds crafted by cyberpunk authors, we are reminded that the genre's enduring appeal is not just for its ability to captivate our imagination but also for its potential to provoke meaningful reflection on the intersection of humanity and technology.

References

- 1. Aldiss B., Wingrove D. Trillion year spree: The history of science fiction, UK: House of Stratus Ltd, 2001, 200 p., available at: https://www.amazon.com/Trillion-Year-Spree-History-Science/dp/0755100689
- 2. Blatchford, M. F. Cyber against punk: Greg Bear's Queen of Angels as metamorphosed cyberpunk. Literator, 1994, pp. 55–70, available at: https://pdfs.semanticscholar.org/3a5e/c881ca34dc711471986be15075bb7a 4ce865.pdf
- 3. Broderick, D., & Corkhill, R. Consciousness and Science Fiction, New York: Springer International Publishing. 2018. 196 p., available at https://www.amazon.com/Consciousness-Science-Fiction-ebook/dp/B07L1JMGLK
- 4. Csicsery-Ronay Jr, I. The Sentimental Futurist: Cybernetics and Art in William Gibson's Neuromancer. Critique: Studies in Contemporary Fiction, 1992. pp. 221–240. DOI:10.1080/00111619.1992.9937885
- 5. Dery M. Escape velocity: Cyberculture at the end of the century, Florida: Grove Press. 1996, available at: https://www.amazon.com/Escape-Velocity-Cyberculture-End-Century/dp/080213520X
- 6. D'Ammassa D. Encyclopedia of Science Fiction, New York: Facts On File. 2005, 538 p., available at: https://www.amazon.com/Encyclopedia-Science-Fiction-Literary-Movements/dp/0816059241
- 7. Hollinger, V. Cybernetic deconstructions: Cyberpunk and postmodernism. Mosaic: A Journal for the Interdisciplinary Study of Literature, 1990, vol. 23(2), 29–44.
- 8. Hayles N. K. Chaos bound: Orderly disorder in contemporary literature and science, Cornell: Cornell University Press. 1990, 330 p., available at: https://www.cornellpress.cornell.edu/book/9780801422621/chaosbound/#bookTabs=1
- 9. Hebdige D. Subculture: The meaning of style, London: Routledge. 2012, 208 p., available at: https://www.routledge.com/Subculture-The-Meaning-of-Style/Hebdige/p/book/9780415039499
- 10. Lee T. Cyberspace and the post-cyberpunk decentering of anthropocentrism, Vashington: Georgetown University, 2016, available at: http://hdl.handle.net/10822/1040710

11. McCaffery L. Storming the reality studio: A casebook of cyberpunk and postmodern science fiction, Duke: Duke University Press, 1991, 405 p.

- 12. Miranda H. R. The evolution of cyberpunk into postcyberpunk: The role of cognitive cyberspaces, wetware networks and nanotechnology in science fiction, Barcelona: Universitat Autònoma de Barcelona, 2015, 392 p.
- 13. McCarthy T. Jacking in to the Matrix Franchise: Cultural Reception and Interpretation. Extrapolation 2004, 224 p., available at: https://www.amazon.com/Jacking-Matrix-Franchise-Reception-Interpretation/dp/0826415881
- 14. Slusser, G., & Shippey, T. Frothing the Synaptic Bath: What Puts the Punk in Cyberpunk. In The Mechanical God: Machines in Science Fiction, Georgia: University of Georgia Press, 1992, 282 p.
- 15. Wiener N. The human use of human beings: Cybernetics and society. London, 1989, 224 p., available at: https://monoskop.org/images/6/60/Wiener Norbert The Human Use of Human Beings 1989.pdf