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## **LITERARY EDUCATION OF HIGHER EDUCATION STUDENTS IN THE DIGITAL AGE: VIRTUAL REALITY AS A DIDACTIC RESOURCE AND CHRONOTOPE (BASED ON THE MATERIALS OF «NEUROMANCER» AND «MONA LISA OVERDRIVE» BY W. GIBSON)**

**Abstract.** The article is devoted to the issues of literary education of students in the digital age and outlines the potential of virtual reality as a didactic resource and innovative educational environment. Special attention is paid to the pedagogical aspects of using VR in teaching literature: developing critical thinking, forming skills in interpreting literary texts, increasing motivation and active participation of students in the educational process.

Emphasis is placed on the material from V. Gibson's works «Neuromancer» and «Mona Lisa Overdrive», which provides the opportunity to form a digital chronotope that allows future teachers to interpret the artistic space and interact with the text in a new way.

The article proves that virtual reality, combined with literary analysis of cyberpunk contributes to the integration of theoretical knowledge and practical experience. It is emphasized that didactic work using VR contributes to expanding the possibilities of personality-oriented learning and the formation of an inclusive educational environment.

A special emphasis is placed on access to equal conditions for interpreting and mastering literary texts. The need for methodically balanced and moderate use of VR technologies is noted and emphasized, which guarantees the preservation of academic values and psychological and pedagogical safety of applicants.

It is emphasized that virtual reality is considered a promising tool for the modernization of literary education, which transforms the learner from a passive consumer of information into an active researcher of the artistic chronotope.

The article outlines ways to realize the pedagogical potential of using virtual reality as a didactic resource and analyzes its impact on the formation of reading competence and the development of critical thinking of higher education students. The essence of the chronotope as an integrative unity of spatial and temporal coordinates of a work of art is revealed.

The article focuses on criticism and the history of literary studies. It is noted that within the discipline "Introduction to Literary Studies", literary education of higher education students in the digital age involves the study of key concepts of literary theory, which can be applied to the analysis of virtual reality as a didactic resource and artistic chronotope.

It is emphasized that the task is to identify the pedagogical potential of VR as a didactic resource.

**Keywords:** foreign literature, comparative analysis, introduction to literary studies, digitalization, cyberprank, modernism, didactic resources, introduction to literary studies.

## **ЛІТЕРАТУРНА ОСВІТА ЗДОБУВАЧІВ ВИЩОЇ ОСВІТИ В ЦИФРОВУ ДОБУ: ВІРТУАЛЬНА РЕАЛЬНІСТЬ ЯК ДИДАКТИЧНИЙ РЕСУРС І ХРОНОТОП (НА МАТЕРІАЛІ «НЕЙРОМАНТА» ТА «МОНІ ЛІЗИ ОВЕРДРАЙВ» В. ГІБСОНА)**

**Анотація.** Стаття присвячена дослідженню проблем літературної освіти здобувачів вищої освіти за умов цифрової доби та розкриває потенціал віртуальної реальності як ефективного дидактичного ресурсу й інноваційного освітнього середовища.

Особлива увага приділяється педагогічним аспектам використання VR у викладанні літератури: розвитку критичного мислення, формуванню навичок інтерпретації художнього тексту, підвищенню мотивації та активної участі здобувачів у освітньому процесі.



Закцентовано увагу на матеріалах творів В. Гібсона «Нейромант» та «Мона Ліза Овердрайв», що надає можливість формування цифрового хронотопу, який уможливило майбутнім педагогам по-новому осмислювати художній простір і взаємодіяти з текстом. Доведено, що віртуальна реальність у поєднанні з літературознавчим аналізом кіберпанку сприяє інтеграції теоретичних знань і практичного досвіду. Наголошено, що дидактична робота з використанням VR-технологій сприяє розширенню можливостей особистісно орієнтованого навчання та формуванню інклюзивного освітнього середовища.

Окремий акцент здійснено для доступу до рівних умов інтерпретації й засвоєння літературних текстів. Зазначено та наголошено про необхідність методично зваженого та помірного застосування VR-технологій, яке гарантує збереження академічних цінностей і психолого-педагогічної безпеки здобувачів. Наголошено, що віртуальна реальність розглядається як перспективний інструмент модернізації літературної освіти, який трансформує здобувача з пасивного споживача інформації в активного дослідника художнього хронотопу.

У статті приділено увагу критиці та історії літературознавства. Зазначається, що в рамках дисципліни «Вступ до літературознавства» літературна освіта здобувачів закладів вищої освіти передбачає вивчення ключових концепцій літературної теорії, які можна застосувати до аналізу віртуальної реальності як дидактичного ресурсу та художнього хронотопу.

Наголошується, що завдання полягає у визначенні педагогічного потенціалу віртуальної реальності як дидактичного ресурсу.

**Ключові слова:** зарубіжна література, порівняльний аналіз, вступ до літературознавства, цифровізація, кіберпанк, модернізм, дидактичні ресурси, вступ до літературознавства.

## INTRODUCTION

**The problem formulation.** Artists could not help but notice the radical changes in society, and they sought to create something new that would reflect people's desire for change. This "new" was called modernism, which became not just a trend in art, culture, and literature, but also a lifestyle.

A new style emerged in design, architecture, clothing, and even human behavior. Modernism, as a style, sought to beautify the environment surrounding a person, emphasize the activity of influencing life processes, and add spectacle and decorativeness even to small details.

Modernism is the art of small things. Again, one of the reasons for this. was the conflict between high ideals and the everyday life of a person.

The use of virtual reality in the modern educational process opens up wide opportunities for the formation of an interactive and immersive educational environment.

VR technologies contribute to the transformation of the learner from a passive observer into an active researcher, able to independently interact with the literary text and experience its multidimensionality. This approach corresponds to the activity and competence approaches in pedagogy, where the emphasis is on the practical participation of learners in the learning process.

**Analysis of recent research and publications.** Dmytro Horbatovskiy – methodologist who, in his analysis, considered the possibilities of using VR as a pedagogical tool, the impact on thinking and the quality of knowledge acquisition (Dmytro Horbatovskiy, 2019).

Tkachuk S.I., Kravchenko K.A., Kravchenko T.V. investigated the impact of VR and AR on the development of creative thinking and innovative abilities of students (Tkachuk, Kravchenko, Kravchenko, 2024).

Skrypka G.V. focused on the implementation of VR in distance and blended learning, separately considering aspects of inclusion (Skrypka, 2024).

Slobodanyk O.V. analyzed the use of immersive technologies (VR/AR) in domestic and foreign educational practices (Slobodanyk, 2021).

Researcher A. Petrenko emphasizes that the use of VR in the study of literature contributes to a deeper understanding of texts due to the possibility of simulating plot events, which provides the effect of personal "living" the content of the work. This allows students not only to perceive artistic images, but also to critically analyze them, correlating the literary text with their own experience.

Psychological and pedagogical research confirms that VR activates emotional memory, which enhances interpretive processes and makes the analysis of a literary text deeper.

At the same time, students remember the context better when they have the opportunity to «walk» through the chronotope of a work in a virtual environment, which contributes to the formation of spatiotemporal ideas about the literary world and the interaction of its elements.

## AIM AND TASKS OF THE RESEARCH

The article aims to explore the possibilities of integrating virtual reality (VR) into the literary education of higher education students, in particular, using the material of V. Gibson's works «Neuromancer» and «Mona Lisa Overdrive». The task is to identify the pedagogical potential of VR as a didactic resource and analyze its impact on the formation of reading competence, critical thinking, and the ability to interpret the artistic chronotope.

## RESEARCH METHODS

The study used a complex pedagogical approach (competence, activity) and comparative analysis of educational practices using VR technologies. The theoretical basis is provided by works on the didactics of digital education and the latest pedagogical concepts of immersive learning.



## RESULTS OF THE RESEARCH

Thus, the literary education of higher education students in the digital age is connected with virtual reality as a didactic resource and chronotope. Let us trace the material of the works «Neuromancer» and «Mona Lisa Overdrive» by V. Gibson, which demonstrates a significant potential for its use in the educational process in view of the formation of a digital chronotope.

In these texts, the chronotope appears as a special configuration of time and space, reflecting the specificity of cyberspace and virtual environments. For pedagogical science, it is important that such artistic models can be integrated into VR technologies, which allow students to not only read about cyberspace, but also immerse themselves in it as a learning environment. In this context, the pedagogical interpretation of the concept of «chronotope» is of particular relevance.

In traditional literary discourse, it is presented as the unity of spatial and temporal coordinates of a work of art. However, in the VR cloud, this concept acquires new didactic possibilities: students not only read or analyze a chronotope, but also immerse themselves in it, feeling it at the level of an immersive experience. This form of interaction contributes to the development of creative thinking, interpretive skills, and an interdisciplinary vision of literature.

Didactic work using VR expands the possibilities of personally oriented learning, as it allows each student to choose their own trajectories of immersion in the text space and correlate them with their own educational needs.

It also contributes to the formation of an inclusive environment in which students, regardless of individual capabilities or geographical limitations, receive equal access to the experience of interpreting the artistic chronotope.

Thus, VR appears not only as a technical innovation, but also as a powerful pedagogical tool capable of modernizing literary education in higher education.

In particular, the concept of chronotope is important, becoming central to understanding William Gibson's cyberpunk novels. In *Neuromancer* and *Mona Lisa Overdrive*, the virtual space of cyberspace appears as a new type of chronotope, combining reality and virtuality, physical and digital space, the time of human life and the "timelessness" of the network.

When analyzing these novels, it is also worth paying attention to the categories of the author's image and narrative: the multiplicity of plot lines, polyphony, and montage of the text correlate with the literary concepts of «narrator», «focalization» and «point of view», demonstrating how the digital age affects the change in literary strategies.

The course also emphasizes the intertextual approach, as Gibson's works can be viewed as an intertextual field that combines references to classic science fiction, mythology, and cultural visions of the future. It is also important to work with such categories as space and time, motifs and symbols: the analysis of cyberspace as an artistic image allows us to trace the motif of travel, the motif of the search for identity, the symbol of the network as a global consciousness.

In this way, the integration of the analysis of «Neuromancer» and «Mona Lisa Overdrive» into the course «Introduction to Literary Studies» ensures that students develop the ability to apply theoretical and literary categories to contemporary texts. «Introduction to Literary Studies» develops the ability to interpret the artistic chronotope in the context of the digital age and demonstrates the close connection between classical literary concepts and modern literary practices.

In the novel «Neuromancer» V. Gibson first introduced the concept of the «matrix» as a virtual reality with specific spatio-temporal laws. In the didactic aspect, this opens up opportunities for exploring the chronotope of the digital world, modeling the interaction of characters and space, and critically reflecting on issues of identity.

Immersion in the VR interpretation of the «matrix» turns the reader into a participant in the events, developing critical analysis skills and reading competence at a new level. The novel «Mona Lisa Overdrive» expands the idea of virtuality, focusing on the problem of multiple identities, the existence of digital copies and virtual bodies. For pedagogy, this is a valuable example of interdisciplinary reflection: students can explore not only the literary aspects of the chronotope, but also philosophical, cultural, and ethical issues. Using VR to study this text helps to simulate educational situations in which students have the opportunity to analyze the dynamics of the transition between physical and digital reality, experiencing in practice the problematics of the border between them.

In this way, Gibson's novels become not only literary material, but also a methodological basis for the modernization of literary education in the digital age.

For pedagogy, this means that VR not only deepens the understanding of a literary text, but also contributes to the development of critical thinking, the formation of the ability to interpret complex artistic models, and the cultivation of skills in working with digital environments.

William Gibson's novels *Neuromancer* and *Mona Lisa Overdrive* form the conceptual core of the Sprout trilogy and represent the formation and evolution of cyberpunk poetics as a literary movement. Both works demonstrate the author's understanding of virtual reality as an artistic chronotope, which organically combines the motifs of technological determinism, the transformation of human identity, and sociocultural shifts in the age of total digitalization.

In the novel *Neuromancer* by W. Gibson, the plot centers around hacker Case, who, after losing access to cyberspace, is tasked with breaking into a corporate system. His partner Molly, a cyber-implanted «street samurai», embodies the symbiosis of man and technology.

It is important to note that the work is the first to systematically outline the concept of «cyberspace» as a virtual environment that functions independently of the physical body. The novel focuses on the problems of technological dependence, corporate control, and the blurring of the boundaries between the material and digital worlds.



The work develops the concept of virtual reality through the image of Aleph, a hyperspace that embodies a metaphor for digital immortality. The main focus is on issues of identity, the limits of human nature, and the challenges of technological progress.

From an analytical perspective, both works are examples of cyberpunk, in which genre features – urban settings, high-tech backgrounds, social marginality, and the motif of corporations as new «empires» – are combined with deep ontological questions.

As a modernist, Gibson consistently explores the possibility of technology not only to modify social structures, but also to construct new forms of being, changing the very concept of «human».

Comparing the two novels, we note that in «Neuromancer» virtual reality appears as a sphere of escape from bodily limitations, while in «Mona Lisa Overdrive» it appears as an autonomous artistic and philosophical model of the world that can completely replace physical existence.

As already noted, cyberpunk, initiated by William Gibson, continues to be a key literary trend for understanding the artistic reflection of the technological era. As emphasized by (Nazarenko, 2023), the cyberpunk genre not only reflects scientific and technological progress, but also forms a new concept of man and the world in the conditions of digitalization.

The cyberpunk genre emerged as a reaction to technological development and is characterized by a hyperrealized depiction of space, a re-desification of reality through IT neologisms and intertextual metaphors. It is known that in cyberpunk, spatio-temporal congruence acquires special importance, where the boundary between the physical and the digital is blurred.

The novel «Neuromancer» not only initiated cyberpunk as a genre, but also the term «cyberspace» in its current meaning. The work defines cyberspace as a «consensus hallucination» – a visual and spatial representation of data. Time in virtual space loses its fluidity, characters can move instantly, and the body appears as a useless container of consciousness (Booker, 1994).

The metaphors of «meat puppets» emphasize the characters' alienation from their own bodies. In the novel «Mona Lisa Overdrive», virtual reality takes on a new dimension: the concept of Aleph appears – a space that contains all other spaces, an allusion to the story of the same name by Jorge Luis Borges.

The work develops the idea of a continuity of consciousness that blurs the line between human and artificial intelligence (Hayles, 1996). Here, virtual reality is no longer just a tool or a space for action – it becomes a self-sufficient world in which understandings of death, time and identity change.

Comparative analysis reveals that in «Neuromancer» cyberspace is presented as a graphic, dynamic system, where quick access and movement are important, and in *Mona Lisa Overdrive* – as a holistic inner artistic world, focused on the idea of digital immortality. If in the first novel technology separates consciousness from the body, then in the second it constructs a new reality in which a person gradually loses his own autonomy.

We can note that virtual reality in Gibson's work serves as a central chronotope, metaphorizing the technological transformation of human nature and society.

Based on the above, we argue that these novels are important for understanding contemporary artistic models of time and space, where the digital and the real become interchangeable. Further research could focus on the impact of Gibson's concepts on intermedia art, digital culture, and contemporary philosophy of technology. It is important to note that the space in the novel blurs the boundaries of physical reality, and this provokes the formulation of important themes: technological dependence, corporate control, and the deference between body and consciousness.

French researcher Tony Myers, in his article «The Postmodern Imaginary in William Gibson's «Neuromancer», describes cyberspace as an attempt at «postmodern cartography» capable of representing the «excessive complexity» of modern networked culture using the metaphor of «city lights» – an abstraction of data falling into the endless action of perception (Tony Myers, 2025).

In this context, the space of the novel is transformed, becoming a new chronotope, allowing the author to place cyberspatial consciousness at the center of human experience.

The final novel in the trilogy, *Mona Lisa Overdrive*, takes place many years after the events of the first two books. It forms several interwoven storylines, involving characters from the previous novels, including Case and Molly.

It should be noted that one of the central motifs is the conflict between human consciousness and artificial intelligence, as well as the blurring of the boundaries between them.

Gibson introduces an allusion to Borges: the name Aleph denotes the point that contains all other points - an artistic principle by which, in the novel, separate consciousnesses can be united into a single networked field of existence.

Thus, both works demonstrate the dialectical development of the image of virtual reality. In «Neuromancer», cyberspace serves as a locus of escape from corporeality, a spatial model that reconfigures human perception.

Instead, «Mona Lisa Overdrive» asserts the merging of the technological and the human, where virtual space becomes the architecture of being, and online identity becomes the arena of posthumanist existence (Cherkashyna, 2025).

The integration of VR into the literary education of higher education students not only modernizes didactic practices, but also actualizes the potential of the artistic chronotope as a key factor in the interpretation of texts in the digital age.

It has been established that the VR environment, built on the basis of artistic chronotopes of cyberpunk, creates a new educational space for the active involvement of students.

Virtual reality is considered a promising didactic resource for literary education, contributing to the modernization of the educational process in higher education.



VR allows for the integration of literary analysis with the practice of immersive experiences, creating conditions for the development of critical thinking, creativity, and inclusive learning.

### CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, the study found that the use of virtual reality in teaching foreign literature opens up new prospects for the modernization of the educational process in higher education.

VR technologies not only expand the teacher's didactic tools, but also transform the position of the student: from a passive consumer of information, he moves to an active participant and researcher of the artistic chronotope.

An examination of the novels «Neuromancer» and «Mona Lisa Overdrive» by V. Gibson has proven that the artistic chronotope of cyberpunk can serve as an effective educational resource. Immersion in the virtual space of works contributes to the formation of reading competence, the development of critical thinking, and also creates conditions for interdisciplinary analysis of problems of identity, culture, and technology.

From a pedagogical perspective, it is important that VR supports person-centered and inclusive learning, ensuring equal opportunities for all learners. This allows the educational environment to be adapted to different learning styles and develops skills for interacting with digital environments, which are necessary in modern society.

Using Gibson's works in VR format allows for the combination of traditional literary analysis with the practice of virtual experience, which increases motivation and contributes to the development of interpretive skills. It is shown that the student becomes not only a perceiver, but also a researcher, capable of personally oriented immersion in the artistic world.

At the same time, the need for methodological regulation, ethical control, and ensuring psychological and pedagogical safety when using VR technologies in literary education is emphasized.

### REFERENCES

- Booker, M. K. (1994). Technology, History, and the Postmodern Imagination: The Cyberpunk Fiction of William Gibson. eNotes.com. [enotes.com](https://enotes.com)
- Dmytro Horbatovskyi (2019). Possibilities of using vr in education as a pedagogical tool. URL: <https://surl.luhctcltyt>
- Hayles, N. K. (1996). How cyberspace signifies: Taking immortality literally. URL: <mailto:eNotes.com>. [enotes.com](https://enotes.com)
- Glinka, N., Gavrylenko, V. (2016). The genre of «cyberpunk» in American literature: causes of emergence and linguistic and stylistic features. Scientific notes of the National University «Ostroh Academy», ser. «Philosophy», 62, 88–90. URL: <mailto:eprints.oa.edu.ua>
- Nazarenko, M. M. (2023). Peculiarities of the genre of "cyberpunk" in American literature of the second half of the 20th century. URL: [https://www.researchgate.net/publication/369687567\\_Osoblivosti\\_zanru\\_kiberpank\\_v\\_amerikanskij\\_literaturi\\_II\\_polovini\\_XX\\_stolitja](https://www.researchgate.net/publication/369687567_Osoblivosti_zanru_kiberpank_v_amerikanskij_literaturi_II_polovini_XX_stolitja)
- Skrypka, G.V. (2024). Implementation of virtual reality technology in the conditions of distance and blended learning in a modern school. URL: <https://surl.cc/ypnibe>
- Slobodanyk, O.V. (2021). Immersive technologies in the works of domestic and foreign scientists URL: <https://surl.li/rabiho>
- Tkachuk, S.I., Kravchenko, K.A., Kravchenko, T.V. (2024). The impact of virtual and augmented reality on the development of creative thinking and innovative abilities of students. URL: <https://surl.li/fjqkfj>
- Tony Myers (2025). «The Postmodern Imaginary in William Gibson's «Neuromancer»». URL: <https://surl.luhfzygcu>
- Cherkashyna, T. (2025). Linguistic and stylistic features of literary works of the cyberpunk genre. URL: <mailto:dspace.hnpu.edu.ua>

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