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Here Be Dragons: The Evolution of Cyberspace from William Gibson to Neal Stephenson

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Abstract
The article focuses on the evolution of cyberspace from a myth-critical perspective: the presence of irrational and fantasy elements in seemingly rational and scientific cyberpunk as a subgenre of hard science fiction. Our research primarily focuses on two significant works: William Gibson's Sprawl trilogy (1984-1988), an icon of early cyberpunk, and Neal Stephenson's *Snow Crash* (1992), a switch to postcyberpunk. Moreover, we consider the other works of a broad genre of cyberpunk including *The Matrix* movies and conclude that the cyberpunk of the 1980s and 1990s presented cyberspace as an enchanted *Terra incognita* and blurred the line between rationality and irrationality, technology and magic. Emerging as a way of escaping the real world, as hope for immortality, transcendence or transgression (Foucault), the cyberpunk 'matrix' followed in the footsteps of fantasy, myth, religion, and utopia. In our view, the postcyberpunk 'Metaverse' of the 1990s is more ironical and 'realistic' as it appears, and the more familiar and routine the cyberspace became to people, the less romantic and mysterious it turned out to be. Nevertheless, the nostalgic attempts to return to the old, fantasy model of cyberspace were made in postcyberpunk almost immediately after its emergence.

Keywords: science fiction, fantasy, cyberpunk, transhumanism, postcyberpunk, cyberspace, Matrix, Metaverse

Introduction

The release of *The Matrix 4* (*The Matrix Resurrections*) in December 2021 took place 22 years after *The Matrix* science-fiction blockbuster appeared. *The Matrix 4*, an ironical but moving tribute to *The Matrix* as the cyberpunk legend, has provoked a heated discussion between the fans and haters of the latest movie. Without watching *The Matrix Resurrections* but relying on a multitude of reviews, Slavoj Žižek labelled it as "a boringly postmodern and an ideological fantasy." We argue that Lana Wachowski's recent movie highlights the importance of revising the cyberpunk and postcyberpunk history, in order to gain greater understanding of the evolution of the (sub)genre from a literary movement of the mid-1980s to a broader cultural phenomenon and its postmodern or post-postmodern nature.[i]

Since science fiction is "a literature of cognitive estrangement," as Darko Suvin argues, it often needs a setting different from the landscape with which the readers or audience are familiar (8-9). In the past, for example, it was a popular practice to put illustrations of dragons or some other mythological creatures on the uncharted territories of medieval maps. The cartographers used the phrase "Here be dragons" (Lat. *Hic sunt dracones*) when denoting the unexplored and potentially dangerous lands (*Terra incognita*). To evoke the readers' astonishment or fear, closely connected with the effect of cognitive estrangement,[ii] at first the SF authors of the late 19th and early 20th centuries addressed scantily explored corners of the planet: the wilds of South America, the deserts of Africa or islands lost in the ocean. Then, the poetics of sea travels and of the American frontier was revived in the 'space operas' when the authors' imagination reached the planets, first of the Solar System, and then of other star systems. Later, their imagination even stretched to the artificially created inhabited worlds or parallel alternative realities. The publication of William Gibson's *Neuromancer* in 1984 revealed a stunning world of cyberspace or virtuality and spurred an upsurge in hard science fiction and considerable research in science and the humanities. However, this 'new world' in some way resembled the 'old world,' making the cyberspace a new frontier for the lone hackers ("console

cowboys") (*Neuromancer* 27-30) with its traditional frontier discourse of exploration, power, and wealth.

In the historiography of cyberpunk, the (sub)genre is considered a return to more 'solid,' pseudo-realistic science fiction as opposed to the fantasy experiments of the New Wave led by Michael Moorcock (Sterling, Preface x-xi; M. Levy 153-162). Facing the growing popularity of fantasy and soft (humanitarian) science fiction, the early 'cyberpunks' made no secret of their antipathy towards it. At the same time, the researchers often overlook that the early cyberpunk was a kind of romantic rebellion against the 'disenchantment' of the world due to the advance of technology, a protest against its rationalization. In fact, as we prove here, it offered the same escape to the fairyland as in John R. R. Tolkien's fantasy but without his technophobia.

In this article, we aim to study how cyberspace evolves in relation to the irrational and fantasy elements present in cyberpunk. To achieve this goal, we are going to trace the techno-utopian background of cyberpunk first and then focus primarily on two significant works: Gibson's early cyberpunk Sprawl trilogy including *Neuromancer* (1984), *Count Zero* (1986), and *Mona Lisa Overdrive* (1988), and Neal Stephenson's postcyberpunk *Snow Crash* (1992), although our research is not limited by this framework.

"All Watched Over by Machines of Loving Grace": The Californian Ideology as a Techno-Utopian Background of the Cyberspace

The emergence of cyberpunk is by no means accidental. We trace its origins back to the so-called 'Californian ideology,' which got its name after the University of California, Los Angeles. According to Theodore Roszak, this ideology combined the tribalistic techno-romanticism of the hacker subculture of the 1980s with the philosophy of the 'acid' counterculture of the 1960s (142). Within a few years, the Californian ideology became the leading mindset of Silicon Valley geeks, spawning an eclectic 'bouquet' of subcultures ('cyberians,' techno-transcendentalists, ravers, techno-pagans, and others). The subcultures

emerged in support of the ideas of cyber-utopianism and the hope of a fusion of information technology and spirituality. Cyberpunk can be considered as one of the literary derivatives of the Californian ideology. Mark Dery, an American culturologist and art historian, argues that the uniqueness of this idea lies in the fact that "Cyberdelia reconciles the transcendentalist impulses of sixties counterculture with the infomania of the nineties. As well, it nods in passing to the seventies, from which it borrows the millenarian mysticism of the New Age and the apolitical self-absorption of the human potential movement" (22).

Unlike the hippies of the sixties and the science-fiction writers of the New Wave, the 'Californians' did not fight for the construction of an ecotopia but advocated the electronic agora concept borrowed from the Canadian media theorist Marshall McLuhan. As they claimed, the convergence of computing and telecommunication technologies would abolish the spatial dimension and give birth to a kind of virtual place. Shawn Wilbur defines it as "the garden in the machine" (51). In this cosmopolitan utopia of independent network creators, each individual would not only be able to express himself or herself freely in the tradition of Jeffersonian democracy, but also turn into anyone or anything. Douglas Rushkoff, an American researcher, coined a general term for such sacred spaces. As he views it, "Cyberia is the place alluded to by the mystical teachings of every religion, the theoretical tangents of every science, and the wildest speculations of every imagination" (5). Such a place, according to Ken Kesey, who linked the Beat Generation and the 1960s counterculture movement, involved "the experiencing of an Other World, a higher level of reality. And a perception of the cosmic unity of this higher level" (qtd. in Wolfe 174).

The image of the future, which resonates so much with the biblical eschatology of the 'New Earth and New Heaven' and 'Heavenly Jerusalem,' did not arise in a void; here again the literary aspect comes to the fore. For example, the works by the American poet Richard Brautigan, mainly his poem, "All Watched Over by Machines of Loving Grace," influenced the West Coast cultural bohemia. Steven Levy, for example, describes the poem as "an ecstatic ode to a computerized future" (146). The poem conveys an image of digital meadows and forests where people

and animals live in mutual harmony under the supervision of caring machines, which makes hard work redundant (Brautigan 1). According to Patrice Flichy, this work combined the mythologemes 'peace-love-nature' of the hippie culture with high technologies, hence achieving a synergistic effect (69).

Society gradually accepted the enthusiasm and sentiments of Brautigan's followers. With the computerization of various spheres of life, many came to the idea of the birth of a better world. As Nicholas Carr, an IT expert, confirms, "[t]hey saw in the 'virtual reality' of networked computers a setting for social and personal transcendence. It was a virgin world where they could build a harmonious communal culture and achieve the higher consciousness they sought" (108).

These aspirations culminated in the thoughts of the Harvard psychologist and passionate technophile Timothy Leary, who, having grasped the connection between the hallucinogen research and the information revolution, developed a cybernetic scenario for the further species evolution of humankind. He argued that the computer would soon change not only the nature of interpersonal communication, but also the persons whose nervous system can be changed, reprogrammed, and expanded in its functions because of biomechanical synthesis with the machine (qtd. in Collin 204). As Todd Gitlin stated, Leary "had a vision of 'turning on the world,' electrifying it courtesy of the most advanced products of American technology" (207). In such an atmosphere, the formation of the future computer elite, nicknamed in the media 'digerati,' took place. The popular slogan of Kevin Kelly, the editor of *Wired* magazine, was "We are as gods, and we might as well get good at it" (qtd. in Purdy 467).

Being a darker and more pessimistic subculture, nevertheless, cyberpunk adopted a lot from the Californian ideology. Robert Geraci considers that the works of this genre are united by the motif of the promise of salvation, a purely religious vision that is not characteristic of traditional science fiction (78). Irrespective of some dissimilarities among the authors of the movement, we observe a common representation of cyberspace as largely esoteric, irrational, and conceivable as a sphere of the transcendent, supersensible, and otherworldly. This is a world in

which any human fear and everything hidden in our subconscious is embodied in reality. Thought becomes material, nothing is permanent, new gods appear out of nowhere, and monsters and even some nameless entities are born in this space.

Magic beyond the Computer Screen

Gibson's concept of 'cyberspace' is undoubtedly the most significant discovery in metaphysics since Martin Heidegger, at least because it has simulated an extraphysical ontology (see Heim). Gibson started using the term 'matrix'[iii] for cyberspace, which is defined in *Neuromancer* as "a consensual hallucination experienced daily by billions" (67). However, Gibson did not introduce the virtual reality into science fiction because, three years before him, Vernor Vinge had done it in *True Names* (1981), and even earlier, Daniel Galouye had described a simulated reality in *Simulacron-3* (1964).[iv]

Nevertheless, Gibson is the writer most often associated with a fundamentally new ontology for the genre of cyberpunk. In his memoirs and interviews, the writer emphasizes that when he formulated the concept of cyberspace, he aimed to introduce new science-fiction elements as an alternative to the traditional ones, such as the spaceship or holographic panel. Although Gibson's idea was at first very schematic, it turned out to be revolutionary.

Ironically, by the time Gibson was writing *Neuromancer*, the ARPANET had already been in place, but the writer did not know about it: he came to the idea of the possibility of connecting people who are at a great distance from each other on his own. Gibson states that he came up with the concept of cyberspace while watching teenagers play the early-1980s videogames on the arcade machines (the writer felt that the teens were physically involved in the space of the game, in another reality).[v] However, his discovery was still prophetic. Gibson coined the term 'cyberspace' in his story "Burning Chrome" in 1982 (Prucher 31), eleven years before the appearance of NCSA Mosaic, the first browser with a graphical user interface. His definition of cyberspace as "a graphic

representation of data" predicted the future of web surfing quite accurately (*Neuromance*r 67).

Postmodern in nature, Gibson's cyberspace deconstructed earlier modernist forms of utopian/dystopian space, such as the metropolis and corporeality (see Jameson 1-9). Before *Neuromancer*, both utopias and dystopias had been mostly urbanistic, architectural, that is, tied to a particular *topos*. Gibson sought to bring the utopian space to a phenomenological level, and, at the same time, eliminate the age-old dichotomy of a 'bad' machine civilization and a 'good' pastoral one. As Thijs van den Berg noticed:

> Gibson's fiction represents the user perspective that characterizes communication technologies bring [*sic*] along not simply as conformity to a dominant paradigm of technocracy that effaces individuality, but as a space of opportunity that can foster new forms of agency and resistance in an increasingly corporatized and globalized setting. (194)

Telecommunication technologies have previously disorientated characters and readers in dystopias, but virtual reality does this on a much more fundamental level because it codifies a fundamentally different type of space. As Jean Baudrillard argues, "the whole system becomes [a] weightless . . . gigantic simulacrum" (173). From a structural perspective, the Gibsonian matrix gravitates toward postmodern architecture. Social geographer David Harvey, for example, argues for "a conception of the urban fabric as necessarily fragmented, a 'palimpsest' of past forms superimposed upon each other, and a 'collage' of current uses, many of which may be ephemeral" (66).

Paradoxically, the concept of cyberspace is new for the genre but very ancient for the humankind, dating back to the myth of Plato's cave, and even further – to hallucinating primeval artists and shamans.[vi] The modern understanding of 'cyberspace' is based on an ancient view of some invisible and extrasensory space where god-like entities are believed to communicate with the mortal through the inspired, poets, and prophets. This is a purely Platonic idea, as Claudio Murgia emphasizes (124). Let us note that the prefix *cyber-* derives from ancient Greek and means 'helmsman,' a metaphor that closely relates to the cyberpunk ethos.

According to Leary, the cyberpunk person as "the pilot who thinks clearly and creatively, using quantum-electronic appliances and brain know-how, is the newest, updated, top-of-the-line model of the 21st century: Homo sapiens sapiens cyberneticus" (63).

Indeed, Gibson could recreate an almost alternative reality with the ability to become equal to God, to complete the human triumph over nature. In this sense, Michael Benedikt, for example, explains that:

> The design of cyberspace is, after all, the design of another life-world, a parallel universe, offering the intoxicating prospect of actually fulfilling – with a technology very nearly achieved – a dream thousands of years old: the dream of transcending the physical world, fully alive, at will, to dwell in some Beyond – to be empowered or enlightened there, alone or with others, and to return. (131)

Moreover, although a number of researchers interpret cyber reality as a phenomenon of a purely technical nature, Gibson and his followers see it as an enchanted world inhabited by monsters, godlike creatures, and wizards (Roberts 168). As Vincent Mosco states, Gibson's cyberspace with its Voodoo deities living in the matrix is the same strange combination of myth, science, magic, and logic (11). Thus, in Ella Brians' view, there arises a technognostic myth of cyberspace, which is very close to the fantasy genre in terms of poetics (122). Incidentally, Vinge admitted that he had written his novella *True Names* under the influence of Ursula Le Guin's novel *The Wizard of Earthsea*, and his "Other Plane" resembled Tolkien's world of forests, castles, and magic.

Furthermore, unlike Tolkien's fiction, the early cyberpunk is a fantasy with a pronounced Oriental tinge. If the science fiction of the Golden Age had its roots in the European tradition, dressed up in Greek or Roman togas, then cyberpunk incorporated the Japanese past. As Lisa Nakamura notes, the high-tech future surprisingly coexists here with elements of the Edo period: ninjas, samurai, and rōnin, solving conflicts with one katana blow, come to the fore in the narrative (qtd. in Chun, "Orienting" 12). Japan's impact on the genre accounts for the high technological level of this country in the 1980s: according to Gibson, "Modern Japan simply was cyberpunk" ("The Future Perfect").

Consequently, the early cyberspace looks like a land of dreams, another world, a lost paradise, alluring with the fullness of sensations and 'liberating' the mind. The effect of the fairy tale surroundings is enhanced by tropes, when information appears as a living or, more precisely, reviving entity. By means of metaphors, metonyms, and personifications this entity is either compared to natural phenomena ("field of data," "flood of fact and sensory data"), or to a separate living organism or creature ("dance of biz," "data made flesh," "crystal nerves of the universe of data," "hungry glitch systems," "heart of darkness," "pulse of nothingness," "face of the grid," "biomass") (see Donets, "Stylistic Devices" 76).

As Rafael Alvarado notes, Gibson's virtual reality is "a spirit world, a non-space of pure light inhabited by bodiless AIs who play the role of angels and demons" (209). Gibson's descriptions of artificial intelligences are full of biblical words and lexemes associated either with infernal forces ("pacts with demons," "Faust," "lord of hell," "lord of graveyards," "evil ghosts," "soul-catcher"), or, conversely, with divine ones ("Lazarus of cyberspace," "burning bush," "cybernetic godhead," "light on the waters"), sometimes involving hyperbole reinforced by lexical repetition ("the sense of the big thing," "the really big thing," "reaching for him across cyberspace") (see Donets, "Stylistic Devices" 76). No less frequent are similes with the elements of cold and darkness ("darkness," "night," "cold," "like a cold dark rain," "Wintermute," "black hole"), mysticism and witchcraft ("entirely occult," "pure gothic," "necromancer," "hoodoos") ("Stylistic Devices" 77). Gibson presents cyberspace as something sacred, full of secrets and mysticism; there are frequent similes of water, and even the hackers' folklore refers to maritime mythology: "Oceans had mermaids, all that shit, and we had a sea of silicon" (*Count Zero* 138).

The author describes the matrix as more of a liquid than solid, with nothing fixed and permanent in it. The verbs used for the characters' moves also express fluidity as they always "float," "flow," "glide," "drift," "surf," or "fly," relying on the intuition of the console cowboy. According to Wendy Chun, unlike other pre-Internet prototypes, Gibson's cyberspace is not static, but voluminous and navigable: the author uses the

"travel through" collocation to describe movement (*Control* 41). The transition to the virtual is always a kind of movement, a special effect. Thommy Eriksson, for instance, compares it to falling down the rabbit hole in *Alice in Wonderland* or to a tornado from *The Wizard of Oz* (178).

However, whether this space is utopian or not is a debatable question.[vii] Gibson's virtual reality is precisely a utopian paradigm and is often interpreted as a return to a new Eden, as an antithesis to bodily existence, the biblical form of the Fall (Robins 146; Underwood 23; Wiggins 23). David Thomas, a Canadian anthropologist, notes that the emergence of cyberspace "might constitute the central phase in a postindustrial 'rite of passage' between organically human and cyberphysically digital life-forms as reconfigured through computer software systems" (33). Indeed, for Gibson's 'mind-body' dualism, the frequent metonymy 'meat' means body, and the digit or the transcendental reality of the matrix is the opposing soul or mind. For Case, the protagonist of *Neuromancer*, being in the flesh is synonymous with death. The inability to connect to the Net is described as the Fall, which may serve as a reference to the Fall of Adam and Eve (DiTommaso 489). The desire for an eternal immaterial existence in the matrix coincides with the gnostic, transcendent motif of cyberpunk that is transgression, evolution through self-destruction, an escapist desire to get out of this world at any cost. For Michel Foucault, transgression is "an action which involves the limit, that narrow zone of a line where it displays the flash of its passage, but perhaps also its entire trajectory, even its origin" (33-34). Therefore, transgression is a continual crossing of boundaries, moving from an ordered rational state to an unordered and irrational state, passing over or beyond any civil or moral law. Even though there may be evil spirits in cyberspace, they were present in Eden as well. Moreover, the Fall of Adam and Eve was their transgression of the sacred boundary too. The unreal world, personified by the matrix, in Gibson's understanding, is also the key to superpowers. Through the technology that provides access to this otherworldly universe, the characters acquire unimaginable power, superhuman abilities, and even immortality, which reflects not only transcendental but also scientific transhumanism.

Furthermore, from a stylistic viewpoint, the Gibsonian matrix is anything but heaven. The palette of epithets, hyperbole, and metaphors used by the writer indicates that this is a strange, disorienting space or non-space: "Case's virus had bored a window through the library's command ice. He punched himself through and found an infinite blue space ranged with color-coded spheres strung on a tight grid of pale blue neon. In the nonspace of the matrix, the interior of a given data construct possessed unlimited subjective dimension" (*Neuromancer* 63). In the following passage, Gibson describes the matrix as almost sublime, distant from the real urban environment: "Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights receding . . . " (67). The cyberspace is devoid of usual images and habitual coordinates: "limitless gulfs of nothingness" (63), "the infinite neuroelectronic void" (139) etc. The matrix constantly flickers, changes its shape, and shimmers with cold psychedelic colors: "Case punched for the Swiss banking sector, feeling a wave of exhilaration as cyberspace shivered, blurred, gelled . . . . They ascended lattices of light, levels strobing, a blue flicker" (139). The use of alliteration and onomatopoeia creates an exponential hissing, sparkling, bubbling, or collapsing effect: "flowed," "flowered for him," "fluid neon origami trick" (68-69); "The spines split, bisected, split again, exponential growth under the dome of the Tessier-Ashpool ice" (257). At the same time, the author emphasizes its brightness ("bright lattices of logic unfolding across that colorless void" (5), "bright walls of corporate systems" (5), "bright ghosts" (8)), which contrasts with the surrounding gray urbanism and ecological catastrophe of the 'real' setting. As Steve Jones explains, the virtual landscape rather distracts attention from the gloom of the physical one (83). This could be described as a special 'poetics of virtuality.'

However, not all characters strive to live in the matrix. As Murgia observes, even Case is thirsty for cyberspace, but also horrified by the fate of those who have already become part of it (123). In a similar vein, Tymothy Letteney argues that despite Case's 'dataistic' bravado, he ultimately "chooses flesh," starts a family and quits hacking (29). The 'digitized' hacker Dixie Flatline's desire to be erased is another example

worth mentioning: the prospect of getting stuck in cyberspace seems a nightmare to him, which may testify to the fact that life in the matrix is far from utopian (Westfahl 101). Gibson's dichotomy between 'real' and 'virtual' is more often resolved in favor of the former: for example, Olga Tarapata draws attention to the fact that the virtual pop star Rei Toei from Gibson's novel *Idoru* (1996) is embodied in the material world, but her living partner Rez does not do it in the digital world (Tarapata 116).

To refer back to *The Matrix* (1999), the film that has its roots in *Neuromancer*.[viii] The movie contains numerous mythological (primarily biblical) elements which are conveyed on a symbolic level mainly through the means of onomastics (Neo = The One, Trinity, Morpheus, Zion, the *Nebuchadnezzar* etc.) and the work's structure (the embodiment of Joseph Campbell's monomyth, the motif of prophecy, and so forth). The symbolism of colors is also important: black, blue, red, and green create the effect of cyberspace. Black means mystery, depth, or the 'noir' atmosphere of early cyberpunk. Blue is associated with peace and sadness, and red is the color of blood and action, i.e. by taking the red pill from Morpheus, Neo chooses the path of sacrifice and struggle. In computer programs, the three key colors are blue, red, and green, and their combination is the 'color matrix.' In *The Matrix*, green is also significant: the green color on a black background was characteristic of the old monochrome monitors still used when the movie was released. Numerous allusions to mythology, fiction, and cinema connect *The Matrix* with the whole network of world culture, and the appearance of the messianic hero Neo fighting against the forces of evil (the machines that enslaved people) and finally saving humanity is a purely fantasy plot.

Moreover, Neo's ability to achieve a mysterious harmony, a synergetic effect with the technologies has much in common with 'Californian' or Brautigan's ideology. "I've watched you," Morpheus tells Neo. "You do not use a computer like a tool. You use it like it was part of yourself. What you can do inside a computer is not normal. I know. I've seen it. What you do is magic" (*The Matrix*, Script, Meeting Morpheus Scene).[ix] Laura Bartlett and Thomas Byers point out that "Neo's 'gift,' as Morpheus calls it, is natural and organic, not artificial and instrumental, and it is finally grounded not in rational intelligence but in mystical

intuition" (37). Therefore, as Bartlett and Byers continue their argument, the cyberspace becomes "the world of infinite potential, with no center, no boundaries or controls. . . . a figure for the computer geek's fantasy of the Internet as free and subversive space – a space of individualist self-realization" (42).

The Disenchanted Matrix

If Gibson's *Neuromancer* formulated the canons of cyberpunk, then Stephenson's *Snow Crash* (1992) summed up these foundations and developed a new (sub)genre of postcyberpunk. In 1998, SF writer Lawrence Person published *Notes Toward a Postcyberpunk Manifesto* and, according to Naciye Altıntaş, he "argued that cyberpunk fiction entered a new era as a result of the generation gap between the founders of the genre and their successors" (4). Altıntaş believes that "debating the distinctions that Person remarks between cyberpunk and postcyberpunk may also serve as a prolific ground to discuss the evolution and reception of cyberculture through two ensuing decades, since cyberpunk is about 1980s and postcyberpunk is about 1990s" (4).

At the time when Stephenson coined the term of 'metaverse' in his *Snow Crash*,[x] the congenial concepts of 'cyberspace,' 'matrix,' and 'virtual reality' already existed, but he found them inconvenient to use. Sabine Heuser draws attention to the fact that for the name of the 'cyber landscape,' every SF writer offers a term of his or her own invention. Gibson put forward 'cyberspace,' Stephenson proposed 'Metaverse,' whereas Pat Cadigan called it simply 'The System.' At the same time, the purpose of the concepts also differs: some authors use them to denote a parallel dimension, others – as a tool for plot development, and still others – as a way to reveal the inner world of characters (Heuser 101).

However, it is only in Stephenson's novel that the matrix also acts as a stylistic device. The very name of the main character, Hiro Protagonist, demonstrates the writer's attempt to present cyberspace as a narrative invention. With regard to this aspect, Murgia argues that, unlike Gibson's matrix, where anything could happen, "The Metaverse is a metaphor that stands for reality, and as such it has a narrative power up to

the moment if [sic] follows narrative rules, which have to keep a certain level of referentiality and coherence, where people do not appear from nowhere" (115). In our reading, Hiro Protagonist is not so much a person as a function. The same applies to other 'speaking' names: Raven, Fisheye, Y. T. (Yours Truly), Vitaly Chernobyl, The Librarian, and others.

As such, Stephenson's characters are quite flat and defined by their actions. They do not become 'ghosts in the machine,' do not transfer to a different ontological state, as in Gibson's fiction, but acquire 'avatars,' i.e. digital twins, computer characters. They are characterized by fictitiousness, that is, according to Wolf Schmid, "not 'what has really happened' . . . , but the 'possible' . . ., an artistic construction of a possible reality" (23).

"You can't just materialize anywhere in the Metaverse, like Captain Kirk beaming down from on high," Stephenson emphasizes; "This would be confusing and irritating to the people around you. It would break the metaphor" (36). These statements prove that for Stephenson the Metaverse is a kind of metaphor for reality.

The Metaverse is definitely not the Gibsonian matrix. In *Neuromancer*, the demarcation between virtual and physical reality is obvious. As Joshua Carr points out: "Being in the world for Hiro and company is not recognized as a technologically mediated experience because it is always already the norm" (46). Gibson's cyberspace is so real that the characters can lose their bodies and settle there. For Stephenson, it has a rational nature and is more like what the Internet has eventually become. Murgia draws an analogy between Stephenson's characters and those in Chuck Palahniuk's *Fight Club* and remarks that in the first case the protagonists "are aware of this split and . . . they are aware they are wearing a mask in a fictional world" (118).

Stephenson shows the Metaverse with accuracy, close to reality, while Gibson describes a world whose inhabitants achieve immortality only when they begin to act outside their physical body, becoming disembodied digital ghosts, parts of the world of information. Tim Jordan draws a contrast between Gibson's strange, alien place that he sought to make understandable, and Stephenson's virtuality, based on quite familiar

and natural images of streets and urban landscapes (28). With respect to space and the subjects that occupy it, Michelle Kendrick argues that they are constructed by textuality and technologies that is the language and the code. Stephenson seems to disenchant cyberspace and the subject: knowing the code, one can understand how they function (Kendrick 62).

Stephenson's descriptive vocabulary proves the above-mentioned thoughts. He uses mainly various kinds of urbanonyms that perform the stylistic function of comparison ("Broadway," "Champs Elysees," "Las Vegas") (see Donets, "The Place" 26), or ordinary nouns related to street objects ("streets," "buildings," "parks," "signs," "Downtown," "Victoriana") (26). Stephenson hints at the unreality of what is happening only by the avatars passing through each other and the megalomanic scale of the environment, which is marked by comparative hyperbole: "everything seems to be a mile high," "a dozen Manhattans" (26), "as big as a couple of football fields laid side by side" (54).

On the other hand, Gibson relies more on abstract geometric shapes, cold or psychedelic colors, metaphors of emptiness, space and non-existence, and hyperboles that emphasize transcendence, incomprehensibility, and unknowability when he describes the matrix. Stephenson alludes to Gibson's tradition when Hiro Protagonist recalls the *Neuromancer* matrix with nostalgia, describing it as "a little patchwork of light amid a vast blackness, a necklace of streetlights around a black ball in space, the black desert of the electronic night" (25).

Our comparative study of the Gibsonian matrix and Stephenson's Metaverse offers a more comprehensive understanding of the foundational notions of virtual space and shows how the concept has evolved to serve the modern and postmodern approaches to virtual reality. Our observations coincide with the statement of Howard Rheingold, a media theorist:

> [i]n the early 1990s, the vision of 'virtual reality' modeled a world where humans would explore artificial universes that would exist inside computers. Less widely reported were even wilder speculations of a world of the early twenty-first century where the computers would build into reality, instead of the other way around. (82)

In postcyberpunk, the 'magic' of the early digital age almost disappeared when it became clear in which direction network technologies were developing. Cyberspace has turned from a portal to the other world into an ordinary, albeit high-tech, toolkit for solving applied problems. For example, in Gibson's *Virtual Light* (1993) and Christopher Priest's *Extreme* (1998), detectives use virtual and augmented reality to investigate crimes.

Unlike their genre forerunners, postcyberpunks are well-versed in the digital environment. As Joshua Raulerson emphasizes, Gibson wrote his *Neuromancer* on a typewriter, as he was completely ignorant of computers, familiar only with primitive two-dimensional video games, and little concerned about the impact of technologies on people (24). Bruce Sterling describes his attitude to computers as "magic machines," "fearsome creations, redolent of mystery and power" ("Catscan" 11). For present-day SF writers such as Stephenson, Cory Doctorow, Linda Nagata, and Charles Stross, however, virtuality is similar to what television and radio broadcasting represented for their predecessors' generation.

Conclusions: Back to the Future or Simulacra of Retro-Futurism

The massive introduction of computing technologies into everyday life has resulted in the demystification of cyberspace. In general, the cyberpunk and postcyberpunk history reflects the traditional American fusion of idealism and pragmatism. Thus, the Californian ideology presented a romantic idea of the reconciliation of the humans with the nature through new technologies, and the cyberpunks combined a romantic impulse with science by opening a metaphysical window into the otherworldliness. However, cyberpunk has come true, and postcyberpunk has changed the practice of denying reality through virtual reality. Cyberian magic faded when it became clear in which direction network technologies were developing. The dual system 'real/virtual' has given way to a different quality, in which the natural and the technical are not opposed to each other.[xi] In postcyberpunk, reality is understood as a single cyber-physical extension that overcomes the lines of demarcation between

physical and digital systems. Thus, in his late *Bigend Trilogy* (2003-2010), Gibson depicts a world in which the real and the virtual are no longer separate universes but are harmoniously intertwined and flow into each other. According to David Wallace-Wells' apt observation, "cyberspace is everywhere now, having everted and colonized the world. It starts to sound kind of ridiculous to speak of cyberspace as being somewhere else" (199).

It should be noted, however, that attempts to return to the old, fantasy model of cyberspace were made in postcyberpunk almost immediately after the moment the subgenre emerged. In Stephenson's *The Diamond Age* (1995), the traditions and lifestyle of the Victorian era may be revived in virtual reality. In his recent *Dodge* series (2011-2019), the Bitworld's digital space (an eternal afterlife) is more an epic fantasy than science fiction, depicting warring gods, talking birds, giants, fiery swords, magical forests, fortresses, and prophecies. In Tad Williams' tetralogy *Otherland* (1996-2001), the cyberpunk detective fiction turns into a fantasy quest inside cyberspace. Michael Swanwick, the author of the canonical cyberpunk *Vacuum Flowers* (1987), switches to techno-fantasy about dragons, albeit iron ones (see *The Iron Dragons* trilogy, 1993-2019). Finally, a significant part of the plot of the bestseller *Ready Player One* (2011) by Ernest Kline is also a classic D&D role-play quest, an homage to the 1980s, when fantasy elements were used as a nostalgic, retro-futuristic touch.

To sum up, the cyberpunk matrix blurred the line between rationality and irrationality, technology and magic. Emerging as a way of escaping the real world, as hope for immortality, transcendence and Foucault's transgression, cyberpunk followed in the footsteps of fantasy, myth, religion, and utopia. Cyberpunk became a myth about the *Terra incognita* of cyberspace populated by god-like AIs, "vampires, mambos, shamans, mermaids, Faustian and Mephistophelean characters, ghosts, visionaries and soothsayers" (Cavallaro 53). The postcyberpunk Metaverse is more ironical: the more familiar and routine the cyberspace became to the millions of people, the less romantic and mysterious it turned out to be.

Therefore, by the beginning of the millennium, the genre had no longer been the radical worldview of the future. As Bruce Bethke notices in *Headcrash* (1995), one more example of ironic deconstruction of cyberpunk tropes, the genre has turned into a trademark, and, more importantly, into a generally recognized style. Its main features are social non-conformism, expressed in unusual hairstyles; striving for a high-tech future, manifested in piercings and implanted prostheses; a transgression of the foundations of society, which reveals itself in the electronic music (Bethke 176-177).[xii] From this perspective, Wachowski could not shoot *The Matrix Resurrections* in any other way: any version of today's *Matrix* would be a chaotic, nostalgic, retro-futuristic "postmodern and ideological fantasy" (Žižek) mixing utopia and dystopia, mythology and science, Neo/Neuromanticism[xiii] and self-reflection.

Notes:

[i] As Brian McHale's states: "Science fiction, we might say, is to postmodernism what detective fiction was to modernism: it is the ontological genre par excellence (as the detective story is the epistemological genre par excellence), and so serves as a source of materials and models for postmodernist writers" (16).

[ii] For example, Herbert Wells explains that, in his 'scientific romances,' "the fantastic element, the strange property or the strange world is used only to throw up and intensify our natural reactions of wonder, fear or perplexity" (140).

[iii] Gibson does not usually capitalize the word 'matrix' in his fiction.

[iv] Moreover, we can find variations on the theme of cyberspace in the works by Roger Zelazny, Philip K. Dick, John Brunner, Jeffrey Ford, and other New Wave avant-garde authors, not to mention the fact that they all to some extent resonate with the concepts of 'interzone' by William Burroughs (Novotny 113) and 'inner space' by James G. Ballard (Clute et al.).

[v] "Even in this very primitive form, the kids who were playing them were so physically involved, it seemed to me that what they wanted was to be inside the games, within the notional space of the machine. The real world had disappeared for them – it had completely lost its importance. They were in that notional space, and the machine in front of them was the brave new world" (qtd. in Newitz).

[vi] For the cognitive value of hallucinations, see Sikora or Eliade.

[vii] Contrasting technoromanticism (see Coyne) and cybergothic (see Alexander), Maria Goicoechea argues that the cybergothic discourse reflects a dystopian, "satiric and burlesque vision of the near future which condenses a variety of nightmares and terrifying fantasies which have been projected onto the scenario of cyberspace, populating it with demons, vampires, tyrants and heroic hackers" (3). In this sense, cyberpunk is close to heroic fantasy.

[viii] Here, as in many other cases, Hollywood is one or two decades behind literature. This fact explains why the movie released in 1999 (the epoch of postcyberpunk) had the features of cyberpunk typical for the 1980s.
[ix] These lines did not make it into the film.
[x] Neal Stephenson's sci-fi term 'metaverse' has also inspired Facebook founder and CEO Mark Zuckerberg. In October 2021, Zuckerberg excited the world by his announcement about changing the name of his company to Meta to describe its vision for working and playing in a virtual world.
[xi] "If the cyberpunks have systematized the use of virtual world in their fictions, postcyberpunks have ended the negativation of reality to promote a societal progress thanks to technological innovations," emphasizes Thomas Michaud. "In the cyberpunk movement, virtual reality was a way to escape a dystopic reality. In the postcyberpunk movement, virtual reality is a second world, partially realized in massively multiplayer online role-playing game (MMORPG) like Second life" (49).
[xii] For example, Gibson was skeptical about *Cyberpunk 2077*, a recent action role-playing video game borrowing many elements from his earlier variants: "The trailer for *Cyberpunk 2077* strikes me as GTA skinned-over with a generic 80s retro-future, but hey, that's just me" (qtd. in Tobeck 82).
[xiii] Here, we apply the term 'Neo-romanticism' not in its traditional meaning but as a pun: it is something like Neo's romanticism, the romanticism of *The Matrix* series. 'Neuromanticism' echoes the title of Gibson's 'magnum opus' *Neuromancer*.

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