

Constructing Reality and Identity in Selected Young Adult Cyberpunk Novels

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Introduction

This paper focuses on cyberpunk and virtual reality to shed light on the implications of the contemporary information age on technology users, especially young adults. Because cyberpunk and science fiction often deal with postmodern societies, fragmentation is one of its obvious manifestations. Therefore, fragmentation, as a postmodern symptom, will be analyzed to decenter grand narratives on two levels. The first level is concerned with young adults' perception of reality in a world dominated by cyberspace, virtual reality, and online computer games with special reference to Baudrillard's concepts of simulation and simulacra. The virtual space of the internet, represented by online computer games, gradually takes a life of its own inaugurating partial or full disengagement from the physical world. The educational element of gaming will also be analyzed to reveal the strong connection between simulations and today's world.

The second level of fragmentation focuses on young adults' identity construction which is analyzed in light of Donna Haraway's figure of the cyborg and the standpoint of posthumanism. This level demonstrates how humanity and notions of the self are decentered by cyberspace and online games. The selected novels, namely Orson Scott Card's *Ender's Game* (1991), Ernest Cline's *Ready Player One* (2011), and S. J. Kincaid's *Insignia* (2012), anticipate that technology produces fragmented societies which will affect adults as well as young adults. Hence, the task of rescuing these societies from degeneration requires putting young adults' gaming skills to use. Taking such a responsibility has a great impact on the lives of young adults: Their perception of reality is

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fragmented due to immersion in simulations represented by massively multiplayer online role-playing games – MMORPGs. Reality becomes an amalgam of the physical and the virtual worlds. Young adults' excessive use of avatars and computer technology contribute to shaping their self-image and identities which become consistent with the notion of the cyborg and the posthuman model of subjectivity.

The three societies of the selected novels share futuristic settings where technology is dominant. Orson Scott Card's *Ender's Game* (1991) depicts a futuristic society in a state of war with an alien species called the Buggers. The International Fleet, IF, uses children and teens from all over the world to win the war. The IF believes that young adults and children are more innovative than adults. As a result, they would take riskier decisions that could eventually end the war. The novel follows Ender Wiggin and the rest of the young soldiers in Battle School and Commander School as they receive their training in space in the form of war games.

Ernest Cline's novel *Ready Player One* (2011) uses an enhanced version of the internet called the OASIS which stands for "Ontologically Anthropocentric Sensory Immersive Simulation," as its main setting (Cline 2011, 49). The novel revolves around a contest for finding Halliday's egg, a gaming object which insures complete control of the OASIS. Young gamers must find the egg before the employees at IOI, Innovative Online Industries, because the multinational company wants to turn the OASIS into the most financially profitable project. Wade and the most famous young gamers of the OASIS stand against IOI to save the world they know from turning into a mere commodity.

S. J. Kincaid's novel *Insignia* (2012) is about the fourteen-year-old Tom Raines who is selected by the Pentagonal Spire as a potential combatant due to his extraordinary gaming skills. The novel is set in a future where mining resources have been depleted on Earth which leads to World War III with nations and multinational corporations divided into two warring coalitions. The two coalitions fight over mining grounds in space. However, they must control mining platforms and fighting machines from Earth. The whole fight is like computer games, so teenagers with excellent gaming skills are picked to control the machines and to secure new mining grounds in outer space.

Science Fiction and Cyberpunk

Science fiction (SF) is not perceived as an "allegoric" genre, but as a "symbolic" one because "Symbolism opens itself up to a richness of possible interpretation, where allegory maps significance from one thing onto one other

thing" (Roberts 2002, 16). Readers must analyze the symbolism of SF novels to discover the message behind the metaphors used in these texts. Therefore, SF novels treat the fictional world in the same fashion realistic fiction does. As a result, SF should be dealt with in a "pseudo-realist" way, because it "reconfigures symbolism for our materialist age" (Roberts 2002, 18). SF novels do not have to depend on real scientific development in the author's society; the "science" in science fiction indicates that SF novels follow scientific reasoning to justify the creation of the fictional environments of the novels (Suvin 1979, 67). In other words, science fiction must be plausible and convincing. Suvin states that postwar SF shows dystopian streaks through depicting societies that are plagued with "global catastrophes, cybernetics" and "dictatorships" (1979, 27). Living in a contemporary technological world means people use technology in various aspects of their daily lives. Consequently, people become used to the continuous existence of technology and machines which leads to the emanation of cyberpunk.

Cyberpunk investigates technology and its effects on the social and political aspects of life. Rob Kitchin mentions several reasons why cyberpunk is a postmodern genre: One of the reasons is that cyberpunk was among the first literary expressions of postmodernism. Another reason is that it does not deal with people and technology as "separate ontological domains," but adopts a posthumanist stance that will be discussed later (Kitchin 2009, 248- 249). Cyberpunk reflects the fragmentation of postmodern societies due to the presence of advanced technology. The term "cyberpunk" itself is fragmented as "cyber" refers to cybernetics that illustrates "a sublime vision of human power over chance" as well as the power of postmodern economy which is a key player in dictating ideology, whereas "punk" signifies rejecting traditional conventions in search of an elusive originality (Csicsery-Ronay 1988, 270).

Cognitive Estrangement and the Novum

Cyberpunk, like science fiction, relies on cognitive estrangement. According to Darko Suvin, estrangement and cognition are the two main poles of SF: Estrangement separates science fiction from realistic fiction while cognition ensures that science fiction is grounded in logical discourses reminiscent of the authors' and the readers' societies. The "science" in science fiction stands for cognition, whereas "fiction" represents estrangement (Suvin 1979, 13). Cyberpunk utilizes the concept of cognitive estrangement to create an effect of defamiliarization. Hence, authors engage the critical faculties of their readers and comment on the technological and social issues prevalent in their societies.

The principle of cognitive estrangement highlights the concept of the novum as illustrated by Suvin. He proposed the term to clarify the special nature of SF and the term later became accessible to many critics. Adam Roberts, for example, claims that the novum establishes a starting point for comparison between the reality in which the readers live and the reality of the fictional world. The novum marks the difference between the world of the readers and the fictional world portrayed in SF novels. The most essential aim of SF is expressing "Otherness" and "alterity" through the novum (Roberts 2002, 25). Science fiction novels often contrast the idea of otherness and sameness through the use of technology that often stands for the Other. Therefore, technology occupies the position of the novum.

The common novum in the selected novels is simulations in the form of computer games which allow the characters to experience a reality that is radically different from their material world. Simulations symbolize the cyberworld of today's internet, but the selected novels take it a step further to attest the importance of such communication technology in the present and reflect on its possible development in the future. The novels feature two worlds: The first is the material world and the second is virtual.

In *Ready Player One*, Ernest Cline presents the dystopian physical world of 2045 which stands in stark contrast to the digital world generated by the OASIS, an enhanced version of the internet. Kincaid's *Insignia* presents virtual reality parlors as popular venues for people. Moreover, the Pentagonal Spire—a governmental institution for training young adults in the art of virtual war—and the applied sims classes provide for the young combatants function as a sort of virtual reality. *Ender's Game* equally has two versions of virtual reality: one that is a crude version of today's internet and the other, like the Pentagonal Spire, is exclusive for soldiers in Battle, Combat and Command schools.

Suvin believes that SF novels deal with two realities: the reality of the author and the readers, and the fictional reality of the novel (1979, 71). Resorting to simulations and virtual reality in SF novels as novum creates two realities for the characters within the work of art itself: Protagonists experience the reality of their physical world and the substitute reality of the virtual world. Moreover, readers are aware of their own reality in addition to the reality existing in the novels; consequently, the novum of simulations in cyberpunk novels constitutes an alternate reality within an alternate reality which affirms the fragmentation of reality in postmodern society and aids in implementing multiple layers of narrative.

Virtual Reality and Computer Games

Cyberspace is a general entity hosting various aspects of online traffic, but virtual reality is more specific and is concerned with providing situations that may mirror real life or deviate to offer fantastic, science fictional or supernatural experiences. Virtual reality was expected to be the product of scientific research, but the type of virtual reality available today to all willing users has emanated from the world of computer games. Scientists "focused on sensory-input hardware, while gamers focused on mentally and emotionally engaging software" (Castronova 2005, 5). The selected young adult novels, YA novels, tackle the negative as well as the positive effects of cyberspace and virtual reality since they are inescapable as postmodern phenomena.

Video games are debatable whether in academic circles or daily conversations because the effects of such games are questionable. On the one hand, people who believe video games to be detrimental assume that the violent content of most of these games influences players and increases their violent practices in their daily lives. There is a growing fear that young gamers will treat people as mere objects as a side effect of how they behave in video games (Suellentrop 2006, 16). While this can be true for some players, this is not always the case. The selected novels do not view games as instigating violence.

On the other hand, some believe that video games, regardless of their content, are in fact "teachers. And electronic games are uniquely suited to training individuals how to navigate our modern information society" (Suellentrop 2006, 17). The selected novels adopt a positive stance regarding video games. In *Ender's Game*, games are regarded as teachers: "The computer-controlled enemy was devious and powerful, and whenever Ender tried a tactic he found the computer using it against him within minutes" (Card 1994, 258). Ender is supposed to command an entire fleet to fight the buggers, so he must acquire the ability to lead thousands of fighters at the same time. Hence, the simulator takes the role of a teacher because it pushes Ender's limits. It helps him to continuously develop new tactics to become the leader for whom the International Fleet and the world are waiting.

Similarly, In *Ready Player One*, Cline stresses the power of simulations and games in teaching the young. Wade expresses how the OASIS is an infinite source of knowledge for those who seek it:

the OASIS was also the world's biggest public library, where even a penniless kid like me had access to every book ever written, every song ever recorded, and every movie, television show, videogame, and piece of

artwork ever created. The collected knowledge, art, and amusements of all human civilization were there, waiting for me. (Cline 2011, 15–16).

Cline affirms the power of the internet as a network that may change the future of education because of its infinite capacity to hold information that never was and never will be kept in a single physical library in the material world. Books and media do not occupy physical space in the cyber realm, so providing encyclopedic knowledge at the tips of the young unlocks numerous possibilities for their future. Cline stresses the power of making use of electronic games to offer quality yet enjoyable education to young generations.

Simulation and Simulacra

In contrast to the order governing the world of computational data, daily life is subjected to cultural, sociological, ideological, and historical variants which produce a final fragmented image. Cyberpunk writers create another version of their societies in their novels and then they create another world of simulation within the fictional world. In this case, cyberpunk novels fragment reality because they offer their readers different intermingling worlds which resonate with Baudrillard's concepts of simulation and simulacra.

According to Baudrillard, we live in an age of simulations which has started with "a liquidation of all referentials" (2002, 176). When applied to cyberpunk, the material world does not act as a point of reference for cyberspace: The two worlds are separate but not fully independent. The real is no longer the result of external observation but the outcome of "matrices, memory banks and command models," so the real loses its long-held power and is gradually replaced by what Baudrillard terms as the "hyperreal" (2002, 176). The "hyperreal" in the selected novels is represented by cyberspace, virtual reality, and video games. The real is abandoned in favor of its model which eliminates the need to produce the real. The "hyperreal" allows only for the production of more models leaving no space for the real (Baudrillard 2002, 176). In the age of late capitalism and postmodernism, everything exists in abundance due to mass production; thus, the original is not differentiated from the copies. Baudrillard's views of the real, the model, and the hyperreal lead to questioning the normative perception of reality.

Cyberpunk plots are computer-like; thus, two worlds are presented in each novel where the concepts of place and time are restructured. The introduction of novel communication technology, such as video games and the internet, in the late twentieth century along with the accelerating power of the media made an

impact on the definition and conception of space in the postmodern age (Hartmann 2009, 276). The notion of space differs from the notion of place as "space is defined in contrast to place: permanent mutability is opposed to a geometrical shape, movement is opposed to a fixed condition. However, space cannot exist without places" because "Places are the material used by the inhabitants to create space" (Hartmann 2009, 290). Place is material while space is a product of the mind. Cyberpunk explores the difference between place and space through virtual reality and cyberspace.

In order to portray two worlds, the selected novels introduce two separate spaces. The protagonists physically inhabit places and mentally inhabit cyberspace. Wade explains the OASIS in *Ready Player One* as "a massively online game that had gradually evolved into the globally networked virtual reality most of humanity now used on a daily basis" (Cline 2011, 1). Cline further illustrates the lines between cyberspace and physical location by giving the example of Wade's old neighbor, Mrs. Gilmore, who "was super-religious and spent most of her time in the OASIS, sitting in the congregation of one of those big online megachurches, singing hymns, listening to sermons, and taking virtual tours of the Holy Land" (Cline 2011, 23). Mrs. Gilmore is physically present in her dwelling, but her mind occupies the non-physical space of virtual reality. The OASIS is more attractive than the real world to its users. It reflects the Baudrillardian concept of simulacra that is more appealing and often more real to users than its material counterpart. Such allure draws people away from the real and into the virtual which contributes to the fragmentation of reality.

The choices made by users and gamers in digital worlds disrupt the general fabric of reality, both spatially and temporally. The temporal aspect is produced by the disintegration of the real as it ends with "endless circulation of data" which disrupts the linearity of time (Cavallaro 2000, 37). The constant logging on and off the virtual world negates the linearity of time or events and triggers more than a single possible course of action. In *Insignia*, some of the most powerful Russo-Chinese combatants carry out an incursion into one of the applied sims sessions of Tom's team that is set in the time of ancient Troy. The roles played by the combatants from the two coalitions include Achilles, Odysseus, Agamemnon, Hector, and Penthesilea. The roles create two simultaneous timelines: The first timeline is the session conducted by Elliot Ramirez to teach Tom and the other trainees about defense tactics in the present while the second timeline is set in ancient Greece.

Having established virtual reality and cyberspace as metaphorical yet substantial places visited frequently by gamers, simulations, represented by the

games themselves, have different levels or stages that correspond with Baudrillard's three orders of the development of simulacra. The first order is "natural, naturalistic simulacra: based on image, imitation, and counterfeiting" (Baudrillard 1991, 309). The first order of simulacra belongs to ancient times and easily distinguishes between the real and the unreal as the image remains at the level of representation. In the first stage, which Baudrillard likens to drawing a map of a real geographical location, the real and its image are crystal clear. The protagonists of the selected novels are capable of drawing a line between the game and the real world in that stage. For example, Kincaid's *Insignia* portrays video games, at the beginning of the novel, as simply a form of entertainment. Tom tricks scammers in virtual reality parlors into losing their money to provide any place for him and his father where they can stay the night. Tom's gaming habits at this stage is an extension of his father's gambling habits in the past. He is not immersed enough in the gaming world to blur the distinction between the real and the electronic. He only tries to provide for himself and his father while doing something he enjoys.

The second order of simulacra, according to Baudrillard, is defined as "productive, productionist simulacra: based on energy and force, materialized by the machine and the entire system of production. Their aim is Promethean: world-wide application, continuous expansion" (1991, 309). The second order indicates the manipulation or concealment of reality behind simulations. This stage is characterized by distorting the real by appearances. The second order of simulacra started with the age of mechanical production and signaled the first stage of machine intervention in everyday life. The economy holds a strong power over societies because of mass production. Thus, economy keeps supplying societies with commodities that become indispensable with regular use guaranteeing the persistence of commodification.

Moreover, the third order of simulacra is described as "simulation simulacra: based on information, the model, cybernetic play. Their aim is maximum operationality, hyperreality, total control" (Baudrillard 1991, 309). The postmodern age is expressive of Baudrillard's third order of simulacra. The introduction of computer and information technology marks the second stage of machines interference in daily life creating a world of simulation. The boundaries between the second and third orders of simulacra often intersect in SF (Baudrillard 1991, 313). However, the third order is more important to Baudrillard because it reflects the postmodern scene.

The selected novels render the destruction of the real as a fixed entity and promote the model. For example, *Ready Player One* establishes the cyberworld

and the real world as equally important: "Items in the OASIS had just as much value as things in the real world (sometimes more) The OASIS credit was the coin of the realm, and in these dark times, it was also one of the world's most stable currencies, valued higher than the dollar, pound, euro, or yen" (Cline 2011, 28-29). In the novel, the imaginary is nearly the same as the real because the imaginary exceeds its status as a model and gains more validity.

Furthermore, the imaginary is represented in cyberpunk as virtual reality which tackles the ever-changing views of reality in contemporary times. In *Insignia*, Lieutenant Blackburn tells the combatants that "The mind is everything. Manipulate a mind, and you manipulate the entire world as far as that person's concerned. This is how your Applied Sims programs convince you you're an animal, or trick you into thinking you're in an artificial landscape" (Kincaid 2012, 61). Lieutenant Blackburn explains that reality is not about observing the external environment, it is a matter of people's adjustable perception. The complexity of perceived reality, brought by the internet, resonates with the Baudrillardian idea of hyperreality that emerges when the model surpasses its origin.

Critics and scholars recognize the massive effects of cyberspace over daily life. However, the effects are viewed in various lights: Some critics believe that technology, in its contemporary form, is a natural outcome of late capitalism and they are cynical about its consequences, namely that it may grow into a new powerful "transcendental signified" which may take over the lives of its users (Cavallaro 2000, 30). *Ender's Game*, for example, depicts the dominance of games over all other activities at Battle school: "the games— that was what they lived for. That was what filled the hours between waking and sleeping" (Card 1994, 45). Games at Battle School are important to adults and young adults as well exemplifying how cyberspace and technology occupy a large portion of people's everyday lives, even though they should be only a representation or a model.

Other critics are optimistic deeming cyberspace to be an outlet for those who feel alienated in the physical world giving them a space to find connections and "a sense of belonging" (Cavallaro 2000, 30). Games to the characters are more than simple electronic means of entertainment. Games matter because they influence the protagonists' real lives. For instance, in *Ender's Game*, Ender masters games and simulations to safeguard those who are dear to him, especially his sister Valentine, from the alien invasion of the buggers. His desire to finish the games once and for all is caused by his inability to protect himself and his sister from being constantly bullied by his older brother, Peter. Seeking

to provide protection for the weak in the game demonstrates the virtual feelings of achievement that are usually inaccessible in the real world. Games compensate for things players believe they cannot find in the physical world (McGonigal 2011, 3).

The Communal Experience and Mental Activity in Online Games

The sense of belonging, explained by Cavallaro, is a target to most game developers that is usually achieved when several players play the same game at the same time. Virtual environments are designed around the fact that they should be concurrently accessible to multiple users who do not have to log on from the same place (Cavallaro 2000, 28). Simply put, the core of online games is communal experience. Games began as rudimentary activities that could be performed by one or two players whether in the form of old Atari games or more recent single player PC games. With its unprecedented capacity for connectivity, the internet has rendered possible the creation of games with large numbers of players that may amount to thousands in each game server. MMORPGs, massively multiplayer online role-playing games, are part of the postmodern communication technology because, like most of the internet activities, they use social interactions as their focal point. Hence, they facilitate the creation of online communities where such social interactions may replace or minimize regular human interactions in the physical world.

The selected novels illustrate examples of these new interactions associated with the postmodern phenomenon of online games that has a strong impact on young adult gamers. For instance, Wade falls in love with Art3miss in the game in *Ready Player One*, although he has never met her in real life. The OASIS, like postmodern online games, provides its users with social interactions that have only been available in the material world, such as trade and love. This gives more meaning to virtual experiences by allowing users and players to communicate in various ways.

Furthermore, the transition from single player games to sharing the gaming experience and playing with other people creates a sense of attachment to the game (McGonigal 2011, 96). Young adult players feel they are part of a bigger cause even if it is only virtual. Consequently, small communities are formed in the game with the capacity for including more players and potential for more future expansion. Immersion becomes essential in any in-game community. In order to achieve strong levels of immersion, two conditions must be met. The first is that adopting the "game's story" must be communal not individual. The

second is that the choices of the players inside the game should be for the common good of other players (McGonigal2011, 101).

The simultaneous immersion of large numbers of players in the game world gradually crafts a new reality where each player has a role to play. In *Insignia*, Elliot tells Tom in their applied sims class that "The scenario was about emotional attunement: a pack of wolves working as one to take down a moose. You should've helped the pack kill the prey. Instead, you broke with the team and worked all by yourself. And then you tried to challenge my leadership of the pack" (Kincaid 2012, 54- 55). Combatants are often assigned various roles within a storyline in applied sims. Different roles mean different tasks which, together, complete the story of the game and fulfill the desired virtual experience of the simulated world. In-game communities resemble real societies where every person must be functionary. Individuals do not act rashly or arbitrarily in real life and so should players in games; they should be responsible enough because their decisions affect other players and the authenticity of the virtual world.

The Fluid Perception of Reality in Cyberspace

Mark Nunes states that the virtual reality of SF novels requires specific technologies while all it takes in real life to inhabit the world of simulations is "a screen and a keyboard" (1995, 320). Although only Ender is engaged in a simulation similar to the virtual reality of the postmodern age, the other protagonists are biologically modified as all of them are mentally engaged. In addition, players do not feel estranged in cyberspace. On the contrary, "the 'naturalness' and comfort of players in this virtual space emphasize just how 'real' cyberspace has become" because a computer screen is a double agent that "simulates and denies space at the same time" (Nunes 1995, 322). Computer screens discard the space of the physical world making way to the virtual space which becomes more dominant to gamers.

The circumstances of the protagonists reveal that they are not alienated in the virtual world because they are familiar with its rules. They are alienated in the real world that does not follow specific rules. People prefer virtual reality which is "neither true or false... neither good nor evil" (Baudrillard 1996, 41). The contrast in depicting the two worlds contributes to setting the characters' preferences of the digital world to the material world, which is often represented in dystopic terms. For example, in *Ready Player One*, the material world is depressingly set in grey colors as people stack trailers to form horizontal units where they can live. The stacks are portrayed as dangerous ghettos with

repeated power outages. Thus, the OASIS represents a virtually rich and vivid oasis that stands in contrast to the grimness of the stacks. When the virtual world starts to give gamers the things they cannot obtain in the real world, they eventually prefer the virtual or the simulacrum over the real.

Slavoj Žižek points out that "Virtual Reality is experienced as reality without being so. What happens at the end of this process of virtualization, however, is that we begin to experience 'real reality' itself as a virtual entity" (Žižek 2002, 11). In *Ready Player One*, Wade states how crucial the OASIS and virtual reality have become to his generation:

My generation had never known a world without the OASIS. To us, it was much more than a game or an entertainment platform. It had been an integral part of our lives for as far back as we could remember. We'd been born into an ugly world, and the OASIS was our one happy refuge. The thought of the simulation being privatized and homogenized by IOI horrified us in a way that those born before its introduction found difficult to understand. For us, it was like someone threatening to take away the sun, or charge a fee to look up at the sky. (Cline 2011, 34)

Cline manages to separate the way adults perceive the simulation from the way young adults do. Part of the adults' life took place before the OASIS took over the material world, so they realize there is another way of life. On the other hand, the young adults of the novel have grown side by side with the OASIS; therefore, it has been part of their childhood and their memories and that is the reason why young adults are the age group that chooses to fight IOI to keep the OASIS a public space. The discrepancy in portraying the two worlds reveals that the young adult characters are not alienated in the cyberworld. On the contrary, they are alienated in the real world, whereas cyberspace offers them a chance to experience the type of reality they desire. Similarly, contemporary young adults are equally present in the physical and the virtual worlds. In turn, it affects their perception of reality and, consecutively, their identity construction.

The Cyborg and the Posthuman

The lives of the young adult characters in the novels are centered on technology as they always interface with technology like contemporary teenagers. Therefore, YA cyberpunk utilizes the figure of the cyborg to explore the construction of subjectivity and identity which is imperative to adolescent readers. The cyborg is defined as "a cybernetic organism, a hybrid of machine

and organism, a creature of social reality as well as a creature of fiction" (Haraway 2006, 117). The cyborg is an entity that blurs the boundaries between a human being and a machine. The figure of the cyborg is used in literature to explore the meaning and nature of humanity.

Since the cyborg does not specify a gender, a race or a class, critics use cyborgs to provide a wide array of readings in which the cyborg is presented as a marginalized figure. Thus, the cyborg as an SF device is a symbol that can be used in various contexts such as feminist, postcolonial, Marxist and postmodern contexts (Short 2005, 50). Although feminist and Marxist elements are evident in the selected novels, this paper mainly examines the cyborg from a postmodern perspective to explore the relation between humans and machines with special attention to young adults.

The cyborg and the posthuman have a postmodern orientation contravening the humanist beliefs that have shaped Western thought since the Middle Ages. Postmodernism propagates the belief that identity is constructed through discourses and ideologies, and views identity in opposition to the humanist beliefs of a "rational autonomous" identity (Butler 2002, 51). Re-examining the process of identity construction has begun with postmodernism in the second half of the twentieth century. However, posthumanism focuses only on interrogating the crucial role of technology in constituting identity. Chronologically speaking, posthumanism comes after postmodernism and claims that subjectivity is fragmented and multiple (Flanagan 2014, 5). Posthumanism is gaining currency in literature because it analyzes the ongoing debate that divides or merges humans and machines. YA cyberpunk embodies the lives of contemporary young adults who are immersed in cyberworlds that occupy a substantial portion of their lives. As a result, their subjectivity is directly connected to the electronic medium of computers. Technology and the digital worlds of today create "hybrid subjectivities" (Hayles 2005, 5) that affect adolescents' identity construction.

In order to analyze how postmodern technology affects the lives of its young adult users, two types of technologies should be differentiated: opaque technology and transparent technology. Andy Clark defines opaque technology as the technology "that keeps tripping the user up, requires skills and capacities that do not come naturally to the biological organism, and thus remains the focus of attention even during routine problem-solving activity" (2003, 37). Opaque technology is always conceived separately from users. For example, a vacuum cleaner or a kitchen blender demands the constant attention of the user. In this case, the boundaries between human and machine are crystal clear. Conversely,

transparent technologies are "those tools that become so well fitted to, and integrated with, our own lives and projects that they are... pretty much invisible-in-use" (Clark 2003, 28).

Similarly, as technology steadily moves from opaque to transparent, a portal to a new world is unlocked. Contemporary computer technology is manufactured to be easily accessible to users in their everyday routines. Getting accustomed to using certain technological gadgets everyday facilitates the lives of users; thus, reliance on technology becomes correlational. The technology used by young adults in the selected novels conforms to Clark's transparent technology. Most of the time the young protagonists effortlessly interface with technology, so it gradually occupies considerable portions of their daily routines. Although users are accustomed to transparent technology with repetitive use, the technology itself is not usually simple as it requires careful and extensive design to function without distracting its users (Clark 2003, 45). Thus, making the best of contemporary machines and technology indicates the postmodern state of cyborghood.

Users are not isolated from the cyberworld of their computers: information moves back and forth between the organic and the synthetic which results in a complete circle with the user as part of the "system" (Hayles 1999, 9). In the selected novels, technology is integrated in the lives of young adults who engage with it in a mental effort that is similar to problem solving because their survival in the game world depends on analyzing computer data. In *Ender's Game*, the youngest soldiers are instructed to gear up and enter the battleroom without telling them what they should expect to find or what they are supposed to do, so Ender tries to figure out what their gears are designed for: "He pulled the gun from his suit and examined it. He had pushed all the buttons back in the room, but the gun did nothing there. Maybe here in the battleroom it would work. There were no instructions on it. No labels on the controls" (Card 1994, 57- 58). Since Ender and Alai discover the hidden rules of the battleroom, they successfully become part of the system. The same applies to young adults who probe contemporary technology to explore its full potential. In turn, becoming an active part of the system gradually affects their consciousness and their identity construction, and signals for the emergence of the cyborg and the posthuman.

Consciousness, the Cyborg Identity, and the Avatar

Consciousness is fluid in digital environments because the posthuman is the product of the "distributed cognitive system" that fuses what lies on both sides of the computer screen (Hayles 1999, xiv). Likewise, the concept of the cyborg

relies on "information as a (disembodied) entity that can flow between carbon-based organic components and silicon-based electronic components to make protein and silicon operate as a single system" (Hayles 1999, 2). A computer screen acts as a portal between two worlds. It conjoins the physical surroundings of users and the virtual worlds where they perform tasks creating a hybrid world. Users are equally aware of the two realms which affect their consciousness and their subjectivity. In *Ender's Game*, Ender uses the simulator to train for the war against the buggers and his skills are always assessed: "The watchers would stay, silently watching him run through a difficult simulation, and then leave just as he finished. What are you doing, he wanted to ask. Judging me? Determining whether you want to trust the fleet to me?" (Card 1994, 259). Ender is supposed to focus on winning the simulated battles, but his consciousness drifts between the simulator and the people observing him. His awareness is divided between the physical and the virtual as he processes the information of the two environments at the same time. The same applies to contemporary young adults who regularly play online games. They are conscious of what lies in front of and behind their computer screens.

Posthumanism seeks to integrate humans and machines in a single universe where both are not perceived as antagonistic but as complementary to each other. Katherine Hayles defines the posthuman subject as "an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction" (1999, 3). The first half of the definition explains that the posthuman is not completely material or digital but a mixture of the two while the second half pertains to the postmodern notion of fragmented identity. Postmodernism as well as posthumanism emphasize the firm hold of technology and the need to adjust to such circumstances. In *Ender's Game*, Ender does not conceive of the simulator as a meager tool. It is an essential part of who Ender is: "At the end of his first year he was winning every battle on the simulator, and played the game as if the machine were a natural part of his body" (Card 1994, 260). Technology assists Ender to polish and develop his skills. Therefore, technology is not portrayed as restrictive but as supportive. Technology, in literature written for children and adolescents, was initially depicted as pervasive with dire effects for individuals and societies alike. Starting from the mid-2000s, technology was no longer seen as an all-negative package threatening the future of the human race. On the contrary, technology began to be portrayed as "enabling, rather than disempowering, for child and adolescent subjects" (Flanagan 2014, 2). The discrepancy in assessing technology as positive or negative is in part because of a generation gap:

"younger people's obvious technical proficiency... may prove destabilising and unsettling to an older generation struggling to keep up with technological momentum" (Flanagan 2014, 34). The selected novels depict young adults as more technologically capable than adults. Therefore, young adults are chosen for changing the fate of their societies. In *Ready Player One*, young adult characters interface with technology since their infancy. It is natural for children to log onto the OASIS as soon as they can interface with it. Similarly, children and teenagers of the 1990s and the 2000s are accustomed to heavy technological presence in their lives while older generations, who have not grown up in complex technological presence, heed technology as life altering. Growing up in a technologically mediated environment affects children and young adults alike as it impacts their identity and makes them cyborgs nearly since their birth.

Identity is greatly affected by technology and cyberspace, and avatars are an important means of examining cyborg and posthuman identity. The avatar is a digital embodiment, whether human or nonhuman, of the player. It is a character controlled by a player and a tool used according to the game rules. Avatars provide a unique way of forming the identity and subjectivity of users through providing them with manifestations of the self to be looked at and observed. Subjectivity is fragmented through "the gaze in an engaged act of perception, the moment in which 'I emerge as eye'" (Benjamin 2016, 116). The users' ability to see their avatars in the digital world fragments their identities and their self-image as they become the observer and the observed at the same time.

In *Ready Player One*, Wade perceives himself as a combination of his physical body and his virtual embodiment: "As my avatar slowly materialized on my stronghold's observation deck, I looked down at my virtual body, admiring it like a favorite suit I hadn't worn in a while" (Cline 2011, 299). Wade does not separate himself from his avatar: Both coalesce to form a single entity and a single identity. Such fragmentation is generated by the fact that he exists in two places at once. His body is actually present in the physical world while extending his consciousness to the virtual one. Contemporary young adults go through the same process every day. Young adult gamers share Wade's experience, whereas non-gamers undergo a similar experience by posting and sharing on social media where they interact with people from all around the world, projecting their consciousness to cyberspace.

Humanism, Posthumanism, and Agency

The cyborg and the posthuman are hybrid entities that defy notions of unified identity and Western thought in general. Clare Bradford et al. relay that "binary

oppositions between concepts such as natural and artificial, organic and technological, subject and object, body and mind, body and embodiment, real and virtual, [and] presence and absence" in contemporary Western societies are a means of "inclusion and exclusion" (2008, 154). Posthumanism rejects such dualism opening an array of choices through presenting new modes of subjectivity and new ways of perceiving the world. Nevertheless, posthumanism is a discourse that encompasses many premises that are sometimes contradictory (Flanagan 2014, 11). Although Flanagan believes that posthumanism is not necessarily a reaction against humanism but "should be viewed as a reconceptualisation and expansion of the human subject", her definition of humanism as "the philosophy or ideological discourse that places the rational, autonomous and cohesive human self at its centre, rejecting the notion that identity is culturally produced and therefore conditional" puts humanism in direct opposition with posthumanism (2014, 11- 12). Humanism propagates a unified identity while the core of posthumanism is fragmented multiple identity that is shaped in coordination with culture. Therefore, posthumanism is not an extension of humanist thought. Literary works foster the posthuman when they promote human agency and reject it when they cancel characters' agency (Hayles 1999, 279).

Humanism is a strong tradition in YA literature since it commonly features the journey of adolescent protagonists from childhood to maturity. YA literature focuses on providing prototypes of exemplary characters for teenagers to follow. Hence, it encourages the adoption of a certain identity which conforms to accepted societal norms (Flanagan 2014, 13- 14). In other words, promoting a single, fixed model of identity pertains to humanism. Nevertheless, posthumanism gradually gains more currency in YA science fiction as some of the characters are constructed as an Other that does not adhere to the usual representation of young adult protagonists such as cyborgs and robots. The evident otherness of such characters symbolizes the negative feelings teenagers experience as a result of not belonging to childhood or adulthood but somewhere in between (Flanagan 2014, 20).

Flanagan states that YA science fiction dealing with technological bodily alterations portray these measurements as forced on the young protagonists (2014, 59). Such coercive physical interventions are applicable only to *Ender's Game*. Ender is forced to install a monitor at the back of his head in order for the IF to check his progress and if he is fit to enroll in Battle School. The other two novels, however, show the merge between human and machine as voluntary. For example, in *Insignia*, Tom is not forced to install the neural processor in his

brain. He readily accepts the installation despite his father's objections. This manifests the extent to which young generations are already deeply entangled with technology and stresses the new tendency of YA literature to produce empowering works for adolescents.

Contemporary young adults have grown in a world that views technology as a privilege. Therefore, their online presence affects their identity starting from online marketing to creating online personae that highlight selected traits of their characters. Players extend their agency, subjectivity, and consciousness to the virtual world in order to act and perform in online games. Such extension fragments young adult gamers identities, because they act through the medium of their computer screen that unifies young adult players with their avatars. In an age where technology is dominant, their identities fuse both the real and the unreal, the physical and the virtual, which raises imperative questions about the nature of being human in an age of posthumanism.

Works Cited

- Baudrillard, Jean, and Arthur B. Evans. 1991. "Simulacra and Science Fiction." *Science Fiction Studies* 18, no. 3 (November): 309-313. <http://www.jstor.org/stable/4240082>.
- Baudrillard, Jean. 2002. "Simulacra and Simulations." In *Jean Baudrillard: Selected Writings*, edited by Mark Poster, 166-184. UCI School of Humanities. http://faculty.humanities.uci.edu/poster/books/Baudrillard,%20Jean%20-%20Selected%20Writings_ok.pdf.
- Baudrillard, Jean. 1996. *The Perfect Crime*. Translated by Chris Turner. London: Verso.
- Benjamin, Garfield. 2016. *The Cyborg Subject*. London: Palgrave Macmillan. Springer, [https://doi: 10.1057/978-1-137-58449-6](https://doi:10.1057/978-1-137-58449-6).
- Bradford, Clare et al. 2008. *New World Orders in Contemporary Children's Literature: Utopian Transformations*. London: Palgrave Macmillan. Springer, [https://doi: 10.1057/9780230582583](https://doi:10.1057/9780230582583).
- Butler, Christopher. 2002. *Postmodernism: A Very Short Introduction*. New York: Oxford University Press.
- Card, Orson Scott. 1994. *Ender's Game*. New York: Tom Doherty Associates.
- Castronova, Edward. 2005. *Synthetic Worlds: The Business and Culture of Online Games*. Chicago: Chicago University Press.

- Cavallaro, Dani. 2000. *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson*. London: The Athlone Press.
- Clark, Andy. 2003. *Natural-born Cyborgs: Minds, Technologies, and the Future of Human Intelligence*. New York: Oxford University Press.
- Cline, Ernest. 2011. *Ready Player One*. New York: Crown Publishers. Adobe Digital Editions.
- Csicsery-Ronay, Istvan. "Cyberpunk and Neuromanticism." *Mississippi Review* 16, no. 2/3 (1988): 266-78. <http://www.jstor.org/stable/20134180>.
- Flanagan, Victoria. 2014. *Technology and Identity in Young Adult Fiction: The Posthuman Subject*. London: Palgrave Macmillan. Springer, <https://doi:10.1057/9781137362063>.
- Haraway, Donna J. 2006. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late 20th Century." In *The International Handbook of Virtual Learning Environments*, edited by Joel Weiss et al., 117–158. Springer, https://doi:10.1007/978-1-4020-3803-7_4.
- Hartmann, Doreen. 2009. "Space Construction as Cultural Practice: Reading William Gibson's *Neuromancer* with Respect to Postmodern Concepts of Space." In *Futurescapes: Space in Utopian and Science Fiction Discourses*, edited by Ralph Pordzik, 275-300. Amsterdam: Rodopi.
- Hayles, N. Katherine. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: Chicago University Press.
- Hayles, N. Katherine. 2005. *My Mother Was a Computer: Digital Subjects and Literary Texts*. Chicago: Chicago University Press.
- Kincaid, S. J. 2012. *Insignia*. New York: Katherine Tegen Books. Adobe Digital Editions.
- Kitchin, Rob. 2009. "Looking at the Present Through the Future: Science-Fiction Urbanism and Contingent and Relational Creativity." In *Milieus of Creativity*, edited by Peter Meusbarger, Joachim Funke and Edgar Wunder, 245-254. Springer, https://doi:10.1007/978-1-4020-9877-2_14.
- McGonigal, Jane. 2011. *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*. New York: The Penguin Press.
- Nunes, Mark. 1995. "Jean Baudrillard in Cyberspace: Internet, Virtuality, and Postmodernity." *Style* 29, no. 2 (Summer): 314-27. <http://www.jstor.org/stable/42946283>.
- Roberts, Adam. 2002. *Science Fiction*. London: Routledge. Adobe Digital Editions.
- Short, Sue. 2005. *Cyborg Cinema and Contemporary Subjectivity*. New York: Palgrave Macmillan. Springer, <https://doi:10.1057/9780230513501>.

- Suellentrop, Chris. 2006. "Playing with Our Minds." *The Wilson Quarterly* (1976-) 30, no. 3 (Summer): 14-21. <http://www.jstor.org/stable/40261385>.
- Suvin, Darko. 1979. *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*. London: Yale University Press.
- Zizek, Slavoj. 2002. *Welcome to the Desert of the Real*. London: Verso.