

Dissecting the Transhuman Experience in  
*Deus Ex: Human Revolution*

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## Introduction

“The year is 2027. It’s a time of great innovation and technological advancement. It’s also a time of chaos and conspiracy.”

-Adam Jensen, *Deus Ex: Human Revolution* trailer

*Deus Ex: Human Revolution* is the third game in the Deus Ex series, a game franchise known for its combination of first person shooter and role playing game mechanics, and its narrative, which combines human augmentation with conspiracy theories. Released in 2011, 8 years after the release of the previous game in the series, *Deus Ex: Invisible War*, the game represented a return to form of the traditional Deus Ex game play. The original *Deus Ex*, released in 2000, often appears on “best games ever” lists, and its 2003 sequel does not share this distinction for good reason. *Human Revolution*, however, has been well-received by game reviewers and the public. Though it may not have reached the heights that the first game in the series achieved, it is generally seen as a quality game with interesting and modern game play mechanics and a story that is more complex and political than the average computer game narrative.

The world that *Deus Ex: Human Revolution* describes is not all that different from our own. Set in the not-so-distant future of 2027, the world of the game is one in which mechanical limb prostheses and neural implants, collectively called “augmentations” in the game’s vernacular, are extremely common. The story follows Adam Jensen, chief security officer of the Detroit-based Sarif Industries, a leading biotechnology corporation specializing in augmentations. After an attack on Sarif’s laboratory, several of their top scientists are kidnapped, and Adam is left severely injured. Having been refitted with military-grade cybernetic limbs and neural implants, Adam returns six months later and starts off his journey to find the missing scientists. Along the way he discovers a number of startling revelations. Among them is the fact that the world’s political, technological, and financial sectors are being influenced by a shadowy group of people only referred to as “the Illuminati.” It is also revealed that Adam himself was part of a genetic experiment as a child, and that his DNA holds the secret to making the mechanical augmentations more compatible with human biology. On his journey he meets hackers, conspirators, anti-augmentation advocates, criminals, artificial intelligences, and dangerous mercenaries. The game’s narrative, then, can be firmly categorized as belonging to the cyberpunk tradition.

The game’s game play elements are notable as well. As mentioned above, the game incorporates both first person shooter and role playing game mechanics. Adam’s augmentations can be upgraded over the course of the game, with the gamer being able to decide which properties and

attributes they wish to level up. The entire series is notable for allowing the gamer to not only choose the order of the missions they will play, but also the manner in which they traverse the spaces of those missions. The gamer may choose to focus on upgrading Adam's combat skills, and solve the levels in as suitably violent a method as possible. Stealth approaches are also possible by avoiding all enemies and hacking into security systems. Indeed, with the exception of the boss fights, it is possible to complete the game without killing any enemies whatsoever. This emphasis on choice and agency in both the game play and the narrative is one of the defining features of the game, and, because of the interactive nature of the computer game medium, it also is of great influence on the experience of the game's narrative.

This narrative, as is evident, takes on many of the topics surrounding the debate on what has been labeled as transhumanism. It seems that almost every day new gadgets and devices are announced which bring technologies closer to the body. Our minds are more directly connected to the internet, and through the internet, to each other, than ever before. Prosthetics technology continues to advance, and seems to be nearing a point where they are not only capable of achieving parity with our biological limbs, but also exceed them.<sup>1</sup> As technology continues to advance, it is important that we actively discuss technology and the discourse surrounding technology in a critical manner. The latest technologies are almost exclusively developed by private corporations who retain complete control over the dissemination, development, production, and terms of use of these technologies. This influence is only increasing. Note, for instance, how in the aftermath of the 2008 financial crisis a number of financial institutions failed or stumbled, while technology companies such as Google and Apple not only remained unscathed, but continue to post record profits year over year. To leave the effects of this technological advancement without criticism is to court disaster. Furthermore, many of these technologies have the capacity to radically alter our understanding of human biology, culture, social relations, and identity. As these technologies continue to approach closer to our bodies both physically and metaphorically, a proper discussion of the repercussions of technological advancement on our conception of the body, identity, notions of subjectivity, and culture is in order. Transhumanism functions in forms which both blindly promote and critically analyze the potential for transcending what it means to be human.

As highly technological objects, computer games are not to be left out of this discussion. Recent years have seen a surge in popularity of indie games and single-author games which are highly critical of inequalities in our culture.<sup>2</sup> However, the computer game industry is still dominated by technology giants such as Microsoft and Sony. As such, they are subject to the same criticism as

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<sup>1</sup> See, for example, the prosthetics used by amputee athletes.

<sup>2</sup> The works of transgendered game designers Anna Anthropy and Porpentine, for example.

other technological industries. The medium itself presents an interesting conundrum, though. More than any other technology, contemporary computer games represent many of the technologies envisaged by the cyberpunk authors of the 1980s. Like these fictional cyberpunk technologies, computer games allow for a more direct connection with electronic machinery and an opportunity for critical analysis. As narratives, they can convey the same messages as any other form of literature, but as interactive, immersive experience they are able to introduce gamers to both problematic and critically productive ideas in ways that no other medium can. Especially as technological objects, these notions are more often than not an integral part of the discourse of technology. As Robert M. Geraci has noted, computer games “provide the latest—and most compelling—instantiation of the search for technological transcendence through computers” (737).

*Deus Ex: Human Revolution*, then, appears to be an ideal candidate as an object of analysis in an attempt to find links between various conceptions of transhumanism and computer games. After all, the game’s narrative takes on transhumanism as a central theme. It does not seem unreasonable either to consider certain aspects of computer games to be useful in discussions of transhumanism. Does the combination of *Deus Ex: Human Revolution*’s transhuman narrative and potential transhuman experience as a computer game, then, meaningfully contribute to our understanding of transhumanism and its repercussions? An answer to this question may shed light on the ways computer games can productively function in discussions around technology and the body.

To answer this question, I will first have to expand on the definitions of transhumanism and game narrative. In chapter 1 I will look at the two ways transhumanism is considered in contemporary culture. I will show that the first form is a problematic interpretation of technological advancement which may have more sinister undertones, while the second form is a much more useful critical attempt to transcend humanism. This distinction is sorely lacking in most discussions on transhumanism, and will be extremely useful in understanding the consequences of the topic. This chapter will end with a brief examination of these two forms of transhumanism within the genre of cyberpunk.

Chapter 2 will be an examination of narrative in computer games. The manner in which games tell stories is strongly determined by the unique properties of the medium. As a student of literature, I do not encounter the topic of game studies often, so in order to properly understand and analyze *Deus Ex: Human Revolution*’s narrative, an excursion into ruminations on narrative done in the context of game studies is required. I will look at two models of narrative and spatiality in computer games, namely those by Henry Jenkins and Axel Stockburger. I will also look at a number of other unique attributes of computer games which are relevant to my analysis of *Deus Ex: Human Revolution*.

With the knowledge gained from chapters 1 and 2, I will finally turn to *Deus Ex: Human Revolution*. Chapter 3 will consist of a close reading of the game's narrative and game play elements in the context of my definitions of transhumanism and explorations in the construction of computer game narratives. It will also include ruminations on how computer games as a whole could be considered a form of transhumanism. This chapter will conclude with an answer to the primary questions of this work.

Before I continue with chapter one, I would like to clarify on the terminology I will use throughout this work, particularly in relation to computer games. Overall, I will echo Connie Veugen's stance on many terms.<sup>3</sup> Like her, I will use the term "computer game" over "video game" because it is more inclusive, and emphasizes the primary component of the medium, namely the computer that does most of the work, rather than the screen that merely displays it. In my interpretation of the term I also include games which do not use images or texts.<sup>4</sup> This will not have many repercussions for the topic of this work, however. I also prefer the use of the term "gamer" over "player," as that excludes forms of play which are not games. I also refer to Veugen for her breakdown, which she appropriates from Jesper Juul, of "story-structured games" and "games of progression," which is to say games which have narrative as an important component, as opposed to "games of emergence," which do not have any explicit narrative elements. Noted here, of course, is that this is rarely a binary distinction, and that the vast majority of computer games exist somewhere on a spectrum between the two. As I am researching the narrative aspect of computer games, I will not be referring to games of emergence often. I will use the terms "story-structured games" and "games of progression" interchangeably. Lastly, I will use the terms "ludic mechanisms" and "game play mechanisms," also interchangeably, in order to refer to the specific interactive elements of play in computer games. As game studies is still a young and emerging field, quoted passages on the subject will not necessarily reflect my choice of terminology. Any other terms which require definition or elaboration will be defined in the body of the text.

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<sup>3</sup> See Veugen 16-19 for elaboration on these definitions.

<sup>4</sup> Excluding games such as *Johann Sebastian Joust*, which only uses the PlayStation Move motion controllers but is a computer game in every sense of the term, would be a disservice to the medium.

## Chapter 1: The Two Transhumanisms

"The body may heal, but the mind is not always so resilient."

-Hugh Darrow, *Deus Ex: Human Revolution*

It is difficult to escape the overt influence of technology on contemporary culture. Nearly everyone in the Western world carries in their pocket a device that is far more powerful, far more advanced, and far less expensive than the average desktop computer of only a decade ago. We still call them mobile phones, but in truth the telephonic aspects of these devices is only ancillary. These are our personal internet devices, connecting us to the world and allowing us to consume all forms of media from our beds, our trains, and even our bathrooms. Since the release of the first Apple iPhone in 2007, touchscreen-based smartphones have increased the speed and breadth of our connection to the internet, while bringing the screen itself closer to our faces. But technology does not stop its advance. Not content with dominating the global smartphone market, Google is already working on bringing the screen even closer to the eyes with its Glass wearable device.<sup>5</sup> A tiny screen hanging a mere centimeter in front of your eyeball does not just function as a window to the internet, but now mediates reality itself. The next step in the process would be a contact lens with an embedded display.<sup>6</sup> Completely electronic eyeballs and direct interfacing with the visual cortex are sure to follow in suit within our lifetimes.

Technology then, is not just moving forward, it is also moving closer towards our bodies. Technological interfacing with our bodies is, on the whole, as old as technology itself. What is a stick if not a harder and deadlier technological extension of the arm? What is a shoe if not a prosthesis for the sole of the foot? Indeed, prostheses themselves are as old as history.<sup>7</sup> But this interfacing with the human body takes a drastic turn when we move on from adding technology onto the body (such as with the shoe, or indeed the mobile phone), or replacing parts that are lost to the cruelties of life (such as the prosthesis), and start replacing perfectly healthy body parts with supposedly superior (bio)mechanical parts. This is the domain of transhumanism.

Transhumanism is not a term which can be contained to a single, simple definition. For the purposes of this broad look at transhumanism, I will make no distinction between transhumanism and posthumanism. Though posthumanism centers on the end-product of transhumanism, the

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<sup>5</sup> See <http://www.google.com/glass/start/>

<sup>6</sup> See <http://iopscience.iop.org/0960-1317/21/12/125014>

<sup>7</sup> See, for instance, prosthetic toes found in ancient Egyptian tombs:  
<http://news.discovery.com/history/ancient-egypt/ancient-egypt-wooden-toes-prosthetics-121002.htm>

academic discussions labeled under posthumanism are rarely distinguishable from discussions on transhumanism. The term posthuman, in my opinion, is better relegated to completely non-human, perhaps even inhuman, successors of the human race, whatever they may be. Because the “trans” in transhumanism unequivocally stands for transcendence, it is the better term in all the ways I will approach it. The cyborg, another term which escapes concrete definition, will be positioned as the fictional and physical expression of transhumanism. Once again, quoted passages may not necessarily reflect my choice in terminology.

For my analysis of transhumanism I will look to the distinction made by Bart Simon between popular and critical posthumanism. “For popular posthumanism,” he notes, “the future is a space for the realization of individuality, the transcendence of biological limits, and the creation of a new social order” (2). I will adopt this term, referring to it as popular transhumanism instead, but not before making an important modification: while popular transhumanism most assuredly encapsulates many differing ideologies, I will show that it does not have as its aim “the creation of a new social order,” but is instead an attempt at reinforcing the hegemony of Enlightenment ideals.

Simon’s understanding of critical posthumanism, however (which I will accordingly rebrand as critical transhumanism for the sake of consistency), will be maintained. It is summarized by Simon as “an interdisciplinary perspective informed by academic poststructuralism, postmodernism, feminist and postcolonial studies, and science and technology studies ... at the core of this critique is the problematic of the humanist subject with its traditional repercussions on questions of agency, identity, power, and resistance” (3). Critical transhumanism does not merely attempt to deconstruct the humanist foundation on which popular transhumanism is built, but also attempts to chart how technology can be used to accomplish this.

Lastly, a brief look at cyberpunk will be required, as it is the literary genre where these forms of transhumanism are most productively brought into a discourse with each other, with wider discussions on technological progress (and regression), and with other aspects of (post)modern late 20th and early 21st century culture. The figure of the cyborg will be the focal point here, as it is a nearly ubiquitous element of cyberpunk narratives, and the focal point of the genre’s studies into the connections between the body and technology.

## Popular Transhumanism

Nick Bostrom, philosopher and transhumanist *par excellence*, starts off “A History of Transhumanist Thought” with the following quote:

The human desire to acquire new capacities is as ancient as our species itself. We have always sought to expand the boundaries of our existence, be it socially, geographically, or mentally. There is a tendency in at least some individuals always to search for a way around every obstacle and limitation to human life and happiness. (1)

To a certain extent, such a statement is difficult to refute. The traditional view of history is still one of progress and advancement. We are better than our forefathers, supposedly, because we have reduced death by childbirth, because we have invented antibiotics, and because we have created both physical and digital highways which have made the planet a much smaller place. Why would we not extend this capacity for enhancement to our own bodies and minds? Would it not be a shame to succumb to the tyranny of biology if we don't really have to? In Bostrom's own words, he has promoted “the moral urgency of developing means to slow or reverse the aging process” (15). Human enhancement is not just an ideal in his eyes, it is morally essential.

Popular transhumanism owes its popularity to this appeal to the desire (or even this supposed “moral urgency”) of pushing the human body and mind beyond its presumably innate limitations. It is for this purpose that organizations such as Humanity+ (of which Bostrom is one of the founders) promote transhumanist ideals. It should be noted that even within popular transhumanist circles it is acknowledged that there are various political leanings with differing transhumanist ideals. James J. Hughes has noted that these leanings are quite diverse (“The Politics of Transhumanism” 758). Bostrom, too, has noted that there are still many questions left unanswered as to the merits and consequences of transhumanism. “The quest to transcend our natural confines, however,” he remarks, “has long been viewed with ambivalence. On the one hand there is fascination. On the other there is the concept of hubris: that some ambitions are off-limits and will backfire if pursued” (2). Popular transhumanism, then, is supposedly still a place of contention, and does not belong to any political view in particular.

This is an argument that is not all too difficult to disprove, however. For one, all possible political leanings of popular transhumanism still are still centered on two basic conceits. The first is that there is such a thing as “the individual,” a concrete, well-defined, singular entity that lives in, forms the basis of, or is otherwise in control of the human mind. The second is that this individual has within him an innate, natural desire to enhance himself to the point of being able to utterly and completely dominate the environment around him. These two assumptions have very direct political and cultural consequences. Popular transhumanism's acknowledgment of political differences within

the movement masks any further debate, and reveals an alarming lack of self-criticism. That humanity as a whole is on this “quest to transcend our natural confines,” as Bostrom has put it, is never cast into doubt. This lack of self-criticism is visible in Bostrom’s “A History of Transhumanist Thought” in particular. Bostrom’s pre-history of transhumanism is entirely Eurocentric, and his mention of feminist critiques and views on transhumanism is limited to a few scant paragraphs, with what seems to be a complete misreading of Donna Haraway’s take on the cyborg. In this sense, Bostrom is representative of what David Harvey has called the type of “social actors... [who] endow technology with causative powers to the point that they will uncritically—and sometimes disastrously—invest in it the naïve belief that it will somehow provide solutions to whatever problems they are encountering” (3).

Popular transhumanism assumes that the technology itself will change everything, all in the name of the Enlightenment ideals of progress. However, as James J. Hughes has noted, “transhumanism, the belief that science can be used to transcend the limitations of the human body and brain, is an ideological descendent of the Enlightenment... As such, transhumanism also inherited the internal contradictions and tensions of the Enlightenment tradition” (“Contradictions of Transhumanism” 622). It is difficult to not simply label popular transhumanism as utopian technofetishism when it often forgets, as David Harvey so eloquently put it, that “the fetish arises because we endow technologies—mere things—with powers they do not have (e.g., the ability to solve social problems, to keep the economy vibrant, or to provide us with a superior life)” (3). Transhumanism shares this fetish for technology with another utopian vision of technological progress: the technological singularity. The technological singularity, a sudden explosion of technology and artificial intelligence which would rapidly alter social and geographical reality, is argued to be both an inevitability and a positive outcome for humankind, according to proponents such as Ray Kurzweil. The complete integration of the human intellect into the supposedly limitless capabilities of machines would be only one of the steps of the evolution of the universe into a single cosmic intelligent entity (Kurzweil 15). Astonishingly, Kurzweil applies the Enlightenment narrative of progress directly to the entire universe.

The most analyzed and interesting aspect of the singularity is that transitional moment between “before” and “after.” This moment is ostensibly an asymptotic rise in technology and intelligence, nearly instant, a rupture, almost calamitous or apocalyptic in nature, which is followed by a complete reconfiguration of social and physical relations. The irony here is that Kurzweil’s description of a post-singularity world (the very same world he had previously deemed to be indescribably different), is essentially the same world as it exists today. As Steven Shaviro describes, in his critique of Kurzweil’s writings:

By a curious sleight of hand, even after a radical “rupture” in the very “fabric of human history,” we witness the persistence of such features of our society today as private property, capital accumulation, branding and advertising, stringent copyright enforcement, and above all “business models” (with which Kurzweil seems curiously to be obsessed). (3)

Kurzweil’s singularity and popular transhumanism are both elements of a larger global discourse of technological progress. This discourse is itself a tool used by the neoliberal regime to sustain and reinforce itself. “In general,” Harvey has remarked, “the paths of technological innovation and application have had innumerable democratizing possibilities, which have been largely diverted to ensure the perpetuation of existing power centers, both socially and geographically” (23). This is why Bart Simon was wrong in postulating that popular transhumanism (or, in his words, posthumanism), is used by its proponents as a medium for social change. Like the technological singularity, popular transhumanism is a force of stabilization, not revolution. It conceals the hands of capitalism and its neoliberalism underpinnings by promising change and progress. But it is progress as an ouroboros, and endless loop of change glorified in order to maintain the political status quo.

This same tendency is felt in popular transhumanism’s assumption of the stable liberal subject. Here, more than anywhere else, is where the lack of self-criticism leads to popular transhumanism’s inability to meaningfully contribute to discussions on technology. As Slavoj Žižek has put it:

...there always seems to be something shallow, boring even, about transhumanist meditations: they basically ignore the problem, and like their critics, avoid the core of the question with which they appear to be dealing...both transhumanists and their critics unproblematically cling to the standard notions of a free autonomous individual—the difference is that transhumanists simply assume that it will survive the passage into the post-human era, while their critics see post-humanity as a threat to be resisted. (345)

This staunch attachment to a natural, essential, humanist “free autonomous individual,” is another crucial element of the Enlightenment ideals which power popular transhumanism, and this again strongly contradicts with the claim of revolutionary potential. This contradiction is perhaps best embodied by Francis Fukuyama, who has recently criticized transhumanism as much as he has promoted the supremacy of liberal democracy (Arnaldi 103). “The threat here is fundamental for Fukuyama,” Bart Simon has noted, “genetic technologies will alter the material and biological basis of the natural human equality that serves as the basis of political equality and human rights” (1).

Though Fukuyama fears transhumanism precisely because of its potential to annihilate the stable subject and to restart history, as it were, popular transhumanism seems to be either blind to this possibility or willfully ignorant of it. Any part of the human body, even the mind, can apparently be upgraded, augmented, and enhanced without compromising the essential humanity of the

subject. See here too Kurzweil's argument that the post-singularity super intelligent artificial minds will still be essentially human simply because they are descendants of humanity (259). Somehow this essential, untouchable *human* element can escape augmentation, not just because it cannot be augmented, but also because it does not even *require* it.

The fictional embodiment of this, what is essentially still a deep-rooted humanist ideal masquerading as transhumanism, is no doubt the character of Dr. Eldon Tyrell in *Blade Runner*. He may be the genius creator of the decidedly transhuman replicants, bio-organic robots who are superior to humans in every way, planned obsolescence notwithstanding, but the slogan of the Tyrell Corporation, "More Human than Human," betrays his humanist ideals. He is not on any kind of quest to transcend humanity, he merely wishes to find its true potential. The same is true for the replicants themselves, who are following in Pinocchio's footsteps as they attempt to complete their journey to become more human than they already are.

So what is popular transhumanism, then? Is it a collection of movements which have as their primary aim the dissemination of the ideology of exceeding the current limitations of the human body and mind? This is the case only if we look at the surface. As we have seen, however, a more critical analysis shows that popular transhumanism is not about exceeding anything at all. It is not a movement for change, but a movement for stasis. It is not about revolutionary potential, it is about stability. Popular transhumanism has, as its true primary function, the goals of reinforcing the regime of neoliberalism and humanism. The "trans" in transhumanism is meaningless here. There is no will to actually transcend anything. The stable, autonomous, individual human remains very much in place. As we shall see, however, there is a way of looking transhumanism and technology-related phenomena which is much more productive.

### Critical Transhumanism

Critical transhumanism finds its footing in its critique of the very same humanism that popular transhumanism holds on to so dearly, and it is there where the most critical potential lies. This is not to say that technology does not play a role in these types of critiques, or that it is condemned. In fact, the liberating possibilities of technology and technological fiction are explored more thoroughly in critical transhumanism than in popular transhumanism. A detailed analysis of critical humanism is, unfortunately, far beyond the scope of this work, but some important aspects will briefly be covered. Critical transhumanism is often an aspect of feminist criticism, if only because the feminist topics of anti-naturalism, the hegemony of binary discourse, and examinations of the

role of the body in culture are concordant with the themes of transhumanism. The goal of critical transhumanism, in contrast to the more simplistic and, quite frankly, disingenuous goals of popular transhumanism, is to find productive ways of using the discourse of technology and technological progress in order to aid in the project of dismantling the stable individual subject that forms the core of humanism. In essence, the purpose of critical transhumanism is to truly transcend humanism.

Within the realm of critical transhumanism, the body becomes a locus of contention, hybridity, and plurality. As Halberstam and Livingston have articulated, “the posthuman body is a technology, a screen, a projected image; it is a body under the sign of AIDS, a contaminated body, a deadly body, a techno-body; it is, as we shall see, a queer body” (3). Rather than an individual, single body, controlled by an individual, rational mind, the body, and the mind along with it, becomes a true citizen of a postmodern world; as much, if not more, an effect of its surroundings than an internally constructed whole.

Queer, cyborg, metametazoan, hybrid, PWA; bodies-without-organs, bodies in process, virtual bodies: in unvisualizable amniotic indeterminacy, and unfazed by the hype of their always premature and redundant annunciation, posthuman bodies thrive in the mutual deformations of totem taxonomy. (Halberstam 19)

Halberstam and Livingston take the potential of technology and technological discourse to modify, augment, enhance, and degrade the body, and attempt to find answers for that question that Žižek wanted answered: how do these radical technological modifications change the definition of human? The answer they provide is that the definition becomes hybrid. Identities blur, ideologies merge, and realities intertwine. It is the complete opposite of Kurzweil’s prediction: the technological plurality.

In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, Katherine Hayles elaborates on the political and cultural consequences of this plurality:

Although I think that serious consideration needs to be given to how certain characteristics associated with the liberal subject, especially agency and choice, can be articulated within a posthuman context, I do not mourn the passing of a concept so deeply entwined with projects of domination and oppression. (5)

The critical transhumanist goal, then, is not just about merely transcending the liberal subject, it is about transcending the specific problematic aspects of the liberal subject which still cause so much pain and suffering today. The Enlightenment narrative of progress has been turned in on itself. Critical transhumanism is an attempt to break the ouroboros, to have it bite off its own tail. As Simon has put it: “The revolutionary Enlightenment narratives that challenged an oppressive feudal order and reenvisioned “man” as rational, autonomous, unique, and free have been in turn challenged and deconstructed...the postmodern subject is an unstable, impure mixture without discernable origins; a hybrid, a cyborg” (4).

It is the term “cyborg” which Donna Haraway uses to encapsulate these ideas. As Chad Parkhill observes, “Haraway’s cyborg is part of a sustained project to think beyond humanism and human subjectivity” (84). In Haraway’s own words, “a cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction. Social reality is lived social relations, our most important political construction, a world-changing fiction” (191). It is important to note here that Haraway’s cyborg is not necessarily a technological entity; it does not require mechanical limbs or electronic subcortical implants in order to be called a cyborg. Haraway’s cyborg, rather, is a metaphor for an entity (it would not be entirely appropriate to call it an individual) who is perfectly able to navigate the postmodern condition, defining and continuously redefining itself as required. As Scott McCracken notes:

Haraway’s use of the cyborg as transformative metaphor is productive because it embraces, rather than runs away from, these new realities. Her concept of the cyborg engages with the kinds of hybrid identities that are being produced by the new global economy. Experience is now both local and global, regional and transcultural, biological and technological. The cyborg, as transformative metaphor, provides the figure through which the possibilities, as well as the limitations, of the new can be thought. (294)

Indeed, technology still plays an important part in Haraway’s conception of the cyborg. Though the cyborg is metaphorical and therefore does not require a direct physical interface with technology, the cyborg will still be familiar with it, constantly encountering, resisting, embracing, and engaging with an increasingly technologically defined world. Unlike the stabilization that is the goal of popular transhumanism, however, Haraway’s comes equipped with the means to break free from many of culture’s supposedly inherent regimes. As Haraway herself explains:

...certain dualisms have been persistent in Western traditions; they have all been systemic to the logics and practices of domination of women, people of color, nature, workers, animals—in short, domination of all constituted as others, whose task is to mirror the self...high-tech culture challenges these dualisms in intriguing ways. It is not clear who makes and who is made in the relation between human and machine. It is not clear what is mind and what is body in machines that resolve into coding practices. (219)

Haraway’s cyborg is the ultimate embodiment of the critical transhumanist ideal: a pluralized, hybrid, complex entity which continually adapts itself to an increasingly plural, hybrid, and complex world. The hope here is that such a fluid being would be more inclined and better equipped within the discourse of technology to actively criticize inequalities and injustices in our culture. The cyborg is always reactive and interactive, not an essentialist nor a naturalist, because “the certainty of what counts as nature—a source of insight and a promise of innocence—is undermined, probably fatally” (Haraway 194). In more poetic terms, Haraway notes that “the cyborg would not recognize the

Garden of Eden; it is not made of mud and cannot dream of returning to dust" (192). Haraway's cyborg is what popular transhumanism's equivalent cyborg pretends to be: a break from what has come before. It is transhuman; not *more human*, but *more than human*.

### Cyberpunk and the Cyborg

In the words of Katherine Hayles, "literary texts often reveal, as scientific work cannot, the complex cultural, social, and representational issues tied up with conceptual shifts and technological innovations" (24). As a genre which finds its origin in reactions to Reagan's 80s, it is no surprise that cyberpunk "bears many points of contact with postmodernist fiction" (Cavallaro, *Cyberpunk and Cyberculture* 10). Cyberpunk distinguishes itself from other subgenres of science fiction by foregrounding the cultural and personal consequences of the technological landscape. Because, as we have seen, the pace of technological development is only making these consequences more relevant to our daily lives, and because many of the predictions of early cyberpunk fiction, from megacorporations with more power than the government to the internet, have already seemingly come true, the significance of cyberpunk is difficult to overstate.

Of primary concern in this discussion on transhumanism is cyberpunk's approach to how technology and the body interact. The cyborg is the center of this discussion because, as we have seen in both approaches to transhumanism, it expresses man's fundamental connection to technology. The body is the playground of the interactions that are caused by this connection. As Dani Cavallaro puts it, "cyberpunk offers an imaginative articulation of...developments in technoscience to show that the body is the ever-changing product of technologies that are always tied to specific cultural contexts" (ibid. 74). She continues:

The ways in which we negotiate ideological, ethical and aesthetic issues are not abstract, for they pivot on the construction of cultural bodies of perception and knowledge. Such bodies are not static configurations any more than the individual organism is unchanging. They actually permutate at all times; they are always, in other words, in the process of becoming embodied. (ibid. 78)

Indeed, it is interesting to note that embodiment and the flesh seem to play a more important role in this discussion than the technological aspect. From James Cameron's *Terminator 2: Judgment Day*, where even the character who is essentially a robot calls himself "a cybernetic organism [with] living tissue over a metal endoskeleton," to the enormous selection of cyberpunk protagonists who have neural implants that allow them to explore virtual worlds or otherwise connect to computer

networks, the cyborg is defined more by his flesh than his technology. As Cavallaro has noted, “the meat is ultimately inescapable, whether it is regarded as the prison of the soul abhorred by many a metaphysical tradition or as a potential source of (sanctioned or illicit) delights” (“The Brain in a Vat in Cyberpunk” 288).

Cyberpunk, then, is that literary genre where popular transhumanism and critical transhumanism meet, battle, and resolve each other. The technology fetish of popular transhumanism is simultaneously celebrated and derided. Note, for example, how the human characters in *The Matrix* embrace their enhanced kung-fu powers wholeheartedly, while neglecting that these powers are only available to them while they are completely embedded within the system that was built to imprison them. Nevertheless, the danger of unguided technological progress is still one of the film’s central themes, as is the fluidity of identity. Such a critical component is, of course, another one of cyberpunk’s defining features. The liberating power of not just cyborg technology, but also cyborg identity, is a theme which is difficult to ignore within the genre. Cyberpunk is the narrative locus of the doubts and amazement inherent to popular transhumanism, and the crucial questions around identity, culture, and politics posed by critical transhumanism.

An additional layer to the fictional and actual cyborg experience, however, could possibly be contributed by the inherent narrative capabilities of the computer game. Questions of agency may become even more relevant when the “reader” has some form of (perceived) agency over a narrative, and such expansions of agency are potentially expressed to their fullest extent in narrative computer games. The cyborg or transhuman as represented in computer games, both implicitly in any character-based game and explicitly in cyborg and cyberpunk-themed games, can offer us a significant contribution to our understanding of postmodern culture. But before we can engage in this discussion, we must first have a better understanding of the difference between traditional literary narratives and computer game narratives, and reveal what makes computer game narratives so unique.

## Chapter 2: Narrative and Computer Games

“No regrets my dear. As Ariadne told Theseus before he entered the Minotaur’s labyrinth: ‘Always forward... never left or right.’”

-Bob Page, *Deus Ex: Human Revolution*.

The still emergent academic field loosely defined as ‘game studies’ is recovering from a war of sorts. The ludology-narratology debate, tempered though it may be at this point, is a part of game studies history that is impossible to neglect in any discussion on storytelling in computer games. As the field was still trying to assert itself, to create its own language and discourse rather than completely be defined by older, more established fields, computer games scholars were split between those who asserted that games should be entirely defined by their ludic mechanisms, the rule sets which create the game play, or by their narrative prospects.<sup>8</sup> I was personally introduced to this debate in 2005, when I started my own game design studies in Utrecht. Even then, long before I had any academic aspirations, I thought the entire debate a bit silly. Both sides of the conflict seemed misguided to me; the answer quite clearly lay somewhere in the middle, and was more complex than either side had assumed.

Games distinguish themselves from other media by their inherent interactivity. “Video games, more than any other media entertainment form,” Rowan Tulloch notes, “are premised on the notion of user agency. At the core of the concept of interactivity is the idea that what the player chooses to do affects what happens” (2). Veugen: “Computer games do not tell stories, nor do they show them, they create a story world in which the gamer ‘lives’ the story, for lack of a better term” (220). That there needs to be more research done in the construction and effects of interactivity and play, especially those allowed by the increasing complexity of computer games, seems evident. Equally evident, however, is that, while not all games tell stories, many do. Veugen would have no need of her definition of story-structured games nor Juul for the distinction between games of progression versus games of emergence if this were not the case. Indeed, we only have to look at the reaction of gamers to narratively loaded games to see that story-structured games are both a big business and culturally significant. Of the ten highest rated games of 2012, six of them are firmly in the domain of games of progression, and only one could be entirely considered a game of emergence.<sup>9</sup> In fact, the game topping the list, *The Walking Dead: The Game*, is praised more for the

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<sup>8</sup> A complete overview of this debate is beyond the scope of this work. See Veugen 26-29 for a brief history.

<sup>9</sup> See <http://www.metacritic.com/feature/best-video-games-of-2012>. Although Metacritic’s methods may warrant some criticism, it still functions as a decent barometer of trends within the computer game industry.

execution of its narrative than its game play mechanics, which are not particularly complex even for an adventure game.<sup>10</sup> Like Michael Mateas and Andrew Stern, I “reject the notion that games and stories are fundamentally irreconcilable categories” (665).

As a student of literature, I am neither qualified nor exclusively interested in ludic mechanisms. However, in studying the way computer games tell stories, it would be irresponsible for me to ignore them entirely. Having left the ludology-narratology debate behind us, I am not alone in being convinced that computer games tell stories in ways only computer games can. As McKenzie Wark has put it, “games have storylines like the historical novel, which arc from beginning to end. Games have cinematic cut scenes, pure montages of attraction. Games subsume the lines of television just as television subsumed cinema and cinema the novel. But they are something else as well” (67). Though computer games are not known for having particularly literary storylines, Veugen observes that “a game...does not rely on subtlety of plot or complex characterization to get the gamer immersed in the story; the fact that she is part of its fictional world, that she is acting in it and, for all intent and purposes, is determining its fate, automatically make her care” (157). The purpose of this chapter, then, is to find useful models of analyzing game narrative, so as to find productive ways to study *Deus Ex: Human Revolution’s* approach to transhumanism. I will begin by discussing the models proposed by Henry Jenkins and Axel Stockburger, both of which strongly rely on the concept of spatiality. I will then look at some other aspects of computer games which will aid me in my project, namely the problem of what has been called ludonarrative dissonance, and the role of the first person perspective.

### Space and Computer Game Narratives

If agency and direct, responsive interactivity are what separates computer games from film, literature, and other forms of interactive narratives, then these are expressed most clearly in the medium’s use of space. Even in pure games of emergence, the navigation of the game space is one of, if not the most important thing that the gamer must learn if he wishes to succeed. He must dodge bullets, place blocks in the right location, find the collectible item, hide from guards, etc. In story-structured games, then, this space becomes a narrative space. As Henry Jenkins notes, “game designers don’t simply tell stories; they design worlds and sculpt spaces. It is no accident, for example, that game design documents have historically been more interested in issues of level

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<sup>10</sup> For an example, see the review of the game on <http://www.giantbomb.com/reviews/the-walking-dead-review/1900-549/>. It is no surprise that the name of the game’s developer is Telltale Games.

design than plotting or character motivation" (674). It is to chart these spaces that he formulated a taxonomy of four ways environmental storytelling can be used. It is with this same purposes that Axel Stockburger formulated his modalities of space in computer games. Both models can be useful, and a brief discussion of both will follow.

Jenkins's "Game Design as Narrative Architecture" was an attempt to reconcile the ludology-narratology debate. He finds common ground for the ludologists and narratologists in the inherent spatial construction of games. His intent is to "consider in what ways the structuring of game space facilitates different kinds of narrative experiences" (675). He places games in the narrative traditions of adventure, fantasy, science fiction, and travel narratives, which, in his estimation, are often adapted into games precisely because of their spatiality. Here he notes how games may be better equipped to represent the worlds depicted in such fictions: "Games, in turn, may more fully realize the spatiality of these stories, giving a much more immersive and compelling representation of their narrative worlds" (ibid. 676). Making a comparison to the storytelling strategies employed by amusement park attraction designers, Jenkins presents four ways of environmental storytelling: "spatial stories can evoke pre-existing associations; they can provide a staging ground where narrative events are enacted; they may embed narrative information within their mise-en-scene; or they provide resources for emergent narratives" (ibid.).

For Jenkins, game spaces allow for interaction with a broader narrative. Firstly, like amusement park rides, "they either remediate a pre-existing story...or draw upon a broadly shared genre tradition" (677). A large part of the game space's narrative can be evoked simply by adapting, modifying, or otherwise reappropriating existing fictional (or indeed, actual) spaces and worlds. This concept of evocative spaces is nowhere better exemplified, I believe, than in *Grand Theft Auto IV*. The game could be considered to have the most accurate and detailed virtual recreation of New York City ever made, but it does not take place in New York City. *Grand Theft Auto IV*'s Liberty City is much smaller than New York City and only has a rough approximation of its street layout. But because Liberty City still looks, sounds, and *feels* like New York City, all the narrative associations with New York City are evoked. Indeed, the game's story successfully makes copious references to crime films which take place in New York City. Jenkins also links evocative spaces to paratexts and games potentially being one node in a more intricate narrative system, though he does not elaborate on this much.

Jenkins divides narratives in enacted spaces into two levels, that of "broadly defined goals or conflict," and "localized incidents," which he also calls micronarratives (678). He notes that "spatial stories are held together by broadly defined goals and conflicts and pushed forward by the character's movement across the map" (ibid.). The progress of the game narrative is always determined by the extent that the gamer follows these broadly defined goals or interacts with the

conflict. As such “the organization of the plot becomes a matter of designing the geography of imaginary worlds, so that obstacles thwart and affordances facilitate the protagonist’s forward movement towards resolution” (679). This enactment of the player within the narrative is also present in the micronarrative, which are mostly self-contained side-narratives which are the result of the gamer’s actions. Jenkins seems to be hinting at the importance of agency within game narratives, or perhaps some notion of narrative game play as performance, but never quite gets there in his description of enactment in game spaces.

Jenkins conceives of embedded narrative as one that is “pre-structured but embedded within the mise-en-scene awaiting discovery. The game world becomes a kind of information space, a memory palace” (682). It is essentially dependent on the ways that game designers can embed narrative into the game space by placing objects, images, or sounds which contribute to the gamer’s experience of the narrative. Again, this is a notion that is not particularly elaborated on. Jenkins seems more focused on the authorial control of the game designer than the potential narrative freedom provided to the gamer. The only real distinction between embedded spatial narrative and evoked spatial narrative is that the associations or affect evoked by the former exists within the diegetic space of the game, and those evoked by the latter exist beyond it. One useful part of this section of Jenkins’s text, however, is when he notes that, within spatial narratives, “a story is less a temporal structure than a body of information” (681). It highlights the essential non-linearity of spatial narratives, which, even when the story itself may be linear, allow the gamer to experience the entirety of narrative with some control through spatial exploration and navigation.

Finally, Jenkins mentions emergent narratives as narratives that “are not pre-structured or pre-programmed, taking shape through the game play” (684). From this perspective, the game space allows for the creation of new narratives by the gamer. The creation of these new narratives is both facilitated and restricted by the manner in which the game designers allow exploration and interaction with the game space. The notion of emergent space is particularly interesting because it incorporates interaction and the effects of game rules into how narratives can be created.

Jenkins’s model initially seems promising, but a deeper analysis shows that these four forms of spatial narratives are flawed in their conception. Particularly grievous omissions are the lack of accounting for the narrative possibilities and restrictions afforded by game rules and interaction, as well as the gamer’s ability to not just be a part of the story, but to be able to guide it in a desired direction. In short, Jenkins does not account much for agency. The evoked and embedded narratives in particular, which are very alike, envision spaces which are barely interactive, in which the player walks through an environment and picks up narrative threads simply by virtue of being in the environment. This is not to say that game spaces cannot or do not do this. Nor is it true that these models are not useful to the extent that game spaces *do* evoke associations and emotions from

within or without their diegetic worlds. But even game spaces which do not allow much interaction are much more than the amusement park rides that Jenkins uses as an example, and hence his model is not sufficient to explain the narratives of game spaces.

With the goal in mind of resolving some of these problems, Axel Stockburger devised his five modalities of game space. The distinction between Stockburger's modalities of space and Jenkins's model is twofold. Firstly, Stockburger accounts for agency in his model. "It is crucial to avoid the trap of reducing the spatial structures at work in computer games solely to formal aspects of visual representation," he states, "...visual representational elements are only one piece in the complex puzzle that makes up game space" (Stockburger 49). Secondly, he emphasizes that these different modalities interact with each other. Building off of Foucault's notion of the heterotopia, he sees the modalities working in unison or against each other, but are all simultaneously present in some form (ibid. 54). Whether or not one takes precedence over the others depends entirely on the configuration of and internal relations between the modalities (ibid. 85).

Stockburger defines *user space* as the physical location and the "social space surrounding the game" (87). User space always affects the other spatial modalities. "Where a game is meant to be played," he notes, "can affect the gameplay (rules), the audiovisual representational elements as well as the narrative" (ibid. 88). A good example of this can be seen in the differences between first person shooters on console platforms and on the PC. The modern first person shooter finds its origin on the PC, but the contemporary popularity of the genre on game consoles cannot be understated. The differences between the common console controllers and the keyboard and mouse controls used on PC first person shooters have led to different paths of development. Games such as *Deus Ex* and *System Shock 2* owe much of their complexity in mechanics, level design, and narrative to the ability to navigate complex menus with the mouse controls. Indeed, the criticism leveled at *Deus Ex: Invisible War* is often based on its oversimplification of its mechanics and level design because it was also simultaneously developed for and released on consoles. *Deus Ex: Human Revolution* mitigates this somewhat by giving the PC gamer the option to use a more complicated, mouse based user interface akin to the original game, but it is still evident that the game's mechanics and level structures were designed around the use of a controller. Stockburger makes a similar comparison by noting that PC games tend to not include any local multiplayer options because they are usually played on a desk instead of in the living room (97).

It is in the modality of *narrative space* that Stockburger aligns most with Jenkins. By resigning Jenkins to just this one space, though, Stockburger confirms my suspicions that his approach was limited. Nevertheless, it becomes useful here, as this is the modality in which the narrative of a game is directly experienced. Stockburger does not delve too deep into this notion, wishing not to examine narrative space on its own right, for fear of losing track of the objective of getting a better overview

of different forms of spatiality (117). Following Jenkins, however, he does make a useful distinction between the frame narrative and the spatial narrative. The frame narratives are “the extra-diegetic back-stories of games” (111). This initial setting is the setup for what the gamer will experience while exploring the game space, the spatial narrative. “The *frame narrative*,” he notes, “can be seen as an instance that generates a kind of place, because it introduces an order that will then be transformed into the *game space* by the spatial operations of the player” (112). The frame narrative and spatial narrative are particularly useful to the gamer because they are ways in which the rules of the game can be communicated.

Rule space is especially important for this analysis because it decides, more than anything, how the gamer and the game interact. Stockburger mentions that “rules of simulation which are inherently spatial also have an impact on player behavior in the game” (121). It is important for Stockburger that there is a distinction between the explicit rules directly communicated by the game, and the tacit rules that are discovered by virtue of spatial exploration within the game. The explicit rules are the “rules of the game” in the traditional sense, while the tacit rules, which are often not laid out for the gamer, are the rules inherent to the simulation; how fast can I run, how far can I jump, what happens if I touch an enemy, etc. “Both types of rules in conjunction,” he states, “have a strong influence on the spatial practices of the game” (124). The narrative space can have considerable influence over this, as it is the modality through which the explicit rules of the game are communicated. “It shapes the spatial action of players by defining basic spatial structure of the game,” he notes (129). Rule space, in turn, has a great influence on the other modalities. “Particular types of rules and gameplay,” for instance, “result in very distinctive forms of audiovisual representation” (ibid.).

Stockburger’s conception of *audiovisual representational space* is interesting for a number of reasons. First, he recognizes that the importance of the visual aspect is often overstated, to the point that it overshadows the other elements of spatiality in games (140). Next, he notes that this space does not stand alone. “The visual space of a game,” he states, “can neither be seen as a purely aesthetic device that can be separated from the rules of the game, nor does it exist to generate spatial illusion for aesthetic pleasure alone” (ibid.). Of particular interest to him is the role of audio in the game space, to which he devotes an entire chapter. In addition, he makes some remarks concerning cameras and points of view which will be considered below.

Lastly, Stockburger mentions *kinaesthetic space*, the location of which is difficult to pinpoint because it exists somewhere between the gamer, the hardware the game is played on, and the game itself. This connection between the gamer and the game is both heavily dependent on user space and rule space, because half of the interface that determines the effect of the kinaesthetic modality exists in user space, and the other half in the game. Key factors in this modality are “the interface

and player's accommodation to it," and "time-structures such as repetition [that] are important for the feedback loop between the player and game" (164). A well-executed kinaesthetic space increases immersion and allows for a stronger connection to the game.<sup>11</sup>

Stockburger's modalities are useful because they incorporate the interactive nature of computer games with their narrative potential. This, along with the fact that they not only interact with each other, but often depend on each other to be effective, produces a model which can be productive to examine the subject of this work. There are, however, still a number of aspects of game narratives which warrant further analysis. A brief discussion of these will follow.

### Ludonarrative Dissonance

In his critique of *Bioshock*, game designer Clint Hocking coined the term "ludonarrative dissonance".<sup>12</sup> Hocking noticed that the mechanics and the narrative of the game pulled him in two different directions, and that, to his frustration, this decreased his immersion in the experience of both. Indeed, as the visual fidelity and the game play complexity of games continues to increase, it seems that the disconnect that often appears with a game's narrative, both the frame narrative and the spatial narrative, is experienced more sharply by gamers. Numerous examples of games that fall victim to ludonarrative dissonance have been identified. Games such as *Grand Theft Auto IV*, *Max Payne 3*, and Hocking's own *Far Cry 2* present narratives in which the protagonists struggle with the violence they inflict on the world, but play mechanics that encourage the gamer to cause as much violence as possible, and indeed reward the gamer for doing this.<sup>13</sup>

Narrative dissonance is, of course, not exclusive to computer games. Smaller conflicts, such as clothing or weapons not matching between game play and cut scenes, to larger issues, such as the character's motivations not matching their actions, have their own forms in literature and film. The term "ludonarrative dissonance" does not get mentioned without contention within gamer culture, with some asserting that it is used to claim that the narrative of a game should never take precedence over the ludic elements, even if that leads to a disconnect with the story. This position assumes that game stories are ancillary and do not affect game play in any meaningful manner, which is, as we have discussed, patently false.

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<sup>11</sup> See Steve Swink, *Game Feel: A Game Designer's Guide to Virtual Sensation* for an insightful analysis of kinaesthetics in computer games.

<sup>12</sup> [http://clicknothing.typepad.com/click\\_nothing/2007/10/ludonarrative-d.html](http://clicknothing.typepad.com/click_nothing/2007/10/ludonarrative-d.html)

<sup>13</sup> See <http://www.guardian.co.uk/technology/gamesblog/2012/may/18/max-payne-3-story-vs-action> and <http://www.youtube.com/watch?v=QU6XZkOXtFo> for reactions to ludonarrative dissonance in *Max Payne 3* and *Far Cry 2* respectively.

Ludonarrative dissonance can be helpful to us in two ways. First, it shows the need among gamers to enjoy and be immersed into an engaging narrative. As we have seen, games which contain a deep, engaging, and, for a visual medium, quite long narratives are extremely popular. Game narratives are growing increasingly complex, as the medium and the average age of the gamer continue to grow. The three examples of ludonarrative dissonance mentioned above each tackle the Bosnian War, poverty in Brazil, and African civil wars, respectively. The problem is not just that these topics are not reflected in the game mechanics, but that these game mechanics send a message that conflicts sharply with the narrative. Part of this problem is simply the youth of the medium, and the state of the industry. Violence sells, and the increasing complexity of game narratives and game mechanics do not seem to be growing at equal rates. Whatever the case, the solution seems to be more complex than just writing stories which more accurately reflect the game play, or game play which fits the narrative. Gamers want to have engaging characters and narratives *and* quality game play, but in the current state of the game industry, these two elements are often still at odds.

Perhaps ludonarrative dissonance could be better understood if we look at it in terms of Stockburger's modalities. As we have seen, the modalities are continuously (and contiguously) interacting with each other in some form. A feeling of ludonarrative dissonance could be explained by some of the spaces not matching up properly. Stockburger has noted how the narrative space can inform the gamer of the configuration of the game's rule space: "The in-game narrative is one possible way of conveying the rules that are necessary for the gameplay" (128). Ludonarrative dissonance could be seen as a miscommunication between these two modalities, where the narrative space conveys one thing (for instance, that the gamer's avatar is physically weak), while the rule space conveys the opposite (the gamer's avatar can take ten times more damage than the enemies). Immersion is dependent not only on the separate qualities of the game play and the narrative, but also on how well these two support each other.

The concept of ludonarrative dissonance, of narrative dissonance specifically related to a game's ludic elements, is still underdeveloped and poorly understood. The usefulness of the term is yet to be established. Even so, I believe the discussion around the conflicts between a game's narrative and ludic spaces confirms the importance of accounting for a game's ludic elements in both the creation and interpretation of its narrative.

## First Person

The first person perspective in computer games is relevant not only because my object of analysis is categorized as a first person shooter, but also because this perspective defines an entire genre. Stockburger addresses the issue of viewpoints in computer games through the metaphor of the game-camera, “a set of functions responsible for displaying particular portions of the game space” (144). Stockburger eschews the terms “point of view” in favor of Aki Järvinen’s “Point of Perception,” in accordance with his emphasis that visual element of spatiality in computer games is often overstated (145).

The first person point of perception has a number of interesting qualities. First, because the gamer and the character avatar he possesses share the same location in space, the gamer is often addressed by the non-player characters of the game as if he *is* the character. The frame narrative provided by the game determines the identity of this character, and to some extent, then, the identity of the gamer while he is playing (Stockburger 146). Second, Stockburger notes that within traditional literature, the first person viewpoint “often leads to very subjective, relative and sometimes fragmentary accounts of the action” (ibid.). This is also true for the computer game, as “a 1st person PoP (such as *Doom*) delivers much less information about the positional and spatial relations within the game space than a 3rd person PoP” (ibid. 147). This is put into great effect by *Slender: The Arrival*, a horror game in which the gamer must collect a number of manuscript pages scattered across a dark forested environment, while avoiding a monster, the eponymous “Slender Man.” It is in the first person point of perception, with no guns or tools other than a flashlight. The limitations of the first person view are used for the horror aspect of the game; at any point during your explorations, the Slender Man may appear behind you. Getting too close will cause the screen to go static and the game to end. The Slender Man does not move on his own, he only teleports closer once he is outside of the gamer’s field of view, thus the game does not just require the gamer to sufficiently navigate the environment, but also to find ways to use his field of view to keep the Slender Man far away. This control over the viewpoint also illustrates another feature of the first person perspective, namely how it affects the game play. As Stockburger observes, “the player’s direct control over which part of the game space he wants to visualize at a particular moment in time becomes an intrinsic element of the game play in these types of games” (148). That your view is restricted does not only influence what you see, it also influences how you play.<sup>14</sup>

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<sup>14</sup> For another example, see *Antichamber*, a first person game which reconfigures non-Euclidean spaces behind the gamer’s view.

The use of the first person point of perception becomes particularly interesting from a narrative angle when that perspective is dropped, replaced with a third person perspective, to show the character in a cut scene or mini game moments, so that the gamer can forge a closer narrative connection with the character. It is no surprise that games which refuse to leave the first person perspective during at any point of the game in order to increase immersion, such as *Half-Life*, *F.E.A.R.*, and *Far Cry 2*, use silent protagonists. This allows the gamer to fill up the character's personality and, to some extent, narrative background, with their own. Why does Gordon Freeman, the mute nuclear physicist that is the protagonist of the *Half-Life* series know how to operate firearms so well? He certainly did not have weapons training as an elective part of his PhD, but the gamer does have that experience, if only virtually. Gordon Freeman, and characters like him, exist only as a seat for the gamer; he appears everywhere in the promotional material, setting up the frame narrative, but showing him during the cut scenes would just be a waste. Avoiding the narrative situation of the protagonist after the initial setup is, incidentally, also a way to avoid ludonarrative dissonance.

## Conclusion

As we have seen, the inherent spatiality of computer games is what leads to the unique construction and experience of their narratives. A gamer neither reads nor watches a game's narrative, but, in Veugen's words, "'lives' the story" (220). If we are to fully understand a game's narrative, then, we need to understand how the game's storytelling is connected to spatiality. Henry Jenkins offers us a useful, if incomplete, way of looking at spatial narrative. His emphasis on the importance of the environment in storytelling can contribute to a better understanding of spatial narratives to both scholars and game designers. Building off of Jenkins, Axel Stockburger presents us with a more comprehensive model of spatiality in computer games through his modalities. Stockburger's model is particularly interesting because it encompasses the roles of the spaces beyond the game's virtual world, and places importance on the role of interactivity within the game's narrative spaces, which is the source of the gamer's narrative agency.

We have also established that ludonarrative dissonance, a term that still lacks a clear definition, is an issue gamers suffer from when the narrative space and the rule space of a game don't align properly. This disconnect between the narrative and the game rules make it difficult for the gamer to be immersed in the narrative. Finally, we looked at the first person perspective in computer games, which shares some similarities with traditional literary first person narratives, but

has some significant unique elements due to its role within a game's ludic mechanism, which can have a distinct influence on the gamer's experience of the narrative.

Now that we have examined the nature of narrative in computer games and, before that, the various ways notions of transhumanism are problematic or useful in our understanding of culture, it is time to examine how these can help us appreciate *Deus Ex: Human Revolution*.

## Chapter 3: *Deus Ex: Human Revolution* and Transhumanism

"I never asked for this."

-Adam Jensen, *Deus Ex: Human Revolution*

Now that an overview has been created of differing forms of transhumanism and their consequences, and of the inherent and unique spatiality of narrative in computer games, it is time to analyze *Deus Ex: Human Revolution* in this context. I have identified two distinct forms of transhumanism. The first, which I deemed 'popular transhumanism,' is a dialogue about the benefits and harm that overcoming the physical and intellectual limitations of the human could cause. As I have shown, although the groups both for and against explicitly assume that this will lead to massive changes in social relations, with all the consequences thereof, they implicitly reveal a strong humanist inclination. Both those for and against popular transhumanism do not wish for change, but instead hope that by either supporting or preventing unregulated technological advancement, the autonomous individual and Enlightenment ideals of progress will prevail. Critical transhumanism, on the other hand, has been presented as an academic project with strong influences of postmodernism, poststructuralism, and feminism. In opposition to popular transhumanism, critical transhumanism is a field which, globally speaking, has two ambitions. The first is to find a way to more critically think about humanism, and the repercussions thereof. The second is to think about how technology and the discourse surrounding technology can be used, appropriated, and modified to help us understand how we can transcend humanism, and move beyond the problematic aspects of our culture of which humanism is the cause. The goal of critical transhumanism is to both transcend the human, and to transcend humanism. Donna Haraway's conception of the cyborg functions here as metaphor for realizing these ambitions. Furthermore, cyberpunk has been positioned as a literary genre which brings topics of popular and critical transhumanism in conversation with each other, and more often than not presents a more critical view in the end.

I have also pointed out the unique spatial aspect of computer game narratives. I have looked at Henry Jenkins's analysis of environmental storytelling, in which he not only highlights how games can tell stories by giving the gamer areas to explore and interact with, but also promotes the idea that this kind of spatial storytelling may often immerse the gamer very deeply in the story in spite of the usually rather shallow stories presented by computer games. Jenkins's model is useful but incomplete, and does not do enough to account for user agency in either the environment or the narrative. Axel Stockburger's model of spatial modalities, however, gives us a better insight into how computer games convey their narratives. He divides spatiality in games into user space, narrative

space, rule space, audiovisual representational space, and kinaesthetic space, noting that these spaces are continually interacting to deliver the end experience of the game space to the gamer. The configuration of the user space may affect the narrative space, which in turn affects the experience of the audiovisual representational space, and so on. I also looked at how the first person point of perception affects these spaces, and identified ludonarrative dissonance as a term used by gamers to explain the situation that arises when rule space and narrative space do not converge in a satisfactory manner.

With all this knowledge in tow, we can now look at *Deus Ex: Human Revolution*. The game obviously takes transhumanism as its central theme, and has clearly been intentionally created to allow the gamer to engage with, and to a certain extent become a part of, the dialogue of transhumanism (Geraci 742). But how does it do this, and does it convey a message about transhumanism that would only be possible in the computer game medium? I will first look at how the game's narrative, both overtly and implicitly, discusses the themes of transhumanism. I will then look at how computer games as a whole may aid us in understanding what it means to be transhuman. Lastly, I will look at the specific ways in which the ludic mechanisms of *Deus Ex: Human Revolution* may support the transhuman narrative of the game, and more importantly, if they build upon them. Does *Deus Ex: Human Revolution*, with its overtly cyberpunk-influenced visual and narrative cues, live up to the critical aspects of cyberpunk, or does it not meaningfully contribute to the discussion at all?

### Transhumanism in *Deus Ex: Human Revolution's* Narrative

A complete separation between a computer game's narrative and its ludic mechanisms is, as Stockburger's model of spatial modalities has made clear, impossible. A game's rule space, after all, determines to a great extent how a gamer interacts with, for example, both the character he controls and the non-player characters he interacts with. Conversely, a game's narrative often has an influence on the genre of the game, or, in games which straddle the boundaries of multiple genres, as is the case with the *Deus Ex* franchise, how they are configured. Nevertheless, if we are to measure how *Deus Ex: Human Revolution's* game play elements affect its narrative, it would be worthwhile to first look at the narrative space in isolation. The game uses many cyberpunk tropes; from questionable megacorporations to rogue artificial intelligences, the game's narrative strongly suggests that it will engage the gamer in a dialogue about such topics in the same way that its cyberpunk predecessors both in film and literature have. This is also the case, of course, for the

game's heavy emphasis on the repercussions of human augmentation. This reflects what Dani Cavallaro has noted as "one of cyberpunk's pivotal preoccupations: namely, the relationship between the body and technology" ("The Brain in a Vat in Cyberpunk" 287).

If we look just at the setting of the game, for example, we quickly notice some interesting things. The story is set in the year 2027, a mere 16 years after the game's release. This temporal proximity is partly due to its role as a prequel in the series canon. The original *Deus Ex* was set in the year 2052, and as *Human Revolution* could be seen as a revitalization of the franchise of sorts, it is not unreasonable to assume that publisher Square-Enix wished to have enough space (or rather, time) within the franchise timeline would they wish to continue the franchise further. In addition, to create a stronger connection between the main characters of both games, Adam Jensen is positioned, it is revealed, as the genetic blue print for *Deus Ex* protagonist JC Denton. Since JC Denton was presumably in his mid-twenties in the 2052 (even though he was grown in a laboratory), there would need to be at least 25 years between both games. Nevertheless, there is something uncomfortable about the proximity of the game's setting to us. All the technology presented in the game, from the science behind the augmentations and their connection to the body, to the design of the robots, is based on technology that exists in the current day.<sup>15</sup> The temporal proximity tells the gamer that the issues that the game presents are not only issues that they will experience within their lifetime, but that they may just be less than two decades away, and that the roots of those issues, just as the roots of the technologies presented, already exist.

Another element of the setting that is of note is the "Neo-Renaissance" clothing style and interior decoration (not to be confused with the 19th century architectural style of the same name) which is the fashion of around 2027. The game's cinematic trailer starts with a recreation of Rembrandt's *The Anatomy Lesson of Dr. Nicolaes Tulp* with Adam Jensen taking the place of the cadaver. Both within the diegetic world of the game and to the gamer the Renaissance cues are a marker for a particular message, namely that the world of the game is in a period of rapid cultural and technological advancement. An association with humanism and Enlightenment ideals does not seem far off. This setting alone seems to suggest that whatever the game does discuss about transhumanism is still deeply rooted in humanism.

The game does directly discuss issues of transhumanism, of course, outside of the main character, and to its credit, this discussion is more nuanced than a simple binary for and against. The various factions in the game either support or criticize human augmentation and enhancement, but not all for the same reasons. The Illuminati clearly only support it because it gives them power. The

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<sup>15</sup> The locomotion of the robotic guards, for example, is heavily based on the robots designed by Boston Dynamics, an American defense contractor funded by the Defense Advanced Research Projects Agency.

Humanity Front is against it because they are afraid of the damaging effects. There are parties that fear the control that corporations would have over the technology (which, according to the game's depiction of many of those corporations, is not entirely unfounded). David Sarif, on the other hand, seems to be genuinely interested in taking charge of human evolution.

The potential problems are also directly addressed in the potential inequalities created by the costs of the augmentations. The game takes an interesting turn here, because, it seems, even the poor have access to the augmentations themselves. Instead, it is the medicine that prevents their bodies from rejecting their augmentations and implants, the fictional neuropozyne, which is only available to those who can afford it. Rejection of augmentations is a gruesome fate which is relegated solely to the poor. In addition, the medicine also seems to have some narcotic and addicting effects, leading to organized crime rising up around it. Neuropozyne functions as an important element of the plot because it is Adam Jensen's genetic makeup which may offer some sort of solution, but it also functions really well to show the class inequalities when it comes to access to technology. It also indicates that perhaps the world of *Deus Ex: Human Revolution* was too eager to allow widespread augmentation. The implication here, of course, is that the corporations producing and selling the technology do not care about such repercussions, so long as they make a profit.

But again, here, the game does allow for some nuance in its criticisms of corporate power. After all, for the entirety of the game Adam Jensen works for one of these large biotech corporations, and Sarif Industries is certainly painted as a victim through the attack on them at the start of the game, and as a benefactor to the city of Detroit, having bought up all the abandoned automobile plants in order to use them to build augmentations. Their weapons production is presented as a necessary evil which helps fund technologies for civilian use. David Sarif is himself an interesting character, because regardless of his position as head of an enormous and influential biotech firm, he is presented as a sympathetic character who genuinely believes that he is doing the right thing. He may be aware of the Illuminati and their influence, but he is not himself a member, and certainly has no overtly evil intentions. Of particular interest is his prosthetic arm, which has intricate inlay work. Whether his organic arm was lost in an accident or he had it willfully replaced is not revealed, but the ornate design mirrors the Renaissance design cues present throughout the game. As genuine and affable as he may be portrayed, the mechanical arm ultimately betrays Sarif as the embodiment of Harvey's technofetishism. His insistence that augmentation is the next step in *human* evolution, also betrays him as a humanist in the end. This is also true for Sarif's polar opposite in the narrative, the creator of the basis of augmentation technology, Hugh Darrow. Although he comes to regard augmentations as wrong, either because of envy due to his incompatibility with the technology, or because of moral reasons, he is still presented as a powerful scientist due to his creation of the

Panchaea installation, which was built to counteract the effects of global warming. Such enormous engineering projects are signs of what some have called the anthropocene age, a geological age defined by human interference in the earth's natural processes. With this, Darrow becomes one of those scientists that believes humanity can, as Žižek has noted, "acquire the status of a geologic force" (331). The concept of the anthropocene age is the ultimate embodiment of the power of the autonomous individual.

*Deus Ex: Human Revolution*, then, as a discussion of transhumanism, seems rather tame. As the title *Human Revolution* indicates, the beliefs of even the staunchest transhumanist in the game's fiction are still firmly rooted in humanism. There does not seem to be any meaningful overt discussion on how the augmentations that are so common in the game's fiction change the definition of human. In this sense, the game's contribution to the discussion of transhumanism seems rather boring and simple compared to many of its cyberpunk predecessors. The debates that the game *does* engage with seem to be entirely limited to the boundaries of popular transhumanism.

But there is some hope that the game's narrative engages with transhumanism in a more critical manner. The computer AI that controls the mechanisms of Panchaea consists not just of a computer, but is hooked up to a number of human brains. The brains, here, are used to make rapid calculations that ordinary computers could not do. This is problematized by the fact that the people these brains belong to have been taken involuntarily, and that they will indeed become brain dead due to their incorporation with the machine. In spite of this, it is a part of the narrative that does not necessarily hold to humanist ideals. The human minds and computers fuse into a new hybrid entity. Unfortunately, this is not elaborated on, and only appears near the ending of the game as motivation for the final boss battle. In addition, though Adam physically adjusts to his augmentations rather quickly, and this is not experienced in any meaningful way, he does question how his augmentations, which, as the quote this chapter started with indicates, were not voluntarily installed, alter his personality. He goes from security chief to one man killing machine with state of the art military grade augmentations over the course of the game, and this does not escape him.

Other than that, however, the game's narrative is very short on critical interaction with concepts of transhumanism. The game highlights the problematic aspects of popular transhumanism, but not the problematic aspects of humanism. As Scott McCracken notes, "progressive cyborg fictions problematize the question of identity. They give precedence neither to inhuman machinery, nor to a conservative version of human nature. Instead, they explore the transformations of what it means to be human" (290). *Deus Ex: Human Revolution's* narrative does not do this. There is very little discussion on transcending the human, and the debate that the game engages with overtly is firmly within the domain of popular transhumanism. The narrative alone does not seem to convey a

critical message, but perhaps this changes if we include the ludic mechanisms of the game, and how they can alter our interpretation of what the game does with the topic of transhumanism.

### *Deus Ex: Human Revolution as a Transhuman Experience*

Since their birth in the middle of the 20th century, computer games have always been at the forefront of software complexity. With every hardware generation the intricacy of the software increases. From graphics to artificial intelligence to networking and visual identification, computer game hardware and software is highly advanced technology. As is the case with *Deus Ex: Human Revolution*, computer games often incorporate this emphasis on technology into their narrative and game play. As the most convincing manifestation of the cyberpunk concept of cyberspace, computer games offer gamers unlimited possibilities in the virtual worlds they provide. Indeed, it is no surprise that William Gibson's conception of cyberspace in *Neuromancer* was based directly on his observation of children playing arcade games (McCaffery 226).

From *Super Mario Bros.* to *Call of Duty*, the characters that gamers inhabit are invariably superpowered transhumans with above human strength, speed, agility, and, more often than not, resistance to bullets. This transhuman experience exists primarily in the game's rule space. Even when a game is purposefully difficult, limiting the gamer's health and speed, or adding more human-like elements such as injuries and bleeding, such as the *ARMA II* mod *DayZ*, the gamer is still essentially immortal. Completely immune from death, he can always return to the world and do what he pleases, even within the limitations imposed by the rule space.

But the virtual environment can also lead to explorations of things that are complete impossibilities outside of the virtual space of the game. Take, for example, games which require negotiation with complex non-Euclidean geometry, such as *Portal*, *Antichamber*, and *FEZ*. Such games not only allow the gamer to ponder the properties of real space, but can also be seen as a form of preparation for when cyberspace as depicted in *Neuromancer* becomes a reality. There is no reason for a virtual environment such as cyberspace to hold to the rules of real space, after all.

Within Stockburger's user space, too, there is a transhuman engagement with technology. Computer games are more often than not controlled on a very physical level. A gamer who is properly immersed in a game's narrative or game play (or both) will often forget that he is holding a controller in his hand. Especially if a game is particularly well designed, the gamer will be in a state of direct connection with the game space. As Dan Pinchbeck notes, "successful immersion implies, by definition, an acceptance of the rules of the artificial experience at a perceptual and behavioural

level" (405). With computer games, there is apparently no need to "jack in" through a neural interface. The agency allowed by a well-designed game, in combination with a high quality audiovisual presentation, is enough to let a gamer become completely entranced in the virtual world on a fundamental level. In this sense, the gamer and the machine become one when the gamer is suitably immersed.

This fusion is not just in conjunction with the machine. More often than not, a computer game will have a character who is at least somewhat fleshed out, with backstory and personality pre-defined. When playing a game, the gamer and the avatar become one. While the game is being played, one cannot exist without the other. The gamer cannot play the game without inhabiting the avatar, and the avatar requires the gamer to make up for his lack of agency. Furthermore, the gamer is used to doing this with multiple characters; as he switches games, he switches the time period, race, age, and gender of the characters he inhabits. To take this even further, this phenomenon is not limited to single player games. Even in online first person shooters, there is always a frame narrative to the action. A gamer may inhabit an Allied soldier one day, and a space marine the next, but he is always joined by fellow gamers who are experiencing the same thing.

Taking all this into account, computer games can be seen as offering a transhuman experience. During play, gamers are connected to machines, fully immersed in virtual spaces, and have hybrid identities. As Robert M. Geraci notes, "every player who acclimates to operating within virtual worlds, controlling a character that is simultaneously identical to and distinct from herself, moves a tiny step toward a future in which mind uploading looks both more reasonable and more plausible" (748). The question, then, is whether *Deus Ex: Human Revolution* uses these game properties and other ludic mechanisms in order to modify its transhuman narrative in any meaningful manner. Does the fusion of the gamer and Adam Jensen resemble Haraway's cyborg in any way?

*Deus Ex: Human Revolution's* game play is summarized as thus: like its predecessor, the game consists of a number of "hubs," open areas which are fully explorable. These hubs may lead to missions in more linear levels (though these levels also allow for different routes for navigation) or contain missions within themselves. Missions are rewarded with experience points and money, which can be used to upgrade your augmentations and to buy weapons and supplies, respectively. The game is notable for allowing the gamer to tackle missions any way he sees fit. There are four main game play paths, each with their own risks and rewards, and suitable augmentations to upgrade. The gamer can choose to focus on armed or unarmed combat, stealth, hacking, or social manipulation, and any combination thereof. The decisions the gamer makes regarding these five options greatly influence the path he can take through the game space. A stealth approach will favor hiding in corners and crawling through ventilation ducts, while a hacker approach will require scouring computers and guard bodies for passwords and login information, and finding hacking tools.

The game's ludic elements can be seen to support both popular and critical transhumanist aspects. The role-playing game elements of upgrading and leveling up quite clearly reflect the idea of augmentation and technological enhancement, and they highlight the supposedly inherent human will for self-enhancement that Nick Bostrom is so fond of. Similarly, the fact that the player only inhabits one character for the duration of the game, Adam Jensen, does not exactly create an environment that is conducive to the creation of hybrid identities. It does not help that Adam Jensen, like a disturbingly large majority of mainstream computer game characters, is a straight white male. Lastly, the game employs cover mechanics in order to aid in stealth and combat situations. What this entails is that Adam can position himself along any wall or crouch directly behind any object of suitable size in order to hide from enemies. This mechanic is notable because while behind cover, the perspective switches from first person to third person. This switch is ostensibly to give the gamer a better overview of the spatial situation. As we have seen, the first person perspective can be narratively used to create tension and subjectivity because it offers a limited view of the game space which is directly linked to the avatar's position. Cover mechanics in the first person perspective are possible, as indicated by games such as *Red Orchestra 2: Heroes of Stalingrad*, which uses them to great effect in order to maintain the narrative of the fragility and powerlessness of a single soldier in a war. By giving the gamer the third person perspective during cover without any diegetic explanation, the game indicates to the gamer that he is the master of the game space, regardless of any other weaknesses the game's rule space or narrative space may convey. This can be interpreted as one of the ways the game communicates to the gamer how much more advanced Adam is compared to the enemies, and that this is a desirable thing. As such, the game's ludic mechanics reinforce some of the popular transhumanist notions of mastery over the biological through technological enhancement.

There are, however, some elements of the game's game play that may support critical transhumanist aspects, beyond those that have been already mentioned as belonging to computer games in general. The game's open nature does allow the gamer to carve out his own path, both narratively and ludically. The emphasis on choice, exploration, and non-linearity can extend to the gamer's definition of his relation to Adam Jensen and the rest of the game space. Indeed, it seems that allowing for exploration of the game space on both a narrative and ludic level can contribute to the creation of a more critical subject. This is evidenced by a number of the game's elements. First, in moments where Adam can socially manipulate other characters, the outcome is never exactly clear. Even with the augmentation that allows for a biochemical analysis of the target, the gamer is required to think critically about the character's motivation and history in order to achieve his goal. This mechanic only appears a few times, and does not teach any mechanics that would be useful elsewhere within the game. Instead, they represent some very interesting moments in which both

Adam and the gamer are taught about the repercussions of conversation, and the inability of technology to solve every problem simply by virtue of being sufficiently advanced.

Another element that aids in creating a more critical environment is the books that are scattered throughout the level. Besides sometimes giving the gamer information required to access computers and so forth, the vast majority of these books paint a history of the technology and pro and anti-augmentation characters and groups. Research becomes an integral part of the game space not just because it can lead to useful information that can help the player advance, but also because they allow the gamer to become more immersed in the game's narrative.

Lastly, it should be noted that it is possible to complete the entire game without upgrading any of Adam's abilities. This is quite a feat, however, and requires the gamer to compensate for the lack of upgrades with finely tuned play skills. A zero augmentation playthrough is not something which a gamer would attempt on his first run, so it is not impossible to imagine that a gamer who plays the game multiple times with multiple play styles may reflect on how Adam's identity differs every time he plays a new game.

Overall, however, the game does very little to contribute to a more critical form of transhumanism. By having the narrative align closely with the technological aspect of the computer game medium, the game deftly avoids falling in the pit of ludonarrative dissonance, cover mechanics excluded, perhaps. Along with the game's presentation, this only enhances the gamer's immersion. This has the effect of reinforcing the narrative of transhumanism, as it is not just experienced through the narrative, but also through the game mechanics. The game's narrative engages with topics of transhumanism almost exclusively on the level of popular transhumanism. The game's depiction of human augmentation is still very much rooted in the assumption of the autonomous, free thinking individual, and all the repercussions thereof. The game's ludic elements only reinforce this notion, and do very little to bring a more critical transhumanist analysis of the definition of human, or the consequences of holding on to humanism. On its own, it is not particularly useful in helping us find ways to improve class, gender, or other social relations, as it holds on firmly to the dualisms and binary oppositions that still reign.

Nevertheless, the computer game medium as a whole does offer some intriguing possibilities of conveying the critically productive elements of critical transhumanism. As we have seen, computer games allow us to interact with virtual spaces, inhabit hybrid identities, connect to machines and computers, and interact with others in a way that no other narrative medium allows. As such, the medium may be useful in helping us reshape our conceptions of the subject. This is as true for *Deus Ex: Human Revolution* as it is for any other game. It may be considered a failure as a work of truly progressive cyberpunk, but at the very least it does serve as a good introduction to the issues surrounding popular transhumanism. These are, after all, issues which we will have to confront

sooner or later. As the gamer who plays *Deus Ex: Human Revolution* is introduced to these concepts, through a medium which, by its very nature, opens up the gamer to more critical aspects, if only on a subconscious level, he may still broaden his horizons.

Is Adam Jensen in any way similar to Haraway's cyborg? Not at all. But the gamer just might be. During play he is a hybrid entity, both real and virtual, both flesh and bits and bytes, with the machine electronics in between. He may take some of that with him when he is done playing. Computer games are only becoming more popular, more complex, more connected, and more immersive. Their potential as a platform to convey and develop the aims of critical transhumanism may be greater than is usually assumed.

## Conclusion

“It’s not the end of the world, but you can see it from here.”

Eliza Cassan, *Deus Ex: Human Revolution*

At the onset of my research into *Deus Ex: Human Revolution* and the topic of transhumanism, I had expected to confirm my suspicions that the game did indeed contribute to our understanding of transhumanism, or at the very least could serve as an example what transhumanism can teach us of both the problematic and critically productive aspects of technological advancement. Over the course of creating this work, two things in particular made it clear that this was in actuality not the case. The expansion of the definition of transhumanism to include a more critical aspect that looks beyond humanism, and a closer inspection of the game’s narrative by including the inherent spatiality of computer narratives. Though the answer to the question of whether the game’s narrative contributes to the topic in a meaningful way is rather disappointing, my research has elucidated some important related points.

Firstly, the distinction that I have drawn between popular transhumanism and critical transhumanism seems crucial to any discussion of the subject. Even within the academic debate, the term is often used without discretion. The difference between Nick Bostrom’s view of transhumanism, even mitigated with the acknowledgment of its potential flaws, and Donna Haraway’s conception of the cyborg could not be greater. As such, any serious discussion on transhumanism would do well to make this distinction, does it not wish to dilute the potential of critical transhumanism, and taint it with the humanist essentialism of popular transhumanism.

Secondly, the importance of the unique ways in which computer games tell stories cannot be overstated. Properly reading a computer game as literature is not an easy task. The work of Jenkins, Stockburger, Veugen, and others are steps forward, but the mapping of the complexities of game narratives still has a long way to go. The ludology-narratology debates occurred because the medium cannot be said to exclusively belong to only one end of that spectrum. As such, the student of literature will need to take an excursion into game studies, as I have, in order to properly understand how games convey narrative, and conversely the student of games will not have a complete picture unless he, in turn, explores the body of knowledge of literature studies. A literary analysis of any computer game requires, by definition, an understanding of how the ludic mechanisms and spatial nature of games potentially amplify or conflict with the narrative.

Finally, though *Deus Ex: Human Revolution* on its own does not seem to contribute meaningfully to the discussion of transhumanism as I have sketched it out, computer games as a

whole may hold more potential for further exploration on the topic. The explicit connection with technology, the ability to reconfigure and destabilize the autonomous humanist subject, and to explore virtual spaces indicate that merely playing a computer game could be a transhuman experience in and of itself. If anything could be understood from the research I have presented here, it is that a further exploration of computer games in relation to both forms of transhumanism could potentially be quite rewarding.

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