When Machines Long for Human Warmth:

***Nier: Automata* and the Player-Game Relationship**

by

Zilin Zhou

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Examining Committee:

Colleen Laird, Assistant Professor, Asian Studies, UBC
Supervisor

Sharalyn Orbaugh, Professor, Asian Studies, UBC
Supervisory Committee Member

Christina Yi, Associate Professor, Asian Studies, UBC
Supervisory Committee Member

Abstract

For a time in the 2010s, there was a heated public debate regarding video games' potential for and ability to tell stories. This decade also saw an influx of meta games, in which video game conventions and gameplay mechanics are directly referred to within the game's narrative, blurring the line between plot and programming. A central claim of this thesis is that there is no such line – video games are technology imbued with narrative, code written with ideology. Through a close reading of the 2017 Japanese video game *Nier: Automata* (Square Enix), I examine how the posthuman themes in its narrative entwine with its meta-references to tell a story about how affect pulls together players and games, and humans and technology.

I first focus on structure of the game, which utilizes the narrative technique of focalization to show the same sequence of events from the perspectives of different characters, or "focalizers." Combined with shifting camera perspectives and gameplay styles, this is structured to be a destabilizing experience for the player. The result is a meta-narrative about the player, who navigates the confusion to make sense of fragmented experiences. In this way, the player becomes a part of the game's story, highlighting how players and games temporarily merge during play. This close relationship between players and games established through the game's structure is then extrapolated onto the theoretical framework of the posthuman. What emerges is an exploration of what remains of the self when technology challenges the conventional concept of a stable, singular, and self-evident identity. The game's answer is affect – portrayed to be the origin of subjectivity and the force that brings together disparate bodies and consciousnesses. Told through gameplay and structure as well as art and writing, this is how affect manifests in a video game, a piece of technology, and entangles the player.

Lay Summary

When we play video games, are we ourselves, or are we the character in the game's world? The distinction is difficult to make, which is what 2017 video game *Nier: Automata* brings into focus with its meta-references. By telling the story from the perspectives of different characters, the game makes the player more aware of their critical role in piecing together the story, and therefore as a part of the game. In its story about robots, it explores questions of how we can define identity and how technology has changed the ways we think about minds and bodies. Sensations and feelings are depicted to be the force that makes us more grounded in ourselves and brings us closer to technology. In centering feelings in both its storytelling and gameplay, *Nier: Automata* is an example of how human ideas are a foundation of technology.

Preface

This thesis is original, unpublished, independent work by the author, Zilin Zhou.

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Dedication

For my mom and dad, whose love carries me forward.

Chapter 1: Introduction

Is it all pointless?
YES/NO
Do you admit there is no meaning to this world?
YES/NO
Do you think games are silly little things?
YES/NO

- *Nier: Automata*

On April 16th, 2010, film critic Robert Ebert published an online op-ed titled "Video Games Can Never Be Art." This was an elaboration on similar sentiments he expressed in 2005, in response to a reader question on Ebert's online blog (Ebert, 2005). The "video games as art" debate drew a range of responses, from those agreeing with Ebert, to those defending video games' artistic merit.[1] Six days later, on April 22nd of 2010, *Nier: Replicant* was published by Square Enix for the PlayStation 3 in Japan. The English version of the game, titled *Nier: Gestalt* (hereafter *Nier* when referring to both versions), was released for the Xbox 360 in markets outside of Japan within the next week. There is a referential awareness built into *Nier*, most notably seen in how its narrative works as a deconstruction of the typical hero's journey often found in Japanese video games with a fantasy setting (Nintendo's seminal *The Legend of Zelda* franchise being a clear point of reference). This, together with Ebert's piece and the responses to it, were signs of the wave of reflection that was rippling across the conversations surrounding video games amongst their makers, players, and critics. This was in part in response to public rhetoric like Ebert's article that questioned video games' legitimacy as an expressive medium.

[1] See Josh Korr's "Video games as art, Prelude: Why Roger Ebert is right," and Nathan Deardorff's "An Argument That Video Games Are, Indeed, High Art" for examples of editorial responses.

There was also an industry shift towards more "mature" video game narratives, for instance reflected in what some video game critics have called the "daddening" of games, where father figures increasingly took center stage as game protagonists (Totilo). People making and playing video games were going through a period of introspection. Within blogs and forums, interviews and journals, many wondered: just what kind of expression is the video game medium capable of? Should video games be "taken seriously?" A crisis of identity and a crisis of legitimacy gripped the medium from creators to players to scholars, often not mutually exclusive subject positions.

The echoes of this identity crisis can be found when *Nier: Automata* (Square Enix, 2017, hereafter shortened to *Automata*), sequel to the 2010 *Nier*, asks the player in its ending, "do you think games are silly little things?"[2] I do not question that video games can, and do, tell worthwhile stories. Yet, in bringing attention to the video game medium's identity crisis, *Automata* connects it to an identity crisis of a different kind. Identity is often difficult to pin down in video games, due to the ways that the act of playing a digital game complicates the player's identity by joining it with the technology of gaming hardware and programming, in tandem with the fictional identity of the player character being joined with that of the player controlling them. This points to larger questions regarding the nature of the human and technology relationship that emerges during play. Through a close reading of *Nier: Automata*'s meta-aware structure and posthuman themes, I demonstrate how the game centers affect as the force that brings humans and technology together, experienced on a personal scale during

[2] All English quotations from *Automata* are taken from the official English translation of the game, unless otherwise specified.

gameplay, and with the conceptual potential to serve as the crux to navigating our evolving relationship with technology.

The story of *Automata* cannot be fully told without returning to the 2010s and to the fate of its predecessor. At the time, the Japanese video game industry contended with stagnant sales and a perception that major domestic video game companies were risk averse, a perception that conflated with the idea that video games made in Japan failed to appeal to a broader, global (read: American) audience (Byford; Turcev 19). Attempts to re-establish a profitable position for Japanese video games within this constructed "Western" (American) vs. Japanese dichotomy figured into the design, budgeting, and marketing of many games, including the first *Nier* title. The *Replicant* and *Gestalt* versions divided by market, console, and language mapped onto the dichotomy neatly: the games featured two separate versions of the protagonist/playable character aimed to optimize for two markets perceived to possess distinct tastes and preferences (Turcev 34). The development team's initial designs for the protagonist, the titular Nier, proposed an adolescent character looking for a way to save his sick sister. In later marketing meetings, however, Square Enix's American marketing team raised the concern that such a young, small, and androgynous protagonist would not be well-received by "Western" audiences. As the development team was not willing to completely scrap their original design for the protagonist, they compromised by keeping the young Nier for Japanese release and creating an older Nier, a towering, broad-shouldered, middle-aged man, father to the sick girl instead of brother, for release abroad (Turcev 35). It would appear that the "daddening" trend caught *Nier* as well.

At release, all versions of the game saw lacklustre sales and lukewarm critical receptions, with the reviews abroad being particularly unfavourable: many criticized *Nier*'s tedious gameplay and outdated graphics. Yet, in the years following, a dedicated fandom slowly formed

around the game, some of whom turned out to be working in the Japanese gaming industry and interested in helping to make a sequel (Turcev 50). In part thanks to this, seven years after the release of *Nier*, *Nier: Automata* was published by Square Enix in February of 2017 despite the financial failure of the original. Pre-release marketing drummed up excitement for the game by praising the talents of *Automata*'s development staff, a "dream team" composed of *Nier*'s director and scenario writer Yokō Tarō, the lauded music studio MONACA headed by Okabe Keiichi, and the Osaka-based studio PlatinumGames. This line up meant that *Nier*'s well-regarded narrative and music could now be joined with PlatinumGame's signature brand of exhilarating combat, addressing the complaints regarding gameplay leveled at the original while retaining its greatest strengths. Indeed, the 2017 sequel saw both commercial and critical success immediately upon release both in Japan and abroad.

In the seven years between *Nier* and *Automata*, a number of expressly "meta" video games were released to critical and commercial success, such as 2011's *Bastion* (Supergiant Games), 2012's *Frog Fractions* (Twinbeard Studios), 2013's *The Stanley Parable* (Galactic Café; based on a *Half-Life 2* (Valve, 2004) mod of the same title released in 2011), 2015's *Undertale* (Toby Fox), and 2017's *Doki Doki Literature Club* (Team Salvato). These games contained direct references to gaming mechanics within their narrative, such as subverting the save and load game function in the plot, commenting on player actions in real time, and joking about the player's (in)ability to make impactful in-game choices. In Japan, the *Metal Gear* franchise anticipated some of this meta-examination with the 1998 release of *Metal Gear Solid* (Konami), in which the player has to manipulate the gaming console outside of the diegesis of the game to defeat a villain who can "cheat" by intercepting the player's inputs on the controller. The 2009 visual novel *Nine Hours, Nine Persons, Nine Doors* (Spike) used what seemed like a

purely pragmatic part of the game's interface, conventionally not a part of a game's diegetic narrative, to set up a major late-game plot twist. The above games broke the unspoken standard in which gameplay mechanics are deliberately kept separate from a game's narrative. Broadly speaking, this convention was eschewed to join the mechanics of these games with their narrative in unexpected ways and brought attention to the video game artifice and contrivances to which players had grown accustomed.

The fact that these games full of in-jokes and self-disparagements appealed so well to consumers and critics alike also gestures to the precariousness of the medium. The view that video games are limited by their position as entertainment products, in the vein of Ebert's editorial, meant that there is an accusation of frivolousness that video games and their players contend with. Video games contain formal elements from other forms of media such as film, literature, and music, but are not essentially the same as any of these established mediums, often straddling multiple forms and genres at once. So it should be no surprise that video games regularly fall short of being as literary as literature and being as cinematic as cinema. This perceived shortcoming was clear when Ebert wrote: "no one in or out of the field has ever been able to cite a game worthy of comparison with the great poets, filmmakers, novelists and poets" (Ebert, 2010). While it is not necessarily reasonable to expect video games to be just like these things that they are not, this expectation was a major part of Ebert's criticism, and the expectation that some video game makers are trying to live up to.

With this context in mind, we return to the series of questions from the final battle *Automata*, where the game directly asks the player: "Is it all pointless? Do you admit there is no meaning to this world? Do you think games are silly little things?" In these scripted, interactive moments, we are reminded of the identity crisis gripping the gaming discourse from the 2010s.

At first glance, the game appears surer of its own identity, no longer split awkwardly into two by the whims of marketing and industry trends. In lieu of a Japan vs. West dichotomy in its versions and release strategy, all versions of the game launched with both English and Japanese voices and text, as well as a multitude of other subtitled languages available depending on its region of sale. This was a sign of a general shift in the AAA industry[3] broadening the reach of their high-budget games to a wider range of audiences. One of *Automata*'s three protagonists is the svelte, young, and androgynously masculine android 9S, wearing boyish shorts reminiscent of the younger protagonist in the Japanese version of *Nier*. The other two protagonists, 2B and A2, are feminine androids, "female protagonists" that are also often dismissed as unprofitable in the AAA gaming space. These decisions surreptitiously embraced a design style that was at one point rejected as "unmarketable." Yet as the lengthy game unfolds, we find a story about robots searching for an identity and a purpose outside of the war that they were created for, asking through allegory whether video game protagonists could ever occupy a narrative/thematic role outside of their gameplay position as player-controlled characters. Skepticism towards the conventions and structures quietly dictating what games can be and what they can be about was a major motif in *Automata*'s narrative.

In asking about the medium of games with the same weight as asking about the meaning of the world, *Automata* makes this question less about a young industry seeking recognition and more about connecting the ambiguities shrouding video games to *Automata*'s portrayal of unstable selfhood entirely mediated through technology. It made what could have been rather grandiose musings on the "meaning of this world" palatable by diffusing it with self-aware

[3] "AAA" is commonly used to refer to the sector of the video game industry with the highest development budgets, where teams of hundreds of developers work for multiple years on a single game.

humour. Additionally, to successfully progress through this last bit of the game, the player must answer "no" to the game's questions. The structure and writing take a clear stance: no, it is not all pointless. No, there *is* meaning in the world. No, games are not silly little things. In this way, the ending forgoes the convention of prioritizing "player-choice" in favor of affirming that video games carry significance, and ultimately tying the game's narrative and gameplay programming together to convey a single ideological point.

What *Automata* frames with equal seriousness and humour over the course of over 50+ hours of narrative are questions regarding the human-technology interface, how this relationship breaches physical, spatial, and subjective boundaries, and the implications thereof. The setting of *Automata* features a version of Earth set in the aftermath of a fictional pandemic, which broke out in 2003. In the two millennia following the initial outbreak, the disease eventually led to the complete extinction of humans. By the time the events of the game starts, this is all ancient history, and the main conflict of the game is an ongoing war between two different kinds of robots. The androids, created by humans, on one side, and the machine lifeforms, created by an invading species of extra-terrestrial aliens, on the other. In this vision of the future, technology has not so much taken over the Earth as it has reluctantly inherited it, and many of the robots wish humans would come back to share the Earth with them – achieving this is the main goal of the android faction. The explicitly "post"-human setting of *Automata* invites analysis of its portrayal of technology, especially in how it imagines its robot characters. From it, we can glimpse a view of the human/technology relationship joined by a yearning to be closer to each other. This can be seen in the way that machine lifeforms with cylindrical bodies paint their metal skin with imitations of human clothing, and the way that players can "pat" the top of their little rectangular robot companion by swiping the touchpad on the DualShock controller.

Because humans are extinct in *Automata*'s fiction, when the robot characters reach for humans in the story, it is the player that reaches back. Built on the instantaneous action-reaction between player and game, particularly heightened in this genre of action games, the gameplay in *Automata* demands constant physical connection between hands and hardware. Through touch, the player not only navigates the game world, if they play with a controller, they also feel parts of it through the vibration function in their controller. This also plays out in metaphors and referential fourth-wall breaking moments, such as in the quote this introduction opened with, when the "voice" of the game directly addresses the player. In this pivotal moment, the player is confronted with a meta-textual question that seemingly has nothing to do with the drama of the narrative. What do games have to do with the meaning of this world? How are games not silly little things?

Video games like *Automata* offer both insight on the current state of our evolving relationship with technology and imaginings of what that relationship could become. Attitudes toward technology could feel more immediate and palpable in no small part because the act of playing a video game is always going to be an instantiation of a human-technology relationship. When such an act is further mediated through a narrative questioning the nature of this exact relationship, the immediacy of the topic at hand becomes apparent. In this vein, *Automata* is simultaneously about humans and technology, and players and games, and in its portrayal, one relationship cannot be separated from the other. Through this game, we can find a vision of the future that resonated with millions of players, and questions about selfhood that are accessible and impactful because of the way that they implicate the players directly. The game inspires us to ask: As we develop increasingly more complex and all-encompassing technologies, how should we understand and conceptualize living with, or even *within*, technology? How might our

self-image evolve as technology becomes increasingly integrated into the mundane moments, the foundation of our lives?

Video games, as a medium through which players can enact the stories they tell about technology, can be a site to anticipate, understand, and rehearse how we want to live with technology. *Automata* tells a story where robots hold their feelings close, and where they reach for distant humans. The programming and structure of the game – the "technology" – was made in the mold of this story, creating enacted moments where humans and technology, player and game, can approach each other and feel what the other is feeling. Technology can shape the stories we tell ourselves, but the reverse is also true. And video games are each creative, exploratory examples of how narratives shape technology.

1.1 The Posthuman in Games and Popular Culture

Broadly speaking, Japanese video games have not garnered as much scholarly attention as Japanese anime and manga. However, the Japanese video game, manga, and anime industries are observably influential to each other, often with overt financial ties between the industries. For instance, Square Enix, the Tokyo-based company that published and funded *Automata*, also owns the manga publishing label Gangan Comics, which has published spin-off manga expanding the narrative of *Automata*. Meanwhile, Gangan Comics has also published popular manga series such as *Fullmetal Alchemist* (Arakawa Hiromu, serialized 2001-2010), which likewise has been adapted into video games, anime, and light novels. Both cases are example of the "media mix" marketing strategy that is commonly used in Japan to capitalize on recognizable characters and stories by putting them in a variety of narrative mediums, physical merchandise,

and consumer-facing experiences.[4] Besides direct financial and industry ties, there is also an aesthetic closeness between these mediums that is readily observable. This is clear in *Automata* especially when looking at the illustrated two-dimensional designs of its humanoid characters. The three protagonists of the game are designed with elaborate costumes and doll-like silhouettes, more comparable to stylized manga characters than to the popular designs *du jour* in AAA video games made in North America and Europe, which tends to lean towards artistic realism.

These cross-media resonances can also be found in the narratives of these mediums, and the science fiction setting of *Automata* forefronts thematic concerns that have previously been explored in anime and manga. One key motif is the breaching or blurring of the physical and conceptual bounds of the body, which *Automata* depicts in such a way that the player could conceivably imagine such a blurring occurring to themselves during play, while at the same time experiencing the blurring as characters in the narrative.

In Yuki Ohsawa's dissertation tracing the conceptual changes of the human body depicted in Japanese science fiction anime and manga from 1950s to early 2010s, she notes a gradual shift from "from a dualistic to a monistic body and mind relation" (222). She identified general tendencies in the portrayal of the body's relationship to technology that changed in stages: in 1950s anime depicted humans controlling giant robots (often named *mecha*) remotely, drawing a clear dualistic divide between the mind and body; the 1990s gave rise to hybrid depictions of human bodies incorporating technology, or human bodies incorporated into technology; the 2000s to early 2010s saw portrayals of "digitized bodies" (216) where consciousness does not exist together with a stable material body as a matter of assumed nature,

[4] See Marc Steinberg's *Anime's Media Mix: Franchising Toys and Characters in Japan*.

yet a material body was also depicted as vital in shaping expression and selfhood for these digital consciousnesses, further emphasizing the monistic body/mind relationship. In addition to the gradual swing towards thinking of the mind and body in terms of a monistic relationship, Ohsawa argued that depictions of the body in Japanese anime and manga have trended towards conceptualizing an "open" body prone to change, without "clear boundaries, such as female and male, self and other, human and animal" (206).

Ohsawa further observed that "while [these anime] absorb and make use of technological developments to sustain the imaginative creation of their characters, … they do not offer ideological critiques of social values around normative sexual or gender issues" (221). At the same time that an increasingly varied portraiture of bodies could be found in the anime that Ohsawa studied, the depiction of sex, gender, and sexuality remained fairly constant in these works (with the exception of 2015 anime *Knights of Sidonia*), maintaining a largely cis-heteronormative lens. In particular, she noted the tendency for posthuman bodies to possess no genitalia, and yet be depicted to fit neatly into a gendered binary in terms of their appearance and social roles. The influence of anime and manga is visually imprinted upon *Automata*'s depiction of posthuman bodies, from the transforming *mecha* battle suits that the player sometimes pilots to the genitalia-less yet outwardly gendered protagonist 2B, who wears a dress of heightened femininity.

In addition to the central role of robot characters in *Automata*, the presence of the player and their contact with the game as a piece of technology presents another layer of possible meaning-making that could be interpreted through a posthuman lens. In his book *Parables of the Posthuman*, Jonathan Boulter conceptualizes a kind of joining between player and gaming technology during the moment of gameplay, which he calls "an event of becoming posthuman"

(40), likening the player during the act of play to the posthuman figure of the cyborg. "The posthuman, the state of being the posthuman, is a state of *becoming*: we enter into the cyborged relation with the game console in order to alter what our present reality is," he writes (4, emphasis in original). To Boulter, video games that portray the posthuman in their narratives offer both instantiations of the player becoming posthuman and "critiques of the *fantasy* of becoming the posthuman" (40, emphasis in original), making video games particularly rich texts to explore from a posthuman perspective. He further writes that "play is bracketed by two essential losses: the loss of the real world as the player enters the game and the loss of the gameworld as the player reenters the real world" (103). The player's fluctuating position of being in and out of the simulated world of the game marks this experience as a "becoming," a precarious state of constant loss which Boulter frames as a melancholic one.

Boulter is not the only Games Studies scholar to conceptualize playing digital games as a kind of merging – albeit a temporary one – between player and technology. Andreas Gregersen and Torben Grodal propose a model for explaining how "player actions fuse with the audiovisual information" of a game through its interface (65):

> (…) We would argue that interacting with video games may lead to a sense of extended embodiment and sense of agency that lies somewhere between the two poles of [body] schema and [body] image – it is an embodied awareness in the moment of action, a kind of body image in action – where one experiences both agency and ownership of virtual entities. This process is a fusion of player's intentions, perceptions, and actions. (67)

To roughly simplify the terminology, body schema, as used here, refers to one's feeling of their body including visual and somatosensory information, while body image refers to one's perception and beliefs of what makes up their body. The authors propose that when one is

playing a game, how they feel and perceive their body extend to include the virtual depictions in the game to create a sense of agency and body ownership. This effect could be further amplified by the player's intention to perform a certain action in game and then seeing the appropriate feedback in response to that action (67). To account for the mechanics of this effect, the authors suggest a two-part process. One part arises from the same mental processes that can make familiar tools feel like an extension of our limbs. That is, the player can incorporate the gaming technology that they are using (such as a controller or a mouse) into their sense of their embodiment, similar to a pen or a hammer (68). The second part is attributed to a well-documented psychological phenomenon where observing an action activates related neurological motor systems in the observer, as if they are preparing to perform that action themselves. Gregersen and Grodal write that this link between perception and action could activate the player's motor systems when they witness their avatar's in-game actions in much the same way. That is, there is a simultaneous sense of incorporation of gaming technology into one's own body through tool-use and a sense of shared movement and extension into the game from observing on-screen movement. Together, they result in the embodied, albeit temporary, merging of the player and game rooted in activating the player's own psychological faculties for movement and agency (69).

This is one possible explanation for "how" one could conceivably feel their body merge with a game's virtual world. There is also the question of the "what," that is, what does it mean when our sense of self can expand to include things that are not-us? What is the significance of the way that technologies can merge with us, possibly to such degrees that they can entirely change how we perceive and interact with the world? The question of what such closeness to technology could mean is also one of the main subjects in Katherine N. Hayle's monograph *How*

We Became Posthuman (1999). She writes of both the history of cybernetics as a scientific field and the fictional narratives created about cybernetic technology. The two are demonstrated to influence and inform each other, and in turn form attitudes toward technology and imaginations of how our relationship with technology will develop in the future (21). To Hayles, a primary concern is views regarding the human body and how technological and scientific advancements have led some to picture the body as replaceable or dispensable (5). She frames this as a "nightmare" (1) that does not arise solely from scientific fact, but instead, this idea of using technology to transcend the body comes from narratives about what constitutes the human rooted in liberal humanist constructs far pre-dating the computer chip (4). Hayles paints the concept of the posthuman as the portent for a different narrative, an alternative to the liberal humanist story where "conscious agency is the essence of human identity" (288) and control over itself and its environment is needed for this agency to sustain itself. Furthermore, she espouses a conceptual shift where "it is not a question of leaving the body behind but rather of extending embodied awareness in highly specific, local, and material ways that would be impossible without electronic prosthesis" (291). As a step towards this shift, Hayles cites Edwin Hutchins's idea of a "distributed cognition system" (289), which he illustrated with the example of a person navigating a ship together with the on-board technology. Through this framing, human and technology are forming a systematic whole that is capable of cognitive tasks beyond what each individual part can achieve, without erasing the physical realities of the human body and technological material.

If this distributed cognitive system could be characterized as a macro system consisting of humans and technology, expansive in both its scale and symbolic potential, then Aubrey Anable writes of a micro system of humans and technology tapping into the specificities of video

games. “Video games are affective systems…Video games give color, rhythm, shape, and sound – a texture and a tone – to time spent with everyday computational systems” (xii). In her book *Playing with Feelings: Video Games and Affect* (2018), Anable describes the ways that video games create and reflect new but ordinary affect stemming from our daily closeness to computational technology. Anable generally uses affect to mean “the aspects of emotions, feelings, and bodily engagement that circulates through people and things” (xviii). Attendant to the ways that these feelings could be momentary, unarticulated, and evoked by things and circumstances, affect is not conceptualized as feelings solely produced by the inner workings of a single subjectivity, but as something that circulates through bodies, materials, and places.

Automata is at the intersection of these discourses about the posthuman, found in the historical and visual specificity of Japanese popular culture, in the bodily experience of playing, and in the theoretical complexity of changing understandings of our being and our place in the world. In this thesis, I engage with the video game *Nier: Automata* through a close reading of both its formal structure and narrative content. The experience of playing a video game can vary greatly between each player, and even each playthrough, so the descriptions here can only ultimately account for my own experiences. However, I endeavor to describe the events in game as they would happen if one plays through the game from beginning to end, without finding the game overly easy or challenging, and using the recommended “default” settings in the game. At times I will bring up experiences personal to my playthrough, and those instances will be clearly identified as such.

In the second chapter of this thesis, I delve into how the narrative and gameplay structures of *Automata* tell a meta-story about the player. With multiple narrative perspectives, or focalizations, and multiple gameplay “routes” and endings, the over-arching plot of *Automata* is

fractured in such a way that only the player can know every relevant event, while the characters involved are shown to harbor incomplete or misinformed understandings. The player is reminded of their role within the game as the only one who can see all the pieces and trace a coherent plot. Furthermore, there is a formal fracturing of perspective(s) in *Automata*'s unconventional use of multiple camera angles, gameplay styles, and representational imagery – players traverse a detailed three-dimensional world of skyscrapers and sand dunes, an abstracted space of cubes and spheres, and novel-like sections where characters' interiorities are laid bare in text. These elements coalesce into a meta-textual "portrayal" of a player who synthesizes sense from confusion and decides what meaning to make of it all. In this way, *Automata* is about its player as much as it is about its characters.

Building on this relationship between the player and game told as a meta-story in the game's structure, in the third chapter I shift the focus onto the narrative details in the game to tease out what *Automata*'s entwined stories about players and robots could mean, and what this tale set the far-flung future might have to say about our current growing intimacy with technology. Drawing from Hayle's concept of the posthuman and the simultaneously exciting and destabilizing change it portends for the figure of the human, I explore how *Automata* dissembles a sense of identity derived from separation and essentialism, and by doing so poses an interconnected and fluid concept of identity. The portrayal of these posthuman themes takes on contradictory tones. At times the narrative evokes a sense of unease through characters that lose their memories, break their bodies, and mistrust their own unstable selfhoods tied to webs of social and technological systems. Yet, at times, there is an earnest optimism in moments when characters learn to understand their selves and each other using their ability to connect through technology, and they sometimes find creative potential in embracing ambivalence and change.

How might these conflicting attitudes be reconciled? In a future where steel and silicon has already taken the place of flesh and blood, has data lost its body, as Hayles feared? What alternatives might we see in *Automata* in conceptualizing our embodied relationship to technology? As a piece of technology that is built to tell the story about intimacy between humans and machines, *Automata* is an example of how narratives, their affective dimensions and ideological undertones, can shape technology.

I conclude by returning to the conversation surrounding video games and their position as a consumer product made by the most profitable entertainment industry in the world, as well as the ways that they are explicitly used to picture and market visions of a technological future. Through the human and technology relationships depicted in *Automata*, perhaps it could be possible to imagine our contemporary cohabitation with machines with more feeling and tenderness. That is the story put to practice in *Automata*, materialized through, and materializing, gaming technologies that are already a part of millions of people's lives.

Chapter 2: Asking Questions: The Structure of *Nier: Automata*

I wish that someway somehow/ That I can save every one of us/ But the truth is that I'm only one girl

そう僕らは今/ ああ、無意味でも願う/ ただ君との未来を
Sō bokura wa ima/ aa, muimi demo negau/ tada kimi to no mirai o

yifna mettia kiliegniah/ sekho ishfela yaneh hemo/ dannadesla holah umashintta

- "Weight of the World," *Nier: Automata* ending theme

Automata is built around multiple endings. For each of its five main endings, the theme song "Weight of the World" accompanies the black-and-white end credits. The three lines above come from the lyrics of this song which has four versions: one in English, one in Japanese, one in a constructed language, and one that is a mix of the previous three. Each version would be heard at least once by a player who completes the game's main narrative scenario. Notably, meaningless constructed languages (there are several recognizably different "languages" that can be heard) feature in the majority of the *Nier* franchise's music. According to singer Emi Evans, the main creator of *Nier*'s constructed languages, "the lyrics have no meaning – they are just a means by which to create a special atmosphere" (Napolitano). The lyrics exist tonally to convey mood and feeling, rather than narrative.

The director and main scenario writer of *Automata*, Yokō Tarō, has also remarked that his writing process is focused on emotion. He calls this process "backwards scriptwriting," which according to him is "the process of creating cause or reason starting with the conclusion of the story" (Yokō 7:27-38). He elaborates that he first determines major moments in the game where he wants the player to experience a significant emotional payoff, then works backwards

from there to figure out the narrative set-up that would bring the player there (Yokō 10:00-14:10).

If the constructed languages heard in the main soundtrack demonstrate how *Automata* transmits emotion without prioritizing coherent language or logic, then the English and Japanese versions of "Weight of the World" are examples of how meaning exists in layers in this game. The two versions of lyrics are not direct translations of each other. Take the lines quoted above, which are from the same lines in the same verse of the song: the Japanese lyrics roughly translate to "even if it's meaningless, we'll still pray for a future with you," which is distinct from the English lyrics about a lone girl trying to save the world. While the English tells the story of a singular "I," the Japanese lyrics features a "we." The Japanese also uses a lightly masculine pronoun (*boku* for "I" and *bokura* for "we") while it is clear in the English lyrics that the speaker is gendered feminine ("I'm only one girl"). This gendered difference is more pronounced in context, as the English version caps off a section of the game where the player character is the feminine android 2B, while the Japanese version plays after the part of the game where the player character is the masculine android 9S. As such, the two versions together inform how one would interpret each separately: these differences do not mean that the two versions tell unrelated tales, but rather that they tell different facets of the story. The Japanese lyrics are evocative of 9S speaking to, or speaking together with, the "I" (2B) in the English lyrics. A fourth version of "Weight of the World" uses a mix of lyrics from all three languages, driving home how each version can be considered separately as individual pieces and together as a combined whole.

These properties of "Weight of the World" mirror the structure and design of the game at large. *Automata* is built around layered mechanics, narratives, and perspectives that change in

emotional valence depending on if they are considered separately or together. For example, the narrative perspectives of different player characters layer over the same diegetic (in-narrative) time frame; diverse game progression pathways make sense as stand-alone stories that tell a fuller, more complex tale when woven together. Likewise, the gameplay shifts through changes in camera angles and positions – another type of perspective – showing different viewpoints depending on the location and progress of the player. As the player experiences these different points of view, it becomes clear that with changes in perspectives come changes in feeling: what was a triumphant victory in one playthrough can feel like a tragic misunderstanding in another.

In this chapter I explore the structure of *Automata* to ask the following: "Who" emerges from the multiple perspectives in *Automata*? "What" are the game-ic structures that create meaning in games, and in what ways does *Automata* draw attention to their construction? These questions take us to the final decision in the game through which a player is directed to consider their relationship to *Automata* and to games in general. It is a choice of immensely personal significance framed as a selfless act stemming from the player's own convictions, one that culminates from the game's exploration of "who" and "what." It suggests an answer to "why" video games matter. To conclude, I argue that *Automata* makes an emotionally resonant case for compassion and empathy that highlights video games' ability to create a shared affective experience for players. That the affective experience that emerges is woven into the very structure of the game signals how this story shapes *Nier: Automata* as a piece of programmed software, where coding logic and narrative affect cannot be meaningfully separated.

2.1 A Story Told in Layers

Automata is set in a distant-future version of Earth where human-made androids are locked in a never-ending war with alien-made machine lifeforms. The Earth is largely populated by these robots as humanity has retreated to the Moon after an alien invasion even though the aliens themselves are nowhere to be found. The story begins from the side of the androids who are ostensibly working towards the eradication of machine lifeforms and their alien creators so that humans can return to Earth. As the story unfolds, however, it becomes clear that the initial premise is a falsehood, a conspiracy orchestrated by the top-level commanding forces on both sides. The aliens are long dead, driven to extinction by their own machine lifeform creations. Humans are also extinct, having died off thousands of years before the alien invasion for unrelated reasons–the androids are their only "living" legacy. The illusion of a human vs. alien war is sustained in perpetuity. For the androids, the conflict maintains their sense of purpose, which has always been to protect and serve humans. Conversely, the machine lifeforms evolve and grow from combat, so constant war is seen as the only way to sustain continuous growth.

In its playtime of roughly 50+ hours, *Automata* splits a seemingly linear narrative into sections that the game dubs Routes "A," "B," and "C," all of which are experienced by the player to complete the game. These Routes also lead to corresponding endings A, B, C and D. A narrative choice with two options at the finale of Route C results in either Ending C or Ending D, depending on which option is chosen. Once the first four endings have been seen, the fifth and true ending, Ending E, begins. In running the three routes, the player alternately controls three different androids from the specialized android military unit called YoRHa: "2B," "9S," and "A2." That said, the overall timeline of events can be roughly divided into two halves. Route A tells the first half of the story, and Route B is a repeat of Route A, starting and ending from the

same chronological point, but with a new player character. The latter half of the timeline occurs in Route C, which alternates between three playable characters. Route A sets up the desperate need of the androids to win the war from the perspective of 2B and ends on a point where the androids have dealt a critical blow to the machine lifeforms. Route B switches to the perspective of 9S and introduces hacking as a gameplay mechanic and narrative device, allowing access to information hidden in data servers which helps to uncover a conspiracy to hide the extinction of humans. Hacking also offers new insights into the perspectives of machine lifeforms, casting them in a more sympathetic light. This makes each android victory over the machine lifeforms take on a tragic tone.

Route C is structurally more complex. It begins with 2B and 9S deploying for a mission that they believe might bring decisive victory for the androids but rapidly proceeds to plunge the two from the height of triumph to the depth of defeat. Both are betrayed by YoRHa, the very military organization in which they serve. In the opening two hours of Route C, 2B and 9S witness the deaths of many of their friends and comrades as well as the total annihilation of YoRHa. The catastrophic battle ends with the death of 2B. In the aftermath of her demise, players pick up control of the android A2 who had deserted YoRHa long ago (and who is the prototype for 2B) in addition to the previously playable 9S. As a result, the perspective of the player in Route C becomes increasingly scattered, moderated through numerous different characters and gameplay modes that switch with greater frequency than before.

By the end of the game, all three playable characters are "dead" in some way – their data is irreversibly corrupted, or their body is irreparably destroyed, or both. In the last battle of the game, the player must decide if they accept or reject the destruction of all records of the three characters' existence, as the game switches to a second person narrative voice and addresses the

player directly as “you.” If they reject the tragic ending, the player symbolically defeats the very creators of the game, realized through a battle with the end-credit roll. With the help and encouragement of other players (whose data and customized messages are retrieved over the internet), the player prevails to finally view an open-ended scene that sees the disassembled bodies of the android avatars put back together. Now 2B, 9S and A2 are free to try to live again outside of the confines of structures that controlled them, both in-narrative in terms of the structures of YoRHa, and in-media in terms of the structures of the game. Finally, the last reveal of *Automata* informs the player that the other players who had helped in the last battle gave up their save games, deleting them permanently, to offer their help. The player is asked if they will do the same, reminded repeatedly that their choice will not affect the game’s outcome, and that they may end up helping someone that they do not agree with or dislike. If they choose not to, the player keeps their save games. If they choose to delete their saves, the player can create and upload the message of encouragement that other players might see during their fight against the credits, then watch the records of all their progress, collected over dozens of hours, fade away one by one in the game’s main menu.

It is worth noting that the naming conventions in *Automata* are a mess of letters and numbers. Routes A, B, C; playable characters 2B, 9S and A2. This tangle of names brings forward a tangle of subjectivities and agency, highlighting the questioning of “who” embedded in the very structures of *Automata*’s gameplay and storytelling. This question of “who” is the focus of the next section.

2.2 The Question of "Who"

Playing from the perspective of 2B in Route A, the goals and themes of the game are simple: kill the bad aliens to help the good humans. A key narrative conceit that helps create and maintain this worldview for the player is focalization, or the modulation of narrative information through the knowledge and perception of a specific character. Using focalization as an analytical tool here helps to explore the "who" in *Automata* by clarifying the ways that questions of identity and agency ("who?" and "who acts?") rarely garner simple answers in video games.

In the narratological formulation of focalization based off of Gérard Genette's original use of the term, the questions of "who sees" and "who speaks" help differentiate the positions of the focalizer and the narrator (Rimmon-Kenan 73-74). In other words, the emergence of the role of a focalizer brings attention to the person through whose experiences the story is mediated, although they might not be the person telling the story. The specificity of this separation points to how making sense of a story's framing, the method of its telling, is linked to understanding the story itself. With a later distinction made in Film Studies between ocularization (visual perspective) and auralization (audio perspective), the question of "who sees/perceives" became ever more granular and complex (Schlickers 244), in keeping with how the visual and audio dimensions of film add the potential for further layers of representation that communicate significance to the audience, on top of the ones conferred by plot and narration. With interactivity at the basis of video games, a "point of action" – the position from which the player interacts with the game world – has been proposed as yet another dimension to consider when trying to answer the question of "who" (Thon 235).

The question of "who" is essential for this analysis because the answer to this question can be ambiguous when it comes to video games. Consider the question of "who acts?" In the

diegesis, it is clearly the characters who act. During pre-recorded cutscenes, the characters run and fight and speak without needing any input from the player. Yet, this clear and simple answer does not hold up when considering that during gameplay, 2B can only run or fight or speak when the player presses the appropriate buttons. Since the player is in control of the execution of actions, does it mean it is actually the player who acts? Again, simplicity does not fully encapsulate the situation. The player is not acting solely in the context of their personal life and motivations; it is only in the context of the game, through 2B's body (for example), that the player acts in the game-world. Then, it follows that it is both the player and 2B who act. Both the player's agency and hands on the controller, and 2B's position inside the game – her digital body and programmed movements – are necessary to act in *Automata*. This multiplicity embedded in the interactivity of video games has already been the subject of much video game scholarship. In his analysis of the 2013 PlayStation Vita game *Tearaway*, Brendan Keogh highlighted how his subject position oscillates between the digital figure on screen and the body holding the handheld gaming device. "…I navigate a humanoid creature with an envelope head named Iota through a papercraft world. I walk past cardboard tress and through confetti blizzards" (1). Even as he begins the account as "Brendan Keogh," his language shifts as if he was speaking as "Iota." As Keogh illustrates, even linguistically the player cannot be completely separated from the player character, especially in terms of delineating *who* does *what*.

Focalized through 2B, the player's experience of Route A in *Automata* and its deceptive moral simplicity reflects 2B's experience. Likewise, the player's affective responses are informed by 2B's, since they have access to the same pool of information and interactions as the narrative is focalized through her. 2B's relationship to machine lifeforms is particularly worth noting. As a combat model android, she is designed to dominate the battlefield, and fighting is

the main way she interacts with the machine lifeforms. She has no access to the interiority of the silent machine lifeforms and her encounters with them are dictated by directives by YoRHa: her mandate is to either eliminate them in combat or investigate them for strategic intel. The focalization here helps to sell this YoRHa-sanctioned ideology that the machine lifeforms are the enemy since 2B believes it sincerely. Through playing as her the player also acts on those beliefs. This is evident in 2B's scripted shock the first time she hears a machine lifeform use language, a sign of consciousness that goes against YoRHa's official stance that machine lifeforms are mindless automatons.

In this way, 2B's worldview and knowledge initially shapes how the player understands and interprets the plot. During the entirety of Route A, comprising of roughly 15 hours of gameplay, there is no indication the game has multiple routes, or that there is anything beyond the events of Route A. It is presented as a self-contained game experience, complete with white-on-black scrolling credits after a convincing, if somewhat hasty, "ending." A message after the credits hints to the players that there would be more to see if they restart the game, but it does not give away just how much more there would be. This is how, unbeknownst to the player, Route A establishes a set of expectations for what the game is, and what the story is about, only for this narrative to be subverted in Routes B and C. Yet, this is not the result of the game presenting a version of events modified by the subjective (and often contradictory) memories of the focalizer(s), à la what has been called the "Rashomon Effect" (c.f., Robert Anderson's recent overview of this term in "What is the Rashomon Effect?"). Rather, 2B's actions are presented as she experiences them, which, when considered on its own or together with other perspectives, can produce interpretations with different emotional undertones.

We learn in Route B that 2B (and therefore the player) is incredibly misinformed in her understanding of YoHRa's goals, the nature of the machine lifeforms, and the reasons that the Earth is in its current state. Through focalization that carefully portions out information and modulates the interpretation of events, the player will first learn and accept misinformation, even if some of it seems contradictory and incongruent with key details in the game (such as the existence of a pacifist village of machine lifeforms), because 2B has a stake in believing YoRHa's military agenda, and the player has been acting while motivated to hold the same views. In this context, victory in combat can be interpreted as a straightforward and positive event. In the next playthrough, in Route B playing as 9S, the player then finds their interpretation of events overturned every time they come across "facts" that explain the incongruences. 9S's uncertainty regarding the justification of his own actions now also maps onto the player. Just like how 9S is confronted with the inconsistencies in YoRHa's propagandistic messaging, the player also needs to restructure their previous understanding of 2B's actions in Route A in accordance with new information. This interpretation and re-interpretation of the same events happens through the insights and feelings of each focalizer. This brings us back to the question of "who," because though 2B and 9S are separate agents in-narrative, for the player they are both playable characters that can be directly controlled. Then, just *who* is the player?

2.3 The Player

The narrative structure of telling and re-telling in *Automata* is a spin on a common convention in video games called New Game + ("plus"). In a typical narrative-driven video game with a definite end point, a New Game + game mode often becomes available after the player reaches the ending of the game for the first time. Should the player choose to play this

mode, they would generally restart the game again from the beginning, often keeping some of the progress they made the first time they completed the game, such as the useful powers and items that they had already earned. New Game + modes conventionally feature lightly modified gameplay (e.g. bonus power) and an unchanged narrative, meant to encourage continued engagement in the game after completing its narrative.

Automata activates the New Game + mode in a vastly different fashion. Upon reaching the ending of the game for the first time, the player receives an on-screen message that asks them to restart the game. However, this is in fact the beginning of Route B and a distinct point of narrative expansion. Key to this expansion is Route B's switch to 9S as the main focalizer and player character. As a YoRHa android designed to gather information, he can hack into androids, machine lifeforms, and other computerized systems alike. In a setting where the contents of almost every character's consciousness are in digital databases, this means that 9S has access to countless subjectivities and perspectives outside of his own, mimicking the role of the player and what they access through their own fingertips/gameplay experiences focalized through multiple player characters. Whereas the player identified with 2B as an immersive embodied experience in Route A, 9S interacts with his world in Route B the way the player interacts with video game worlds, forming a reflection of play itself. As 9S enters bodies that are not his own to move them, hacks with an interface reminiscent of old 8-bit video games, and accesses the interiority of other characters, he is confronted with perspectives different from his own that he is reluctant to acknowledge since they refute the ideologies ingrained in him by YoRHa.

Route B begins in the same chronological time as 2B's descent to Earth; however, before shifting to the perspective of 9S, this "New Game +" starts with the player in control of a machine lifeform. Having played through all of Route A, the player would have seen plenty of

instances of machine lifeforms displaying sympathetic behaviour that provides evidence for them being capable of both conscious thought and emotion. Yet, the machine lifeforms retain a degree of separation from the player in Route A, as the player only shared actions with 2B. By starting Route B playing as a machine lifeform, the player now also shares actions with machine lifeforms, and the divide between the bodies of the player, the androids, and the machine lifeforms evaporates only to condense into something that could be conceptualized as the posthuman merging of the three.

In this short segment a medium-sized machine lifeform tries to revive his "older brother" – a machine lifeform with a bigger body – by bringing him a bucket of oil. One of the first things the player would immediately find different is the movements of the machine lifeform experienced through gameplay control of the new character. The machine lifeform can only walk slowly and falls over easily, which gives a clumsy and heavy feel to his movements that is a far cry from 2B's acrobatic ease. Although the section is short, the player needs to learn how to move as the machine lifeform to progress successfully. Following this prelude, the events of Route A play out again, only this time focalized through 9S's perspective. The differences in his experiences are immediately evident. Since he and 2B acted separately in the opening sequence, the player now flies through rusted ruins in a *mecha* suit whereas they would have previously traversed on foot as 2B. Players would also immediately notice when they try to perform 2B's powerful heavy attack with the triangle button that this button now triggers the transition to the hacking minigame, representative of 9S's most powerful form of attack. The way that the player can learn to perform 2B's heavy attack as a habitual action tied to the mechanical feedback interface (the controller) suggests a very physical way of inhabiting another's body, and the friction that happens when the same button press results in a different in-game action brings the

layering of perspectives to attention. The muscle memory and experiential memory of 2B linger in the player's body as they take on a new character that moves and perceives differently. After playing through Route A and Route B, two sets of movements and two narrative agents overlap each other in the player's experience. Temporal and spatial references such as events and locations remain the same, which further destabilizes and heightens the awareness of "who" in the player through different and often contrasting mechanisms in how they experience the game. The player now has three narrative positions informing their understanding of the game: the one focalized through 2B, the one focalized through 9S, and the combined experience of both that is only available to the player. The brief section playing as the machine lifeform further complicates these positions by presenting an embodied experience of a character type that is supposed to be entirely different from the androids. As the game the progresses, separations between player and character, friend and enemy, and android and machine lifeform all gradually melt away.

The multiplicity of perspectives through diverse focalizers highlights the points where the characters' paths converge and diverge, while bringing into play the player's own subject position. This includes the game's ability to record and integrate a player's interactivity to create a semblance of narrative that is specific to each player. For example, in the opening hours of Route A, there is a humourous sequence in which the player as 2B calibrates the game's setting, which is also diegetically 2B's operating system's settings. 9S monitors and talks 2B/the player through this process, remarking that he is recording everything for documentation. The game's audio volume is equated to 2B's hearing, and the controller's vibrations are equated to 2B's sense of touch, all calibrated with the same set of menus and options. In Route A, this is a meta melding of diegetic and extra-diegetic representation that is aware of both the player-facing parts

of video games (settings and menus) and the narrative conceit of 2B being an android with a digitally programed operating system. In Route B, the recording of the player's interactivity is played back in real time, and every detail of the player's initial adjustments of the settings is faithfully reproduced.

If the sequence in Route A both highlighted and strengthened the player's sense of merging with 2B, then the act of watching the recording in Route B is a mirror that reveals the player *as a player*, and each act of playing the game as an individualized experience. In my own gameplay, I had gotten up to get a cup of water during this part in Route A. While this had no immediate effect in Route A, the pause meant that this long stretch of nothing happening was also recorded and played back in Route B, where I stared at the screen wondering if something was wrong with the game, then laughed when I realised why nothing was happening. My arbitrary actions outside the game had become a part of the game's diegesis, a situation that perhaps should not be as shocking as it was because this is in a way how video games always work – the player's actions form a part of the game's diegesis by design – but seeing my ostensibly extra-diegetic actions recorded and played back as a part of a recording of 2B's actions made this connection much more obvious.

This deconstruction foregrounds the player's identification with the player character, such as seen in the menu sequence recorded and played back, and further asks the player directly what significance they can find in their role as a part of the game. In building up and then peeling back the layers, *Automata* makes it clear that the player is a site of intersection, a gestalt of the perspectives of the player characters as well as the player's own agency and identity. In *Automata*, the deconstruction of narrative and gameplay conventions and the player-avatar

connection reinforced through focalization also go hand-in-hand to connect the "who" to the "what" of video games.

2.4 The Question of "What"

As previously detailed, *Automata*'s narrative structure is based on a series of narrative reveals built on the perspectives of multiple focalizers. This is underpinned by a media awareness of "what" goes into video games, found in the gameplay mechanics visualized through what we might call "the camera," another kind of perspective that the player must navigate constantly when playing *Automata*. When the player first gains control of 2B in the opening chapter, she takes up position at the bottom of the screen while machine lifeforms approach from the top of the screen. This setup of a single jet at the bottom shooting the enemies descending from the top, all captured by a stable overhead camera, is immediately reminiscent of *Space Invaders* (1978) and the countless other games in the "shoot'em-up" genre. Soon after, there is a sequence in which the camera shifts from the usual behind the shoulder position to a pulled back position horizontally parallel to 2B. This view captures the platforms she's on as horizontal lines rather than three dimensional walkways, with 2B's movements similarly restricted to a two-dimensional (2D) plane. This is the typical camera position of 2D platforming games such as Nintendo's *Super Mario Bros.* (1985, NES). In this camera mode, *Automata*'s gameplay has a stronger emphasis on jumping from platform to platform to find the way forward, just like the classic games of this genre.

Just as the narrative deconstruction is structured around focalized perspectives that change the affective quality of events, the gameplay also utilizes the visual perspective of the camera for deconstructive purposes. Both types of perspective are essential representational entry

points into the game. That is, the player can only access the experience of *Automata* through the actions of the player characters and can only perceive this digital world from the visual perspective of the virtual camera. Although the story of a game does not always have to be told with a focalized narrative, the player's connection to the player character lends this type of storytelling expediency in terms of matching the narrative to the player's experiences and better reflects the sense of being the player character, a fantasy at the center of many games. Many games favor this type of narrative framing in order to strengthen a power fantasy, or to tell an emotionally gripping story, by narratively reinforcing the connection between player and player character. As for the camera, the images in its virtual viewfinder influence everything from the genre of the game (i.e. 2D platformer, 3D action, etc.) to the player's very presence in these simulated worlds, determining "what" the player sees and from what vantage point. Both the perspective of the player character and the camera are also at the heart of the interactivity of video games. In a 3rd person action game like *Automata*, the importance of the camera perspective is evident in its mapping onto the controller, taking up prime real estate on the right thumb stick. Taking up the left thumb stick is the directional movement of the player character. When the player is navigating the 3D game-world, the two thumbs are in constant motion, moving in tandem. The player moves the camera to better frame the action – and moves the character in accordance with what they see through the camera. Although it is one of the most frequent types of interaction a player would have with a 3D game, moving the camera becomes so natural for players that often the camera is not noted in general discussions and reviews of videogames, unless it is malfunctioning or is otherwise functioning in a way that distracts from the other elements of the game. In bringing the camera back to the player's conscious awareness

through shifts in camera angle, the player is reminded that much of what they see and understand in *Automata* is moderated by this "invisible" device.

Such foundational building blocks of a 3rd person action game are what *Automata* brings to the fore with the way that perspectives are played with and complicated. Rather than letting them melt unobtrusively into the background, a common design direction for the mainstream AAA video game industry which often values immersion as a major selling point, *Automata* instead bares this bedrock for its players to see. Particularly with 9S's hacking mechanic, *Automata* literally strips away the representational flourishes of a big budget 3D game to show what lies beneath.

Every time the player hacks something as 9S in Route B and beyond, the digital world of concrete ruins and lush forests gives way to a minigame featuring starkly minimalistic digital arrangements of gray blocks on beige backgrounds. The hacking minigame has its own set gameplay rules and tempo that the player needs to learn anew, and yet maintains the fundamentals of shooting the enemy while avoiding their ballistic attacks established in previous parts of the game. Its simplistic shapes and pared-down colour scheme reminiscent of video games from decades ago disrupt *Automata*'s usual visual style accentuated by towering environments and the player character's beautifully animated movements. The music in these sections changes from the high-fidelity instrumentals and vocals in the rest of the game to 16-bit versions of the soundtrack, yet another call-back to the roots of video game representation. Each hacking sequence is a glimpse at the coding seams of *Automata* and the fundamentals of its gameplay system.

The representational properties of hacking sections are not purely referential to video games past. It is also meant to be understood as a representation of the computer processing and

data networks powering androids and machine lifeforms alike. Again, the double significance of video game referentiality and diegetic representation overlap each other, making it difficult to delineate whether this incredibly game-ic depiction is meant to be player-facing and thus extra-diegetic, or meant to accurately relay a diegetic phenomenon. This breakdown of the extra-diegetic and diegetic mirrors the previously discussed menu section and draws attention to the closeness of the player to the world of the game by diminishing the separating effect that the extra-diegetic elements of video games such as the interface and menus can have as the intermediary between the player and the diegesis. By blurring the border between player-facing video game conventions and the diegesis, even the player's interaction with menus does not break the sense of intermingling with the game world. Yet, the representation is so completely game-like that the player cannot help but remember that they are in a game. They are constant reminders of "what" is at the heart of a video game like *Automata*.

2.5 The Question of "Why"

In 2014, three years before the release of *Automata*, game director Yokō Tarō gave a public talk at the Game Developers Conference about his game design methods, processes and goals. In this talk, Yokō outlined what he hopes to accomplish in the games he directs: "So entertaining story, fun game system, these already exist in this world. The thing I'm most interested is, is this gray zone. I want to see what's beyond that wall… It's the space where no one has entered yet" (41:25 - 42:15). In this presentation, Yokō questioned the established conventions of what a video game (especially AAA games) should be and hoped that future games can reach beyond the restrictive wall formed by these conventions around the potential of video games.

Although he did not mention *Automata* by name in relation to this idealistic vision, if we read the opening statement of *Automata* with this context, it becomes clear that it echoes Yokō Tarō's sentiments during his 2014 presentation. In the very first moments of *Automata*, 2B's voice narrates over a white background: "Everything that lives is designed to end. We are perpetually trapped in a never-ending spiral of life and death… I often think about the god who blessed us with this cryptic puzzle… and wonder if we'll ever get the chance to kill him." Layers of self-reflexive referentiality are here, too, as the "never ending spiral of life and death" describes the fates of the android soldiers as they die on the field and their data are "reborn" into new bodies, the game-ic pattern of a player character dying in a video game only to be "revived" when a save game is reloaded by the player, as well as the cycles of conventional video game development and release. This narrative of dissent and rebellion entwined with meta-awareness is heavily evoked in *Automata* to propose that it is taking a step towards the new possibilities of video games while being attendant to what video games have been.

Long after 2B first ponders killing her god in the very beginning of game, the "gods" of *Automata*'s world are slain in the game's epilogue. The final credit sequence is a modified version of the previously mentioned hacking minigame. The player must shoot each entry in the end credits and confront the game's designers, writers, and marketers. This abstract battle is clearly coded as an individual's struggle against a much larger force as the player is a small triangular ship, assaulted on all sides by names and titles. The sequence makes *Automata*'s push against structure literal. The player's final battle is not against a military rival; rather, they directly challenged the designers – the "gods" – of *Automata*'s world, thus fighting back against the very confines of its construction.

This final fight is often spoken of in player discussions of *Automata* as an experience of heightened emotion. In YouTube videos where users have uploaded recordings of this part of the game, the comments are filled with messages that confess to crying whenever they hear the music that plays over this fight. In Steam player reviews of the game, many players remark that they were emotionally devastated by the ending and that it showed them the power of the stories that games can tell. In my own playthrough, I first got to this sequence after having stayed up into the early morning hours in the darkness of my father's living room in China. It was easy to be taken in by the emotional dramatics of a defiant fight against the gods and the by-now familiar musical refrain that lamented, "I wish I could save every one of us,/ but the truth is that I'm only one girl." I could not help but feel that these words were as much about me as they were about 2B, one girl sitting in the dark trying to save every android and machine lifeform I met in *Automata*'s world.

What further caught me off guard was the series of questions that the player is asked each time they die, such as: "Is it all pointless?" "Do you admit there is no meaning to this world?" And there was the one that left the deepest impression on me: "Do you think games are silly little things?" This question directly centers the awareness of "who" and "what" that had been built up in the preceding hours, pointing unequivocally to the player and their relationship to games and asking the players to make a value judgement – are games trivial pastimes or do they mean something more? For each of these questions the player can choose between a "yes" or "no" answer and choosing "yes" would immediately end the game. With each refusal to submit to these nihilistic lines of questioning, encouraging messages generated by other real players begin to appear on screen. The specific messages that I saw are lost to time, but in general, the

messages acknowledged that this battle is hard, they urged me to push on and overcome this hardship, and they assured me it was possible because they had all been through it already.

The overwhelming surge of emotion I felt seeing these messages is beyond description. In the moment it was difficult not to feel a kinship to the usernames on screen, not to read the messages as meant directly for me. Yet, these could not have been written for Alice, the woman living with her father in mainland China during a gap year between her undergrad and MA programs. Still, I imagine they were indeed written for someone sitting in front of their screen, controller or mouse in hand, trying to get through a difficult battle and refusing to admit that games are silly little things. Through the music, the questions, and the thorough blurring of the line between player and game that the rest of the game established – the "who" and "what" – players are put through a shared affective experience which is then leveraged to make a case for acting selflessly. The "why."

This, too, is a story, one mediated through the construction of the game as much as 2B's mission was. Consider now the journey the player has taken. They started with a narrow but stable view, their perception constrained by YoRHa propaganda and a single window (2B) into the world. After they have learned 2B's beliefs and take her YoRHa-prescribed motivations to be their own, they gain the perspective of 9S and in turn the numerous and networked perspectives to which he has access. With this expansion comes uncertainty, confusion, instability – they fight not for humanity but…why? The game does not offer a concrete answer, instead letting the question hang heavy in the air. The sense of "who" becomes increasingly muddled and complicated. 9S's memories overlap 2B's inside the player, letting the player's muscle memories carry over from one body to the next, but with just enough differences that the continuation is an uneasy one. In the end, the tangle of identities coalesces to leave only a simple icon of the

player's avatar – a white triangle in a sea of black, fighting off abstractions of danger, evocative of the memories of "what" video games were when *Space Invaders* quietly appeared in Japanese arcades in 1978 – and a reminder that this is the root of "what" many video games still are. The story ends with self-sacrifice, giving up my own save game in exchange for helping someone else. This is framed as a truly selfless act, with the game repeatedly reminding the player that they may not like or agree with whoever they end up helping, and that offering this aid comes with no advantages for the helper.

This final sequence of embedded questions asks the player how they feel about their interactions with games, and puts forward an optimistic suggestion to direct their feelings towards positive interactions with other players. To drive the point home, 2B's monologue is repeated at the very end of the game, but with some choice alterations: "Everything that lives is designed to end. They are perpetually trapped in never-ending spiral of life and death. However… life is all about the struggle within this cycle. That is what 'we' believe." The experience of living and playing collapse into each other, yet another overlay in *Automata*, and these layers reach beyond the structures of this one game to gesture at how players live their daily lives in the company of video games.

Chapter 3: After the Human

Why do I long for humans like this?! Why do I desire the touch of something that no longer exists?

- 9S, *Nier: Automata*

In the opening paragraphs of *How We Became Posthuman*, N. Katherine Hayles describes a nightmare. It is a "roboticist's dream" (1) in which futurist Hans Moravec envisions the information in a human subject's brain is extracted and uploaded into a computer. When the subject wakes, their consciousness remains the same even though their body is now a machine. This dream horrifies Hayles and she asks "how…was it possible for someone of Moravec's obvious intelligence to believe that mind could be separated from body?" (1) She writes that the idea that mind and body could be separated without changing in essence is one of the prevailing narratives in cybernetics, and it is a narrative that she contests. One of the core arguments of this book is that information cannot exist in a pure form, separated from and unaffected by the material that contains it, whether it be a human body or a magnetic hard drive.

In the opening hours of *Nier: Automata*, an android asks the player to help him gather materials for his shop. When asked why he will not do this work himself, the android explains that one of his legs is malfunctioning and he cannot move freely. This leads to the question of why he will not simply replace the faulty leg. He replies that it is the last of his original body and he is afraid that if he loses it he will cease to be himself. There are clear echoes between Hayles's horror at the idea that the mind could be unchanged regardless of its container and the android shop owner's fear of losing his last connection to that original body. For Hayles, what is at stake is the very concept of what we are: to her, humans cannot be reduced to "informational patterns."

Instead, matter and information are intertwined and inextricable, and their relationship is complex (22-23). The android shop owner, though not human, seems to think of his mind and body in a similar way. Although the complete migration of his data from one body to another is not a speculative dream for the android, he refuses to do so because something about his original body is integral to his sense of self. This gestures at anxieties regarding identity and agency that arise as technology becomes inseparably incorporated into the very fabric of life.

In *Automata*, body and mind – matter and data – can be easily separated and remixed, as evidenced every time the player dies and respawns in-game, a common videogame mechanic that, in the case of *Automata*, is framed as the backup data of 2B/9S in the YoRHa servers being downloaded into a new body when the old body is destroyed. Bodies and minds alike can also be modified as needed with physical combat upgrades, memory wipes, and programming updates. In addition, though they are not the kind of robots that can only act according to pre-determined protocols, much of their agency is limited by the socio-political systems (e.g. YoRHa) that give them direct command of action, and their continued existence is dependent on the technological infrastructures (which are also created and operated by, or are the same as, the aforementioned socio-political systems) that maintain both their bodies and data. *Automata* delves into the possible loss of identity and resultant confusion that comes from confronting this concept of existence – of being aware that one is so intrinsically tied to materiality and forces outside a contained "self." These robots harbor anxieties that the malleability and replaceability of their bodies preclude them from forming a concrete sense of who they are. And as the nature of their inextricable entanglement with systems outside their control becomes clear, they also come to ponder their role in the system – are they "cogs in the machine" or can they reconcile their position within larger structures with their own hopes and desires?

The previous chapter detailed the story that *Automata* tells the player about themselves, a meta-narrative that exists in the structures of its plotting and gameplay. This chapter focuses on the particulars of *Automata*'s in-game narrative and its portrayal of the relationship between humans and machines.

3.1 Posthumans

Hayles characterizes the posthuman view as the belief that humans can be described by and understood with the same fundamental concepts that are applied to machines. She writes:

> The posthuman view configures human being so that it can be seamlessly articulated with intelligent machines. In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals. (3)

Human beings being "seamlessly articulated with intelligent machines" means that the terminology we ascribe machinery – programming, data, circuits – also serve as metaphors for how we describe human functioning – e.g., "DNA programming," "their brain short-circuited" – signaling that there is a conceptual leaning towards understanding human processes through processes that govern machines. This can also be interpreted to illustrate a point of view that sees humans as functionally the same as intelligent machines. Hayles raises William Gibson's 1984 science fiction novel *Neuromancer* as an example of this view in fiction, in which uploading a human's consciousness into a virtual world is portrayed as the realization of freedom from an ineffectual and limiting body. According to her, for this fantasy to make sense, one would have to believe that human consciousness can be wholly expressed as code without any alteration to its fundamental nature or expression. This belief in part comes from the liberal-humanist

construct of the self, which imagines the self as *in possession* of a body rather than *being* one, as "only because the body is not identified with the self is it possible to claim for the liberal subject its notorious universality, a claim that depends on erasing markers of bodily difference, including sex, race, and ethnicity" (5). Hayles reminds us that humans bodies are not fundamentally akin to machine forms, nor is consciousness equivalent to streams of data. She denies that data itself is pure, maintaining a kind of essential, unchanging significance regardless of the materiality that it resides in. She refutes dreams of replacing our organic bodies with metal ones, and instead declares them nightmares. How can we remain the same when our bodies feel different (13)?

However, there is no denying that technology is woven into the fabric of our lives. So, Hayles finds optimistic potential in perceiving our inseparable relationship with machines as a part of a larger "distributed cognitive system" (289). Hayles, citing Edwin Hutchins, raises the metaphor of a ship's human navigator positioning and guiding the vessel in the world with the help of the mapping and positioning technology on-board, where the navigator and the ship together form one such distributed cognitive system. Neither the navigator or the ship alone could know where the ship is and sail it in the intended direction. But together, it is possible for the entire system to pinpoint the ship's position on the globe and guide it to its destination (289-290). As a way of thinking about technology and our relationship to it, the perspective of the two extending into each other and expanding the capabilities of each other may be more relevant than ever. The idea of a distributed cognitive system is a way to conceptualize the permeation of technology into every moment of our daily lives while at the same time accounting for the material reality of those lives.

This distributed cognitive system could also describe the state of playing a video game. In the moment of play, the player typically maintains a connection to gaming technology through

touch, sight, and sound. The connection cannot be separated while play is taking place. Notably, the connection is an embodied one, as the point of interface requires some action from the player to register input. At the same time, the player's consciousness can also be characterized as connected to the events in-game, both those that are narratively scripted and those that are generated through gameplay. As they perceive information on the screen, from their speakers and their controller, the player internalizes this information and makes decisions on how to act. These perceptions are generated by the gaming technology, which follows pre-set programming to react to the player's input in turn. This constant feedback loop is a concrete instantiation of how the line between "robot teleology and human goals" (Hayles 3) could be blurred and is the center of much of video game interactivity. Hayles provides another interpretation of the term "posthuman," taking it to also mean post-humanist, expressly referring to the liberal-humanist subject where the individual's own agency and possession of oneself is prioritized as the natural, desirable state of being. In contrast to the individualism of the liberal-humanist view, she argues that "if 'human' essence is freedom from the wills of others,' the posthuman is 'post' not because it is necessarily unfree but because there is no a priori way to identify a self-will that can be clearly distinguished from an other-will" (4). That is, in this view of the *post*-human, there are no certain boundaries between self and other, human thought and programmed logic. Hayles sees this interpretation of the posthuman as a possible site of deconstruction for the liberal-humanist concept of a defined, consistent, and unified identity that historically prioritized the subjectivity of someone who is white and male (5).

Though there is no indication that *Automata* takes direct inspiration from Hayle's ideas (the game contains many references to other philosophers and thinkers such as Nietzsche, Beauvoir, and Engels, among others), many of its themes map on to Hayle's discussion of the

post-humanist-human, and further complicates some of her ideas, especially those surrounding the formation of identity in relation to social and technological structures.

3.2 Adam and Eve: The Birth of Machines

The breakdown between self and other and the realization that one is a part of, and subject to, vast structures beyond any individual's sole control are concepts presented as sources of uncertainty in *Automata*. The uncertainty is an uncomfortable kind, that comes across in the visual and auditory depiction of these revelations, such as in the parodic twist on conception, pregnancy, and birth from which two humanoid machine lifeforms named Adam and Eve were born. The boundary crushing significance of the moment breaches even the fourth wall.

The android and machine lifeform dichotomy, depicted in the beginning of *Automata*, is a clear ontological divide that helps to define what each group is by virtue of what they are not: androids look like humans and machine lifeforms do not; androids can think and feel, and machine lifeforms cannot. In the opening hours of the game, 2B and 9S repeat to themselves the differences between the two types of robots, suggesting the importance of this separation and exclusion to the protagonists. Yet soon after, this dichotomy is challenged as some machine lifeforms use rudimentary language to declare that they are afraid or angry, when they should be incapable of both language and emotion. In a striking "birthing" scene that follows this revelation, it becomes apparent that machine lifeform bodies can be made in the shape of humans as well.

This "birth" takes place in a desert area of the game, at the bottom of a pit in the center of collapsed apartment buildings or *manmosu danchi* (マンモス団地), especially the kind that flourished in Japan's bubble era as a sign of the middle-class nuclear family's prosperity. When

2B and 9S first stumble onto the scene, following a machine lifeform that they were tasked to kill, they find a group of machine lifeforms that are imitating the gestures of intercourse with clumsiness, each participant repeating the same motion in spastic jerks, hardly touching each other. This is made ridiculous by the fact that the machine lifeforms present look like rusted tin cans that sprouted arms and legs, lacking even the suggestion of reproductive organs. A brief cutscene focuses on one machine lifeform as they rock an empty cradle, chanting the word "child/*kodomo* (コドモ)." Having this mockery of childbearing take place here is a jab towards human domesticity and reproductivity, mimed by machine lifeforms chanting "love," and "Together. Forever." with monotonic constancy. When they detect 2B and 9S's intrusion, they change tone and begin chanting "kill," "destroy," and a jarring "I love you. Kill!" as they attack the androids. As the player fights and kills them, new machine lifeforms appear and begin to chant "this cannot continue" – first in scattered voices then gradually building to a steady unity. Finally, the fighting stops and another cutscene begins, in which the machine lifeforms continue their chant while clutching their heads and jumping in place, a performance of confusion and distress. They then crawl up the steel bones of the crumpled building and over each other to form a giant sphere made of machine lifeforms suspended in mid-air. Following the sound of a single heartbeat, the bottom of the sphere opens, spilling a glowing white liquid and an adult-sized humanoid machine lifeform to the ground. The machine is masculine-shaped, but does not possess genitals. A strange birth of a robot, the process represented from sexual conception to the moment of labor, complete with the suggestion of semen and amniotic fluid, the two confused and co-mingled. At once surreal and shocking, the scene breaches even the barrier between the diegetic and the extra-diegetic, as the chant of "this cannot continue" leaks into the soundtrack and melds seamlessly into the music backing the entire scene. The piece of music that plays here

is named “The Birth of Consciousness” (in Japanese, *Umareizuru ishi* 生マレ出ヅル意志), further reiterating the motif of birth permeating the scene.

2B and 9S attack this machine lifeform immediately as he rapidly goes through what appears to be stages of mental development. At first entirely still and unresponsive to attacks, when subsequent hits land he first learns to summon a defensive barrier around himself, then to hit back with rudimentary punches and kicks, then soon he even develops the ability to teleport a short distance. 2B and 9S finally manage to defeat their enemy by impaling him clean through with their swords. 2B’s strike pierces his ribs. He collapses to the ground, the hole through his ribs glows, and a new humanoid machine lifeform, identical to the defeated one, emerges. The younger twin roars and escapes carrying his injured brother. Later in the game, the biblical reference here is made overt when the twins re-introduce themselves as Adam and Eve.

Through this sequence, the processes of birth, growth, and learning are represented as unbound by ontological differences and biological reality, a new kind of machinic creation. The implications are made obvious by the dialogue when 2B first sees Adam: “An android!?” To which 9S answers, “No, this… this is a machine!” After he is defeated, his bright red blood pooling around him, 2B repeats her doubt: “Is this really a machine?” Adam and Eve are the only machine lifeforms that conspicuously bleed red, a property that they also share with the androids. Later on, when he reports this event back to YoRHa headquarters, 9S describes the newborn twins as “humanoid machines.” In Japanese, the blurring of the three categories is even more pronounced. Translated literally, 9S describes the twins as “human-shaped, that is, machine lifeforms with an android-like quality.”[5] The muddled language here signals the ways that Adam

[5] “*Hitogata……tsumari andoroido ni nita shitsukan o motsu kikaiseimeitai*” (人型……つまりアンドロイドに似た質感を持つ機械生命体). Translation my own.

and Eve breach the boundary between machine lifeforms and androids, and the resultant failure to maintain the separation of these categories points to the identity crisis lurking beneath. How can one tell the difference between an android and a machine lifeform if they look identical? What does it say about the category of human when both types of robots can look humanoid? The player, alternately controlling the androids and the machine lifeforms in different points of the game, is the unspoken nexus of this ontological confusion.

In the theoretical discussion of the posthuman point of view through Hayles, there is a reconfiguring of how we think of the human that maps onto this part of *Automata*. She writes of a reconceptualization of the definition of "human," moving away from the liberal-humanist construction of an individualist, self-possessed self to thinking about a connected and hybrid posthuman self. Mediated through the shift in perspective afforded by technology, science, and our growing intimacy with them in our everyday lives, the posthuman challenges the liberal-humanist self's claim to independence and agency guided by a logical mind as a product of the underlying historical assumptions of a narrow demographic when conceptualizing this type of personhood. To put it bluntly, this vision of personhood takes for granted that the subject is a white, heterosexual, and abled-bodied cisgender man (4). In imagining such a privileged body as the sole body of significance, assumptions of rational self-determination make sense. The range of social situations and experienced realities contingent on race, gender, sexuality, and culture, just to name a few, so many of these with a clear bodily origin and effecting one's relationship to agency, can be flattened by simply leaving them out of the equation. Furthermore, because there is really only one type of body at play, it becomes possible to think of the mind as separate from its container. This is key to Hayle's discussion of the posthuman, as this explains the missing body in science fiction imaginings of the cybernetic that she is keen to reclaim. It is because the

mind has already been thought of as separate from the body that it can be "liberated" from the flesh without picturing the horror of losing its embodiment (288).

The bodies of Adam and Eve, born of a parodic merging of both human procreation and biblical creation, are recentered as a marker of identity. It is because they physically resemble humans that they are mistaken for androids. The twins also behave more like humans: they choose to wear clothes (many machine lifeforms do not) and Eve at one point eats an apple. Yet this resemblance also destabilizes the fundamental divide between machine lifeforms and androids that define both categories. As Hayles suggests, embodiment cannot be separated from identity, which is why Adam and Eve's ambiguous embodiment, born out of machine lifeforms but appearing and acting like humans/androids, challenges all of these identities. Yet when embodiment is made malleable and unstable through technological interventions, then do identities too become unstable?

3.3 "Distributed Cognitive System"

Automata poses an answer to the crisis of identity near the end of the game through a subplot involving the robot assistants called "pods." The pods are small robot assistants/companions who float somewhere above and to the side of 2B and 9S (and A2 after 2B's death). The one assigned to 2B and A2 is named Pod042, while the one assigned to 9S is name Pod153. These rectangular machines serve to assist in gameplay and provide directions, delivering gameplay objectives such reminding the player/androids of their next destination and providing expository information such as explaining what an apartment complex is. In a similar way to the machine lifeforms, they turn out to have a stronger sense of personal identity and motivation than they first appear, though for much of the game their main roles and

characterizations are reminiscent of real-life AI personal assistants such as Apple's Siri or Amazon's Alexa. In yet another plot twist, the pods are also the executors of YoRHa's final procedure to destroy all evidence of their conspiracies, tasked with erasing the data of all YoRHa androids for this purpose. The pods decide at the end of the game that they will in fact not erase the protagonists' data because they have grown too attached to their wards, leading to the final battle against the credits, explained in-game as the pods battling YoRHa's anti-tampering programming.

The pods' conversations with each other pose a form of identity defined by connection to others, rather than emerging from a sense of separation from others:

> Pod 042: After repeated information exchanges between multiple Pods, an unexpected phenomenon has occurred.
>
> Pod 042: We Pods have developed unusually protective feelings toward support targets 2B, A2, and 9S.
>
> Pod 042: Query: Could this be…our "will"?
>
> Pod 153: Unknown. The definition of "will" is unclear.
>
> Pod 042: Will is the question of whether Pods are capable of their own self-determination.

The idea that affect and relationships to others give rise to a sense of self is repeated in the beginning of the E Ending, where Pod042 rejects the pod units' pre-programmed directive to delete all data concerning YoRHa and YoRHa androids in a clutch attempt to save 2B, 9S and A2. The shift from programmed function to subject position is made obvious with a linguistic shift from third-person language to a first-person one:

Pod042 to Pod153.	*Poddo 042 kara 153 e.* (ポッド 042 から 153 へ。)
There was…data created in my banks as I was referencing the records.	*Kiroku sanshō chū ni watashi no naka ni seiseisareta dēta ga aru.* (記録参照中に私の中に生成されたデータがある。)
I…realize something.	*Watashi……* (私……)
I have come to the conclusion that I cannot accept this resolution.	*Watashi wa, kono ketsumatsu o yōnin dekinai, to iu ketsuron ni itatta.* (私は、この結末を容認出来ない、という結論に至った。)
(…)	(…)
Pod 153…	*Poddo 153. Kimi mo…* (ポッド 153。君も……)
You hoped they would survive as well, didn't you?	*Kimi mo hontō wa, karera no seizon o nozondeirunodarō?* (君も本当は、彼らの生存を望んでいるのだろう？)

In this exchange, the use of "Pod042 to Pod153" in the beginning contrasts heavily with the use of first- and second- person pronouns in the latter part of the conversation. Up to this point, the pods habitually refer to each other by their YoRHa-assigned unit numbers and generally use a detached and impersonal style of language that accentuates their impartiality and lack of self-will. Here, the switch to using pronouns points to a broader shift from the previously impersonal and starkly logical language style to a new style that acknowledges, and even highlights, the personal. The effect is further heightened in Japanese because grammatically correct sentence structure does not require a stated subject, so their use here comes with a stronger sense that it was a consciously chosen style of address. The repeated use of "I" (*watashi* 私) signals a

conscious shift from predetermined objectives to self-willed decision. The use of "you" (*kimi* 君, and note how it is also repeated in the Japanese) reinforces the sense of a personal relationship building between the pods, the recognition of one's self leading to the recognition of selfhood in others. Pod042 and Pod153 are now two subjects exchanging ideas with each other, rather than two sets of programmed instructions executing their operational objectives. The question of "you hoped they would survive as well, didn't you?" (*Kimi mo hontō wa, karera no seizon o nozondeirunodarō?* 君も本当は、彼らの生存を望んでいるのだろう？) reinforces the change in rhetorical style, suggesting that this goal of preserving the androids arises from affective dimensions of desire and protectiveness unmoored from strict rationality. Taken together, these two conversations between the pods paint a picture of how subjectivity and agency emerged as a result of affective connections.

This emphasis on integrating connection in how we conceptualize ourselves is also found in Hayles's writing where, in the conclusion of *How We Became Posthuman*, she explores the idea of a distributed cognitive system as a way to understand the complex ways that human lives are interwoven with machine beings. In shifting the framing to picture how humans and machines can accomplish more together than either can separately, the relationship between the two moves from a narrative of control and domination to one of collaboration and mutual enrichment (290). Identity is not lost but expanded, to encompass the technological and societal structures that are already integral to our lives.

However, what if we find ourselves a part of systems that are not designed to account for our well-being and are too large and complex to be influenced or even understood? The ways that social and political factors define the self is explored in Route C through its unravelling of the conspiracy around YoRHa. Take everything that has been established about the character of

9S so far: he is a Type-9 Scanner model android and a member of YoRHa, a military organization built from the ground up to bring humans back to Earth by driving out the aliens and machine lifeforms. He works with his partner and protector 2B, who he supports on the battlefield with hacking attacks. Only, these "facts" of who and what he is and what his purpose is all turn out to be lies and half-truths supplied to him to serve the purposes of YoRHa, highlighting the way that systematic forces inform its members' senses of self.

First there is the discovery of YoRHa's conspiracy to kill all YoRHa androids when they come too close to overpowering the machine lifeforms, leaving a backdoor in all of their programming for the virus that brought about their doom, in order to maintain a balance of power in the never-ending war. The war with machine lifeforms functions as a perpetual source of motivation and purpose, but it is sustained by propaganda and conspiracy – and thus the protagonists' very purpose for existence is revealed to be an elaborate lie sustained by layers of systematic obfuscation.

This is further reinforced with the reveal that 2B has been operating under a false name and identity. Her real name and designated role (because the two are the same for androids) is 2E, short for YoRHa No. 2 Type E, E for Executioner. Her given mission is to monitor 9S and "kill" him should he come too close to discovering YoRHa's conspiracy, so that YoRHa can cleanse his memories and continue to make use of his highly advanced hacking abilities. This has already happened before, multiple times, and each time 9S has had his memory purged, wiped clean of his discoveries and all his recollection of 2B, to conceal her role as his executioner. Their first meeting in the beginning of the game was the latest of many "first" meetings. This deceit underlines YoRHa's complete control over its members, and the ways their bodies, memories, and even inter-personal relationships are under its command.

More generally, this convoluted naming convention prioritizes the androids' affiliation to YoRHa and their function within this organization, which serves as yet another reminder that 2B and 9S's identities are socially and politically determined. The only parts of their names not directly tied to a functional or organizational signifier are the numbers 2 and 9, minimalistic and ambiguous in meaning, a contrast to the clearly defined systematic roles of "Scanner" and "Executioner." This underscores the insecurities and anxieties regarding how the self could be overwhelmed by political, social, and technological interventions, reduced to an inscrutable number within a vast system. Through this framing, the posthuman deconstruction of the liberal-humanist self and the "distributed cognitive network" that forms the new basis for identity could be seen as a source of trauma and apathy, as 9S puts it himself: "None of it matters (…) We aren't required in this world anymore (…) Humanity is extinct (…) And YoRHa was created to perpetuate the lie (…) we were DESIGNED to be killed (…) Me? 2B? Sacrificial lambs. All of us. Isn't that HILARIOUS? Doesn't it make you LAUGH?." Faced with the absurdity of an uncertain identity tied to an indifferent system, 9S's response is to indulge in self-destructive violence and seek out oblivion, which he promptly finds at the end of A2's blade. Should *Automata* end here, if the last-minute intervention by the pods did not happen, then the narrative would be a bleak one: if we can no longer think of ourselves as essentially independent, if we are inextricably a part of larger technological and social systems, then we are powerless to escape the domineering structures that govern our lives. Indeed, this fear runs beneath much of the game, which depicts two general possibilities: either be a part of systems designed with exacting precision which fully control all its members' bodies and minds or leave these systems to try to live in societies with a laxer grip on their members. The latter are often imitations of ones from human history. As YoRHa tasks 2B and 9S to investigate the machine lifeforms, they end up

coming across various machine lifeform societies, such as a feudal kingdom with a king trapped in a body that cannot communicate or act, a peaceful commune ravaged by a digital plague, and a religious group turned death cult upon the demise of its leader. The message is not subtle: technological and social systems fail, either by a flaw in their design or by chance, and when they do, their members can do little to course correct.

In describing the distributed cognitive system, Hayles does not write of the possibility of being drowned in the systems we find ourselves a part of. *Automata* explores the flip side to the systems we build to expand our capabilities and our world. As these systems become increasingly vast and sophisticated, it also becomes increasingly difficult to grasp how all of them operate, which can conceal that they are not always made with our well-being in mind. *Automata* envisions through its robot characters what it could be like to live with unstable bodies, minds, and memories, the funhouse mirror extremes of a connected and fluid posthuman self that some theorists postulate is already our reality. Interpreted through the hardships of characters struggling to grasp what they are and what they are supposed to do, the idea of a fluid self lacking solid boundaries leads to these characters losing their sense of purpose. Has it been an exercise in futility then? Is returning to the humanist the only solution? The extinction of the human race in *Automata*'s distant past is a narrative gesture towards the idea that there is no going back. As Hayles explains, the shift from the human to the posthuman is as much a change in technological integration as it is a change in perspective: even if human bodies remain untouched by technology from the moment they are born to the moment they die (this itself is an increasingly unlikely scenario), how we conceptualize ourselves now in relationship to the social and technological structures all around us already marks us as posthuman (4).

3.4 Connecting Bodies

Video games, in the way that they center embodiment, are particularly suited to conveying affect to players, and reminding them of their own embodiment when engaging with media and narratives. Christopher B. Patterson writes of a "plunge posture," a slouched, neck- and head-forward, elbows bent stance he describes as "a ready-set hold of the body that sees the object through positive affects of excitement, surprise, and satisfaction" (163). Amanda Phillips compares some of the gameplay inputs required by action game *Bayonetta* (Sega, 2009) to "clitoral masturbation" (118), such as when players must rapidly and repeatedly press a single button or move the analog stick in a circular motion. This is tied to larger arguments about the game's depiction of its female protagonist's sexual agency. Phillips is attendant to the affective ties to embodied, sexual pleasure that the gameplay movements suggest and the interpretive potential that those movements represent. Even the video game industry is increasingly cognizant of the idea that the relationship between player and game is also a relationship between the player's body and gaming hardware, a relationship that the industry is poised to encourage and profit from. Sony marketed the PlayStation 5 and its promise of "next-generation" gameplay experiences with a large emphasis on the expanded vibration and trigger feedback capabilities of its controller, banking on the draws of an improved tactile experience to help sell its pricey console.

In Jonathan Boulter's *Posthuman Parables*, he links the act of playing video games to posthuman theory. Boulter writes that playing enacts merging with technology, calling it an "event of becoming posthuman" (40). The temporary nature of gameplay further creates a sense of melancholy and loss when the player inevitably has to end the play session and return to their life outside the game (106). To this point, he writes: "the game/player, as the instantiation of the

posthuman, is always in a state of becoming: nether one thing nor another, he is liminal, unable to be fixed, defined, centered, or calibrated" (108). The fourth-wall breaking elements of *Automata* bring this idea into sharp relief, drawing attention to the player's position at once within and without the game, both inhabiting the digital player character and their own flesh and blood body. It did so by catching me unawares and creating an in-game record of when I needed to get up and get water – fulfilling my bodily need but not quite having "left" the game. Martti Lahti makes a similar argument, writing that the video games can be seen as "a paradigmatic site for producing, imagining, and testing different kinds of relations between the body and technology in contemporary culture" (158). His analysis largely focuses on the pleasures of video games, from the pleasures of temporarily taking up different types of embodied identity from one's "real" identity (e.g., different genders, ethnicities, or even species) to the pleasures of playing with abilities beyond our physical limitations.

Playing most of *Automata* does afford this kind of pleasure, with responsive controls that translate the speed and agility of the android avatars on-screen to an exhilarating power fantasy for the player. Beyond speed, the androids are extremely adept in battle, and like many video game protagonists, they seem almost invincible; playing as these avatars transfers the same feeling to the player. However, this is not the whole of the playing experience in *Automata*. There is, for example, the previously discussed hacking mini-game, which interrupts the kinetic power-fantasy realised through android bodies with a representation of the underlying programming logic that drives them (and a nod towards the programming logic that drives *Automata* as a video game). More to the point here, there is also a section in the game where the body itself breaks down.

In the beginning hours of Route C, the entirety of the YoRHa military force, including 2B and 9S, have descended on Earth with a special mission to exterminate the remaining machine lifeforms on the planet. As the mission is on the brink of success, the other androids are suddenly infected by a computer virus and turn on 2B and 9S, who remain uninfected. The pair returns to YoRHa's satellite base, named The Bunker, to try to find the source of the virus. In the ensuing sequence of events, the leader of YoRHa chooses to destroy The Bunker to contain the viral infection, leaving 2B and 9S as its last surviving members. Housed within The Bunker are the servers that store back-ups of all YoRHa members' data – meaning that the source of YoRHa units' practical immortality crashed and burned together with their base.

Without these servers, 2B and 9S now face true mortality in a way they never had before. To drive this point home, 2B soon finds that she has also been infected by the lethal computer virus and immediately decides to isolate herself to prevent it from spreading to 9S. Though the virus ostensibly affects her programming, in practice it debilitates 2B physically, causing incremental breakdowns of her senses and movements. Playing as 2B now lacks her usual balletic momentum. This means that she will not always run when the player presses the usual buttons for running, instead stumbling and stopping at unpredictable timings, and crucially, at timings that are entirely outside the player's control. The sudden interruptions carry over to combat, where 2B might fight as usual for a while with the player's input, then stop without warning. As the infection worsens, 2B's movements become increasingly slow and labored, making navigating the environment itself a chore. Enemies that could usually be easily avoided or defeated now pose a real threat. When 2B loses her ability to jump, gaps in geography that could have been traversed with a single leap become insurmountable barriers. Eventually, the player/2B can only slowly limp forward, while the game world itself loses colour, with frequent

visual glitches marring the screen. Finally, everything on-screen becomes black and white, most game sounds stop, and as 2B staggers to her destination, a machine lifeform attacks: she and the player are physically unable to react. At the last moment, A2 appears and rescues 2B, but the virus is incurable and progressing rapidly, so 2B transfers her memories to her sword before taking her own life with it. When 2B dies shortly after, she does not emerge from a YoRHa storage container with a new and flawless body; instead, her sword and her memories are inherited by A2. A2 then cut her long hair short to a length reminiscent of 2B's bob cut, making the echoes of 2B that much more clearly marked on A2's body in yet another blurring of subjective boundaries. From this point forward, A2 becomes a playable character.

The failures in movement found in 2B's final trek through *Automata*'s familiar landscapes are a reminder of the existence and materiality of her body, which, in ceasing to be vehicle for the expression of power and control, now conveys different affects, ones of struggle and stubborn effort. These feelings are not only conveyed through 2B's visible staggering, but also through the friction found in gameplay. The failure of the player's well-practiced button presses to produce the intended results evoke frustration, and yet the player exerts continued effort to push through the failures. The disconnect between intention and result at the level of gameplay is just as important as the visual representation of 2B faltering to cement a of sense of embodied struggle. In the moments before her demise, the player is entangled affectively with 2B's will and experience, where both struggle with the inability to move according to their will, the accompanying sense of powerlessness, and the dogged determination to see this journey completed regardless. Here, the power fantasy that 2B represented becomes an experience of vexation. The process of slowly losing control, expressed through gameplay as opposed to a

cinematic cutscene (which are by definition non-interactive), conveys the affective valences of this experience that plays out through the entwined bodies of 2B and the player.

One of the difficulties of writing on embodied experiences and affect is that there is no accounting for all individual variances in perceptions and feelings. The description of struggle and friction here come from my personal memories of playing, and it is entirely possible that another player got through this section with no significant effort. So while I cannot speak for all players, I often find myself "dodging" physically to one side when attacked, or wincing when an attack hits "me." In these moments, the permeable boundaries of my "self" become evident, joined to the player character to the point of subconsciously reacting to their surroundings. This is not unique to playing video games for me, as I also cringe out of the way of sudden appearances of monsters in horror movies and wince when I read descriptions of pain in novels. Yet my feelings can transfer back into the video game while playing, whether through a well-timed dodge that means I reacted to danger well enough to save myself, or through a panicked fumbling of the buttons that leads to in-game failure. My movements take on a heightened significance through the context of a video game, at times with clammy hands and a pounding heartbeat to show for it. The sequence leading up 2B's death is a demonstration of the different types of affect, not just pleasure and power, that video games are capable of conferring. This is an instance of how connection to technological systems can draw out affect and add to a sense of embodiment, rather than diminish it.

Right after 9S disavows his ability to act with agency due to his inescapable connection to YoRHa's agenda, he asks why he wants to feel the touch of humans even though he knows they are gone. This is the quote from the beginning of this chapter. A2 answers that it is due to their programming, that androids are made to feel this way. Yet, counter to this supposition of

the ancillary nature of this desire, touch and warmth are often brought up in moments of levity in the game, especially in imaginations of life outside the war that the robots are created to wage. 2B and 9S joke about indulging in a warm bath when they get a spare moment between missions, and a machine lifeform finds solace in the warmth of forest animals, so much so that they make taking care of the animals their purpose in lieu of participating in the war.

Sometime after 2B's death, 9S comes across mindless puppets of 2B's body and is forced to fight them. At the end of the fight, collapsed on the ground with the empty shell of 2B's body, 9S first touches 2B's face, then takes her hand and brings it to his own face and weeps. This is a moment he never had the chance to share with 2B while she was alive, a moment of wordless communication where contact expresses what words cannot. Having lost an arm in the same fight, 9S then rips the arm from 2B's body and attaches it to his own exposed joint. Metaphorically, the weight of affective connection is shown to leave a long-lasting mark on physical reality, and 2B's arm visibly joined to 9S's body for the rest of the game is a tangible reminder of her presence. This suggests that not only do affective connections remain when bodies and memories are shown to be unreliable, they can also transform matter and physicality. These snippets from the narrative explore how on one level, affect can have a role in breaking away from systems of control, the antithesis to an ideological structural logic and its effacement of selfhood that drove 9S to self-annihilation. On another level, 9S's interactions with 2B's body are representative of how affect can travel through contact and be imbued into the material.

3.5 After the Human

There are no human characters in *Automata*, but the spectre of humanity haunts its world. Alien-made war machines wear human bodies and faces, and looming ruins of concrete

skyscrapers built by humans millennia ago crowd the horizon, their intended residents long dead. Practices tied to human biology are imitated outside their bodily context – machine lifeforms without sexual organs mime sexual acts, and androids running on nuclear energy try to eat mackerel. Though in *Automata*'s imagined future, the age of humans is long gone, and gone with it are humanist notions of stable and individuated minds and bodies, the longing for this past is keenly felt.

This is similar to the nostalgia for the human that Sharalyn Orbaugh also notes in popular Hollywood science fiction in the 80s and 90s. She observes that in movies such as the original *Star Wars* trilogy (1977, 1980, 1983), *Terminator* and *Terminator 2* (1984 and 1991), "the happy ending for most of [their cyborg] characters… was a return to the fully organic human" (195). *Automata*'s depiction of the posthuman state is more paradoxical, as there is a sense of yearning for the humanist past, but also a sense that returning to it is impossible. This is because it does not depict the human as a self-evident, unadulterated "original state." It is a relic of the past and a fractured image beyond repair, and to attempt to bring it back is to attempt the absurd. This is seen in the birth of Adam and Eve, an attempt at Biblical creation and sexual procreation, and a contortion of both. However, it is not a rejection of either – if anything, it is a mixing with productive results, a breaching of boundaries that birthed something new and fascinating, something perhaps like consciousness. Concepts of gender and family are also presented outside the context of human biology that they are linked to, such as when some machine lifeforms paint clothing onto their bodies and adopt gendered verbiage (an effect that is again more pronounced in Japanese) to take on the social roles of mothers, fathers, or children, despite the fact that those roles are entirely unmoored from their collective "birth" in factories as mass-produced weapons.

So what is made a thing of the past is not the human per se, but the idea that there is such a thing as a "pure," unadulterated human, or android, or machine lifeform.

Automata is sympathetic to the uncertainty and fear evoked by this loss of stable identities, and cynical of how technological and social systems exploit the individuals integrated into such systems. Yet the machine lifeforms' attempts to imitate humans are largely fruitless, and the androids' mission of restoring human life to Earth is revealed to be a hoax. Are we then stuck in limbo, aware that humanist ideals are an illusion and yet unable to find a suitable alternative? Just like in the meta-narrative centering the player, this answer to conflict lies in the E Ending, where affective connections are presented as an avenue to rediscover a sense of self and re-orient ourselves in relationship to the structures we built around us, while accepting and even welcoming the ways that we are entwined with technology. Seen in this light, the medium of video games and the ways that it is primed to convey embodied feelings of pleasure, frustration, and accomplishment, just to name a few examples, become a vehicle for forming affective connections with technology. Explored through this medium, the abstract and metaphysical aspects of the posthuman become much more familiar and urgent, as each play session is an intensified reminder of how players are already intertwined with machines. This is precisely why, as our embodiment is already changing together with the technology we build around and into our bodies, *Automata* makes the case that there is solace in knowing, or even ensuring, that feelings remain.

Though 9S cannot feel the warmth of human touch, the players, warm-blooded humans all, can feel 9S, 2B, A2, and all other playable characters in the game. Recalling the meta-textual layer of narrative in *Automata*, in this moment too the player is present in the narrative, as the flesh and blood human that is evoked so often by the robot characters. More concrete than any

historical record or constructed figure, the player is the human mimicked and missed and mirrored by the machine lifeforms and androids.

At the same time, this is how stories leave their mark on the robots of *Automata*, android bodies bearing the mark of human narratives of power and beauty, gender and war. Machine lifeforms choose to engrave those stories onto their bodies, painting human fashions onto their metal bodies and adopting familial structures based on biological reproduction. In this way, the stories we tell ourselves are depicted to become a part of technology, directly shaping technology's physical form. Affect functions as the subtle force that pulls these stories together, and simultaneously pulls the player closer to the game. Taken as a whole, *Automata* is also an instance of narrative shaping technology, where its stories take shape through code, and affect is imbued into programming. Part of what makes the final confrontation with the credits so compelling is the realization of the fantasy of connection and rebellion through technology, made personal through gameplay and significant through narrative. In telling the story of *Automata* through a video game, a piece of technology has been inextricably entangled with narrative. That its gameplay mechanics and overarching structure are so closely matched to its subject matter is not just an artistic choice, it is critical to demonstrating the idea that technology is shaped by narrative – an idea both depicted and embodied by *Automata*.

Chapter 4: Conclusion/Contradictions

In the end, we find ourselves in the following situation: some eccentric wrote a book on a game designed by another eccentric and played by people who are equally eccentric.

However (…) I watch these businessmen in suits holding a Starbucks coffee and getting excited about the stock exchange price instead of worrying about those dying that they see on the news, I suddenly find us less eccentric. And to think that these businessmen are considered "normal" by society…

Who knows? Our world may have already gone completely mad.

- Yokō Tarō, Foreword, *The Strange Works of Taro Yoko*

Through the meta-textual story about the player and narrative centred on the nature of advanced technology, *Automata* tells a tale about humans and technology coming closer to help each other. The idea of touching technology and feeling some kind of warmth "reaching back," already possible in video games depending on one's point of view, is comforting and attractive to imagine. *Automata* is unwaveringly sincere in this conclusion, where it gives players no real choice but to agree that the world is not meaningless and video games are not silly things. Through the logic of video games, where player input is tied to simulation and machine, there could be a softer alternative to Hayle's nightmare of disembodied data, where we could shift our perspective to imagine our feelings spreading out into technology. Perhaps we could even be so bold as to imagine feeling something from the machine's response, programmed and predetermined as they are. However, is it any more than a pretty fantasy and a self-satisfied mental image? How else can this game been "read?"

Automata has been analyzed enthusiastically in the years since its release in 2017. In particular, the general tendency to focus on the game's ending also points towards the sheer impact of this extraordinary finale. One interpretation finds the ending where players sacrifice

their data to help other players symbolic of a "promise made to future generations," a sacrifice made in the hope of kindling the possibilities of the future (Denson 223). Another sees the technology of the game as enabling a "collective" made of player data, existing outside strictly linear temporalities and endings (Paquet 129). The expansiveness of *Automata*'s narrative content, the richness of its gameplay variety, the loosely connected nature of the game's many optional side-stories, and the ambiguity of its storytelling style leads to a variety of "readings" for this game. Perhaps it is fitting that a game built on the foundation of multiple perspectives and layered significance garners a diverse range of responses. And for this game it would be quite difficult for one response to truly contradict another, especially since many details in *Automata* are themselves contradictory. The game manages the magic of letting these contradictions exist while maintaining a feeling of cohesion across the whole.

Aside from the story of robots told in *Automata*, other narratives form a part of its technology in less obvious ways. For instance, despite the financial failures of the first *Nier* in 2010, *Automata*'s runaway success meant that a complete remake of *Nier* was later made and released as 2021's *Nier: Replicant Ver. 1.22474487139...*, based on the Japanese version of the now eleven-year-old original. The remade version was met with considerably more favorable reception and sales. This story of revival hinged on profit – a common story within the AAA video game industry. The way profit directed the trajectories of AAA video games was also evident in the fate of the original *Nier*, which was not only split into two by the industry's dominant narratives surrounding different national demographics at the time (and all the cultural assumptions that come with such narratives), but the commercial failure of which eventually led to the shuttering of Cavia, the development studio that was contracted by publisher Square Enix to make the game (Turcev 39). The very fact that *Automata* could be made was a predicated on

the support of Square Enix's CEO Matsuda Yosuke and producer Saitō Yūsuke, influential figures within the company who have both expressed a personal affinity for *Nier* and its director (Turcev 50-51). The power of profit is such a dominant narrative in the AAA video game industry that the creation of games, especially those made by larger teams, is fundamentally predicated on revenue. One of the latest additions to the franchise, a spin-off mobile game named *Nier: Reincarnation* (2021), incorporates a microtransaction-based monetization model where players are encouraged by its very game mechanics to endlessly pour money into the game, highlighting the motive to not only make a return on investment but to make as much money as possible. Clearly, revenue drives the biggest players in the games industry.

This thesis began with a moment in the video game discourse in the 2010s when many asked whether video games *can* tell compelling stories. Now that the question of capability is less of an uncertainty, perhaps we should look closer at *what* kinds of stories are found in games, both the ones overtly presented in the game and the other stories of labor, profit, and creativity that could be found between lines of code. If the legitimacy of video games as a medium was one of the dominant topics of conversation in the 2010s, then the 2020s began with a re-assessment of the integrity of the video game industry already underway. From ethically questionable monetization practices such as *Nier: Reincarnation*'s addictive microtransactions, to widespread labour issues and mismanagement, to known workplace cultures of harassment and discrimination, the conditions of video game production are increasingly acknowledged to be deeply troubling.[6] Though reporting on the issue could be found from as early as the 2000s, in the last five years the labor conditions conversation has rapidly picked up pace in terms of the

[6] See Cecilia D'Anastasio's "Inside the Culture of Sexism at Riot Games," Jason Schreier's "The Horrible World Of Video Game Crunch," and Kirsten Grind et al.'s "Activision CEO Bobby Kotick Knew for Years About Sexual-Misconduct allegations at Videogame Giant" for notable examples of journalistic reporting on these issues.

frequency and scale of reporting. Relatedly, change and action within the industry are also picking up pace, with the first union of video game workers forming in the United States as of May 2022 (D'Anastasio and Schreier). In Japan, working conditions have not been taken up as a journalistic topic with the same avid interest as English language reporting. Nevertheless, trickles of complaints have surfaced from the rather opaque industry, with reports of poor working conditions at famed studio FromSoftware (Reeve).

The profit-based production cycle of video games inspires a similar return to the beginning of this thesis and the question of video games' potential for artistic expression and meaning-making as mass consumer products. Big-budget games like *Automata* (and it is only moderately well-funded by AAA standards) are invariably expected to make a return on production costs, so it only makes sense to suppose that the game was at least in part designed with sales in mind. In its celebration of the medium of video games, it could be construed that *Automata* is implicitly endorsing video games as products and all the troubling circumstances surrounding their creation. At the very least, in quietly leaving video games' relationship to capitalist hegemons unacknowledged, we are left with a glaring gap in the meta-textual reflections on the nature of video games. Is there any amount of self-deprecating jokes that would cancel out *Automata*'s role as a money-maker in the largest entertainment industry on the globe? And does this position undermine – contradict – *Automata*'s narrative themes of rebellion against the system? Does the thematic affirmation of video games include an implicit endorsement of the corporate interests behind the largest industry players as well? *Automata* does not much engage with the idea of money, which when contrasted with its firm stance regarding video games as a worthwhile medium of meaning-making, could in itself be seen as an answer of sorts. While the game did not shy away from depictions of the ugliness of war and the

ineptitude of governments, systems of capital are largely unquestioned in *Automata*'s narrative, though the player is involved in one as they earn an in-game currency that they can spend on useful upgrades and items. In this sense, it is telling that of the various socio-political systems parodied in the game, capitalism is not one of them.

In Turcev's journalistic book surveying Yokō's major video game projects, in which Yokō writes the forward, the game director creates a dichotomy between games and business, jokingly contrasting the "eccentrics" who play his games with the businessmen "getting excited about the stock exchange price instead of worrying about those dying that they see on the news" (Yokō 10). The image is of a juxtaposition between the playful oddballs obsessed with games and the businessmen obsessed with profit. Yet, games and business are not kept so separate in some other stories told about technology. One person not unlike Yokō's profit-driven businessmen is Mark Zuckerberg, founder of Meta (formerly Facebook). He has already started telling a story about a wholly corporate technological future, the virtual reality (VR) and augmented reality (AR) driven "Metaverse." It is an ambitious and ambiguous vision of new near-future technological systems that seemingly aims to put our entire lives into the digital cloud – beyond the extent that they already are. One *WIRED* article puts the idea into terms both bland and horrifying: "the metaverse is the future of the internet. Or it's a video game. Or maybe it's a deeply uncomfortable, worse version of Zoom?" (Ravenscraft) In this proposed vision of the "future of the internet," conventions common to video games – navigable 3D worlds, avatars controlled by motion and touch – merge with walled-off economies involving real currencies and advertiser-safe visual imagery.

The imagery and language used in Metaverse's advertising material erase any divide business and games, using the conventions of video games to tell a story about corporate

hegemons' power over every part of life, a story that is fundamentally built into and made possible by the proposed technological infrastructure of the Metaverse. Beyond the awkward images of sanitized and legless avatars in marketing videos, the true crux of the whole idea lies in the Metaverse's proposed integration into a monetization structure that sees up to 47.5% of all monetary transactions on the platform go to its parent company (Shead). Other than the digital clothing that users would ostensibly purchase for their digital selves, there is talk of virtual real estate that could be bought and sold, among other possible types of transactions. Regardless of whether an independent user creates the clothes, or an existing fashion brand does, when the item is sold to a user, Meta takes their cut. Such profit structures fitted into technologically driven ecosystems already exist in the Apple and Google stores that mainstream smartphones are tied to, not to mention all the mainstream online storefronts for digital video games such as Steam and the PlayStation Store. These profit-driven technological structures seem to suggest that the future of increasing intimacy with technology is inseparable from an increased intimacy with corporate interests. In Meta's marketing strategy and the stories it tells of Metaverse to convey its purported appeal, the familiar form of video games could be seen as the foot-in-the-door co-opted to make the entire idea seem more approachable and desirable.

However, Meta's sanitized fantasies of a corporatized "future of the internet" is not the only narrative about future digital communication, nor is it even the only narrative about digital communications realised through VR. VRChat is a VR communications platform that has existed since 2017, and it is also built on the foundation of familiar conventions of navigable 3D environments and customizable avatars established by decades of video games. User created chat rooms and character models are available to purchase in VRChat as well, yet the key difference here is that the transactions occur purely between buyer and seller, with those operating the

platform seeing no profit from such transactions. Lacking central oversight and effective moderation, the platform hosts plenty of interesting and colourful virtual character models and environments, including copious amounts of copyright-infringing designs. Rife with its own issues and far from poised to define "the future" of technology as the internet once had, it nonetheless shows that hegemonic corporations are not the sole tellers of narratives about technology, nor are they the only ones shaping technology with those narratives.[7] The same basic technological building blocks can be molded by human intent to form vastly different systems, and thus form vastly different relationships with their human users.

The "meta" games of the 2010s such as *Automata* point out how the technological, computational side of video games are inseparably merged with stories, whether they be the ones overtly dictated in rules and dialogue or the ones subtly told in art and the feeling of the gameplay. *Automata* in particular focuses on affect as the gravitational force that pulls players, gaming technology, programming, and narrative together. There is little doubt now that video games can effectively tell stories. Not only that, but as games such as *Automata* point our attention to, games are a form of stories made participatory through technology; or framed a different way, games are a form of technology thoroughly imbued with narrative, even if it does not appear to be at first glance. This begs the question of how these narratives are reflected in real-world stories of technology's creation and use – or perhaps how they are incongruent with those stories. Our stories about technology not only have the potential to tell us what we think about technology, they can also shape technology, and thus our shared future with technology.

[7] See Quintin Smith's video "Making Sense of VRChat, the 'Metaverse' People Actually Like" for an overview of VRChat and firsthand accounts from users about the experience of being on this platform.

Works Cited

Anable, Aubrey. *Playing with Feelings: Video Games and Affect*. University of Minnesota Press, 2018.

Anderson, Robert. "What is the Rashomon Effect?" *Rashomon Effects: Kurosawa, Rashomon and their legacies*, edited by Blair et al., Routledge, 2015, pp. 66-85.

Boulter, Jonathan. *Parables of the Posthuman: Digital Realities, Gaming, and the Player Experience*. Wayne State University Press, 2015.

Byford, Sam. "Japan Used to Rule Video Games, so What Happened?" *The Verge*, 20 Mar. 2014, https://www.theverge.com/2014/3/20/5522320/final-fight-can-japans-gaming-industry-be-saved. Accessed 20 May 2022.

D'Anastasio, Cecilia. "Inside the Culture of Sexism at Riot Games." *Kotaku*, 14 Aug. 2018, https://kotaku.com/inside-the-culture-of-sexism-at-riot-games-1828165483. Accessed 18 July 2022.

D'Anastasio, Cecilia, and Jason Schreier. "Activision Union Gets Legal Recognition in Gaming First." *Bloomberg.com*, Bloomberg, 23 May 2022, https://www.bloomberg.com/news/articles/2022-05-23/activision-employee-union-gets-legal-recognition-in-gaming-first. Accessed 18 July 2022.

Deardorff, Nathan. "An Argument That Video Games Are, Indeed, High Art." *Forbes*, Forbes Magazine, 13 Oct. 2015, https://www.forbes.com/sites/berlinschoolofcreativeleadership/2015/10/13/an-argument-that-video-games-are-indeed-high-art/?sh=7c69a4ee7b3c. Accessed 3 June 2022.

Denson, Shane. “Post-cinema after Extinction.” *Discorrelated Images*. Duke University Press, 2020, pp. 193–236.

Ebert, Roger. “Video Games Can Never Be Art.” *Ebert Digital LLC*, 16 Apr. 2010, https://www.rogerebert.com/roger-ebert/video-games-can-never-be-art. Accessed 20 May 2022.

---. “Why Did the Chicken Cross the Genders?” *Ebert Digital LLC*, 27 Nov. 2005, https://web.archive.org/web/20060614021814/http://rogerebert.suntimes.com/apps/pbcs.dll/section?category=ANSWERMAN&date=20051127. Accessed 3 June 2022.

Gregersen, Andreas, and Torben Grodal. “Embodiment and Interface.” *The Video Game Theory Reader 2*, edited by Bernard Perron and Mark J. P. Wolf, Routledge, 2009, pp. 65–83.

Grind, Kirsten, et al. “Activision CEO Bobby Kotick Knew for Years About Sexual-Misconduct Allegations at Videogame Giant.” *The Wall Street Journal*, Dow Jones & Company, 17 Nov. 2021, https://www.wsj.com/articles/activision-videogames-bobby-kotick-sexual-misconduct-allegations-11637075680. Accessed 18 July 2022.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*. University of Chicago Press, 1999.

Keogh, Brendan. *A Play of Bodies: How We Perceive Videogames*. Amsterdam, Netherlands, Amsterdam University Press, 2018.

Korr, Josh. “Video Games as Art, Prelude: Why Roger Ebert Is Right.” *Korr Values*, 9 Dec. 2006, https://korrvalues.com/portfolio/hard-korr-gamer-the-archive/december-2005/video-games-as-art-prelude-why-roger-ebert-is-right/. Accessed 3 June 2022.

Lahti, Martti. “As We Become Machines: Corporealized Pleasures in Video Games.” *The Video Game Theory Reader*, edited by Mark J. P. Wolf and Bernard Perron, Routledge, 2003, pp. 157–70.

Napolitano, Jayson. “Deep into Nier: Interview with Vocalist and Lyricist Emi Evans.” *Original Sound Version*, 4 June 2010, http://www.originalsoundversion.com/deep-into-nier-interview-with-vocalist-and-lyricist-emi-evans/. Accessed 26 Oct. 2021.

Ohsawa, Yuki. *Changes in the Conceptualization of Body and Mind in Japanese Popular Culture, 1950 - 2015*. 2016. University of British Columbia. PhD dissertation.

Orbaugh, Sharalyn. “Who Does the Feeling When There’s No Body There? Critical Feminism Meets Cyborg Affect in Oshii Mamoru’s *Innocence*.” *Simultaneous Worlds: Global Science Fiction Cinema*, edited by Jennifer L. Feeley and Sarah Ann Wells, University of Minnesota Press, 2015, pp. 191–209.

Patterson, Christopher B. *Open World Empire: Race, Erotics, and the Global Rise of Video Games*. NYU Press, 2020.

Paquet, Alexandre. “The Automata Collective: Negation of Endings and Collective Formation in *Nier: Automata*.” *Mechademia*, Volume 14, Number 1, 2021, pp. 113–30.

Phillips, Amanda. “Welcome to My Fantasy Zone: Bayonetta and Queer Femme Disturbance.” *Queer Game Studies*, edited by Bonnie Ruberg and Adrienne Shaw, University of Minnesota Press, 2017, pp. 109–24.

Ravenscraft, Eric. “What Is the Metaverse, Exactly?” *Wired*, Conde Nast, 25 Nov. 2021, https://www.wired.com/story/what-is-the-metaverse/. Accessed 18 July 2022.

Reeve, Justin. “Fromsoftware Employees Report Poor Pay and Working Conditions.” *TheGamer*, 13 Mar. 2022, https://www.thegamer.com/fromsoftware-employees-report-poor-pay-and-working-conditions/. Accessed 18 July 2022.

Rimmon-Kenan, Shlomith. *Narrative Fiction: Contemporary Poetics*. 2nd ed., Routledge, 2005.

Schlickers, Sabine. “Focalization, Ocularization, and Auricularization in Film and Literature.” *Point of View, Perspective, and Focalization*, edited by Peter Hühn et al., Walter de Gruyter, 2009, pp. 243–58.

Schreier, Jason. “The Horrible World of Video Game Crunch.” *Kotaku*, 26 Sept. 2016, https://kotaku.com/crunch-time-why-game-developers-work-such-insane-hours-1704744577. Accessed 18 July 2022.

Shead, Sam. “Meta Plans to Take a Nearly 50% Cut on Virtual Asset Sales in Its Metaverse.” *CNBC*, CNBC, 13 Apr. 2022, https://www.cnbc.com/2022/04/13/meta-plans-to-take-a-nearly-50percent-cut-on-nft-sales-in-its-metaverse.html. Accessed 18 July 2022.

Smith, Quintin. “Making Sense of VRChat, the "Metaverse" People Actually Like.” *YouTube*, uploaded by People Make Games, 17 May 2022, https://youtu.be/4PHT-zBxKQQ.

Steinberg, Marc. *Anime’s Media Mix: Franchising Toys and Characters in Japan*. University of Minnesota Press, 2012.

Thon, Jan-Noël. “Subjectivity as a Transmedial Concept.” *Transmedial Narratology and Contemporary Media Culture*, Amsterdam University Press, 2016, pp. 223–64.

Totilo, Stephen. “The Daddening of Video Games.” *Kotaku*, 9 Feb. 2010, https://kotaku.com/the-daddening-of-video-games-5467695. Accessed 20 May 2022.

Turcev, Nicolas. *The Strange Works of Taro Yoko: From Drakengard to NieR: Automata*. Third Editions, 2019.

Yokō, Tarō. “Making Weird Games for Weird People.” *GDC Vault*, www.gdcvault.com/play/1020815/Making-Weird-Games-for-Weird. Accessed 10 Oct. 2021.

---. Foreword. *The Strange Works of Taro Yoko: From Drakengard to NieR: Automata*, by Nicolas Turcev, Third Editions, 2019, pp. 9–10.

Video Games Referenced

Bayonetta. PS3 version, Sega, 2009

Bastion. Windows version, Supergiant Games, 2011.

Doki Doki Literature Club. Windows version, Team Salvato, 2017.

Half-Life 2. Windows version, Valve, 2004.

Metal Gear Solid. PS1 version, Konami, 1998.

Nier: Automata. PS4 version, Square Enix, 2017.

Nier: Gestalt. PS3 version, Square Enix, 2010.

Nier: Reincarnation. iOS version, Square Enix, 2021.

Nier: Replicant. PS3 version, Square Enix, 2010.

Nier: Replicant Ver. 1.22474487139.... PS4 version, Square Enix, 2021.

Nine Hours, Nine Persons, Nine Doors, Nintendo DS version, Spike, 2009.

Space Invaders. Arcade version, Taito, 1978.

Super Mario Bros. NES version, Nintendo, 1985.

The Stanley Parable. Windows version, Galactic Café, 2011.

Undertale. Windows version, Toby Fox, 2015.