**Nonhuman Games: Playing in the Post-Anthropocene**

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**Let’s start from the end**

Animal species across the planet are extinguishing at a much faster pace than what would normally be expected in a transitionary period of biodiversity loss (Ceballos, Ehrlich and Dirzo 2017), an article published in the *Proceedings of the National Academy of Sciences* reported. This publication confirmed the outcomes of previous studies on the alleged sixth mass extinction (Kendall 1992; Ripple et al 2017). The causes have been identified in global warming: the melting of permafrost and the rise of temperatures across the globe have been affecting the life of numerous species. The over-consumption of resources by the human population, which in its own turn is raising to an expected figure of 10 billion (Dorling 2013), has been catastrophic for biodiversity. Guy McPherson, a scientist from University of Arizona, has been claiming throughout his career that the effects of human intervention are now irreversible, and we should expect life to disappear from Earth by 2030 (Curry 2013). The prediction would be consistent with the outcomes of the previous mass extinctions that our planet has seen in its history, which annihilated 75-95% of biological forms in each round. McPherson’s predictions have still not manifested in their full extent, but he has become a popular reference in the age of social media when his interviews were published on YouTube: a sign of the growing interest and preoccupation for global warming. In a shorter term, a recent United Nations report has confirmed that up to a million species are at risk of disappearing within the next decade (United Nations 2019), a pace of extinction that is ‘tens to hundreds times higher than it has been, on average, over the last 10 million years’ (BBC 2019).

These are only some of the implications of the Anthropocene, the geological epoch characterised by the long-lasting impact of the human species on Earth. Theorised by scientists Eugene Stoermer and Paul Crutzen in early 2000, the Anthropocene is now a widely accepted term to identify the geological impact that we are both causing and witnessing as a species. The Anthropocene has gathered the attention of scholars from different fields, extending far beyond geology and biology. The gesture of naming the present time as defined by our own presence is anthropocentric, but it has the contradictory effect of putting our species at the centre of its own failure. It is self-congratulatory (we have made an impact that will last after our departure) and humiliating (we might not last to see those effects). It attributes *potestas* (power) to humankind, the power to subjugate life and matter, while denying *potentia* to alter its own destiny and generate new futures. Within the same gesture, it acknowledges that human beings have the capacity to inscribe on the surface of planet Earth long-lasting signs of their presence, and it deprives our species (particularly in its most apocalyptic versions) of any significant agency. If there is an Anthropocene in the history of our planet, then there must also be a post-Anthropocene in which humans will no longer play a significant role or might be completely absent.

This chapter explores how video games could help us re-think the meaning and value of our time on planet Earth, soliciting an ecological thought and a different understanding of the conflictual and contradictory condition prefigured by the notion of the Anthropocene. The chapter will look at how some recent video games have complicated the relation between gamer and game, decentring the human and occasionally making humanity completely redundant. At the same time, these ludic texts force us to rethink the boundaries of our self and how we participate in our surroundings, bringing to the fore new perspectives on the meaning of entertainment and boredom, interactivity and passivity, life and death. Posthuman thought can help us understand how to play these games, as they shift the boundary between our bodies and the machine, the human and nonhuman (Braidotti 2013). It is worth exploring these games as they provide alternative modes of thinking about the meaning of being human, and offer insights on how to live better in the time we have left. *Better* does not necessarily mean that they can provide a solution, a fixing, to the wrongdoings of humankind, but they could suggest different ways of enjoying the present time. As I would like to argue, these video games might appear minimal and almost insignificant in light of the catastrophic effects of the Anthropocene. However, it is their marginality within the larger picture that makes them useful and relevant for our struggles.

**Boys’ tools**

Discourses around the Anthropocene often include a technological solution. The Canadian company Carbon Engineering (https://carbonengineering.com), for instance, has been promoting a carbon removal technology that ‘hoovers’ carbon dioxide (CO2) from the atmosphere, and could potentially decrease the amount of carbon emission in a relatively short time. Welcomed as an immediately effective fix to climate change, it exemplifies the conservativism inherent in the technological solutionism that lies at the root of the problem. As such, it does not solve the systemic contradictions that caused global warming in the first place. More specifically, the tools invented by Carbon Engineering include the Air to Fuels technology, which transforms CO2 in synthetic fuels to be used on already existing cars, aeroplanes and other transportation vehicles. It is a *patch*, to borrow a term from software engineering, that can be installed without changing the available infrastructure and the industry that supports it.[[1]](#footnote-1) In this view, neoliberal capitalism can continue in its friction-less growth as it repairs its own mistakes. More problematically, the application of Carbon Engineering’s large scale hoovers (known as Direct Air Capture technology) is expected to work on a planetary scale, but its effects have been based so far on computer simulations. As argued by Anderson and Peters (2016), relying on these predictions without first seeing the results of its applications would be an ‘high-stakes gamble’, which risks locking the planet in a high-temperature pathway if it is not immediately verified. As the authors observe, the presence of these prototypes has already produced the negative effect of delaying political action, as their efficacy has already been taken for granted despite being so far only theoretical.

The Anthropocene and its solutions share a masculinist excess of-confidence that aims to control both the present and the future by betting on the effects of new products and technologies. In this view, the ecological crisis is resolved recurring to scalable solutions: a CO2 hoover produced in Canada should be copy-pasted in other regions of the world and is expected to reproduce the same results everywhere it is applied (around 10,000 of these need to be installed to eliminate CO2, Carbon Engineering has estimated). The imaginary that sees the Anthropocene as being the same everywhere, resolvable with the same *trick*, and equally affecting every living species, serves to reduce particularisms and frictions. The same approach is visible in the news articles on climate change that take great visibility on social media feeds. These often include in their title a year of no-return, an ultimate deadline after which life will be obliterated from Earth. It is easy to imagine that similar ‘expiry dates’ will not work as imagined in the narratives of these press releases, even in the most apocalyptic scenario. The disappearance of life from Earth is more likely to be made of molecular events, many of which are already happening, despite being almost invisible. The disappearance of bees and the melting of permafrost are slow and non-spectacular effects of global warming that do not occur at a precise place and time. The Syrian political crisis of 2011 that brought more than 6 million people to migrate is primarily an ecological crisis, as it was induced by the desertification of the region which made access to freshwater harder for the inhabitants (Gleick 2014). The Anthropocene highlights the numerous frictions and inequalities that take place around, over, and below the surface of the planet, and how these are often out of reach of our limited and situated experience.

Technological solutionism and its inherent masculinism are too confident in their own possibilities. As Joanna Zylinska (2012, 77-88) argues, in these times of crisis we need a minimal ethics for the Anthropocene: a philosophy of life that makes of its vagueness and openness a critical premise. Embracing this mode of thinking involves, as she puts it via the work of Darin Barney (2011), a post-masculinist courage: the courage to face uncertainty and the unpredictable without trying to control it with instrumentalism and rationality – two concepts that video game culture knows a great deal about.

**Posthuman games**

The connections between the Anthropocene and video game culture are manifold. Instrumentalism, rationality, and masculinism take a dominant position in both discursive fields. Making and playing video games, as much as naming and trying to fix the Anthropocene, are typically identified as male activities (Shaw 2011, 2014; Paul 2018). Game design is often thought of as the art of framing meaningful problems and their solutions (Salen and Zimmerman 2003). From a historical and ideological perspective, video games are born out of the cybernetic thinking that is at the root of the imagined detachment of mind and body, user and machine, and culture and nature (Crogan 2011; Pias 2017). Game studies have been taking varied positions in this respect, occasionally maintaining these dualisms and other times trying to challenge their theoretical and political implications.

At the centre of both game studies and ecological thinking there is the problematisation of the correlation between humans and the world surrounding them. Notions of agency and interactivity have largely shaped the early debates in study of games. Interactivity has been identified as the defining characteristic that distinguishes games from other forms of expression. However, its vagueness and implied determinism induced rejections and redefinitions. Lev Manovich (2001, 71) claims that interactivity is too broad and vague as a concept, and often associated with marketing jargon, to be of any use for a theoretical understanding of new media. On the other hand, he acknowledges that digital games are ‘explicitly participational’. Janet Murray (1997; 2011) prefers the term ‘agency’ to identify the key design value of digital artefacts. Espen Aarseth (1997, 51) argues that interactivity is ‘a purely ideological term, projecting an unfocused fantasy rather than a concept of any analytical significance’, although he maintains that ‘non-trivial effort is required to allow the reader to traverse the ergodic text’ (Aarseth 1997, 1). Interaction has been re-defined and renamed. To be addressed from a theoretical standpoint it required to be cleared of the overtly-enthusiastic and deterministic claims that put it at the heart of the digital revolution. However, the question on how to properly evaluate the relation between user and machine reinforced the presence of the dualism, even when the two terms were written ‘under erasure’. When not explicitly brought into question, the implied separation between user and system has allowed numerous authors to think of games as texts made of rules and problems to be understood, resolved, and fixed (Salen and Zimmerman 2003; Juul 2005). These visions have reinforced an imagined separation (both spatial and cognitive) between players and their games.

Posthuman thought has served to deconstruct the dualism between interactor and machine, shedding light on the lived assemblage of human and nonhuman minds, bodies, and environments, and imagining alternative modes of thinking. Seth Giddings (2005) argues that a theorisation of human and nonhuman agency is pivotal in the study of digital games. Games aestheticize and realise Donna Haraway’s (1991) figure of the cyborg, a coming together of organic and technological that is intimate, unknowable, ironic, monstrous. When playing a video game, Giddings (2005) observes, the flow of information does not originate from the human or machine but takes place within the cybernetic loop that makes the two sides indistinguishable and no longer separable. Alexander Galloway (2006) argues that the two sides, ‘operator’ and ‘machine’, are inevitably drawn together in the act of playing a video game. Operator and machine’s actions take place at the diegetic and non-diegetic levels of the game, manipulating its narrative and internal functions (as it happens when ‘saving’ a game, for instance). More recently, Brendan Keogh has observed that a video game text is produced through the co-presence of the player’s body and the hardware, generating playful encounters between the two (Keogh 2018, 47). The imaginary of games as being played by a disembodied player from an empty position is critiqued by Keogh, as projecting the fantasy of a text made of pure information and mechanical interactions. The presence of the player’s body and the actions taken while playing a video game happen with and through a nonhuman agent. The possibilities of a video game are generated by mobilising the physicality of human and nonhuman actors, and by destabilising the definitions of both. Video games are, even from a narrative and semiotic perspective, texts of unstable boundaries (Fassone 2017). A posthumanist understanding of the medium of the video game complicates notions of interactivity and agency. In so doing, it highlights how player’s actions are more similar to a bet on the future, a ‘pre-emptive control and virtual, remote regulation of contingency’ (Crogan 2011, 32). Game actions are motivated by the uncertainties generated by the ‘collusion’ (to borrow a term from Giddings 2009) of human player and nonhuman machine. When playing games identities are fractured, ‘contradictory, partial, and strategic’ (Haraway 1991, 155).

As argued by Katherine Hayles, the process through which cybernetics has detached information from its body has brought with it the assumption that stability is a desirable goal, and that ‘human beings and human social organizations are self-organizing structures’ (Hayles 1999, 21). The failure of these assumptions is, I argue, at the origin of many delusions and misunderstandings around the current ecological crisis. As Timothy Morton observes, the difficulty we are currently experiencing when thinking about the Anthropocene is rooted in the ‘severing’ between reality and real, which has created an ‘impermeable human world’ (2017, 14). In this all-too-human bubble we are prevented from conceiving solidarity with nonhumans, persuaded by the idea that human culture is the primary filter that makes things real. Morton’s ecological thought proposes to multiply the number of differences in our understanding of what constitutes humankind and to focus on how bodies are entangled in the surrounding environment and composed of a multitude of biological organisms that outlive the ‘human’ as a singular entity. For Morton, inverting a common-sense statement, the whole is less than the sum of its parts (2017). Similarly, Anna Tsing notes that modern knowledge tends to ‘sum up’ and reduce particularity. By contrast, attending to life’s ‘contaminated diversity’ makes various forms of collaborative survival come to light (Tsing 2015). Playing video games, posthumanist thought observes, depends upon the opening up of human boundaries. Bodies, gestures, thoughts, identities are made porous, rendered unstable, and the principle of a self-organising structure is lost in the act of playing. The genealogy that connects video games with cybernetics keeps two opposing imaginaries together: on the one hand, a separation between human and nonhuman, which sees human actors solving problems from an invisible position, while on the other there is a collaboration, a physical and intellectual melting of human and nonhuman that makes the separation between the two no longer relevant.

This chapter argues that video games tend to destabilise the human, and that instrumentalism and rationality are challenged particularly through contemporary forms of digital gaming. The connection between ecology and video games might not appear obvious, but it lies in the detachment of bodies and information, human and nonhuman actors, that frames cybernetics and the culture surrounding it. However, as argued by posthumanist perspectives on game studies, video games are contexts where human and nonhuman actors think, act and play together in much more complex manners. This line of thinking can bring us back to the ecological and ethical question of how to live a better life in the time we have left on this planet.

**Posthumous games**

In his analysis of game actions, Galloway (2006) takes into account the game *Shenmue* (SEGA AM2 1999) by Yu Suzuki. *Shenmue* was published by Sega on the console Dreamcast, and was one of the first open world video games of the era. The story of the game begins in Yokosuka, Japan, in November 1986, where the main character, Ryo Hazuki, investigates the murder of his father. While engaging with the local villagers and collecting evidence and clues that can lead him to the perpetrators of the crime, the player immerses him or herself in a living environment, where non-playing characters follow precise routines and patterns. An internal clock regulates day and night cycles, shops have opening times, while some key characters can only be approached at a specific time and place. When the player does not interact with the simulation, leaving the controller and letting the game rest, the fictional representation of Yokosuka will continue running: characters can be seen walking around the streets, carrying on with their own businesses. This type of open-world simulation is now considered a standard in the genre of adventure games. In games such as *My Time at Portia* (Pathea 2018) non-playing characters populate a post-apocalyptic world and follow a series of time-based patterns. Recent titles such as *Red Dead Redemption 2* (Rockstar San Diego 2018), *Fallout 76* (Bethesda Game Studios 2018), *Assassin’s Creed Odyssey* (Ubisoft Quebec 2018) are further instantiations of this approach to game design, where computational power of contemporary consoles and PCs is often deployed to increase the number of characters, dialogues, events and graphical details that are simulated as if they were living a life of their own, activating themselves without the input of the player.

As Galloway (2006, 18) observes, while playing *Shenmue* the operator can step back and ‘look at the poetry of the algorithm’. When the human player decides not to intervene, the correlation between human and nonhuman is no longer balanced. One side takes the lead:

‘When games like *Shenmue* are left alone, they often settle into a moment of equilibrium. Not a tape loop, or a skipped groove, but a state of rest. The game is slowly walking in place, shifting from side to side and back again to the center. It is running, playing itself, perhaps. The game is in an ambient state, an *ambience act*.’ (2006, 10).

Despite functioning through a cybernetic relationship, the game can also live in an independent manner. Machine actions might appear to be self-sufficient, almost prefiguring the possibility of a game played without human’s intervention.

This almost paradoxical modality of play alludes to the fears of the post-Anthropocene: a world where human beings are no longer central in the functioning of the planet Earth or are perhaps entirely extinguished. Narratives around the Anthropocene implicitly suggest that our time spent on this planet is limited, and our presence destined to end, as all the other major forces that have shaped previous epochs. A future Earth without humans is, in other words, possible, and a video game that plays by itself helps us to imagine this unimaginable scenario.

If video games can complicate our understanding of our involvement in the environment surrounding us, then video games that completly erase human’s presence are *things to think with* when elaborating the imagination of life after the human. They are the playful equivalent of the television shows such as *Love, Death & Robots* (Miller 2019), distributed on Netflix, which imagines nonhuman life after human’s apocalyptic disappearance, or the earlier *Life After People*, broadcast by History channel in 2008 (as a 2-hour special) and 2009 (as a series). The latter show visualizes what would happen to animals, artefacts, cities, buildings, and landscapes in the event of human disappearance. The reasons for the absence of human beings are not explored. The show is intended as a purely fictional work of scientific imagination, although some of the locations shown are actual examples of places that have been abandoned by human population for various reasons. The fictional Yokosuka in *Shenmue* lives a life of its own, and it is a life *after people*: no longer dependent on the inputs of a human player in flesh and bones. It is similar to the not distant area of Fukushima, also in Japan, which could have appeared in the History show if it was shot today. Rendered inhabitable in 2011 after a tsunami hit the Daichii nuclear power plant, the area is now slowly being repopulated with animals and vegetations. While the radioactivity level makes life dangerous for human beings in the long run, the absence of humans is advantageous for forms of life that were previously marginalised because of man-made pollution and constructions. The Fukushima nuclear area is becoming what science fiction author Bruce Sterling has defined an ‘involuntary park’: areas that are no longer useful for capitalistic exploitation, because they are too dangerous or polluted, are abandoned and then slowly reoccupied by nonhuman forms of life (SCI-Arc Channel 2018).[[2]](#footnote-2) Games such as *The Last of Us* (Naughty Dog 2013) are played in similar settings, once populated by humans and then rapidly transformed into hostile environments, but still prolific of nonhuman or barely-human forms of life.

Video games are premediating the post-Anthropocene in numerous ways. Björk and Juul (2012) have explored the theoretical implications of ‘zero player games’, where the human player is eliminated or radically marginalised in the game mechanic. The games discussed in the next session are made or played by nonhuman actors, but the human is only temporarily removed, as if they were ‘involuntary parks’ deprived of human presence.

**Idle games**

The genre of idle games is a growing trend in the digital entertainment industry. It is a type of game which is ‘left running with little player interaction’ (Altharti et al. 2018, 1). The ambience act discussed by Galloway in relation to *Shenmue* is almost transformed in a game of its own. These titles are also known as background, ambient, incremental or clicker games. Most idle games are ‘played’ on smartphones, although the most popular titles are also published on consoles such as PlayStation 4 and internet browsers. In principle, these games only require to be activated and then carry on independently, although they typically involve, or encourage, a minimal form of interaction, such as repeated clicking. The game *AdVenture Capitalist* (Hyper Hippo Productions 2014) is a ‘capitalism simulator’ where the production of profit can be automatized by the player in the early stages of the game. When returning to the app, even after months or years from its activation, the capital will have automatically raised. The wealth accumulated can be spent on businesses and upgrades (such as ‘lemon stands’, ‘oil companies’ and various types of managers) that increase the pace of capital accumulation. There is no final goal or objective in this fictional capitalistic endeavour. The total profits can rapidly escalate to impossible figures such as undecillion or vigintillion dollars, and towards theoretically infinite numbers. Idle games are often ironic and acknowledge their paradoxical design. The popular *Progress Quest* (Fredericksen 2002) is a parody of the more famous *EverQuest* (Verant Interactive and 989 Studios 1999), an online role-playing game. *Progress Quest* preserves the level-up feature typical of the design of RPG games but eliminates the human labour involved in the process. The tasks are automatized, and the player is only expected to watch numbers increase on screen. The game *Cookie Clicker* (Thiennot 2013) lets players choose from a series of bizarre upgrades that increment the baking of cookies at exponentially higher rates. Once the game is closed it continues to play itself, detached from human vision. When the player returns to the game, they will find that the score has increased over time.

Contemporary idle games have transitioned from experimental parodies into a proper genre. Their core mechanic of play has been normalised through commercially successful productions such as *AdVenture Capitalist*, *Clicker Heroes* (Playsaurus 2014) and *Idle Heroes* (Droidhang Games 2016) (Deterding 2016). Idle games are part of the broader phenomenon of casual games: products released for an audience of smartphone and laptop owners, who would not normally commit to a demanding experience and consider themselves ‘unable to fit a game into their lives’ (Juul 2010, 5). As argued by Keogh and Richardson (2018), while these games do not require an intensive form of engagement, players occasionally decide to spend a significant amount of time in planning, clicking, and elaborating strategies to maximise their (minimal) effort. Micro-transactions are often included in idle games, and a significant portion of players spend real money to receive upgrades and aesthetic ameliorations. Idle games might be independent of human players, and theoretically self-functioning, but they still involve the player intellectually, or economically via micro-transactions. The contemplation of the ambience act, to put it through Galloway’s terminology, can be demanding and prolific of diverse forms of engagement.

While analysing idle games, Sonia Fizek has noticed how they pose a serious challenge for game studies, as they complicate the notion that enjoyment derives from the active engagement with the ludic text. She argues that ‘idling may be understood as delegated pleasure derived from the act of outsourcing gameplay onto the game itself’ (Fizek 2018, 142). Idle games are an example of interpassive experience: neither interactive nor passive, these games ‘provide their own reception’ (Pfaller 2017). However, it matters what kind of interpassive experience is presented. While some idle games are more experimental, others tend to exploit the user’s addiction via microtransactions.

Other titles instead try to provoke more complex imaginaries. *Universal Paperclips* (Lantz 2017) is similar in its mechanic to other incremental and idle games. The game simulates a paperclip factory that exponentially increases in size and automatizes its production through an artificial intelligence. The AI will not stop until the entire matter of the universe has been transformed into paperclips. The exponential and unlimited growth of idle games is here confronted with the imaginary of friction-less capitalism that underpins it. The game reminds that matter produces frictions, and that the nonhuman has its own material limits. It also questions the risks associated with the appeals of automatization and delegation of labour. The fictional Artificial Intelligence governing the production of paperclips cannot be stopped and will determine the extinction of human beings, suggesting that similar experiments in automation within the military-industrial complex might escape our control and produce catastrophic effects. Looking at an earlier example, *Cow Clicker* by Ian Bogost (2010) has been defined as an inspiration for the genre of ‘waiting’ games (Tanz 2011). The game is playable via Facebook and replicates the strategy of clicking and waiting that is at the core of games such as *Farmville* (Zynga 2009). While intended as a parody of those games, Bogost’s *Cow Clicker* (2016) became an unexpected success among casual players who were not necessarily aware of the critical intent. Bogost has developed this line of critical design and released games that are entirely based on waiting. The series *A Slow Year: Game Poems*, produced in 2010 for the 1977 Atari VCS console, is comprised of four games, one for each season, and each requiring ‘a different kind of sedate observation and methodical input’, rather than ‘action or strategy’ (Bogost 2010). The earlier *Guru Meditation* (2009) is designed to be played while meditating on the *joyboard*, an unusual interface produced by Amiga in 1982 where players could sit or use their feet to interact with a game. Both games function only to the extent that the player disappears from the scenario, by standing still, meditating, repeating the same minimal actions. At the same time, these games invite their players to reflect on their own presence, the duration of the experience and the relation established with the hardware.

**Delegated games**

The act of play can become a delegated activity: a spectacle to watch, for instance on Twitch or YouTube, or to be completely emancipated from. Stefano De Paoli (2013) has investigated how the repetitiveness and boredom derived from levelling up in MMORPGs prompts players to find alternative solutions to their laborious tasks. The automation of these activities via bots and macros, which De Paoli refers to as ‘automatic-play’, introduces a critique of the in-game economic systems and their representations of labour. While automatic play often takes place at the boundaries of game rules, and is not always tolerated by developers and publishers, it has also prompted game companies to produce titles intentionally designed for this type of activity. *Screeps* (Screeps 2016) is an open-source MMO (massive multiplayer online) game for programmers. The main mechanic of the game consists in controlling the artificial intelligence of the player’s units via JavaScript. Units compete against those of other players 24 hours a day, even when players are offline. The game has become popular among programmers, up to a point that it is taken into account when recruiting software engineers.

A similar approach has been embraced by the popular series *Forza* (Xbox Game Studios 2005-2019). Published by Microsoft on its *Xbox* console, the *Forza* series has been promoting the *Drivatar* system as a key component (Bittanti 2015)*.* The driving game lets players train an artificial intelligence that simulates the driving style of the player. When the game is turned off, a *drivatar* will replace the real player and compete in online tournaments, earning in-game currency and winning trophies. The *drivatar* expands on the concept of the ‘ghost car’, already present in driving simulations, where a ghostly representation of the fastest performance remains visible on track to provide a reference to the driver who attempts to beat the current record. Both ghost cars and *drivatars* open paradoxical and *creepy* scenarios. Online forums frequently report stories of players who pass away and leave their virtual representations behind, still playing the game on their consoles. While ghost cars of dead players can be easily found in saved games of abandoned consoles, the *drivatar* appears in online games and competes with other players who might not be aware that they are being challenged by a dead person. In the long run, if the servers that host the *Forza* games will remain functioning for a sufficiently long time, the entire game will be played by *drivatars* of dead humans.

**Procedural games**

The phantasy of a game that exceeds the human is epitomised by *No Man’s Sky* (Hello Games 2016). The game has been released after a controversial crowdfunding campaign. The relatively small team announced that they had developed a software for the procedural generation of 3D environments which would allow them to produce a game far exceeding the possibilities offered by any other title. The game is set in a fictional online universe with animals, vegetation, and resources to be explored and collected by the players. It is estimated that it would take 585 million years to visit every single planet in the game, a time that exceeds the known age of our universe. Hello Games announced in the development stage that artificial bots have been used to check the consistency of the universe, as it would have been impossible for a human being to test such a gigantic environment. Thus, *No Man’s Sky* is mostly made of areas produced by a nonhuman agent (the software used to procedurally generate the environments) which have been only explored by nonhuman agents (the AI used to test the game).

*No Man’s Sky* cannot be completed within the Anthropocene. In fact, it cannot be completed within any geological age. To be more precise, it is not a game to be completed, or intended to be played, by any human being. Not only because of its magnitude, but because of its inhumane boredom (a *feature* that many consumers vehemently complained about after its release). The procedurally generated universe is immense, but also invariably uneventful and filled with planets that look very similar to each other. The players’ disappointment was justified by the hype generated through the crowdfunding campaign. YouTube and Reddit have been the privileged platforms where to expose the infinite repetitiveness of the game. The imaginary of a nonhuman game, produced by a nonhuman agent and framed on nonhuman times, has turned against the developers in an all too human manner. The criticism brought gamers to send death threats to the development team, accused of having betrayed their supporters (MacDonald 2018).

**Conclusion: playing the Anthropocene**

This chapter has investigated the paradoxes and contradictions, as well as the irony, *weirdness* and *creepiness*, of video games made or played by nonhuman agents. As Haraway’s vision of the cyborg did with cybernetics, nonhuman games confuse and complicate the ontologies of digital texts, and shed light on the situatedness, temporality, and partiality of our knowledge (Haraway 1991; Kember 2018). Life might be disappearing from Earth at some point, but we are not there yet. We are in-between birth and death, the beginning and the end, and we have always been. Nonhuman gaming helps us to articulate this space and time in-between and has the potential to re-route gaming (and game studies) from false myths of agency, interactivity, and instrumentalism, and the masculinism inherent in these notions. Nonhuman games are companions for earthly survival, and as such they can be taken as useful references when considering a more ethical approach to the ecological crisis of the Anthropocene. While thinking of climate change as an irremediable global issue might pre-empt any form of political decision, considering instead the complexities of our situated encounters with the nonhuman, even in the games we (do not) play, suggests a more humble and attentive approach.

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1. This ‘patch’ is a metaphor borrowed from the semantic field of informatics rather than tailoring. A tailored patch would be less problematic in this respect. Mending a hole requires awareness that the same patch might not be equally suitable for every piece of clothing. It also implies that fabric does not appear out of nowhere, it must be cut from another piece, inevitably opening a new hole. The gendered connotations of the two practices (software engineering and tailoring) indicate two different modalities of knowledge about ecological crises and their solutions. In this respect, we need feminist thinking more than software updates. [↑](#footnote-ref-1)
2. A similar phenomenon is taking place in Chernobyl, Ukraine, where the territory abandoned after the nuclear disaster of April 1986 (a few months before the beginning of *Shenmue*, coincidentally) is now considered a healthier environment than most European cities (Smith 2007). [↑](#footnote-ref-2)