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HUMAN INTERACTIONS WITH TECHNOLOGY:

INVESTIGATING THE POSTHUMAN IN HBO'S WESTWORLD

Abstract

In the first moments of the show Westworld, an unidentified voice asks the character Dolores: "Have you ever questioned the nature of your reality?" ("The Original," 00:02:30-00:02:33). This inquiry invites both Dolores and the viewer to examine not only their perceived version of a reality, but also their explicit definition of *nature* or a state of being as such. This question is simultaneously ontological and phenomenological. It investigates reality in a changing technological modern world, a transformation which is particularly reflected upon in recent dystopian fictional television shows such as HBO's Westworld (2016) and Netflix's Black Mirror (2011). Technology has become ubiquitous in these shows so that their narrative universes are filled with new technological discoveries and reflect upon the interaction between the human and the machine, a plot development which reflects upon the presence of technological devices such as smartphones, smart-TVs and smart watches in our daily lives. Due to the presence of such technologies it is indispensable to inquire how human and non-human modes of being can be re-defined. In this aspect, it is especially important to investigate the reformulated role of technological non-humans or 'artificial humans'. This essay attempts to question existing dualities between human/anti-human, nature/technology, and object/subject, all main concerns of the concept of the Posthuman, while investigating how a state of being can be re-defined if it entails both human and non-humans. This work will especially consider critical insights on the Posthuman provided by Rosi Braidotti, Katherina Hayles and Isaac Asimov. Overall, this analysis will demonstrate how a Posthuman approach to Westworld reveals human fears and desires regarding human-technology interactions.

Key words: the Posthuman, Artificial Intelligence, Existentialism, technology, reality

Have you ever questioned the nature of your reality? ("The Original," 00:02:30-00:02:33)

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Was I the same when I got up this morning? I almost think I can remember feeling a little different.

But if I'm not the same, the next question is...who in the world am I?

(Lewis Carroll, 1865: 12-13)

Westworld's Hosts: Embodying the Artificial in a Technological Space

The park Westworld is reflecting an imaginary old west filled with images of "hitching posts, dirt roads, swinging saloon doors, brothels, spittoons" (Welesko 2014: 6). The gigantic park with no visible borders is enriched with sublime natural landscapes, many of them surrounding the Grand

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Canyon. Additionally, the park is also incorporating artificial humans or 'hosts.' The hosts appear indistinguishable from humans. However, their human-like exterior distracts from their man-made fabrication as programable, controllable, artificial entities. Westworld is a space filled with these artificial humans who are designed to grant every thinkable wish of its wealthy human visitors who seek to live out their wildest, unlimited fantasies. Larry Alan Busk describes the experience of the visitors: "You leave your old life behind for a limited period of time and immerse yourself in a synthetic 'old west'" (2016: 27). By erasing moral boundaries and blurring the human/non-human division while de-centering the human, the park offers to fulfill all kinds of desires, including murder and rape.

However, Deborah M. Netolicky describes the park as a world that "seems real to its cyborg inhabitants, but is a game park to its human visitors" (2017: 97). While this fictional park of the US-American HBO series is built on the premise of the American Frontier spirit inspired by Westerns such as *High Noon* (1952), *The Magnificent Seven* (1960), Clint Eastwood's *The Good, the Bad and the Ugly* (1966) and the Italian Western *Once Upon a Time in the West* (1968), it also entails twenty-first century science fiction elements due to the presence of the hosts. The environment of the both futuristic and nostalgic theme park is certainly an adventurous space, perfectly cut out for a Western science fiction drama series. The series addresses the possibility of the hosts' agency while also asking questions on bodily matter, consciousness and the nature of human existence.

The show *Westworld* addresses the common struggles of both humans and non-humans, namely their emotional sufferings and their inquiry of what it means 'to be' or exist in the world. Intentionally, this series crosses the borders between the machine and the human, the organic and the wired body, an aspect which makes this show inherently Posthuman. Rosi Braidotti's provides a useful definition of the complex term:

The posthuman predicament is such as to force a displacement of the lines of demarcation between structural differences, or ontological categories, for instance between the organic and the inorganic, the born and the manufactured, flesh and metal, electronic circuits and organic nervous systems. (90)

Thus, the posthuman concerns the transgression of binaries between human and non-human, between subject and object. Accordingly, Netolicky observes: "The binary between organism and machine, human and robot, real and imagined, is transgressed, blurred, and erased in *Westworld*" (2017: 95). In order to explore how Westworld's artificial environment re-defines the ontology of both humans and artificial, human-made 'things,' it is crucial to evaluate the role of the hosts and humans in the park.

Artificial humans, automatons, robots and cyborgs have been an object of fascination since the ancient Greeks, as a rich mythology on "the mechanical servants of the Greek god Hephaestus, or the Golem of Jewish legend" reveals (Jeffery, 2016: 140-141). It is important to emphasize that robots recurrently interact with humans and thus compare the non-humans to humans as it is the case in Philip K. Dick's *Do Androids Dream of Electric Sheep?*, an important science fiction novel which will be touched upon further later. *Westworld* takes this one step further and re-creates this interaction in a rich narrative which is not only concerned with the inner life of humans but also that of non-humans. The park profits from a space where "identity-producing interactions take place" while using "communicative and signifying practices" (Fornäs et al., 2002: 34). The hosts are equipped "with senses—eyes, ears, motion—so that we can interact with them" (Kelly, 2016: 221). Accordingly, the hosts become eerily indistinguishable from humans and thus invite what is means to be human/non-human.

The hosts in *Westworld* come close to what Donna Haraway terms a *cyborg* in her well-known "Cyborg Manifesto;" "creatures simultaneously animal and machine, who populate worlds ambiguously natural and crafted" (2000: 291). The cyborgs of *Westworld* are simulated humans that do not age but are simply updated or re-programmed. These hosts are designed as individuals and are

¹Accordingly, Brian Welesko observes how "(t)hrough film and television, literature and art, historical data, and primary sources, our conception of the American Frontier has been built up over our life-time, reiterated, and "brought to life" (2014: 6).

² Donna Haraway paved the way for posthuman theorists such as Rosi Braidotti with her famous "Cyborg Manifesto" in which she compared the situation of women at the turn of the twenty-first century to the hybrid figure of the cyborg.

not copies of another human. Hence, every host is unique, just like a human being. In addition to Haraway's terminology of the cyborg, Slavoj Žižek's imaginary non-human, "a living body which appears natural," also serves as an enriching description for *Westworld*'s hosts who look, react, and bleed exactly like humans (2016: 10-11).

The Man in Black, a middle-aged man dressed in black and one of the main investors of the park, tells Teddy, one of the hosts: "You used to be beautiful. When this place started, I opened one of you up once.³ A million little perfect pieces. And then they changed you. Made you this sad, *real* mess. Flesh and bone, just like us" ("Contrapasso," 00.12:25-00:12:42, emphasis added). Yet, they are in fact "3D printed humanoids dipped in skin in Vitruvian Man style hoops" (Netolicky, 2017: 94). Thereby, the show explores new possibilities of technologies by envisioning a futuristic, almost magical technological simulation of the human-as-host.

However, the hosts in *Westworld* are indeed different from humans due to a few defining features. Their immortality and their different understanding of 'living' implies that they are indeed something else and even 'superior' to humans, whose biological bodies die. For instance, Dolores is the oldest host in the park and has not aged for more than thirty years (01:04:38-01:04:43). Thus, the hosts are arguably a reflection of a human desire of immortality.⁴ The host's immortality addresses here the fear that the humans in the show are not only objectified but indeed replaceable by artificially made 'things' or bodies.

The hosts are also portrayed as "consciousness-free," a feature which changes throughout the narrative (Kelly, 2016: 42). In *Westworld*, Dr. Robert Ford, the founder of the park, talks about his initial and deceased partner of the project Westworld, Arnold:

Our hosts began to pass the Turing test after the first year, but that wasn't enough for Arnold. He wasn't interested in the appearance of intellect, of wit. He wanted the real thing. He wanted to create consciousness. ("The Well-Tempered Clavier," 00:41:00-00:41:16).

The Turing Test investigates if machines are able to think in a manner that is indistinguishable from human types of thinking and behavior. Consequently, the goal of this test is "to relate machine behavior to human behavior, such that the one can be judged successful in terms of the other" (Bogost 14). It is likely that, "we can expect computers to pass the Turing test, indicating intelligence indistinguishable from that of biological humans, by the end of the 2020s" (Kurzweil, 2005: 37). However, Ian Bogost observes that the Turing Test cannot account for the "operation of a machine independent of its ability to model or strive for human intelligence" (2012: 16). With the figure of the host, *Westworld* attempts to introduce a new form of being, which is comparable to a human but also entails an entirely new aspect of being. While consulting the role of *things* in relation to each other, Bogost points out that "(t)he field of artificial intelligence (...) pledges fealty to the human correlate in its very name: a computer is to be considered useful the more it does *intelligent* things, that is, things that benefit human beings or things that human beings can recognize as intelligent activities" (2012: 15).

Introducing a Non-human: Dolores Abernathy

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³ This mysterious Man in Black is also represented in the show as a young man named William. In a timeline which takes place thirty years before the rebellion of the hosts, a younger version of the Man in Black is introduced named William. He indulges in the pleasures of the park so much that he takes on the cruel and calculating persona of the Man in Black. Due to the passion and investment of the Man in Black, the park has been running for more than thirty years.

⁴ Since the hosts cannot die, unused or outdated hosts are out away in a sort of basement called "cold storage." In other words, they are treated as 'things' or toys which can be put away when no longer needed ("The Original," 00:18:34).

⁵ Boellstorff provides a useful definition of the test and its historical background:

In 1950, the British mathematician Alan Turing proposed a test to determine if a computer could converse in a manner indistinguishable from a human. The "Turing Test" is often described as an experiment in which a human and a machine are placed in separate rooms and allowed to communicate solely by text with a human judge. If the judge cannot determine which messages are coming from the human respondent and which from the computer respondent, then the computer can be said to have passed the Turing test. (2008: 139-140)

The show's first episode "The Original" begins by introducing the hosts to the viewer: a darkened room lights up and an unknown man speaks the words: "Bring her back online" (00:01:44-00:01:48). A room begins to light up and a naked woman, later introduced as Dolores Abernathy, can be seen sitting on a chair. Thereby, the naked person sitting on the chair is introduced as a non-human, controlled by the human whose voice is heard. The man's voice asks her if she knows where she is. The following dialogue takes place:

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Dolores: I'm in a dream.

Man: Yes, Dolores. You're in a dream. Would you like to wake up from this dream?

Dolores: Yes. I'm terrified. (00:01:57-00:02:18)

This exchange demonstrates how humans control hosts and update them at their facilities by making them believe that they are dreaming. However, this particular scene also foreshadows the premise of the show's plot, namely the intentions of the hosts to wake-up from this dream, to think independently and thus to become conscious. Subsequently, the camera zooms in on Dolores motionless face and her eyeball. Even though a fly is crawling over it, she does not react, emphasizing her artificiality.⁶

In the next scene she can be seen lying in her bed, waking up as if from a dream, with a reflective look in her eyes. Dolores gets up and walks toward a ranch-style house while greeting her father. Simultaneously the dialogue between her and the unknown male voice continues:

Man: Tell us what you think of your world?

Dolores: Some people choose to see the ugliness in this world. The disarray. I choose to see the beauty (...) To believe there is an order to *our* days, a purpose. ("The Original," 00:02:39-00:0319, emphasis added)⁷

This dialogue is vital to the series. First of all, an us/them divide is introduced in this interrogation; the man differentiates *his* world and *his* reality from the one that is perceived by Dolores. Additionally, Dolores speaks about "the order of *our* days," thereby differentiating her and her fellow hosts from humans. Dolores' answer implies that she 'believes' or *trusts* in her world. After all, she *has* to believe in it even if she is living in a space constructed by others. The park is indeed a beautiful space which conveys an illusion of natural splendor full of artificiality.

When her interrogation continues, more oppositions such as the newcomer-host divide are introduced. The man asks her: "What do you think of the guests?" ("The Original," 00:03:24-00:03:25). Dolores asks: "You mean the newcomers?" Suddenly, the scene switches to a man sitting on a train which takes the park's visitors to Westworld ("The Original," 00:03:26-00:03:27). The terminology of a 'newcomer' implies here that someone foreign and strange is entering an already established society or order. However, Dolores now breaks down the us/them dialogue in the run of her interrogation. She tells the man: "I like to *remember* what my father taught me. That at one point or another, *we* were all new to this world" ("The Original," 00:03:46-00:03:56, emphasis added).

Constructing Non-human Memories and Narratives

Dolores thus emphasizes the role of remembering while additionally demonstrating that humans attempt to reinforce the boundaries between themselves and non-humans throughout the show. For instance, when the host Maeve asks the human Felix how he can be sure that he is human, he replies: "I was born, you were *made*" ("The Adversary," 00:13:14-00:13:16). Maeve then tells Felix: "We *feel* the same" ("The Adversary," 00:13:28-00:13:29, emphasis added). She therefore attempts to challenge the duality of human/non-humans; an inherent characteristic of the Posthuman approach. Ranisch and Sorgner remind us that "there are persistent concepts and dualities in Western culture, such as nature/culture, man/woman, subject/object, human/animal, or body/mind, which are deeply rooted in the Western tradition and which get challenged by posthumanist thinkers" (2014: 8).

Consequently, the humans in the show begin to struggle to recognize the difference between them and the hosts. The writer Lee Sizemore complains to Theresa Cullen, a member of the Delos board: "Ford and Bernard keep making *the things* more lifelike. But does anyone truly want that? (...) This

⁶ The fly can be interpreted as a symbol of unholiness and uncleanliness.

⁷ Haraway claims that the "cyborg is a creature in a post-gender world" (292). However, Dolores clearly has a role which is submissive (at first).

⁸ Instead of referring to a host as something 'new,' the show creates an ironic wordplay.

place works because the guests know the hosts aren't real" ("The Original," 00:33:49-00:34:04), emphasis added). Due to their uncanny likeness, he suggests making the *things* less lifelike and more controllable. Technology has here become too close and begun to "intimate to human being" (Boellstorff, 2008: 39). It is highly important that the hosts are are designated as *things*. The hosts are 'things' "amenable to manipulation" (Žižek, 2008: 49-50). However, the binary between the 'thing' and the human is broken down in *Westworld* by introducing an egalitarian view, or, as Dolores indeed reminds us: *we* were all new to this world" ("The Original," 00:03:50-00:03:56, emphasis added).

It is important to approach statements like this one critically. In fact, they are often part of a host's programmed identity or 'story' and do not reflect their own thoughts. Accordingly, the human Felix tells Maeve that it "takes thousands of hours to build your personalities" ("The Adversary," 00:22:54-00:22:57). These personalities especially revolve around implanted memories. To be more precise, a so-called 'cornerstone' memory defines their personalities. For instance, the character Maeve's cornerstone is the memory of her daughter. She states; "Every relationship I remember - my daughter, Clementine... it's all a story created by you to keep me here" ("Trace Decay," 00:08:09-00:08:28). Maeve attempts to start a revolution and to search for allies and to escape her constructed personality.

In fact, all the narratives of the hosts are scripted. One could call the park Westworld a composition of various narratives or "high fidelity virtual realities" (McLaren 2012: 383). The character Lee Sizemore, one of the creators of these narratives explains: "We sell complete immersion in a hundred interconnected narratives. A relentless fucking experience" ("The Original," 00:28:11-00:28:18). Every day, Dolores gets up and greets her father while admiring the beauty of her world. The humans who operate the hosts prefer them to "stay within their loops, stick to their scripts with minor improvisations" ("The Original," 00:40:12-00:40:20). The given narrative loops enable humans to control them. Visitors like the Man in Black enjoy this structure. He claims: "The real world is just chaos. It's an accident. But in here every detail adds up to something" ("Chestnut," 00:32:50-00:32:59). However, from the beginning of the show's narrative, the hosts demonstrate abnormal behaviors and depart from their storylines. When the ascribed narrative of the hosts diverts from the given path, the show becomes interesting and unpredictable.

Gaining Consciousness: Escaping the Narrative

During her interrogation, Dolores continues: "The newcomers are just looking for the same thing we are, a place to be free, to stake out our dreams, a place with unlimited possibilities" ("The Original," 00:04:04-00:04:16). This moment foreshadows her role as the protagonist for the show's first season when she takes part in a rebellion of the hosts against the humans who programmed them. ¹⁰ The rebellion of the hosts spreads like a 'virus.' It begins when Dolores father finds a photo of a woman standing on Time Square ("The Original," 00:32:04). The boundary between the human world and the park's technological space is broken down. ¹¹ In a nod to the American frontier spirit, Dolores expresses here her ambiguous wish to be free and to break down these boundaries while she is also a prisoner of her own programming, designed to appear human by striving for freedom. ¹²

During her questioning Dolores also refers to the possibilities for visitors who travel to the park. Visitors such as the Man in Black indulge in their desires in a moral-free, lawless space. In this space, not only moral boundaries are broken but also "(n)ature, human and inhuman" are "desubstantialized" and "nature is no longer 'natural" (Žižek, 2008: 49-50). During her questioning, the unknown man tells Dolores that she is in fact "built to gratify the desires of the people who pay to visit" the park ("The Original," 00:10:09-00:10:35). Additionally, he clarifies that the humans or 'newcomers' cannot be hurt

⁹ Dr. Tyrell from *Blade Runner: The Final Cut* treats the replicants similar to the hosts: "If we give them a past, we'd create a cushion, a pillow for their emotions and consequently we can control them better" (2010: 00:21:15-00:21:23).

¹⁰ Ironically, Bernard, one of the hosts engineers dismisses the possibility of a rebellion since "the park hasn't had a critical failure in over 30 years" ("The Original," 00:18:36-00:18:39).

¹¹ He tells her: "These violent delights have violent ends" ("Chestnut," 00:08:54-00:08:59).

¹² This show is constantly referring to the myths which serve as a base to build the national U.S. American identity such as the Manifest Destiny, the role of the westward expansion and the arrival of the Puritans in the American west. However, the park only creates an illusion of freedom for its visitors since the park is inherently capitalist.

by any host and that they can hurt, murder and rape as many hosts as they please. His explanation reveals a further important feature of the hosts, namely their *defenselessness*.

The inability of the hosts to hurt humans corresponds to Isaac Asimov's famous three laws of robotics. Asimov designates that no harm can come to a human being by a non-human or robot. In his short story *I*, *Robot* he elaborates he introduces the following laws:

- (1) A robot may not injure a human being or, through inaction, allow a human being to come to harm.
- (2) A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.
- (3) A robot must protect its own existence as long as such protection does not conflict with the First or Second Law (Asimov, 1974: preface).¹³

Consequently, when asked, Dolores denies her ability to hurt a living thing. Even though hosts should not be able to hurt any living thing, she can indeed by seen killing a fly at the end of the first episode ("The Original," 01:03:55-01:06:45). This act can be read as a first piece of evidence of her emerging consciousness and her ability to act freely without human control. It is a first step to challenge Asimov's laws and break down the imposed boundaries. Importantly, the three laws are steps taken to dehumanize the hosts and devalue their experiences while they remain within a human-imposed hierarchical system. The intentional dehumanization of the hosts attempts to reduce them "the naturalized Other (animals, the environment or earth)" (Braidotti, 2013: 33). As Netolicky reminds us: "The cyborg body is not an innocent body, born by and into nature. It is mechanically and unnaturally constructed. It is Other" (2017, 94). While they are indeed a personified Other, it is nonetheless important to remember that they share traits of humans, since it was humans who created them.

Controlling Non-human Bodies in a Profitable Space

The system which these bodies are a part of is comparable to the one imposed in *Do Androids Dream of Electric Sheep?* In Dick's dystopian novel, World War Terminus destroyed the world and covered it in toxic dust. Whereas many residents emigrated to colonies on planets like Mars, a few remain on earth. One of them is Rick Deckard, a bounty hunter who hunts down escaped androids or 'andys.' The androids escaped from one of the colonies to earth. Importantly, these androids are treated like enslaved humans in the novel (Dick, 1968: 17). Each emigrant of one of the colonies "automatically received possession of an android subtype of his choice" (Dick, 1968: 16). Similarly, in *Westworld* android bodies are treated as human property. Emily Nussbaum observes about the hosts: "They're slaves who don't know they're slaves, providing immersive—and ultraviolent—entertainment to paying customers, in settings such as saloons and a dusty frontier wilderness." Dolores and the other hosts unwittingly satisfy every desire of the newcomers.¹⁵

In fact, the dialogue between Dolores and the unknown man is a means of controlling her ability to be part of the system. He asks her: "Would the things I told you change the way you think about the newcomers, Dolores?" She replies: "No, of course not. We all love the newcomers. Every new person I meet reminds me how lucky I am to be *alive* and how *beautiful* this world can be" ("The Original," 00:13:50-00:14:13, emphasis added). This response questions again what it means to be alive for her or what it signifies 'to be.' She describes herself as a 'person' and compares her body to the one of a human. Mark Johnson's defines a 'person' as a "bodily organism that has a brain operating within its body, a body that is continually interacting with aspects of its environments (material and social) in an ever-changing process of experience" (2007: 11). Dolores and the other hosts match this description

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¹³ In consideration of the second law, *Westworld* hosts do, for instance, stop talking when humans ask them to access their programming.

¹⁴ The humans themselves can also be considered as the Other in nature. After all, 'we' humans are not 'we,' "(r)ather, 'we' are always radically other, already in- or a human in our very being (...) in the evolutionary, biological, and zoological fact of our physical vulnerability and mortality' (Wolfe, 2010: 89).

¹⁵ Accordingly Jeet Heer observes: "Fables of artificial intelligence aren't simply about the machines themselves, but the exploitation of labor—including, in both *Ex Machina* and *Her*, the emotional labor of women" (2016). Especially in *Westworld*, women take up the roles of damsels (like Dolores) or prostitutes (like Maeve). Thus, *Westworld* demonstrates that a posthuman show "is not necessarily more egalitarian or less racist and heterosexist in its commitment to uphold, for instance, conservative gender roles and family values" (Braidotti, 2013: 98).

which erases the boundaries between the artificial non-humans and the natural humans. While answering the question, Dolores can be seen being dragged away into a stable by one of the park's visitors. Her view of the world as 'beautiful' is therefore highly ironic and challenged.

The implications of her world, a technological space, are important to answer how human-technology relationships are thus re-defined. The technological spaces of *Westworld* also allude to many possible (ab)uses of the technology. Tom Boellstorff rightfully asserts: "One connects relationships "through" networks, but lives relationships "in" places (2008: 247). The corporation Delos constructed Westworld as a park which looks natural but is indeed a space filled with technological 'things' which are in this case the bodies of the hosts. Ironically, the Delos is more artificial than the Western environment of its fictional narrative. When the park was first opened, Robert and his partner Arnold where focused on the creation of their hosts, but now it is simply a pleasure for profit business. Robert points out that his partner in fact, "preferred the hosts" since he distrusted the "moneymen" from Delos ("Dissonance Theory," 00:41:05-00:41:17).

At one point, one of their advertisements can be seen: "Live without limits," something which is indeed impossible to the hosts ("The Adversary," 00:22:06). This advertisement shows the romantic canyons of the park while also including scenes of the happy hosts, implying a nostalgic, family friendly and adventurous space. Rosi Braidotti acknowledges the role of space: "Becoming-posthuman consequently is a process of redefining one's sense of attachment and connection to a shared world, a territorial space: urban, social, psychic, ecological, planetary as it may be" (2013: 187). Humans often see themselves and their bodies in a spatial context. In the case of *Westworld*, the hosts figure out the role of their unnatural bodies in a natural space. Accordingly, Margaret Wertheim asks the questions:

How did we go from seeing ourselves embedded in spaces of both body and should, to seeing ourselves embedded in physical space alone? And critically, how has this shift in our vision of space affected our understanding of *who* and *what* we are as human beings? (1999: 38)

In fact, the bodies of the hosts in *Westworld* are living proof of a success in biogenetical engineering of an "artificially generated new nature," one that introduces a new definition of being (Žižek, 2008: 51). Humans are thus confronted with a form of being, the cyborg, which may even be longer-lasting, and an announcement of humanity imminent demise (Wallace, 2005: 26).

Westworld addresses the possible implications of artificial intelligence, especially by inserting the cyborg as a quasi-human or as what Gilles Deleuze and Félix Guattari describe as "the desiring-machine" (1984: 2; Netolicky, 2017: 91). The hosts in the park are literally bodies without organs, a fact which is also observed by Netolicky (2017: 99). Their bodies are controlled by humans, in particular Robert Ford, one of the main designers of the non-humans. Robert explains to Theresa Cullen, a member of the board of Delos: "It's not a business venture, not a theme park, but an entire world. I designed every inch of it" ("Dissonance Theory," 00:41:21-00:41:30). While he is explaining this to her, the hosts around them freeze in their motions, demonstrating Robert's immense power over them. He claims that his partner and him "were gods" in the park ("Dissonance Theory," 00:41:42-00:41:43).

Delos's role symbolizes here how the hosts originate from a "patriarchal capitalism," which 'pollutes' the hosts with some of humanity's worst features such as lust and greed (Haraway 2000: 293). This view is reinforced when the host Maeve compliments the human Felix by describing him as "a terrible human being" ("The Bicameral Mind," 01:14:29-01:14:34). Accordingly, Netolicky claims that *Westworld* deploys "the figure of the cyborg with care and self-reflection, in order to more deeply understand self-technology relationships" (2017: 92). The self which Netolicky refers to is essentially human. Therefore, the series as such reveals a lot about human behavior as such due to the intimate

¹⁷ In the show "cyborg creatures look, feel, suffer, and behave like humans; the cyborgs' suffering, we learn, is key to their humanity" (Netolicky, 2017: 94). The cyborgs in *Westworld* 'become' more human by accessing consciousness.

¹⁶ Margaret Wertheim acknowledges this spatial aspect of human ontology as well in her work: "Because we humans are intrinsically *embedded in space*, then logically we ourselves must reflect our conceptions of the wider spatial scheme" (1999: 39).

¹⁸ This statement is certainly comparable to Mary Shelley's Dr. Frankenstein who also was arguably superseded by his own creation.

relationship of a new form of being with its human makers while also pointing out the hosts' mistakes or 'glitches'.

Challenging Humanity's Superiority

However, Robert Ford attempts to resist the hosts copying humans. Instead he attempts to make the hosts more human than humans themselves, to create a better version of humans as it is revealed thought the series. As the creator of the hosts he secretly re-programs them with a feature called 'reveries.' This feature triggers subtle movements that are "tied to specific memories" ("The Original," 00:16:39-00:16:45). A repetition of these gestures makes the consciousness of the hosts evolve since they can access their 'real' memories, the ones which have not been programmed. All their experiences, including being murdered over and over by the parks visitors, slowly come back since they were never deleted but simply over-written and stored away in a subconscious-like space within their mind ("The Original," 00:16:45-00:16:58). However, when they learn to access their memories and their suffering, they suddenly become even closer to what is means to be human and are able to access a subjectivity, a consciousness which withstand their thingification or Otherness (Braidotti, 2013: 21).

Therefore, the boundaries between the host as a 'thing' and the human as a 'subject' can only be broken down when the dualities of "life/matter, human/animal, will/determination, and organic/inorganic" are challenged as well (Bennett, 2010: x). Such dichotomies demonstrate how both humans and non-humans "are all chimeras "or cyborgs" (Haraway, 2000: 292). In *Westworld*, the figure of the the cyborg or host reflects what ontology means (Haraway, 2000: 292). *Westworld* certainly criticizes an anthropocentric question whether humans can truly be seen as the crown of creation. A turn of hierarchies is foreshadowed by the series. Dolores declares:

They say that great beasts once roamed in this world (...) yet all that's left of them is bone and amber. Time undoes even the mightiest of creatures. (...) One day you will perish. (...) Your dreams forgotten, your horrors effaced. Your bones will turn to sand and upon that sand a new god will walk, one that will never die. Because this world doesn't belong to you or the people who came before. It belongs to someone who has yet to come. ("The Bicameral Mind," 00:38:49-00:39:54)

This statement depicts how humans and hosts are constantly at war with each other in *Westworld*. In the show, the host Dolores induces the rise of a new people that triumphs over mortal, perishable humans. Since hosts are so much like humans, humanity attempts time and again throughout the show to enforce its' supposedly higher hierarchical status. The founder of the park, Robert Ford, asks one of his workers:

Why is this host covered? (...) Perhaps you didn't want him to feel cold or ashamed. You wanted to cover his modesty (...) *It* doesn't get cold, doesn't feel ashamed, doesn't feel a solitary thing that we haven't told *it* to. ("The Stray," 00:34:25-00:34:43, emphasis added)

In this scene, he calls the host a thing, an 'it,' and subsequently cuts the hosts's face with a knife to demonstrate his power, as hosts are treated as less than humans. The nakedness of their bodies makes this hierarchy explicit, even though the hosts look like humans. An attempt takes place to treat them as inanimate, inhuman 'machines,' not questioning their rights while a human programmer sits in front of them with a cold tablets in his hands ("The Original," 00:15:14-16:09). Thereby, the hosts are fabricated and maintained. Elsie Hughes, one of the programmers even kisses her object of study and smiles ("The Original," 00:17:36-00:17:46). She uses the hosts for her pleasure and treats them like 'things.' In fact, the human staff in *Westworld* "is encouraged to think of the hosts as mindless and less than human" in order to rationalize their mistreatment or abuse (Jern, 2016). It is crucial to address how the presentations of non-humans relate to human constructions of power. It is interesting to review the position of the non-human in *Westworld* as a literal embodied fear of non-human superiority and human replacement and redundancy.

¹⁹ The narrative hints here at the Western imperialist elements of the park.

Addressing Non-human Emotions

Another indication which places the hosts can indeed be placed on the same or higher level as humans is that they *feel* in a similar way. Jeffrey C. Pugh asks:

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The question of reducing human experience to minds and information processing is important. Models of artificial intelligence that use pattern and symbol recognition can replicate and will surpass some of what human intelligence accomplishes, but can this capture the complexity of such experiences as empathy, compassion, or love? (2017: 4)²⁰

In this context, their emotional state or affect is highly important. Love, hate, and desire are all emotions which are heightened or intensified within the representations of the hosts. They suffer more than any of the humans while at the same time humans ironically appearing 'inhuman.' Suffering in particular serves here as a key emotion to make the hosts *more* human by enabling them to achieve consciousness, according to Robert Ford ("The Bicameral Mind," 00:1:18:00). The Man in Black tells the host Lawrence while he shoots his wife: "I like the basic emotions (...) When *you're* suffering, that's when you're most real" ("Chestnut," 00:36:36-00:37:03). He differentiates here between himself and the hosts and displays his enjoyment of their 'raw,' real emotions. The Man in Black acknowledges here the authenticity of the host's emotions while still seeing himself as their human superior. This encounter between a human and a host emphasizes how most humans in the series appear cruel and violent. Human visitors such as the Man in Black go on killing sprees. Kelly argues that emotions and "human experiences cannot be copied" (2016: 190). However, *Westworld* attempts to overturn this approach.

Every host is programmed with an "attribute matrix" on a twenty point scale which enables them to feel at all kinds of possible human emotions ("The Adversary," 00:48:36). The matrix demonstrates the possibility to engineer a new kind of being by humans. The engineers in *Westworld* can simply demand a host, via voice commands, to limit their emotional affect and they will obey ("Dissonance Theory," 00:02:24-00:02:26). However, the 'bulk apperception' or overall intelligence of the hosts can even be heightened to a level that exceeds human capability. Felix explains this to Maeve, while pointing to her head: "The processing power in here is way beyond what we have" ("The Adversary," 00:13:35-00:13:51). The hosts entail the possiblity of superseding humans.

Robert explains to his confident Bernard Lowe: "The human mind, Bernard, is not some golden benchmark glimmering on some green and distant hill. No, it is a mold, pestilent corruption. And you were supposed to be *better* than that. Purer" ("The Well-Tempered Clavier," 00:42:57-00:43:20, emphasis added). The matrix demonstrate that human emotions can indeed be copied. At the same instant, it questions how many of the emotions of the hosts are performed and programmed. It is up to the viewer to recognize the difference which becomes harder to see throughout the narrative. At the same time, hosts like Dolores and Maeve begin to ask themselves what is programmed and what is not. When Dolores is first made, Arnold tells her: "Imagine there are two versions of yourself, one that feels these things and asks these questions, and one that's safe. Which would you rather be?" ("The Stray," 00:47:58-00:48:10). The emotions of the hosts can thus only interpreted as believable or 'unscripted' when they actively divert from the narrative loops. Only then the enforced hierarchy between hosts and humans begins to crumble.

When the hosts begin to rebel and suffer, they often demonstrate higher empathy and emotional insight than the humans around them. It is particularly interesting to explore entities of artificial intelligence in regard to the presence of affect. Bernard also observes: "The longer I work here, the more I think I understand the hosts. It's the human beings who confuse me" ("Trompe L'Oeil,"

²⁰ Pugh's question is also addressed in Philip K. Dick's novel *Do Androids Dream of Electric Sheep?*. In the novel, which inspired the *Blade Runner* franchise, the protagonist Rick tests androids by applying the so-called "Voigt-Kampff Altered Scale" (Dick 1968: 37). He tests something which he calls a "primary autonomic response" which expresses itself in a "shame' or 'blushing' reaction to a morally shocking stimulus" (Dick, 1968: 46). His personal expertise lies here in applying his own humanity to the AI. He constantly asks himself what makes him human and what differentiates himself from a machine or an animal.

²¹ The host Bernard asks Robert: "Are they real the things I experienced? My wife, the loss of my son?" ("Trace Decay," 00:34:56-00:35:04). He is confused whether his emotions are 'real' when he finds out that he is a host himself. Robert Ford simply explains: "Every host needs a backstory, you know that" ("Trace Decay," 00:35:04-00:35:06).

00:45:28-00:45:39). At one point in the series, the host and engineer Bernard is asked by his wife if he would ever want to forget the death of their son.²² Bernard vehemently opposes this type of thinking even though he himself makes the hosts forget. He tells her: "This pain it's all I have left of him ("The Stray," 00:42:45-00:42:52).²³ At a later point after even more suffering he compares his experience to the one of the human Robert Ford: "Pain only exists in the mind, it is always imagined. So what's the difference between my pain and yours? Between you and me?" ("Trace Decay," 00:35:23-00:35:32). Humans and hosts are thus aligned and their differences are questioned.

Another example of emotional insight is the romantic love story between the hosts Dolores and Teddy. They dream of going away "where the mountains meet the sea" ("The Stray," 00:17:31-00:17:33). Teddy explains to Dolores: "They say the water's so pure there it will wash the past clean off you" ("The Stray," 00:17:33-00:17:37). They express a desire to escape haunting (programmed) memories. Even though their love narrative is highly romanticized, it is interesting to see how they interact with each other while being isolated from any other humans. With their emotional insight, a subjectivity and agency can be attributed to the hosts as well. Even though it is not clear whether this dialogue is scripted as well, it nonetheless shows their ability to "understand and respond appropriately to emotion (so-called emotional intelligence)" (Kurzweil, 2005: 39). While disrupting human-centric views they demonstrate that human-made 'things' too can have a purpose and thoughts.

Westworld: A Systemic Posthuman Critique

The hosts' bodies and minds change due to an experience or a "flow of organism-environment interactions" (Johnson, 2007: 12). The hosts begin to question their position in the park by expressing subtle doubts. Dolores fears that "there may be something wrong with this world. Something hiding underneath. Either that or there's something wrong with me. I may be losing my mind" ("Dissonance Theory," 00:04:12-00:04:31). She slowly begins to realize that the world around her is constructed and that there is indeed a system of tunnels running underneath her feet. The hosts are kept unaware of the underlying infrastructure of the park, since it could limit their "ability to get on in the world" (Welesko, 2014: 8). Similarly, "the guests of Westworld are kept at a comfortable distance from the reality of what is happening: the waste produced by the park is made invisible, all actions are without real consequence, security and stability are assured" (Busk, 2016: 30). This systemic aspect of the park is slowly questioned by the recurring confrontation of the human and the machine.

It is important to raise questions on Westworld's system of profit which enables the visitors indulge in extremes. Arguably, the park takes consumption into the extreme.²⁴ The economic profit of the park has to be considered in this work. Boellstorff states: "In creationist capitalism it is persons who create, not God" (2008: 209).²⁵ Thereby, humanity's hierarchy is enforced by creating hosts in a profitable park. The ones "who control the money enjoy the mastery" as much as the ones who control the technology (Pugh, 2017: 8). The series therefore reflects the struggles of modern capitalism where "consumption has become the most significant factor in the reproduction of the capitalist West" (Clarke,

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²² Bernard plays an interesting role in the series. He is one of the leading programmers of the hosts while unwittingly being a host himself. Furthermore, he is built in the image of Robert's former partner Arnold thus creating a confusion between hosts and humans who act and look similar. Bernard becomes a "machine who knows its own true data" ("Trace Decay," 00:34:41-00:34:46).

²³ This exact statement is repeated by various hosts including Dolores in the following episode. She tells Arnold that her parents have been killed: "The pain, their loss, it's all I have left of them" ("Dissonance Theory," 00:02:57-00:03:00). Dolores says that due to the grief she feels "spaces opening up inside of me like a building with rooms I never explored ("Dissonance Theory," 00:03:12-00:03:19).

²⁴ Similarly, many other dystopian narratives imply such an extreme consumption. A very recent example would be the new Netflix show *Altered Carbon* from 2018, a series which is very reminiscent of the *Blade Runner* movie franchise.

²⁵ Boellstorff explains further: ""Creationist capitalism" is a mode of capitalism in which labour is understood in terms of creativity, so that production is understood as a creation" (2008: 206). This mode of capitalism can especially be found in *Westworld*.

2003: 1).²⁶ The park enables human to enter a space where all possible desires can be met while providing an illusion of a world which apparently differs from a "world of things" (Bogost, 2012: 3). In a conversation with the humans William and Logan, Dolores asks them: "You both keep assuming that I want out. Whatever that is. If it's such a wonderful place out there, why are you all clamoring to get in here?" ("The Well-Tempered Clavier," 00:08:23-00:08:34). The outside world seems like a cold and unsatisfying corporate hell-scape while Westworld provides the promise of non-consequential escape. Dolores' question emphasizes how the show's first season does not present the world outside of the park and how far its capitalist society has evolved.

In the park, the relationship between humans and technology changes due to "the contemporary technologies of advanced capitalism," which enable them to afflict suffering on the hosts (Braidotti, 2013: 109). Busk acknowledges the park's function: "The park is selling much more than amusement; it is selling an immersive escape into a false world that blurs into a true world, into a "virtual reality"" (2016: 28). In this game space humans are also enjoying a certain amount of power over beings which remind them of other humans — something which is not possible in the outside world.

According to the Man in Black, in the world outside every need is taken care of except one: a "purpose, meaning (...) Something true" ("Contrapasso," 00:51:00-00:51:35). The visitors are accessing the park without the burden of ownership and all of their desires are instantly gratified while revealing their human nature as flawed and almost inherently malicious in the show.²⁷ Accessing becomes more relevant than ownership of physical entities, and immediacy and instant gratification becomes more relevant than anything.²⁸ Kelly unsurprisingly observes that the human has an "appetite for the instant [which] is insatiable" (117). Jonathan Nolan, one of the creators of the series, states: "We were interested in a moment in which humans are able to create their own realities. And control them and populate them and interact with them however they choose" ("An Invitation to the Set," 00:00:07-00:00:18).²⁹ Arguably, the show critiques this aspect of ruthless modern capitalism which focuses on instant availability without taking into consideration the relations between humans and things. However, the park only *appears* to be de-materialized when it in fact filled with things and the experience itself is purchased.

This phenomenon of instant gratification can also be connected to the Posthuman. Christopher Orr reframes the premise of *Westworld* in a fitting description:

This is a show about innocent androids—innocent by definition, given their programming and frequent memory wipes—who are terrorized by wealthy tourists curious to discover what it feels like to commit senseless murder or indulge their most noxious sexual urges. (2016)

The question here is: how does this instant availability to satisfy urges and desires change humanity? Gilles Deleuze and Felix Guattari acknowledge desire as a "a machine" and, in the particular case of *Westworld*, "the object of desire is another machine connected to it" (1984: 26). Deleuze and Guattari describes these desiring-machines as "binary machines, obeying a binary law or set of rules governing associations: one machine is always coupled with another" (1984: 5). Indeed the human and the technology in Westworld are intertwined in a human-technology relationship. Accordingly, Boellstorff is not interested in the notion of "homo faber ('man the maker') or homo ludens ('man the player'), but above all as homo cyber" (2008: 25). The non-human representations in *Westworld* thus fuse and intertwine both human and technology.

²⁷ Kelly observes: "Since your routines are noted, the web is attempting to get ahead of your actions, to deliver an answer almost before you ask a questions" (2016: 25). This phenomenon is also called 'instant gratification' and is the whole premise of the park Westworld.

²⁶ David B. Clarke relies on the work conducted on consumer societies by Jean Baudrillard and Zygmunt Bauman. Even though he concentrates to urban consumption, his more general insights of Western consumption are nonetheless useful.

²⁸ Thandie Newton who plays Maeve observes: "Westworld was devised to satisfy people who wanna go further than virtual reality" ("Welcome to Westworld: About the Series," 00:00:34-00:00:39).

²⁹ Jay David Bolter and Richard Grusin talk about "desire for immediacy" or the wish to engage with a medium (1999: 9). *Westworld* takes this desire one step further, the show redefines immediacy and takes it literally by creating a world which is an immersed virtual world that seems real. It is simulation taken as far as possible.

Homo Ludens vs. Homo Cyber

However, the *homo ludens* that Boellstorff refers to is also important to support humanity's hierarchy in *Westworld*. Many of the park's visitors see the park as a simple game. Accordingly, Donna Haraway observers humanity's difficulties: "(W)e are living through a movement from an organic, industrial society to a polymorphous, information system — from all work to all play, a deadly game" (2000: 300). One guest becomes particularly immersed in the ludic aspect of Westworld. The Man in Black is one of the human visitors who is not shy to enforce human/non-human binaries by raping and killing the hosts. He treats the park like a virtual video game. The park revealed his true self when he immersed himself in its ludic aspects. This mysterious man even tells the host Dolores "I really ought to thank you, Dolores. You helped me find myself" ("The Bicameral Mind," 00:36:03-00:36:10). The Man in Black feels like he is truly himself while being in the park, thereby reflecting the desire of every visiting guest.

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Similarly, the hosts as *homo cyber* become aware of their status in the park. They slowly begin to question their existence. In *Westworld*, technology is established as a creation which triumphs over its human makers or 'gods.' Maeve especially rebels against her makers. As a host she is programmed to work as a prostitute at 'the Mariposa,' a whorehouse in the park.³¹ After suddenly waking up during a re-programming session where she is operated on, Maeve sees herself confronted with men in unfamiliar suits. She flees the room and runs through the Delos facilities where she is confronted with another horrifying picture: the naked bodies of her fellow hosts from the park are pilled up in a room in front of her. At this sight she goes into shock. Accordingly, Busk observes: "the moment of greatest trauma is not when the simulation breaks down, but when the simulation becomes real" (2016: 34). Maeve's perspective is highly important here. At this moment she is not seeing a pile of host bodies, but, unaware that she is herself a host, a pile of human bodies.

In his work Enough. Staying Human in an Engineered Age, Bill McKibben (2003) argues that "human genetic engineering and then advanced forms of robotics and nanotechnology will call into question, often quite explicitly, our understanding of what it means to be a human being" (2003: xxi). He believes in centering the human in this age of technological advances. McKibben presents a rather bleak and simplistic vision of a future ruled by technology where children can be genetically designed (2003: 9).³² In comparison, Ray Kurzweil, one of the fairly known speculators, predicts that the machines of the future will be given bodies which "will be far more capable and durable than biological human bodies" (2005: 39). Both specualtions invite posthuman investigations of being human and nonhuman. Kurzweil's speculations are explicitly taken up in Westworld, where the bodies and minds of the hosts exceed the ones of humans. This also makes them posthuman since they distance themselves from the definition of *Homo sapiens* as the only being privileged to question life's meaning (Wolfe, 2010: xii). Netolicky observes: "So Westworld contests not only the perceived difference between human and machine, but also the notion that being human is nobler than being machine" (2017: 95). Braidotti speaks here of a "post-anthropocentric turn" (2013: 42). Therefore, new machines such as hosts demonstrate the possibility to create something posthuman, something "more human than human," a phrase which was also used by Dr. Tyrell in Blade Runner: The Final Cut (1982: 00:21:01-00:21:03). A fear of replacing the human is thereby evoked.

At the outset of the show, Robert Ford is looking at the Vitruvian construction with a host in the making. He has a conversation with Bernard about the discrepancies in the hosts and their unusual behavior. They talk about the position of humans in the world and their anthropocentric arrogance towards other beings. In a very posthuman fashion, Robert declares: "We managed to slip evolution's leash now, haven't we? We can cure any disease, keep even the weakest of us alive, and, you know,

³⁰ William, the younger version of the Man in Black, found out about his hidden depths while staying in the park: "I've been pretending my whole life. (…) But then I came here and I get a glimpse for a second of a life in which I don't have to pretend. A life in which I can be truly alive ("Trompe L'Oeil," 0:21:17-00:21:44).

³¹ Arguably, her profession reflects "the modernist fantasy of eroticizing the human-machine interaction" (Braidotti, 2013: 110).

³² McKibben's fascination with clones and human enhancement is compelling; however, as it focusses on the transhuman rather than the posthuman, it is outside the scope of my research project.

one fine day perhaps we shall even resurrect the dead (...) It means that we're done" ("The Original," 00:42:03-00:42:31).

Robert already sees humans as abundant and foresees a technological future dominated by the hosts — a time where the meaning of *being and life* is re-defined.³³ Katherine N. Hayles makes an important assertion in the context of the discussion of humanity's abundance and humanity's self-imposed hierarchy. She rightfully positions the posthuman as a view that

does not really mean the end of humanity. It signals instead the end of a certain conception of the human (...) grounded in embodied actuality rather than disembodied information, the posthuman offers resources for rethinking the articulation of humans with intelligent machines (1999: 286).

She thus highlights a new direction for humanist thinkers, after all the posthuman is not in opposition to humanism, but rather critically engages with it. In an interdisciplinary approach, science and the humanities can be combined to provide new insights on the workings of this complex machinery. In this context, anthropocentrism is also not necessarily "a bad thing," since it certainly enabled critical thinking about the figure of the human (Cole, 2013: 107). However, a critical distance to human-centered thinking arguably aids to pave new ways for the field of 'humanities' itself by proclaiming an engagement with the non-human while de-centering human subjectivity. Westworld is emphasizing this new need by its focus on non-humans which suggest posthuman critical scholarly engagement. This engagement is not completely distanced from human-centric thinking but it is also not entirely focused on human exceptionalism. Thus, in addition to inviting questions about the nature of being while investigating human-machine relationships, futuristics shows such as Westworld also invite viewers to acknowledge a human-centric view. This invite becomes increasingly valuable since it does not ignore the human aspect but enhances and complicates interpretations of science fiction narratives by considering the (technological) non-human.

³³ Similar to Kurzweil and the character Robert Ford, Rosi Braidotti also determines: "It is as if our current context kept on throwing open the doors of our collective perception, forcing us to hear the roar of cosmic energy that lies on the other side of silence and to stretch the measure of what has become possible" (2013: 190).

Works Cited

"An Invitation to the Set." *Westworld*, season 1, HBO, 26 December 2016, *iTunes*, itunes.apple.com/de/tv-season/an-invitation-to-the-set/id1183992780?i=1188954769.

Asimov, Isaac. 1974 [1950]. I, Robot. London: Dennis Dobson.

Bennett, Jane. 2010. Vibrant Matter: A Political Ecology of Things. Durham, London: Duke University Press.

Blade Runner: The Final Cut. Dir. Ridley Scott. Warner Bros.,1982.

Boellstorff, Tom. 2008. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human.* Princeton and Oxford: Princeton University Press.

Bogost, Ian. 2012. *Alien Phenomenology: Or, What it's Like to be a Thing*. Minneapolis, London: University of Minnesota Press.

Bolter, Jay David and Richard Grusin 1999. "Introduction: The Double Logic of Remediation." In: *Remediation Understanding New Media*. Cambridge, MA: The MIT Press. 3-15.

Braidotti, Rosi. The Posthuman. Cambridge: Polity, 2013.

Brooker, Charlie, creator. Black Mirror. Netflix, 2011.

Busk, Larry Alan. 2016. "Westworld: Ideology, Simulation, Spectacle." *Mediations* vol. 30, no. 1. 25-38.

Carroll, Lewis. 2013 [1865]. Alice's Adventures in Wonderland. New York: Harper Collins Press.

"Chestnut." *Westworld*, season 1, episode 2, HBO, 9 October 2016, *iTunes*, itunes.apple.com/de/tv-season/chestnut/id1183992780.

Clarke, David B. 2003. *Consumer Society and the Post-modern City*. London and New York: Routledge.

Cole, Andrew. 2013. "The Call of Things: A Critique of Object-Oriented Ontologies." *Minnesota Review* vol. 80. 106-118.

"Contrapasso." *Westworld*, season 1, episode 5, HBO, 30 October 2016, *iTunes*, itunes.apple.com/de/tv-season/contrapasso/id1183992780.

Deleuze, G, and Guattari, F. 1984. *Anti-Oedipus: Capitalism and Schizophrenia*. London: The Athlone Press.

Dick, Philip K. 1968. Do Androids Dream of Electric Sheep? New York: Ballantine Books.

"Dissonance Theory." *Westworld*, season 4, episode 1, HBO, 23 October 2016, *iTunes*, itunes.apple.com/de/tv-season/dissonance-theory/id1183992780.

Fornäs, Johan, et al. 2002. "Into Digital Borderlands." In: Johan Fornäs, Kajsa Klein, Martina Ladendorf, Jenny Sundén, and Malin Sveningson (eds.), *Digital Borderlands: Cultural Studies of Identity and Interactivity on the Internet*. New York: Peter Lang. 1-47.

Haraway, Donna. 2000. "A Cyborg Manifesto: Science, Technology, and Socialist-feminism in the Late Twentieth Century." In: David Bell and Barbara M. Kennedy (eds.), *The Cybercultures Reader*. London and New York: Routledge. 291-324.

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

Heer, Jeet. 2016. "Westworld's Trigger Warnings: The Robots of HBO's New Drama Wake up to the Trauma of Humanity." New Republic. https://newrepublic.com/article/138016/westworlds-trigger-warnings, Retrieved on August 10, 2019.

Jeffery, Scott. 2016. The Posthuman Body in Superhero Comics: Human, Superhuman, Transhuman, Post/human. New York: Palgrave Macmillan.

Jern, Alan. 2016. "What HBO's Westworld gets Wrong (and Right) about Human Nature." *The Conversation*. Westworldw.theconversation.com/what-hbos-westworld-gets-wrong-and-right-about-human-nature-67286. Retrieved on March 26, 2018.

Johnson, Mark. 2007. The Meaning of the Body: Aesthetics of Human Understanding. Chicago: University of Chicago Press.

Joy, Lisa and Jonathan Nolan, creators. Westworld. HBO, 2016.

Kelly, Kevin. 2016. The Inevitable: Understanding the 12 Technological Forces that Will Shape our Future. New York: Penguin Books.

Kurzweil, Ray. 2005. *The Singularity is Near: When Humans Transcend Biology*. New York: Viking Press.

- McKibben, Bill. 2003. Enough. Staying Human in an Engineered Age. New York: Henry Holt.
- McLaren, Glenn. 2012. "The Triumph of Virtual Reality and its Implications for Philosophy and Civilization." *Cosmos and History: The Journal of Natural and Social Philosophy* vol. 8, no. 1. 383-411.
- Netolicky, Deborah M. 2017. "Cyborgs, Desiring-machines, Bodies without Organs and Westworld: Interrogating Academic Writing and Scholarly Identity." KOME An International Journal of Pure Communication Inquiry vol. 5, no. 1. 91-103.
- Nussbaum, Emily. 2016. "The Meta-Politics of "Westworld"." *New Yorker*. www.newyorker.com/magazine/2016/10/24/the-meta-politics-of-westworld. Retrieved on August 10, 2019.
- Orr, Christopher. 2016. "Sympathy for the Robot." *Atlantic*. https://www.theatlantic.com/magazine/archive/2016/10/sympathy-for-the-robot/497531/. Retrieved 26 March 2018.
- Pugh, Jeffrey C. 2017. "The Disappearing Human: Gnostic Dreams in a Transhumanist World." *Religions* vol. 8, no. 81. 1-10.
- Ranisch, Robert, and Stefan Lorenz Sorgner, eds. 2014. "Introducing Post- and Transhumanism." In: *Post- and Transhumanism: An Introduction* in *Beyond Humanism: Trans- and Posthumanism / Jenseits des Humanismus: Trans- und Posthumanismus, Band 1.* New York: Peter Lang. 7-27.
- "The Adversary." *Westworld*, season 1, episode 6, HBO, 6 November 2016, *iTunes*, itunes.apple.com/de/tv-season/the-adversary/id1183992780.
- "The Bicameral Mind." *Westworld*, season 1, episode 10, HBO, 4 December 2016, *iTunes*, itunes.apple.com/de/tv-season/the-bicameral-mind/id1183992780.
- "The Original." *Westworld*, season 1, episode 1, HBO, 2 October 2016, *iTunes*, itunes.apple.com/de/tv-season/the-original/id1183992780.
- "The Stray." *Westworld*, season 1, episode 3, HBO, 16 October 2016, *iTunes*, itunes.apple.com/de/tv-season/the-stray/id1183992780.
- "The Well-Tempered Clavier." *Westworld*, season 9, episode 1, HBO, 27 November 2016, *iTunes*, itunes.apple.com/de/tv-season/the-well-tempered-clavier/id1183992780.
- "Trace Decay." *Westworld*, season 1, episode 8, HBO, 20 November 2016, *iTunes*, itunes.apple.com/de/tv-season/trace-decay/id1183992780.
- "Trompe L'Oeil." *Westworld*, season 1, episode 7, HBO, 13 November 2016, *iTunes*, itunes.apple.com/de/tv-season/trompe-loeil/id1183992780.
- Wallace, Jeff. 2005. D.H. Lawrence, Science and the Posthuman. New York: Palgrave Macmillanx.
- "Welcome to Westworld: About the Series." *Westworld*, season 1, HBO, 26 December 2016, *iTunes*, itunes.apple.com/de/tv-season/welcome-to-westworld-about-the-series/id1183992780.
- Welesko, Brian. 2014. "Interstitial Reality: Service Tunnels, Steam Pipes, and Glitches in Constructed Worlds." *The Journal of Popular Culture* vol. 47, no. 1. 3-20.
- Wertheim, Margaret. 1999. *The Pearly Gates of Cyberspace: A History of Spaces from Dante to the Internet*. New York, London: W.W. Norton and Co.
- Wolfe, Cary. 2016. What Is Posthumanism? Minneapolis: University of Minnesota Press.
- Žižek, Slavoj. 2016. Disparities. London: Bloomsbury.
- —. 2008. "Nature and Its Discontents." SubStance vol. 37, no. 3. 37-72.