"We Don't Know Exactly How They Work":

Making Sense of Technophobia in 1973 *Westworld*, *Futureworld*, and *Beyond Westworld*

Stefano Bigliardi

Al Akhawayn University in Ifrane - Morocco

Abstract

This article scrutinizes Michael Crichton's movie *Westworld* (1973), its sequel *Futureworld* (1976), and the spin-off series *Beyond Westworld* (1980), as well as the critical literature that deals with them. I examine whether Crichton's movie, its sequel, and the 1980s series contain and convey a consistent technophobic message according to the definition of "technophobia" advanced in Daniel Dinello's 2005 monograph. I advance a proposal to develop further the concept of technophobia in order to offer a more satisfactory and unified interpretation of the narratives at stake. I connect technophobia and what I call *de-theologized, epistemic hubris*: the conclusion is that fearing technology is philosophically meaningful if one realizes that the limitations of technology are the consequence of its creation and usage on behalf of epistemically limited humanity (or artificial minds).

Keywords: *Westworld*, *Futureworld*, *Beyond Westworld*, Michael Crichton, androids, technology, technophobia, Daniel Dinello, hubris.

1. Introduction

The 2016 and 2018 HBO series *Westworld* by Jonathan Nolan and Lisa Joy has spawned renewed interest in the 1973 movie with the same title by Michael Crichton (1942-2008), its 1976 sequel *Futureworld* by Richard T. Heffron (1930-2007), and the short-lived 1980 MGM TV series *Beyond Westworld*. The movies and the series deal with androids used for recreational purposes and raise questions about technology and its risks. I aim at an as-yet unattempted comparative analysis taking the narratives at stake as *technophobic* tales: each one conveys a feeling of threat and fear related to technological beings and environments. In so doing, I draw upon Daniel Dinello's monograph *Technophobia! Science Fiction Visions of Posthuman Technology* (Dinello 2005). Following his definition,

technophobia "is meant to suggest an aversion to, dislike of, or suspicion of technology rather than an irrational, illogical, or neurotic fear" (Dinello 2005, 8). My guiding question is: what exactly is the inherent problem or threat related to technology that spectators are being warned of? This involves two other questions: Can technophobia be broken down to one or more elements, identified with clarity and certainty? If multiple elements are pinpointed, is it still possible to reach a unified definition of technophobia itself?

I discuss multiple critical contributions and group them under the macro-topics that they set out to analyze (respectively: robots, society, scientists, technology vs. nature/humanity). I show that each attempt on behalf of critics at identifying *one* key concept instantiated in the narratives does yield inspiring insights, yet none are ever exhaustive and convincing from a philosophical viewpoint. In fact, upon first examination, the very movies and series seem to be riddled with inconsistencies and poorly developed ideas. I advance, in my turn, a *unified* and *overall* interpretation. Such reading allows one to see the three narratives as sharing the same message, and covers the majority of elements present in each of them, including some ignored in critical literature. It also constructively engages with the critics' insights, coordinating them while overstepping them. I namely connect technophobia and what I call *de-theologized, epistemic hubris*. My conclusion is that fearing technology is philosophically meaningful if one realizes that the limitations of technology are the consequence of its creation and usage on behalf of epistemically limited humanity (or artificial minds). Ultimately, the real threat stems from overconfidence in one's capacities to devise failure-proof technology, or in technology as having unlimited capacities. I argue as well that neither such reading nor the narratives at stake warrant an irrational, "neo-luddite," overall refusal of technology.

2. Synopses

Westworld

Delos is a resort comprising three areas representing respectively 13th century Europe (Medieval World), Imperial Rome (Roman World), and the 19th century American frontier (Western World or Westworld: here, the italicized name refers to the movie, the plain version to the area). Guests interact with perfect replicas of humans, except that their finger joints display unnatural ridges and their eyes a metallic shine. Visitors can indulge in their whims, including having sexual intercourse with robots or killing them without being harmed (guns are equipped with heat sensors that prevent them from being fired at humans). A group of supervisors and controllers in a room reminiscent of a NASA control center steers the park, as nurse-looking technicians repair damaged robots overnight. Peter Martin and John Blane are two guests exploring Westworld. Peter gradually loses his inhibitions. He shoots down a sinister gunslinger[1] and makes love to a prostitute. The robots start to display malfunctions that one supervisor compares to an "infectious disease." He points out that the robots have been designed by computers; the supervisors themselves "do not know exactly how they work." His concerns are not taken seriously by his colleagues who downplay the significance of data as well as his hypothesis. Malfunctions escalate. Although convinced that the current guests' safety is guaranteed and

a total shutdown would negatively impact the tourists' confidence, the supervisors stop accepting new visitors. The situation worsens: in Medieval World a guest's advances are rejected by a maiden and he is eventually killed by a black knight. John is shot dead by the gunslinger that then starts pursuing Peter. The supervisors lose control over the system, and when it shuts down they die asphyxiated in the airtight rooms of their control center. As Peter is fleeing through the park, the gunslinger kills a technician who is trying to escape on a golf cart. Eventually Peter manages to splash the robot with acid (as suggested by the technician) and set it on fire. While wandering through Medieval World, Peter encounters a woman chained in a dungeon. He offers her a sip of water only to discover that she too is a machine, which short-circuits after coming into contact with the water. The gunslinger reaches Peter but it is so severely damaged that it falls to the ground in charred ruins. Exhausted, Peter sits on a flight of stairs and remembers Delos' advertisement: "Boy, have we got a vacation for you…"

Futureworld

Two years after the disaster, Delos is reopened, larger and allegedly failsafe. Newspaper reporter Chuck Browning and TV commentator Tracy Ballard are given a free stay but they are encouraged to produce a favorable review. Tracy is enthusiastic but Chuck is suspicious: he has been promised revelations about Delos by a man who, right before being mortally stabbed, left him an envelope full of newspaper clippings about prominent people. Delos representative Mr. Duffy shows them around. Chuck and Tracy join tourists in Futureworld (a sci-fi like experience in an orbiting station and a trip to Mars), then they are given a "behind the scenes" tour and discover that the Control Center is manned by robots. In the nighttime, after having been drugged, Delos guests, including Chuck and Tracy, fall in a deep sleep and undergo a biological scanning by technicians in red overalls. Tracy wakes up frightened, believing the experience was a nightmare. While exploring Delos without permission, she and Chuck are attacked by robot samurais. They are rescued by Harry Croft, a mechanic who has been employed at Delos since the park's opening. He lives underground with a faceless android and knew the murdered informer, also a technician. Their conversation is interrupted by Dr. Schneider, the resort's scientific director, who takes Chuck and Tracy back to their lodgings. They are shown a prospective park attraction, a device videotaping a person's most intimate desires. Tried on Tracy, it reveals fantasies of a gunslinger in dark clothes. With Harry's help, Chuck and Tracy uncover a conspiracy: prominent visitors (including them) are being replaced with replicas so that Delos can take over the world. Mr. Duffy, shot down, turns out to be a robot. Chuck and Tracy are chased by their replicas and the spectator is left wondering until the end whether humans or machines prevailed and escaped under the nose of Dr. Schneider.

Beyond Westworld

Some years have passed after the Westworld disaster. The park's failure is explained as the result of the manipulation of Dr. Simon Quaid, who had taken possession of over two hundred androids. Each episode narrates an attempt on his behalf to replace people in key positions in order to take over the world. While Delos is engaged in thwarting his schemes,

the company is also developing robots to perform useful tasks. Dr. Quaid tries to take control of a nuclear submarine (1. *Westworld Destroyed*) and of an oil company (2. *My Brother's Keeper*). He steals uranium from a nuclear plant and uses it in a bomb built in an android-replacement of a rock band member (3. *The Sound of Terror*). He infiltrates a pilot crew working with an experimental car (4. *The Lion*). He tests a device to control humans and he replaces the California governor with a robot (5. *Takeover*). The Delos team comprises security agent John Moore, his aid Pamela Williams, and Professor Oppenheimer. Each time, their success is due to a combination of Dr. Quaid's blunders, Dr. Oppenheimer's knowledge and expertise in all things android, the agents' superior physical as well as intuitive skills and hard work, and each robot's technical faults or shortcomings. As stated in the first episode by Delos expert Laura Garvey, "Each robot has a different weakness." Agent Moore adds, "And calls for a different weapon."

3. Literature Review

Most of the literature has focused on the first movie. In what follows I offer a systematic discussion grouped according to the main topic or challenge that each author has chosen to concentrate upon.

3.1 Critics focusing on the challenges presented by human-like robots

Antonio Fabozzi devotes a whole chapter of his 1982 monograph *Il cinema della paura. Orrore e fantascienza nel cinema americano degli anni '70 e '80* ("The Cinema of Fear: Horror and Science Fiction in the American Movies of the 1970s/1980s") to *Westworld*. He interprets the movie as based on the "machines' rebellion" with the significant variant that such machines are exploited for human leisure, or *otium*, and not for labor and business, or *negotium* (Fabozzi, 165). He points out that the machines are a symbol of human labor workers and that the whole movie evokes the alienation both of the exploited and the exploiters (166). However, Fabozzi also refers to the contraposition between mechanism/rationality/routine (machine) and instinct/emotion/creativity (human) as one of the main themes of the movie. He points out the irony in the fact that, in order to surprise the robot and splash it with acid, Peter has to pretend he too is a robot by lying silently among damaged androids in the subterranean laboratory (171-172).

In "Technophobic Themes in Pre-1990 Computer Films," Anton Karl Kozlovic lists both *Westworld* and its sequel among the movies that display robots as "sex companions" under the more general category of "cybersex violations" and described as "the feminist fear" (Kozlovic, 359-361).[2] The two movies, in other words, may work as a metaphor for the objectification or de-humanization entailed by prostitution and human trafficking.

In "Horrifying 'Boredom' in Michael Crichton's Fictions," James Whitlark offers a psychological interpretation. He examines the role of "boredom" in Crichton's fiction that Crichton himself conceptualized as a fundamental ingredient of terror in a passage from his novel *Congo* (1980). "Boredom" means lack of stimulation under adverse circumstances: an ambiguous Freudian concept that if on the one hand represents liberation from affection, it is at the same time deeply frightening–a variety of despair. At the apex of a terrifying

situation, characters find themselves unable to respond, overwhelmed and hence *bored* according to such definition. In other words, according to Whitlark's analysis, Crichton's narratives often display characters' "listlessness at the most nerve-racking moments" (Whitlark, 237), and boredom is also *elicited* in Crichton's reader through long passages that suspend suspense. This condition of listlessness is represented by Crichton, according to Whitlark, with "increasing consciousness" and associated with situations of powerlessness, like in the case of the suffocated scientists in *Westworld* (232). According to him, the robots of *Westworld* are boredom-generators because they are not psychologically interesting or fathomable; they are beings about whom nothing can be done (235-236).

Westworld is touched upon in Dinello's monograph. Crichton's 1973 movie, as well as its sequel, are briefly discussed by him in a chapter exploring the technophobic variant of the "machines out of control," and more precisely in a section which examines a sub-subcategory called "techno-rebellion: revolt of the androids" (Dinello, 106). *Westworld*, according to Dinello, points to "the potential of uncontrollable and devastating software errors that are possible in a vast technological system" and to the fact that technology can become incomprehensible to its creators (107). He also briefly discusses *Futureworld*. According to him, the sequel "goes further" in comparison with the original and evokes "the notion that technology possesses a force or even an agenda of its own" (107).

In "Mensch-Maschinen" (*Human-machines*) Stefan Höltgen analyzes robot movies between the 1970s and the 1990s. He likens the robots' "revolt" in *Westworld* to the uprising of slaves, yet he also remarks how technicians try to understand the phenomenon as a "disease" (Höltgen 2009). In a similar way, he describes *Futureworld* as conveying "a specific cultural angst" that emerged from the 1970s onwards: the fear that machines would replace humans, which he interprets as being related to humanity's struggle to find a place for itself in a daily life increasingly populated by machines occupying roles previously belonging to real persons.

In "Os autômatos da ficção científica," (*The Automata of Science Fiction*) Fátima Regis analyses the representation of androids in the movies over time. In her historical analysis, those of *Westworld* fall into the category of androids created in the human being's image and likeness to replace the human need to satisfy their violent emotions (Regis, 9).

In "Michael Crichton y el Techno thriller: de la rebelión de las máquinas al cambio climático" ("Michael Crichton and the Techno-Thriller: from the Rebellion of the Machines to Climate Change"), Erik Stengler credits Crichton with the creation of the *techno thriller*, a sub-genre exploring the consequences of technologies that lie in the not too distant future (especially human *dependence* on them) and other societal issues (Stengler 2008, 80). Crichton, according to Stengler, is a "humanist" concerned with the consequences of favoring ideology, utility, or economy over human dignity (90). *Westworld*, in this analysis, is seen as an example of the rebellion of machines against humans, their creators (82). In a more recent essay, "Beyond the techno-thriller: Michael Crichton and Societal Issues in Science and Technology," Stengler identifies *Westworld*, as well as *Beyond Westworld*, as being more specifically concerned with the techno thriller sub-theme of "deception to humans" (Stengler 2015, 24).

Thomas Vargish mentions *Westworld* in "Technology and Impotence in Mary Shelley's Frankenstein," an essay exploring Shelley's novel as a tale about how technology invariably *usurps* and *empowers* humanity's will simultaneously. Vargish suggests that technology is just an extension of the creator's ego, with all its flaws, although creators themselves like Victor Frankenstein tend to deny it. In fact, the troubles resulting from technology are nothing but those that would in any case haunt humanity. Frankenstein's creature usurps its creator but is also the result of an act of usurpation over nature on behalf of the creator. Creation, Vargish points out, is indeed just an extension, as the popular confusion between Frankenstein and the creature himself ironically suggests (Vargish, 332). In Vargish's analysis, *Westworld* represents "a creation usurping the space, the freedom, the power, even the time of its creator" (324). He also emphasizes the symbolism of the hand as "the connection between the brain and the environment," and points out how in *Westworld* the difference between humans and robots consists precisely in the imperfection of the robots' hands (326).

In "'More Human than Human': instrumentalización y sublevación de los sujetos artificiales" ("'More Human than Human': Manipulation and Rebellion of Artificial Subjects"), Jimena Escudero Pérez discusses *Westworld* in the framework of a lengthy analysis of artificial life in movies. *Westworld* is mentioned as an example of rebellion, but Pérez points out as well that the movie leaves unspecified whether the robots stop following the program because of a simple anomaly or because they have been deliberately counter-programmed by other robots (Escudero Pérez, 81).

According to Despina Kakoudaki, in "Affect and Machines in the Media," the motif of the creation of sentient beings taps into the archetype of the animation of artificial bodies through which, according to notable religious narratives, humanity itself was created. As represented by the second edition of Shelley's *Frankenstein* (1831), this motif is paired with the hubris of humans who want to replicate that act. Artificial beings like Frankenstein's creature symbolize a threat, but also social exclusion and exploitation, and question the very notion of humanity (Kakoudaki, 114-115). In light of such observations, Kakoudaki sees *Westworld* as a movie that plays with the distinction between "action" and "intention": "the killing spree may just be the result of a malfunction, but the emotional effect follows the classic 'robot running amok' theme, which in science fiction literature and film is also related to the fear of racial uprising or class warfare" (124).

In "Androids and the Posthuman in Television and Film," Kevin LaGrandeur identifies two main functions for movie androids: they can be a symbol of technological threat or they can be used to explore issues of humanity and personhood. *Westworld*, according to LaGrandeur, is an example of "the threat of irresponsible oversight of scientific advances"; its robots start killing the guests "because they are deployed without being thoroughly checked for flaws and without adequate failsafe devices in place" (LaGrandeur, 9).

3.1.1. Discussion

The most direct, *narrative* source of fright in the movies and the series at stake is the robots' murderous and relentless actions. Whitlark correctly points out that such robots, unlike technological creatures displayed in other movies, do *not* voice identity concerns, philosophical questions about what they are, and the difference or relationship with their creators. They are simply "boring" (according to the special meaning Whitlark stipulates) and terrifying. But then again, in order to make rational sense of the fact that robots are frightening, we have to understand their nature and actions in more detail. Clearly, critics who start off by focusing on the robots, in fact end up observing that they either evoke a social situation of exploitation and upheaval (Fabozzi, Kozlovic, Stengler, Escudero Pérez), or that the problem lies in the kind of technology the robots themselves represent and the way it is dealt with by the technicians (Dinello, Vargish, LaGrandeur); some authors make both suggestions simultaneously (Höltgen, Kakoudaki). It seems clear then that, to attain a sharper interpretation, one has to move beyond the most obvious source of fright – the robots' capacity for relentless violence.

3.2 Critics advancing a socio-cultural interpretation

In "*Westworld* Fantasy and Exploitation" Gerald Mead and Sam Appelbaum identify the "dangers of a certain kind of fantasy" and criticism of "the commercial exploitation and the technological dependence through which these fantasies and desires are or might be gratified," as *Westworld*'s "explicit moral perspective," with a more specific reference to the U. S. of the 1970s. They claim that the movie is "confused" and that the solution it offers is "at best misleading." The scenes of the victims and debris collected and reassembled overnight are a metaphor of "U.S. technology, backed up by seemingly unlimited economic resources" that can erase "acts of cruelty, waste, and destruction." The contraposition between humanness and machines/technology is another main theme identified in the movie by Mead and Appelbaum and associated with real-life, present-day concerns. The anomalies that distinguish the robots are, according to them, the equivalent of stigmatized physical traits in racist ideologies. However, according to their interpretation, Crichton does not go deep in his analysis: it stops at the "human/machine distinction" in which humans are killed because they were not smart or combative enough. Peter "represents a terrified act of self-preservation. His moral lesson is nothing more than a reassuring and misleading cover-up of critical and real human prejudices and conflicts." Crichton stated, in fact, that he had fun making the movie and that he hoped audiences would likewise have fun.[3] Mead and Appelbaum remark that the then young director was expressing "a somewhat unreflective consciousness, mystified by its own mystifications" (Mead and Applebaum 1975).

In "Don't Look Where We're Going: Visions of the Future in Science-Fiction Films, 1970-1982," H. Bruce Franklin describes *Westworld* and its sequel as belonging to a specific sub-genre popular in the seventies, to which also movies like *Rollerball* (1975), *Death Race* (1975), and *Deathsport* (1978) belong. Such movies, besides displaying a future society

"ruled by some form of conspiracy, monopoly, or totalitarian apparatus" (Franklin 1983, 72), show that "the most interesting remaining normal human activity is some kind of sport or amusement, usually deadly" (73).

In "*Westworld*, *Futureworld*, and the World's Obscenity," Jay Paul Telotte interprets *Westworld* and its sequel along a notion of *obscenity* defined not as "in any display or abuse of the body" (unlike the usual definition of the term with its excessively explicit reference to sex), "but in the very *displayability* of all things in the modern world, in their immediate openness and vulnerability" (Telotte, 180; italics in the original). Delos' worlds, he continues, "offer a strange mixture of distance and intimacy […]. They seem intended to put us back in touch with ourselves, to help us regain a lost, private Self. Yet on another level these worlds encourage a kind of retreat from whatever reality they seem to represent: a retreat from pain, responsibility, human caring, ultimately from the world we inhabit" (181-182). Tourists, he points out, are required to adopt two personalities simultaneously: "that of the participant, fully committed to this 'real' experience, and that of the observer, who stands safely outside this reality, beyond the implications of his involvement, able to relish his seemingly irresistible or invulnerable self" (182). Peter, scared and exhausted, represents the "collapse" of such a situation: "modern schizophrenia […] leaves one with no private space to which to retreat, […] totally vulnerable to the 'world's obscenity'" (183). According to Telotte, *Futureworld* "seems to accept [obscenity] as almost a given of modern life" (183). The tension between Chuck and Tracy, according to him, is in fact between an old-fashioned investigative journalist who doubts reality, and a television newscaster who accepts the world as it is: in order to convince Tracy of his suspicions, Chuck has to reactivate her "reporter side" (185). All this is related to the cultural and historical context in which the movies were produced: the era of the Watergate affair, the spread of photocopying machines and videocassette recorders, and of pervasive mass media presence (185). He adds that the "simulacrum" (i.e., the copy), is symbolized by the robot, but it is a "symptom" rather than a "threat" (186). Science fiction tries to mediate between the transformation and the human that is being threatened by the transformation itself, "tak[ing] its own schizophrenia in hand"; mediation is most notably represented by *Futureworld*'s Harry Croft, "who lives deep in the bowels of Delos [… (and)] has developed 'a taste for the iron'" (187).

In "Considerations on the Theme Park Model as Short-term Utopia," Pere Gallardo focuses on the concept of *theme park*, a commodity endorsing and reinforcing the values of the capitalistic system. Delos is compared to real parks, *Disneyland* (California) and *Port Aventura* (Spain), as well as to the well-known fictional resort invented by Crichton, *Jurassic Park*. Theme parks, Gallardo points out, are "short-term utopias, […] provid[ing] a condition of happiness different and superior to the world outside" (Gallardo, 19). The illusion of happiness relies on the visitors' suspending their disbelief in reference to familiar cultural icons (a movie-like "Western world" being a case in point), and the absence of danger (20). A theme park, however, should not (and cannot) aim at autarchy: besides not being materially possible (Westworld is located in the desert and depends on external supplies), if the visitors decided to stay in the resort for good, its economy would collapse (20). Theme parks represent a *reconstructed reality* (like in the case of

ecosystems), or a *hypothesized* or *wished-for* one (21), yet the park must be *another* reality excluding the element of risk that characterizes reality *outside* the park (23). These are enclosed, separated, "real and fantastic, historical and a-temporal, rural and urban at the same time" (24). *Westworld*, according to Gallardo, "voices the subterranean conflicting forces present in Western societies [...] on the eve of the oil crisis." It is an escapist destination for bored upper-middle class individuals; however, "the *utopia* inside the park proves just as frail and overstressing as life outside the park, [...] the ending of the film is in accordance with the gloomy prospects of the times. [...] *Westworld* can be read as an anticipation of the impending socio-economic crisis of the early seventies" (25; italics in the original).

In "Allegories of Post-Fordism in 1970s New Hollywood: Countercultural Combat Films, Conspiracy Thrillers as Genre-recycling," Drehli Robnik analyzes *Westworld* in the context of a critical assessment of Hollywood motifs in the 1970s. He sees the film as an example of a trend of the mid- and late-1970s: narrating conspiracies (the park's control system one, and the one on behalf of the killer robots). *Westworld* is also as an allegory of Hollywood's crisis in the 1970s, with the three artificial worlds respectively representing its clichés: Delos is "cinema unable to rid itself of its past" (Robnik, 20). In fact, Robnik's analysis perfectly resonates with Crichton's observation, according to which "most of the situations in the film are clichés; they are incidents out of hundreds of old movies" (Crichton 2017, xii). "Compared with *Westworld*, *Futureworld*, does nothing else than more directly represent the motifs of conspiracy theory and of the "robots out of control" (Robnik, 18).

Larry Alan Busk discusses Crichton's movie in "*Westworld*: Ideology, Simulation, Spectacle." *Westworld* is "a prophetic cultural document evocative of tendencies that were only nascent at the time of its publication" (Busk, 2). The movie symbolizes the problems of "reality" in the capitalist world and its dialectic with simulation. Delos' authenticity is constantly emphasized, but in fact its three "worlds" are far from representing life in, respectively, Imperial Rome, the Middle Ages, and the Old West. Guests are immersed in a Hollywood-like caricature where they always occupy a privileged position: they are never miners, serfs, farmers, or prostitutes, but cowboys, feudal lords, nobles. The resort is a "playground of aggression" in which visitors always end up unharmed and remorseless (5). Androids, and actions that would have major legal and moral consequences "outside" are commodified, while the forces and processes that sustain the illusion are kept invisible (9). Delos is not really a simulation because it "*refers to no genuine article*" (10; italics in the original) and its disaster is not the revelation of the simulation, but the fact that it becomes real (15). Busk concludes that "this film is much more than a 'cautionary tale' about the dangers of technology, and, whatever his intentions, more than a vehicle for Crichton to explore 'chaos theory.' It is rather an apologue for the multi-faceted ideology that sustains our present way of life. *We are living in Westworld*" (18; italics in the original).

3.2.1 Discussion

A "social" interpretation is quite tempting: the very expression "Western World" or "Westworld" points at the very birth of American society. And the "Far West" can be taken as the epitome of American society or even of the contemporary "West" *tout court*. It is also telling that one of the ways in which the machines begin their "rebellion" in *Westworld* is by jailing Peter, who has killed the gunslinger for the second time (although, as he claims, in self-defense). The robot sheriff states: "There's a law here now. You can't go plugging whoever you please" (original script, 50). This episode, thus, seemingly brings grist to the mill of those critics that the main problem at stake is the irresponsible, unscrupulous behavior displayed by visitors to Westworld. The park collapses, like American society/the American dream/capitalism, and those who took for granted that they could simply walk through it unharmed, and actually exploit it for their own amusement, end up bitterly disappointed when not annihilated.

However, on closer inspection, one notices that socio-cultural interpretations have some shortcomings. To be sure, in the original movie the consumerist-capitalist setting is strongly evoked (e.g., mentioning the sojourn's price, and insisting on its escapist nature), yet the corporate aspect is not visually and narratively represented at all. The supervisors do express concerns about "tourist confidence" but they are rather stereotypical "movie scientists" in white, medical-looking coats. We do not witness a board meeting discussing financial issues, nor does Delos have an owner.[4] Furthermore, we should surely take into account that Peter is jailed because of his unethical act, but obviously we cannot fail to see either that the killing of tourists and technicians on behalf of the androids is far from representing a return to an ethical world. What is more, Peter, who according to the "social" reading would be one of the villains, ultimately triumphs over the gunslinger.

One may also wonder whether the technology of Delos might be harmful *only* insofar as it is subject to sheer capitalistic logic and hence handled irresponsibly or, conversely, that technology could *not* get out of control if handled *responsibly*; i.e., not just aiming at profit above and beyond any other kind of consideration. However, as spectators we are simply not provided with enough elements to solve this dilemma.[5]

A supplementary problem with the "social" interpretation is that *any technology is inevitably linked with, stems from, and taps into, a certain social order*. A resort like Delos can be conceivable only in an individualistic society that is consumer-oriented and in which sophisticated technology is *not*, for example, managed by the state to improve public welfare but rather in order to encourage and perform entertainment (a form of absorbing, systematic and pervasive amusement that, in its turn, makes one blind to the very real mechanisms that rule society). Thus it is very difficult to think of a specific technology and of a specific society as two completely separate entities. Furthermore, and perhaps more importantly, *any way of shaping society* is *a form of technology broadly conceived as applied knowledge*; i.e., the application of practical principles, based in their turn on specific theoretical assumptions, to the disciplining and managing of a human community. In this sense, the line between technology and society becomes irremediably blurred.

Opting for a "social" interpretation of *Westworld* (i.e., describing it as a cautionary tale about how society is–currently–structured and managed), is undoubtedly fair; but opting *exclusively* for this kind of interpretation seems more revealing of the critics' political inclinations than respectful of the elements offered by the movie. In other words, if we consider *Westworld* as an allegory of the shortcomings and/or of the collapse of (U.S.) capitalism, we still have not explained why *technology* is a threat. We lose not only the relevance of "technophobia" as an explanatory category (the collapse of capitalism could have been metaphorically represented in many other ways!) but we also fail to interpret plenty of specific elements in the movie while at the same time overstating the actual representation of consumerism/capitalism in *Westworld*.

In contrast to *Westworld*, *Futureworld* emphasizes the capitalist-corporate side from the beginning. Mr. Duffy, the character symbolizing it, is explicit about financial figures and voices concerns over the resort's success. However, clear *representation* does not automatically entail clear *conceptualization*: once again, it remains open whether the threat is identified with corporate interests *per se*, or with malevolent intentions. One is left wondering if the Delos corporation *is* evil or if Mr. Duffy and Dr. Schneider's *plans* are evil and if, given new security measures, a purely recreational and efficient Delos would be possible.

In *Beyond Westworld*, corporate interests/capitalism/consumerism seem *not* to constitute a threat: Delos, this time, is intent on containing the damage caused by the evil Dr. Quaid, as well as on developing useful robots. The first episode indeed shows that androids are being employed for useful, non-recreational activities ("to take over dangerous jobs"). In the fifth episode, Dr. Quaid is experimenting not only with robots but with human-controlling chips, and Delos prevents him from replacing a prominent politician with an android. Delos rushes to rescue the establishment, the political *status quo*: exactly the opposite of what it was doing in *Futureworld*.

3.3 Critics focusing on technicians and scientists

In "Dinosaur Doctors and Jurassic Geniuses," Gary Hoppenstand mentions *Westworld* in a comparison between the figure of the scientist in Sir Arthur Conan Doyle's *The Lost World* (1912) and Crichton's *Jurassic Park*. Although he does not expand on the movie, he identifies a dialectic in Crichton's novels that can also be useful for the present analysis (Hoppenstand, 4). He points out that technology is depicted, in the 1990 novel, as "a very dangerous thing indeed, [...] something that, if not responsibly handled, [...] will destroy humanity" where the lack of responsibility overlaps with the capitalistic/imperialistic ideology and attitude. This is represented by the owner of the park, millionaire John Hammond (associated with scientist Wu), whereas responsibility is embodied by Ian Malcolm, the black-dressed scientist (and in fact an avatar of Crichton himself, according to Hoppenstand) who has a theory that "predicts unpredictability" (11-12), most notably nature's.

In "As múltiplas imagens do cientista no cinema" ("The Multiple Images of Scientists in Cinema"), Lacy Barca examines, from a historical perspective, how scientists have been represented in movies, pointing out that such representation is actually influential over society (for instance, its influence on children's perception of science). *Westworld* is mentioned as an example of a movie in which scientists are represented, in critical fashion, as the mere instrument of greater forces, such as a government or army and, in this case (although Barca does not use the term), the market, since they are supposed and expected only to keep the park going by providing satisfaction to its guests (Barca, 35).

3.3.1 Discussion

The problem with the supervisors and the technicians in *Westworld* is that they are far from constituting a homogeneous group. At least one supervisor does show signs of awareness and represents critical, responsible behavior. In fact, in the script he is described as "scholarly-looking" (38) and he is indicated as "the first" and "our" supervisor.

In order to grasp the conceptual difficulties posed by the supervisors and technicians in *Westworld*, let us add some instruments to our critical toolbox, taking into account another notable scholarly analysis. Peter Weingart, Claudia Muhl, and Petra Pansegrau examine a significant selection of movies (two hundred and twenty two of them) in the attempt to identify the images of science and scientists they convey. They point out that "scientific knowledge and its technological applications" are characterized by an intrinsic symbolic ambiguity, "having been associated with both liberation and domination, with the power to control and the threat of being controlled, with human welfare and destruction since antiquity" (Weingart, Muhl, and Pansegrau, 280). They observe as well that "the depiction of science reveals the fundamental uneasiness, distrust, and even mystification of science on the part of the moviemakers that must in some way reflect the sentiments of the crowds that watch their products" (281). Although they warn that "the entire number of films showing scientists or science is unknown" (282), they find that, in the movies they analyzed, scientists are mainly medical doctors, followed by physicists and chemists. Moreover, the typical scientist is white, American, male and middle aged (282). Concerning the scientists' psychological profiles, the authors identify three main stereotypes: "benevolent" scientists, who are naïve but whose discoveries are put to bad use by superior powers; "ambivalent," when they are idealistic but easily corrupted; and finally the "mad scientists," who are from the beginning marked by ambition and hubris. However, the majority of the movies analyzed displays benevolent ones (283). Furthermore, "dangerous" research is represented as happening outside official/public institutions (284).[6]

The three authors' analysis does not touch upon *Westworld*, but it provides a taxonomy that we can try to apply to it and, most notably, to the "good" supervisor. Such a character seems to anticipate the "critical/scientific consciousness" embodied in *Jurassic Park* by Dr. Malcolm, as the aforementioned Hoppenstand points out. If we refer to the three scholars' typology, it is difficult to describe this supervisor as "benevolent"; he is definitely not "mad," nor are the other ones. Nor does he qualify as "ambiguous"; he is

simply overruled by the majority of his colleagues, who seem more unconvinced than profit driven about his model. Once more, we find ourselves left with a question of the chicken-and-egg kind: whether the colleagues would be more open-minded and receptive, or more skeptical towards the park's *technological* functionality, if the park's *financial* functionality was not at stake.

Furthermore, in a scene present only in the original script, two technicians are aware of what is going on *ahead of the supervisors*: "Damned supervisors don't even know what's happening" and "Well, they don't have to do the work, just walk around and give orders. They got their heads in the clouds" (original script 41). However, those very technicians do not embody pure, lucid, unstained consciousness either. In fact, in another deleted scene, one of them boasts about having had sex with one of the machines (original script, 42), displaying the tourists' same hedonistic attitude. Moreover, the technician who is attempting to flee Delos, right before being killed by the gunslinger, forgets the danger and, "oddly enthusiastic, almost delighted," is carried away by the technical description of the robot: "Excellent machine. […] Beautiful machines, so elegant. […] [It] has a new integration unit, amazing little thing. […] The best scientific brains in the world built that machine, and they did a good job" (original script 85-86).

Futureworld does not draw a precise line between scientists-technicians and corporate executives, nor between humanity and technology, nor between good and evil. "Evil" characters (Mr. Duffy and Dr. Schneider) share the same plan and they both turn out to be machines, and at least one technician (Harry) is a positive figure. Given how confused their representation is, let us postpone any discussion of them until the next section, after introducing the motif of technology.

Beyond Westworld does focus on the actions of a mad scientist. What is presented as harmful and threatening in *Beyond Westworld* is Dr. Quaid's ideology that gradually emerges through his speeches. However, interestingly (and confusingly), such ideology seems to stem from *moralistic* and *humanistic* concerns. Dr. Quaid in fact complains that robots in Westworld had been turned into toys "to fulfill superficial pleasures" and claims that his dream is "to develop a harmonious society with perfectly programmed robots in charge," a "world free of war, hunger, and sickness," "a society free of all personal responsibilities and obligations." Dr. Quaid is the villain and systematically ends up defeated. However, that he is not completely wrong in his complaint about the purely recreational usage of technology is seemingly demonstrated by the fact that Delos is now engaged in the development of useful robots. Furthermore, in the first episode, he claims that "the world's values are obscene" and adds, "Tell me one thing that money can't buy." When accused by Moore of being like Mussolini, he replies that he is "no egoholic" and that he does not care whether his name will become known. Yet he adds that he created "an impregnable army of loyal and unquestioning troops." In the second episode, he confides that while working in Westworld he was "under the delusion that science, not money, was humanity's first priority" and insists that he "did not exploit man's meaner nature by amusing him with playthings that could serve humanity." In the third episode, Dr. Quaid tries to collaborate with a North African general (in fact manipulating him) and in the final

episode he states, "If we can control the human emotions, we can make man into the perfect species he should have been." We are left wondering what is exactly *evil* and *wrong*: Dr. Quaid's individualism? The attempt at manipulating human nature which, although flawed (Dr. Quaid himself is a human, ultimately), should not be changed? Is it conformism as represented by Dr. Quaid's social plan? Or rather the fact that his seemingly humanitarian utopia is in fact an egoholic's dream of authoritarianism?

3.4 Critics focusing on technology and its contraposition with nature/humanity

In "Images of Technology in Popular Films," Steven L. Goldman analyzes the depiction of science and technology in popular movies from 1925 onwards, and points out a paradox: despite the association of science with progress and well-being, and massive public investments, science is constantly negatively represented (Goldman, 275-276). A powerful cliché is that of the scientists' powerlessness vis-à-vis "corporate, political, or military institutions" (276). Technology is usually represented as "anti-human" (277). Science is often represented as either "corrupted by the manner in which it is exploited" or "intrinsically corrosive of human well-being" (286). Goldman posits an interesting question: What could be the source of this ambivalent depiction of technology, especially given that movie directors themselves can be "techno-freaks"? (His example is George Lucas, who contraposes the "Force" to technology in *Star Wars*). He concludes that it can be the outcome both of personal biases and of public attitudes. Such attitudes are identified with a "widespread anxiety" over science and of technology's social impact. Goldman specifies: "This anxiety may be partially relieved by seeing the 'dark' sides of science and technology worked out on the movie screen, perhaps in the hope that that is where they will remain, but the anxiety seems to be a permanent condition of modernity" (288). He distinguishes three "foci" of such anxiety: technology "inevitably leads beyond humanity's best interests"; public interest is overwhelmed by the concentration of science and technology in the hands of a corporation or government; and technological progress ultimately cannot improve the human condition (288-289). In Goldman's analysis, Crichton is the typical author and director who focuses on the limitations of technology and both *Westworld* and *Futureworld* are briefly mentioned as examples of this theme (288, 292, and 298).

Nico Reiher is the author of a short seminar paper, "Anti-Technological Ideas in Michael Crichton's Westworld," in which the movie is described as generically conveying an "anti-technology" message. However, Reiher's reflections are worth a mention since he points out how, paradoxically, the most sophisticated technology is employed in Delos to recreate a world in which that very technology was unthinkable and to realize the dream of living in a technology-free world (Reiher, 2).

3.4.1 Discussion

In the original script, Delos is advertised as "the triumph of man's mastery over the environment" and the gunslinger is destroyed on a rack. Crichton writes, "We deleted the final fight between [Peter] Martin and the gunslinger. We tried it, but it seemed stagey and

foolish, so we elected to drop it entirely. *I had liked the idea of a complex machine being destroyed by a simple machine*, the rack, but otherwise I didn't miss the lost sequence" (Crichton 2017, xix; my emphasis). So perhaps the problem posed by the technology represented by *Westworld* robots is that they are *unnaturally too complicated*, characterized by a complexity that is opposed to "natural" simplicity and gets easily out of hand, but also one that is still vulnerable to natural human instinct and creativity, as well as to more elementary forms of technology. This interpretation would respect the clearly displayed fact that the situation does spin out of control, and disastrously so, but ultimately one human is able to save his skin.

However, upon closer inspection this dichotomy also turns out to be far from rigid, resulting in an unsolvable oscillation between the two concepts. Remember that when the aforementioned "good" supervisor is struggling to understand the situation, he points out, "We aren't dealing with ordinary machines here. These are highly complicated pieces of equipment, almost as complicated as living organisms. [...] Why shouldn't they be vulnerable to, let us say, an infectious disease?" (original script 43). One is thus left wondering if "ordinary" (less complex machines) would ever develop the same glitch. Furthermore, the very comparison of the glitch and its diffusion to a "disease" strongly suggest that the problem lies precisely in the fact that *Westworld* machines have started replicating *natural* complexity, not to mention the very fact that, ultimately, the presence of a pattern may entail predictability and the problem is rather that most of the scientists are blind to it.[7]

It is also strongly suggested (visually, at least) that the machines are resentful and look for revenge; i.e., they have started replicating typical human feelings. Whose revenge is this? Perhaps *nature's* revenge for human usurpation–a retaliation that nature accomplishes through the machines that it "hijacks" in the form of a "disease." However, the very idea of nature looking for vengeance entails a *personification* of nature. Personifying nature is perfectly fine for an interpretive move (and a narrative one that Crichton did explore, most notably in *Jurassic Park*). However, this implies that technology is fearful insofar as it takes on the sentiments and irrationality typical of human beings and not *per se* as something completely different and separate from humanity and nature. Thus, paradoxically, technophobia would turn out not to be fear of some quality or threat intrinsic to machines.

We may consider the whole disaster as *the robots' revenge* without bringing nature into the picture. But then we are led to think that the robots, once they have acquired human/natural traits, must be resentful for a reason, and the reason could be nothing else but that they have been brutally exploited. Thus we are back to the "social" interpretation. Nor is "nature" completely eliminable from this kind of explanation, since obviously the acquisition of feelings on behalf of machines is a shift to humanity, a return to what is "natural."

Technology in *Futureworld* is verbally conceptualized through Dr. Schneider's statements. He seems to identify the machines with perfection and to oppose them to human imperfection. When Chuck and Tracy find out that the technicians are robots (after

Tracy's failed attempt at seducing one), he states, "We discovered that one of the causes for our disaster with Westworld lay with the human flaws of our controllers. So we replaced them with these. The model 700 technician series. They have no ego. So, they have no hang-ups. And thus, one more source of error is eliminated." Later the reporters recognize each other through something that "cannot be faked": a passionate kiss. And yet the contraposition machine/human, perfection/imperfection, and fake/authentic are, in *Futureworld*, ultimately blurry.

To begin with, the machines in this movie *do* have an ego. They have their own plan aimed at self-affirmation and conservation, a plan that, surprisingly, even carries *environmentalist* undertones. Mr. Duffy (a machine) states: "The human being is a very unstable, irrational, violent animal. Now, hold it. All our probability studies indicate that if left alone, you'll destroy much of this planet before the end of the decade. Now, we at Delos are determined to see that doesn't happen. We don't intend to be destroyed by your mistakes."

Furthermore, technology is represented as "perfect" rather in the sense that it creates a perfect copy of a human being, not a truly flawless machine. Chuck and Tracy's replicas claim that they have the same virtues as well as the same shortcomings as the originals. Tracy's one says, "It's a good thing father taught us how to shoot, isn't it?" and Chuck's one, "We're both lousy shots. Remember Sergeant Rucker at basic? Browning, you couldn't hit an elephant in the ass at five yards with a bazooka. Be careful, brother." He adds, "Don't forget we're afraid of heights." What then is different and/or superior about machines indistinguishable from, and hence as flawed as, their originals, and that ultimately end up defeated?

The borders separating "metal-and-circuits" technology and biology become even more ambiguous when the plan is completely unveiled. Mr. Duffy states, "Look, don't imagine that these duplicates we've created are mere robots. They are not machines. They are living beings produced by the genetic information in your own cells. There are no mechanical parts. Even those of us who create them can't tell the original from the duplicate." Crucially, Mr. Duffy is also revealed to be a machine. It is unclear whether there has ever been an original, true and human Mr. Duffy or if he has always and only existed in the form of an android. Be this as it may, this provokes a conceptual collapse and leads us to ask whether the culprit is the machine being opposed to what is human and natural.

As I have just explained, Duffy and Schneider respectively represent corporate interests and technology in a negative, human-threatening fashion. Their very cooperation, and the suspicion that even Dr. Schneider himself may be a machine (another idea that is only vaguely suggested, but not unlikely at all), makes them overlapping and ambiguous. Yet another couple is likewise ambiguous and overlapping, although acting in the story in a positive fashion; i.e., friendly towards the movie's heroes: Harry and Clark. They introduce comic/pathetic motifs, but also, on close inspection, further elements of confusion.

Clark is a robot. His humanity is visually (and powerfully) negated by the absence of a face. All we see instead of familiar facial features is a hole, protected by a glass or plastic

screen, with circuitry and lights inside. Harry explains: "I kind of got tired of taking it off every time I had to fix him." It is important to remark that in both *Westworld* and *Futureworld* the removal or loss of a robot's face is a visual and narrative device that marks the moments in which machines are either powerless (under repair) or defeated, and in any case fully exposed as android, non-human. It is not an accident that "losing the face" is the last thing that happens to *Westworld*'s gunslinger right before collapsing and, in *Futureworld*, the removal of Chuck's face emphasizes the revelation that Mr. Duffy is a robot. Yet *this* one faceless machine has a *human name*. A name, though, reminiscent of a human being with enhanced capacities. Harry explains, "You know, from Superman, Clark Kent, man of steel." Clark engages in typically human activities, such as playing cards, perhaps even cheating. And when Harry is about to leave him, Clark covers his "non-face" in a typically human expression of sadness.

Harry is likewise a puzzling character. He lives across worlds. As correctly intuited by Jay Telotte, like the "tricksters" of mythological traditions he belongs to the "gods" that steer Delos (he is a technician), but he is also a fifth-columnist of sorts, living (parasitically?) underground, escaping surveillance, disobeying Dr. Schneider's directives, and revolting against the system. He rescues the heroes because he dislikes seeing them in trouble, he claims. His vanity and childlike feelings are easily played with: upon being informed that Tracy is a reporter, and that she enjoys a huge audience (including people in Cleveland, where his mother lives), he immediately accepts to be interviewed. Yet Harry also states that he developed a "taste for iron," being more used to machines than humans. At the moment of leaving Clark, he engages in a pathetic speech that blends sociopathic tones with affectionate and almost homoerotic ones: "You know I'd take you with me, don't you? You know that. It just... It wouldn't work out. I mean, people on the outside, they just... they never would understand how it is with us." Suddenly he changes his mind: "The hell with them. When we get this thing straightened out, I'll be back to get you. Don't worry about that. Don't worry about it. You've been a good pal to me. I'm gonna sure miss you. Watch out for the bad circuit in your arm, you hear? You got to be careful now. So long, you ol' bag of bolts. We'll see you."

If machines are human, all-too-human, and if a human with a taste for iron humanizes machines and sympathizes with humans, is *technology* the real threat? Is it the misled use of it? In sum, *Futureworld* amplifies the seminal motifs of *Westworld* and hence its conceptual problems that are ultimately left unresolved.

In the first episode of *Beyond Westworld*, the robot that Moore is chasing is "absolutely perfect, undetectable." Technology was created by "some of the most highly trained experts in the world." The "simple-machine-destroying-a-complex-machine" archetype, that (as in *Westworld*) in Crichton's intentions was represented in the destruction of the gunslinger on a rack, is found in the last episode, "Takeover" (1980), in which a policeman android is destroyed with a forklift.[8] However, the aforementioned contrapositions turn out to be explanatorily unsatisfactory. Once again, we see that technology is so complex as to become *natural*. In the first episode we are told that androids are "almost as complicated as living organisms. [...] So complex that their circuitry

had to be worked out by other computers. That's what makes them so incredibly real." And, once again, confusingly, the machines' perfection does not prevent them from having some flaws that ultimately make them vulnerable. Technology *per se*, in *Beyond Westworld*, is neither good nor bad. Technological devices are used to detect robots. "Good" Professor Oppenheimer masters (and hence embodies) technology as much as "bad" Dr. Quaid does.

4.   What if there is no consistent philosophical message?

The attempt to pinpoint only *one* specific concept or conceptual dichotomy, linked in its turn to *one* narrative element as the key to interpreting a science fiction story (i.e., character, situation, symbol, speech), while discarding or ignoring other elements, is warranted by the fact that most such stories are rich and multilayered. However, the specific concepts proposed by different critics have turned out to be *too* limited. They leave uncovered too wide a portion of the narrative and they do not fully connect the three narratives; upon scrutiny, each such concept or dichotomy turns out to be unsatisfactory, inevitably referring, as it does, to other concepts which in their turn are likewise problematic. In some cases, one even ends up running in circles. We may take a deflationary stance, giving up on the explanatory project altogether or significantly reducing its ambition. Perhaps Michael Crichton was sincere and accurate when he stated, "Westworld was not intended to be profound. Neither was it intended to be stupid, but our clear goal was entertainment" (Crichton 2017, xix). *Westworld*, we may well say taking such words at face value, is hopelessly vague and open-ended as far as its storyline is concerned. It is ultimately a juvenile creation and its egregious flaws were not corrected in the sequel and in the series.

We should not, however, necessarily assume negligence on behalf of the director. Some notable "holes" may have been caused by choices that resulted from budgetary constraints or even from Crichton's aesthetic preferences. Take the fact, previously observed, that no board members of Delos are ever displayed in *Westworld*, but just scientists and technicians. This may simply have been due to the impossibility of hiring additional actors for more characters, or perhaps the director wanted to be narratively parsimonious; that is, he wanted to avoid cluttering the tale with further characters, dialogues, and situations.

There are also blatant *logical* holes in the narratives. For instance, it is not explained how the guests of Westworld are protected from ricochets or wounds inflicted with blades or in brawls, nor why robots are equipped with real guns, nor why robot horses do not malfunction, etc. Similar problems affect *Futureworld* and *Beyond Westworld*. In the former, for instance, hostile samurai robots materialize similarly to teleportation in *Star Trek* without any explanation being offered for such an event. *Beyond Westworld* leaves it completely unclear why Dr. Quaid is really a threat to the world, given the modesty of his means, and why Delos does not try to defeat him even more vigorously with governmental or military assistance, and so on.

Perhaps, therefore, we are simply looking for philosophical meaning where there is none or with insufficient elements to warrant a unified and consistent philosophical reading, be it of single narratives or all the narratives taken as a whole. We may thus be content with saying that none of the narratives examined conveys a clear system of ideas. In line with such a deflationary interpretation, we may even claim that *any expression of technophobia does not hold (much) philosophical value if it is based on an excessively fictional and/or a (scientifically or logically) flawed representation of technology.* If conveyed through a narrative of this kind, technophobia either loses its philosophical significance or it boils down to the expression of a non-structured, irrational fear. This, however, sounds extreme and destructive. A more benign or moderate variant of such deflationary stance may consist of claiming that one can still philosophically deal with incomplete narratives. One may think that the narratives discussed here were *intentionally* designed as incomplete in order to create a Kafkaesque, nightmarish effect on the audience and/or to encourage an interactive, interpretive engagement with them. In this sense, sticking to a deflationary interpretation does not mean denying *any* philosophical import to the movies and series. If one wanted to discuss the movies and the series, for instance, in a college course on technophobia, *Westworld*'s could be presented as being (mostly) about the fear of highly complex technology going chaotically and catastrophically wrong. *Futureworld* may be used to discuss the fear that the machines decide that humanity is not doing a good job and consequently set out to take over. *Beyond Westworld* can be seen as addressing technology's possibilities for evil, particularly in the hands of a self-righteous fanatic with an enormous capacity for rationalizing destructive, self-aggrandizing schemes. But then again all such fears would turn out to be conceptually problematic as well as imperfectly instantiated in the narratives. In other words, the movies and series would still be regarded as thought-provoking material but their expression of technophobia would be regarded as sketchy, or fragmentary, or circular. We could consider them as *inspiring* at best, but not fully *instructive.*

Sticking to a moderately deflationary interpretation also saves the appreciation of the movies' and series' aesthetic differences, which are, in fact, quite obvious. It seems safe to state that *Westworld*, on the whole, is narratively more efficient; i.e., it is more appealing and entertaining than *Futureworld* and *Beyond Westworld*. The reason lies, I think, in its groundbreaking character, its many motifs and narrative devices,[9] as well as its rhythm and visual appeal. In all likelihood, if Crichton's *Westworld* were not the entertaining machine it is, we would not be wondering about its philosophical relevance either. The sequel and the series can be considered as containing an increase in conceptual confusion that is not compensated by original ideas, rhythm, and narrative. Purely considered as tales, they are rather clumsy.

The moderately deflationary stance, however, is still unsatisfactory. In particular, it does not respect the spirit of Dinello's investigation and reflection. He suggests that science fiction conveys not only feelings about problems, but also tactics to deal with problems: insofar as one identifies only a partial explanation or theory, or falls back on a circular, open-ended concept, no feasible tactics or teaching can be inferred from the narrative.

5. Technophobia and de-theologized, epistemic hubris

Here is another, more philosophical and more explanatorily powerful option. We can connect technophobia with the concept of *hubris*. The classical definition of hubris (as widely instantiated in Greek mythology, epic, and tragedy) is that of an attitude of excessive pride towards the gods and/or the attempt at mimicking their actions and privileges, an excess of self-confidence that results in, and is punished through, a state of blindness that ultimately leads to a catastrophe.[10] The myth of Icarus, who tried to fly with wings of wax and feathers, is a case in point; such a myth is related to the improper and overly enthusiastic use of technology and its ensuing failure. Icarus flew too close to the sun (identified with the god Apollo), and the wax of his wings melted, causing him to fall into the sea.

However, hubris thus defined is still too rough and vague to do the work. Let us refine its definition to mean *blindness towards one's own limitations* or, more precisely, one's *epistemic* limitations; i.e., the limitations of one's understanding and knowledge of reality, invariably and irremediably resulting in severe limitations for (a) one's ability to devise *models* of reality and (b) one's actions in reality based on such models.[11] No one can enjoy total and absolute knowledge of reality; hence, no one can keep reality under total and absolute control. Those who fail to recognize this end up frustrated and defeated. The ruin of their plans brings about the ruin of the subjects themselves, including serious injuries and death. *Westworld*, *Futureworld*, and *Beyond Westworld* can be regarded as hubris-related dramas. The drama does not consist of the wounds, the damage, the casualties, the financial catastrophes, the technical failures, the frustrated ambitions, or any other woeful situation. The real drama of *Westworld*, as well as of its sequel and of the offshoot series, is that *no one understands how little they understand (including self-understanding), and everyone acts as if they understand enough to warrant total control of reality*. In order to fully elucidate this interpretation, however, we must further define hubris, carefully specifying five points.

First, the concept of *limitation* has to be understood as *epistemic*. In other words, we are referring *to each and every subject's ultimate incapacity to fully grasp any element or portion of reality* (*let alone reality as a whole*). We are *not* referring to the intrinsic intractability of *reality* as ultimately ungraspable and uncontrollable. (This, however, was a topic dear to Crichton and one which I will come to shortly.)

Second, *all* sentient subjects, regardless of their nature (be it biological, mechanical, or mixed) *qua* sentient beings are concerned with, and characterized by, such limitations. As a result, they *all* similarly undergo the consequences of ignoring them. Westworld humans (techno-scientists, as well as guests) entertain the illusion that they understand the park to the point that they can totally control and steer it, or enjoy it without any worries and restraints whatsoever. Westworld androids embody the illusion of a total takeover based on their superior capacities, cognitive as well as physical. Analogous observations hold for *Futureworld* humans and androids, as well as for Delos and Dr. Quaid in the series. Each party is convinced that it can completely understand and control the other one and fully take over the environment they inhabit. Because of this elucidation, the

machine/humanity dichotomy (as well as creator/creation and nature/artificiality) loses explanatory relevance in these particular movies.

Third, hubris classically defined involved arrogance, pride, elation, and stubbornness as emotional components. To be sure, some characters instantiating hubris do display this kind of attitude and feeling: think about the enthusiasm and self-complacency characterizing Westworld technicians, Mr. Duffy, Dr. Quaid, but also Chuck's and Tracy's replicas. However, hubris as I am defining it here does not necessarily entail (nor, conversely, is it univocally detected by the presence of) such emotions. Eliminating the emotional component from the concept of hubris allows the extension of such concept to a character like the gunslinger, that is in fact emotionless (remember Whitlark's concept of "boredom"). In other words, hubris here is merely identified with the mismatch between one's self-estimation and one's actual capacities.

In the fourth place, it is crucial to grasp that hubris does not consist *solely* of the attempt at understanding reality, nor *solely* of the attempt to control reality, but rather from the *combined illusion* that one can *totally* understand reality and therefore exert *total* control over it. We will explore the consequences of this distinction after a final remark about hubris.

Finally, but not less importantly, with the proposed refinement of the concept of hubris in opposition to the "classical" one, I am also dropping reference to any *divine* agency (or, for that matter, of any agency intrinsically superior to the one committing the act of hubris). Hubris here discussed brings about disaster automatically. No "jealous god" (nor any other "offended" agency) need be involved in the picture. In fact, one may wonder whether the presence of divine agency in ancient Greek, hubris-related narratives was just metaphorical (i.e., it may have been a merely mythological shell for a secular conception of self-blind, arrogant obstinacy as automatic catastrophe-bearer). Conversely, one may wonder if it has to be regarded as a constant (even if occasionally implicit) aspect in the narrative (i.e., the gods are there even when they are not overtly mentioned; for example, that Icarus simply flew too close to the sun, and the natural result was the wax melting; however, the sun can be taken as a symbol and an instantiation of Apollo). This discussion would lead us far beyond the scope of the present paper. Suffice it to say that the definition of hubris here employed is completely "secularized," and hence conceptually parsimonious as well as respectful of the movie narratives examined. In fact, it is very difficult to see which characters would implicitly or metaphorically represent the "gods" (unless we interpret the humans as such). More in general, at least in the original movie, it is quite difficult to identify a veritable "winner" or "punisher" or "loser." The robots initially "punish" humans and "win" over many individuals but they do not triumph. Peter does "win" as an individual, but definitely not as a representative of tourists/humanity. There is in *Westworld*, *Futureworld*, and *Beyond Westworld* no clearly identifiable, general "offence" brought on someone, nor an omnipotent "offended agent" administrating a punishment in retaliation.

The adoption of such a "de-theologized" concept either entails dropping the moral side to the hubris-related teaching or relying on a "secular" notion of morality. We can

claim that what the narratives suggest is simply that the different agents cause their own ruin as a result of disregarding their limitations—something that is represented as a purely mechanical phenomenon or process, without moralistic undertones. To put it even more simply, the movies and the series are not "tales of punishment," but reports about chains of causes and effects. Alternatively, we can interpret hubris as a moral flaw and all of its negative effects (overreaching, acting out of turn or of proportion, jumping to conclusions, etc.) as a form of punishment. To be sure, a "virtuous agent," i.e. a character acting much differently, is missing in the two movies.

Let me once more stress that *all* sentient agents in the movies and the series are characterized by, and thus become victims of hubris thus defined; hence, they all end up, in a sense, defeated. If spectators ever witness a victory, such victory is always *temporary* and meant to *emphasize the losing party's limitations* rather than meant to signify a total triumph on behalf of those characters who are prevailing. Peter survives the disaster of Delos, but he is frustrated in his plans to have unrestrained leisure in a hyper-technological, totally controlled environment, and to find there a safe, radical alternative to his daily routine (not to mention, the shock and the loss of his friend). Similar considerations hold for Chuck and Tracy. They may triumph as reporters, yet the whole story marks the failure of humanity, to which they belong, at the apex of its technological development as symbolized by the creation of supposedly perfect replicas of humans, as well as of a machine that can read human thoughts. Such achievements turn out to be as harmful as they are wonderful. Chuck and Tracy can defeat their replicas only by becoming aware of their own shortcomings as individuals. Artificial beings are likewise too self-confident. The robots' faculties in *Westworld* are extremely enhanced and superior to human ones, but they can still be defeated by human instinct and creativity, as Peter's trick with the acid shows. The technician who tries to flee Delos on a golf cart, a character that has not come under critical scrutiny, can be said to be overconfident *in his own escape plan* (relying on *technology*—the small vehicle), but also to be overconfident in the androids' faculties that he talks about almost euphorically, fatally forgetting the danger. He is a marginal character but an interesting one, embodying what we may call "multiple" or "mixed" (and hence contradictory) hubris. He acts across worlds similarly to *Futureworld*'s Harry Croft, and he is a "losing trickster" of sorts, given that he provides Peter with advice that proves crucial (although the technician does not believe it will work out) but he also ends up being murdered. In *Futureworld*, the robots' perfection is such that it turns into its opposite: human flawedness. Finally, as we have seen, hubris in *Beyond Westworld* is mainly embodied by Dr. Quaid, who regularly succumbs to his adversaries at the end of each episode. But Delos, although its agents triumph, is simultaneously also *losing*. In fact, the whole series is about the aftermath of a large-scale failure. The villain is nothing but an offshoot of Delos itself (he employs the same technology) and the good heroes are intent on containing the damage.

Among the critics whose positions I have outlined and discussed, only two seem to come fairly close to the concept of hubris that I am delineating. Thomas Vargish ("Technology and Impotence in Mary Shelley's Frankenstein") goes so far as to point out that the creatures' limitations are the creator's ones. However, he seems to focus on

material limitations, or material flaws, rather than on epistemic ones. Emphasis is still on the mechanical malfunctions rather than on the epistemic equipment. Or, at best, since he employs the term "ego," he can be considered as emphasizing some kind of psychological or emotional flaw that is transmitted from creator to creature. Despina Kakoudaki ("Affect and Machines in the Media") employs the very term "hubris," but her discussion still falls back on a theological characterization: she refers to humanity as trying to replicate the gods' creation of humanity itself and being punished accordingly. Although the creation of androids (i.e., etymologically, the "ones resembling men/humans") is thematically central in the movies and the series, we cannot say that *all* androids and *exclusively* the androids convey technophobia: there are some nice or good ones (most notably, Clark in *Futureworld*), and dreadful technology is instantiated as well by other inventions, such as the mind-reading device of *Futureworld*. In sum, both Vargish's and Kakoudaki's interpretations significantly advance towards the concept of hubris here proposed but still too sketchily so.

One important implication of the interpretation I am offering is that "technophobia" as Dinello uses it still holds valid as a descriptive, critical/literary category, as well as a psychological one, but it also turns out to be quite imperfect, philosophically speaking, although *not* in the sense that it is revealed to be an irrational fear. In other words, there are good reasons to side with Dinello and appreciate his work, finding that the different examples of technophobia he identifies are well-instantiated. Furthermore, we discover that there *are* very good reasons to feel fear, aversion, and suspicion towards technology. However, fearing technology turns out to be meaningful and justified, or philosophically productive, only if one realizes that the limitations of technology are nothing but the consequence of its creation and usage on behalf of epistemically limited humanity (or artificial minds) and that ultimately the real threat stems from overconfidence in one's capacities to devise a perfect technology, or in technology as disclosing unlimited power and opportunities, or in underestimating the potential threats or negative uses of a particular technology. Feeling technophobia, and identifying a narrative as technophobic is fully useful and pedagogical only if one realizes that technophobia itself is a stepping-stone to understanding the concept of epistemic hubris and avoiding it.

A possible negative consequence of explaining technophobia through hubris the way I am suggesting here is that it yields an utterly gloomy, pessimistic picture of humanity and its actions. Are we supposed to give up entirely on technology—or for that matter, on the very attempt at understanding ourselves and reality? One should be careful not to *over interpret*. Technology (i.e., its development and usage) and hubris are *not* one and the same thing. Fear is *not automatically* and *necessarily* associated with technology, nor is *threat*. Once again, the key to understanding this point is going back to the movies and series. Consider that technophobia is narratively conveyed by showing certain technology-related *circumstances*, not by displaying technology *per se*. To be sure, the narratives as a whole are technophobic, and technophobia characterizes their most thrilling moments, but there are as well moments of genuine amusement and amazement conveyed by the technology they display. Technology and, more generally, knowledge, are also used *effectively* to counter threats and contain damage, including those caused by technology itself. Such is the case of

the knowledge and tools used by Peter to confront the gunslinger (but also, even before the breathtaking "manhunt," of the explosive used to free him from jail), of the rifle used by Tracy against her replica, of the devices used by John Moore to detect Quaid's androids. And let us not forget that androids are used in *Beyond Westworld* to perform dangerous work.

It is thus crucial to go back to, and emphasize, the fourth element of the definition of hubris mentioned above. I am not using Crichton's movie, its sequel, and the series as a propaedeutic to some form of irrationalism, total pessimism, nor am I suggesting some neo-luddite stance of sorts. One should not make a leap from the imperfection of understanding to the uselessness of understanding altogether, nor from the imperfection of technology to the wholesale rejection of technology. Rather, the point is that *understanding comes in degrees* (the more so *scientific* understanding) and the same goes for the effectiveness of the technology that results from the implementation of such understanding. Therefore, hubris should be, even more specifically, seen as the deceitful and deceiving conviction that one has reached, or can ever reach, a sufficient degree of understanding and can rely on it to exert total control; in other words, you don't need to think you are a genius to fall into hubris: it is enough that you think you have enough understanding when you don't. One can still compare stages of understanding (and/or of effectiveness in controlling a specific portion of reality) and go for the best one, but no stage can and should be considered as the ultimate and absolute one. Ultimately, we are justified in thinking that the amusement parks and the androids were well worth being designed and developed! All trouble and threat rather stems from overconfidence in their possibilities, as well as in the creators' ability to keep them under total control. Scientists should well keep striving to understand the human mind and possibly replicate it, including replicas designed for recreational purposes. Or, for that matter, they should strive to understand a malfunction and take the appropriate actions. However, they should also accept that their results are constantly provisional and incomplete, and that their best result, or most general theory, is a model that "predicts unpredictability" as the aforementioned Hoppenstand reminds us in his commentary on *Jurassic Park*.[12]

It is not by accident that I have referred to *Westworld* as a "machine"–a metaphor that we can well extend to the sequel and the series. I have explained that one should not reject wholesale the creation of, and engagement with, machines. In this sense, when one thinks about the critical engagement with the movies at stake, analogous considerations hold valid. Engaging with these narrative machines is perfectly meaningful (and exciting) as an intellectual task as long as we accept that specific concepts that we can come up with to explain them may be as much enlightening and appealing as incomplete, and that the most general interpretation we can reach is, ultimately, that interpretations are always incomplete. In fact, understanding that one can never achieve total understanding may be assumed as a prescription of optimism, a motivator for scientific inquiry, when inquiry itself is regarded as a source of pleasure: if there is no end to investigation, there is no end to pleasure.

A side hypothesis: hubris may also be used to explain the very imperfection of the movies and the series. We may see their blatant shortcomings as the inevitably flawed outcome of the action of an inevitably flawed creator. Perhaps, at least in the case of Crichton's movie, we may even interpret such flaws as *intentionally* produced by the creator himself, and exhibited in full sight, in order to teach the spectators about hubris. Crichton, in this sense, would be similar to an artist who consciously inserts a flaw into a painting or sculpture, or leaves some aspect of a work incomplete in order to make it even more explicit that no human creation is or can ever be perfect, stemming, as it does, from an imperfect mind. In other words, he would have represented hubris in the story while at the same time acknowledging his own as a creator.

In sum, the concept of hubris proposed here allows us to explain the movie's narrative shortcomings as well as the critics' difficulties; I regard this last hypothesis as more worthwhile than any deflationary stance, including the moderate one.

"We don't know exactly how they work." We can now better grasp the philosophical significance of this statement above and beyond its role in the 1973 movie. The utterance of Delos' supervisor applies not only to the technicians and the machines, but to each and every sentient agent trying to grasp and dominate reality, including the very machines intent on pursuing tourists or in taking over the world—but it applies also to us as philosophical critics trying to make sense of the narratives. Taken as philosophical tales, the movie and the series can be seen as analogous to Plato's aporetic dialogues. They end up, and they make the reader end up, in a stalemate, signifying the defeat of reason itself, the author's as well as the reader's, and they convey a Socratic lesson: we ultimately must recognize and accept that we don't know.

Works Cited

All websites referenced here as well as in the endnotes have been checked on April 27, 2018.

Barca, Lacy. 2005. "As múltiplas imagens do cientista no cinema." *Comunicação & Educação* 10.1: 31-39.

Franklin, H. Bruce. 1983. "Don't Look Where We're Going: Visions of the Future in Science-Fiction Films, 1970-82." *Science Fiction Studies* 10.1 (March 1983): 70-80.

Busk, Larry Alan. 2016. "*Westworld*: Ideology, Simulation, Spectacle." *Mediations. Journal of the Marxist Literary Group*, 30.1 (2016): 25-38.

Crichton, Michael. 1973. *Westworld* [original movie script].

Crichton, Michael. 1973b. "Shooting *Westworld*" (October 13, 1973), currently reprinted (with an introduction by Sam Sloan) in *Westworld*, New York & Tokyo: Ishi Press, 2017.

Dinello, Daniel. 2005. *Technophobia! Science Fiction Visions of Posthuman Technology*. Austin: University of Texas Press.

Escudero Pérez, Jimena. 2013. "'More Human Than Human': instrumentalización y sublevación de los sujetos artificiales." *Secuencias*, 38 (2013): 65-89.

Fabozzi, Antonio. 1982. *Il cinema della paura. Orrore e fantascienza nel cinema americano degli anni '70 e '80*. Naples: Liguori Editore.

Fuhse, Jan A. 2008. "*Einleitung: Science Fiction als ästhetisches Versuchslabor der Gesellschaft*." Id. (Ed.) *Technik und Gesellschaft in der Science Fiction*, Berlin: Lit Verlag: 6-18.

Gallardo, Pere. 2000. "Considerations on the Theme Park Model as Short-term Utopia." *Reden. Revista española de estudios norteamericanos*. 19.20: 19-30.

Goldman, Steven L. 1989. "Images of Technology in Popular Films: Discussion and Filmography." *Science, Technology, & Human Values* 14.3 (1989): 275-301.

Höltgen, Stefan. 2009. "Mensch-Maschinen," *Telepolis* (December 30, 2009): https://www.heise.de/tp/features/Mensch-Maschinen-3383872.html.

Hoppenstand, Gary. 1999. "Dinosaur Doctors and Jurassic Geniuses: The Changing Image of the Scientist in the Lost World Adventure." *Studies in Popular Culture* 22.1 (1999): 1-14.

Kakoudaki, Despina. 2000. "Affect and Machines in the Media." *The Oxford Handbook of Affective Computing*. Eds. Rafael A. Calvo, Sidney K. D'Mello, Jonathan Gratch & Arvid Kappas. Oxford: Oxford University Press: 110-128.

Kozlovic, Anton Karl. 2003. "Technophobic Themes in Pre-1990 Computer Films." *Science as Culture* 12-3 (2003): 341-373.

LaGrandeur, Kevin. 2015. "Androids and the Posthuman in Television and Film." In *The Palgrave Handbook of Posthumanism in Film and Television*, 111-119. Edited by Michael Hauskeller, Thomas D. Philbeck and Curtis D. Carbonell. Basingstoke (UK): Palgrave.

Mead, Gerald and Sam Appelbaum. 1975. "*Westworld* Fantasy and Exploitation." *Jump Cut* 7 (1975): 12-13. Version perused: https://www.ejumpcut.org/archive/onlinessays/JC07folder/westworld.html.

Regis, Fátima. 2006. "Os autômatos da ficção científica: reconfigurações da tecnociência e do imaginário tecnológico." *Intexto* 15 (2006): 1-15.

Reiher, Nico. 2009. "Anti-Technological ideas in Michael Crichton's Westworld." [Seminar paper] Grin Verlag.

Robnik, Drehli. 2004. "Allegories of Post-Fordism in 1970s New Hollywood: Countercultural Combat Films, Conspiracy Thrillers as Genre-recycling." In *The Last Great American Picture Show*. Edited by Thomas Elsaesser, Alexander Horwath and Noel King. Amsterdam: Amsterdam University Press. Cited version: https://is.muni.cz/el/1421/jaro2008/FAVz011/Robnik2004_PostfordAllegory.pdf.

Stengler, Erik. 2008. "Michael Crichton y el Techno thriller: de la rebelión de las máquinas al cambio climático." In *¡Ciencia, se rueda!*, 77-91. Edited by Carmen del Puerto Varela and Erik Stengler. Cabildo de Tenerife: Organismo Autónomo de Museos y Centros.

Stengler, Erik. 2015. "Beyond the Techno-thriller: Michael Crichton and Societal Issues in Science and Technology." *Fafnir* 2-3, (2015): 23-30.

http://journal.finfar.org/articles/beyond-the-techno-thriller-michael-crichton-and-societal-issues-in-science-and-technology/.

Telotte, Jay Paul. 1992. "*Westworld*, *Futureworld*, and the World's Obscenity." In *State of the Fantastic: Studies in the Theory and Practice of Fantastic Literature and Film*, 179-188. Edited by Nicholas Ruddick. Westport (Connecticut): Greenwood Press.

Vargish, Thomas. 2009. "Technology and Impotence in Mary Shelley's *Frankenstein*." *War, Literature & The Arts* 21.1-2 (2009): 322-337.

Weingart, Peter, Claudia Muhland, and Petra Pansegrau. 2003. "Of Power Maniacs and Unethical Geniuses: Science and Scientists in Fiction Film." *Public Understanding of Science* 12 (2003). 279-287.

Whitlark, James. 2003. "Horrifying 'Boredom' in Michael Crichton's Fictions." *Journal of the Fantastic in the Arts* 13.3(51), (2003): 226-238.

Filmography

Beyond Westworld. "Westworld Destroyed." Episode 1. Dir. Ted Post. Perf. Jim McMullan, James Wainwright, Judith Chapman. Written by Michael Crichton (creator) and Lou Shaw (developer and writer). Metro-Goldwyn-Mayer, 5 March 1980.

Beyond Westworld. "My Brother's Keeper." Episode 2. Dir. Rod Holcomb. Perf. Jim McMullan, James Wainwright, William Jordan, Connie Sellecca. Written by Michael Crichton (creator), Howard Dimsdale (writer), and Lou Shaw (developer and writer). Metro-Goldwyn-Mayer, 12 March 1980.

Beyond Westworld. "Sound of Terror." Episode 3. Dir. Paul Stanley. Perf. Jim McMullan, James Wainwright, William Jordan, Connie Sellecca. Written by Michael Crichton (creator), Martin Roth (writer), and Lou Shaw (developer). Metro-Goldwyn-Mayer, 19 March 1980.

Beyond Westworld. "The Lion." Episode 4. Dir. Jack Starrett. Perf. Jim McMullan, James Wainwright, William Jordan, Connie Sellecca. Written by Michael Crichton (creator), David Bennett Carren (writer), Martin Roth (writer), and Lou Shaw (developer). Metro-Goldwyn-Mayer, 1980 (unaired).

Beyond Westworld. "Takeover." Episode 5. Dir. Don Weis. Perf. Jim McMullan, James Wainwright, William Jordan, Connie Sellecca. Written by Michael Crichton (creator), Gregory S. Dinallo (story), Gregory S. Dinallo (teleplay), Steve Greenberg (teleplay), Lou Shaw (developer), Aubrey Solomon (teleplay). Metro-Goldwyn-Mayer, 1980 (unaired).

Class of 1999. Dir. Mark L. Lester. Perf. Bradley Gregg, Traci Lind, Malcolm McDowell. Lightning Pictures, Original Pictures, Vestron Pictures, 1990. Film.

Death Race 2000. Dir. Paul Bartel. Perf. David Carradine, Simone Griffeth, Sylvester Stallone. New World Pictures, 1975. Film.

Deathsport. Dir. Roger Corman. Perf. David Carradine, Claudia Jennings, Richard Lynch. New World Pictures, 1978. Film.

Futureworld. Dir. Richard T. Heffron. Perf. Peter Fonda, Blythe Danner. American International Pictures, 1976. Film.

Jurassic Park. Dir. Steven Spielberg. Perf. Sam Neill, Laura Dern, Jeff Goldblum. Universal Pictures, Amblin Entertainment, 1993. Film.

Jurassic World. Dir. Colin Trevorrow. Perf. Chris Pratt, Bryce Dallas Howard, Ty Simpkins. Universal Pictures, Amblin Entertainment, Legendary Entertainment, 2015. Film.

The Magnificent Seven. Dir. John Sturges. Perf. Yul Brynner, Steve McQueen, Charles Bronson. The Mirisch Company, The Alpha Productions1960. Film.

On Location with Westworld. Dir. Michael Crichton. Perf. Richard Benjamin, Yul Brynner, Michael Crichton. CRM Productions, 1973. Promotional short film.

RoboCop. Dir. Paul Verhoeven. Perf. Peter Weller, Nancy Allen, Dan O'Herlihy. Orion Pictures, 1987. Film.

Rollerball. Dir. Norman Jewison. Perf. James Caan, John Houseman, Maud Adams, John Beck.United Artists, 1975. Film.

SexWorld. Dir. Anthony Spinelli. Perf. Lesllie Bovee, Kent Hall, Kay Parker. Essex Pictures Company, 1978. Film.

The Terminator. Dir. James Cameron. Perf. Arnold Schwarzenegger, Linda Hamilton. Hemdale, 1984. Film.

Total Recall. Dir. Paul Verhoeven. Perf. Arnold Schwarzenegger, Sharon Stone, Michael Ironside. Carolco Pictures, Carolco International N.V., 1990. Film.

Westworld. Dir. Michael Crichton. Perf. Yul Brynner, Richard Benjamin, James Brolin. Metro-Goldwyn-Mayer, 1973. Film.

Notes

[1] The gunslinger is interpreted by Yul Brynner (1920-1985) mimicking his own interpretation of a gunslinger in *The Magnificent Seven* (1960).

[2] Interestingly, *Westworld* was parodied in a 1978 pornographic movie, Anthony Spinelli's *SexWorld*. *Futureworld* briefly displays a male sex robot as well. The sexual usage of robots of both genders and both in heterosexual and homosexual interaction is widely explored and represented in the HBO series.

[3] Cf. Crichton 2017 as well as the promotional piece "On Location with *Westworld*" (1973); currently available online: https://www.youtube.com/watch?v=NfKbqB5a-8E).

[4] The archetype of the irresponsible/overenthusiastic resort owner, concerned only with budgetary and marketing issues, will be later embodied by the millionaire John Hammond in *Jurassic Park* as well as by Simon Masrani in Colin Trevorrow's *Jurassic World* (2015), the fourth installment of the *Jurassic Park* series. The archetype of an evil, unscrupulous, profit-driven *corporation* steering a robotic being—a cyborg—is most notably explored in Paul Verhoeven's 1987 movie *RoboCop*, as well as in its sequels and in the related series.

[5] To be sure, one may well say, following such suggestion, "all the worse for Dinello's concept of technophobia." Here the problem, however, is not whether we can ultimately rescue Dinello's category; the problem is that an explanation of *Westworld* that identifies the movie's possible moral teaching while leaving uncovered the most visible element of the movie itself (technology) is hardly convincing.

[6] Another discussion of this kind is Fuhse 2008.

[7] Dinello himself identifies "technology as a virus" as one of his technophobic macro-categories (Dinello 2005, 246 ff.).

[8] This expedient is also present in another well-known cyborg movie, Mark L. Lester's *Class of 1999* (1990). In all likelihood, the same final destruction of the cyborg in a press at the end of *The Terminator* is reminiscent of such archetype.

[9] *Westworld* was the first movie to use digitalized images (the gunslinger's point of view). It is also mentioned as being (among) the first example(s) of reference to computer viruses. *Futureworld* was the first movie showing 3D computer-generated images.

[10] In fact, the concept of hubris changed in ancient Greece over time, shifting from the meaning of a violent and humiliating act (cf. Aristotle, *Rhetoric* 1378b) to the meaning I am using in this essay, exemplified by the myth of Icarus as well as by a wealth of tragic/mythological characters.

[11] One may object that this makes for *two* intertwined kinds of hubris: the overestimation of one's capacity to understand reality and the overestimation of one's impact on reality based on such understanding. In other words: having a false/incomplete model of oneself, and having a false/incomplete model of reality resulting from the former. I conflate them in the same term in order to avoid cluttering the discussion.

[12] Hoppenstand writes about the "prediction of unpredictability" in reference to the "theory of chaos" discussed and represented in *Jurassic Park*. The present one is not a paper about Crichton's overall *Weltanschauung* and how it developed over time; however, since we are extensively touching upon his inventions and imagery, and since *Westworld* and *Jurassic Park* bear strong, mutual resemblances, we cannot fail to briefly discuss such a concept. The "chaos theory" is a branch of mathematics that Crichton narratively popularizes and proposes as a philosophical interpretation of reality as a whole (or, at least, of *Jurassic Park*'s reality). Following the suggestions offered so far, Crichton's emphasis on, and narrative experimentation with, the concept of "chaos" looks like the engagement, on his behalf, with a specific facet of the problems posed by hubris as discussed in these pages. In other words, "chaos" is nothing else but the objective counterpart of (the humans') subjective epistemic limitations. Humans detect "chaos" as a result of their limited capacities, and they incur great risks whenever they ignore it. "Chaos" is just one manifestation of humans' limitations that they face when they are engaged in a highly sophisticated techno-scientific enterprise (e.g., cloning dinosaurs and keeping them under control). However, it is just the result of shortcomings that, more in general, also affect humans operating at other, "lower" levels of (intellectual and control-aimed) activity, as much as it affects other sentient beings including androids and dinosaurs.