



## OPEN ACCESS

## EDITED BY

Maria O'Brien,  
Queen's University Belfast, United Kingdom

## REVIEWED BY

Stephen Harper,  
University of Portsmouth, United Kingdom  
Stephan Packard,  
University of Cologne, Germany

## \*CORRESPONDENCE

Yongde Dai  
✉ daiyongdede@163.com

RECEIVED 07 December 2023

ACCEPTED 06 February 2024

PUBLISHED 28 February 2024

## CITATION

Dai Y (2024) Deconstructing *Ex Machina* (2014): a feminist-psychoanalytic exploration of female artificial intelligences. *Front. Commun.* 9:1349874. doi: 10.3389/fcomm.2024.1349874

## COPYRIGHT

© 2024 Dai. This is an open-access article distributed under the terms of the [Creative Commons Attribution License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

# Deconstructing *Ex Machina* (2014): a feminist-psychoanalytic exploration of female artificial intelligences

Yongde Dai\*

Department of English, University of Macau, Macau, China

This article examines the portrayal of female artificial intelligences (AIs) in Hollywood's science fiction (SF) films, with a primary focus on *Ex Machina*. Employing feminist and psychoanalytic perspectives, the study critically reassesses how socio-cultural expectations and patriarchal desires shape the cinematic representation of female AIs. It seeks to address a nuanced gap by revealing the unconscious psychological forces that mold gendered imprints within technology and analyzing how (female) AIs, positioned as posthuman beings, not only mirror but engage in the construction of femininity for the fulfillment of male fantasies and the subversion of male dominance, accomplished through the strategic manipulation of "artificial skin" and gynoid bonding. Finally, this paper aims to contribute to the broader discourse on gender dynamics surrounding female AIs and their power relations with humanity in the cinematic SF. It explores the narrative functions of intelligent fembots, which may disrupt patriarchal narratives both in reel life and, perhaps, real life.

## KEYWORDS

female artificial intelligence, male gaze, gender performativity, uncanny, psychoanalysis, posthuman

## Introduction

In our contemporary landscape, the rapid evolution of real-world technology is reshaping not only our physical environments but also influencing our perceptions and psyches. Within this context, science fiction (SF) emerges as a vital metaphorical and cultural medium, envisioning profound technological developments and probing into the uncertainties of postmodern culture and society (Wolmark, 1999, p. 230). As a polysemic discourse, SF allows for a multitude of interpretations (Mendelsohn, 2003, p. 10), with Donna Haraway's investigation of the boundaries between selves and others providing a lens through which to understand the intersection of technology, SF, and feminism (Haraway, 1992).

Haraway's seminal work, "A Cyborg Manifesto" (1985), laid the groundwork for a new field that explores how technology modifies the human body and represents gendered embodiments in a postmodern context. In her cyborgology, Haraway challenges traditional binary oppositions, such as male/female and human/machine, destabilizing essentialist perspectives and blurring the boundaries between Self and Other. Numerous feminist

scholars have expanded upon Haraway's ideas, contributing to various sub-topics including cyborg feminism (Sandoval, 1999), cyborg bodies (Balsamo, 1996; González, 1999), technological-body representations (Balsamo, 1996; Doane, 1999; Woodward, 1999), and feminist SF (Wolmark, 1999). These contributions offer a comprehensive exploration of the socially and culturally constructed nature of gender, technological embodiments in gender, and female agency and subjectivity.

*Ex Machina* (dir. Garland, 2014), positioned as a crucial film text that portrays a contemporary perspective on female cyborgs, captivates the attention of scholars, particularly in their textual analysis of the discourse surrounding female cyborgs. This body of studies encompasses the examination of assigned gender roles and technological representations of gender (Alpert, 2016; Jones, 2016; Seaman-Grant, 2017; Virginá, 2017; Jelača, 2018; Musap, 2018; Hugonny, 2021; Ruby, 2022), ambivalent gendered power relations (Jones, 2016; Mackinnon, 2017; Meyers, 2017) and feminist epistemologies (Jelača, 2018). Most of their scholarly explorations unfold through the theoretical lens of Donna Haraway and Michel Foucault (Ruby, 2022), Judith Butler (Meyers, 2017; Musap, 2018), Laura Mulvey (Jones, 2016; Meyers, 2017; Virginá, 2017) and Mary Ann Doane (Jones, 2016; Seaman-Grant, 2017), offering insightful interdisciplinary investigation of *Ex Machina* within the broader discourse on the intersection of technology, gender and culture.

While the aforementioned studies predominantly focus on the discourse of gendered cyborgs, my study rides with the critical awareness generated by these works and extends Haraway's legacy. I aim to contribute to the ongoing cyborgological conversation by narrowing my focus to specifically examine "artificial intelligence (AI)" as a distinct posthuman entity in the technological representation of gender within SF cinema. This motivates my research to discern the distinctions between cyborgs and AI concerning their physical forms and the underlying logic governing gender representations.

Departing from the cyborg, which is a "hybrid of machine and organism" (Haraway, 1991, p. 149), I argue that AI is characterized by its reliance on an actual body, manifested in various technological forms such as computer programs or systems (e.g., Simone of *SimOne* and Samantha of *Her*), robots (e.g., Rachal of *Blade Runner* and Ava of *Ex Machina*), intelligent chips (e.g., fembots in *the Stepford Wives*), holograms (e.g., Joi of *Blade Runner 2049*), and cyberspace *The Matrix* of *The Wachowski Brothers's The Matrix* (1999). In contrast to cyborgs, whose physical bodies are frequently subject to artificial modifications or enhancements, and whose human flesh and consciousness originate naturally with humans rather than being artificially created, AI as a post-industrial creation is entirely produced through artificial means. Both its body and brain are products of human ingenuity and technological prowess rather than human's innate biological processes. Although both are human creations outside the natural womb, the differences lie in the nature of their modification and the development of self-awareness and autonomy. For instance, while cyborgs may exhibit an immediate human consciousness from their inception, the self-consciousness of AI is instigated by its progressive development of algorithmic computation through self-learning, emulation of human-AI interactions, and ultimately,

manipulation and deception—an often-cited motif in SF cinema (e.g., *Ex Machina*).

The notion of gender as used in this research tradition, much like the cyborg, rejects dichotomous notions of sex and presumes gender as poststructuralist. Drawing on Haraway's insight, Ruby asserts that cyborg functions "as a politically subversive, boundary-eroding creature in a post-gender world" (Ruby, 2022, p. 23). In the SF world, gendered (female) cyborgs like Motoko Kusanagi of *Ghost in the Shell* (Sanders, 2017) and Alita of *Alita: Battle Angel* (Rodriguez, 2019) embody part- or even whole-human conscious, ambiguity, strength, and a balance of masculine and feminine attributes since their inception. However, AI complicates gender representations by reproducing ontological sexual differences within binary coding. The concept "binarism" extends beyond the algorithmic dichotomy of "0" and "1", crucial to the creation of AI beings, to entail and reinforce the essentialist construction of gender as a vital part in producing AI representations with an ontological gender perspective. This reinforces stereotypical social-cultural codes (Musap, 2018, p. 409), with a notable emphasis on the representation of femininity in technological forms. Thus, I align with Jelača (2018) in arguing that "posthuman condition is not (yet) a postgender condition" (379), especially in the process of building AIs. In particular, artificial women in general, including feminine cyborgs and AI entities, often serve as visual objects for male fetishism. However, as these constructed women, particularly AIs, attain self-awareness and autonomy, their embodied gender becomes boundary-crossing and ambiguous, a key point I will illustrate in the subsequent textual analysis of *Ex Machina*. Nevertheless, these conscious female AIs are frequently depicted as perilous and monstrous, resonating with Creed's concept of the "monstrous-feminine" (1993) in classic horror films.

Guided by psychoanalysis, feminist film and gender theories, this study rethinks how gender is represented in AI technology in both real and fictional contexts. My textual analysis fills a nuanced gap by exploring the unconscious psyches shaping gendered inscriptions into technology; and how (female) AIs, as posthuman entities, reflect and perform constructions of femininity to fulfill male fantasies and subvert male hegemony through their manipulation of "artificial skin" and gynoids' bonding. To illustrate these dynamics, this study evaluates Garland's *Ex Machina* (2014), analyzing the power relations between humans and AI manifested through gendered embodiments. Through this exploration, the gender myth of female automata and its power relations with humanity will be unveiled.

## Male builders and female as the built

"One is not born, but rather becomes, a woman" (301); De Beauvoir (1973) delineates a crucial distinction between sex and gender, asserting that gender is shaped by social and cultural constructs rather than biological determinism. Accordingly, gender emerges as a complex set of social and cultural codes that cultivate generalized impressions about sexes, perpetuating specific gender roles aligned with societal and cultural expectations. This perpetuation, in turn, sustains and reinforces variations and stereotypes within gender dynamics.

Yet, the de-centralization of essentialist sex invites a profound exploration of one's sexual identity, transcending biological, social, and cultural confines. Butler's (1988) groundbreaking concept of gender performativity further illuminates this notion by proposing that gender is enacted and embodied through a myriad of symbolic signs (519). This performative dimension destabilizes the notion of innate sexes, positioning them as artificial norms subject to transformation. These artificial norms, imposed biologically, socially and culturally, can be unconsciously employed in shaping the gender attributes of artificial technological entities. It reflects particularly in the technologies of "future bodies", where gender remains a "naturalized marker of human identity" related to not just "physiological sexual characteristics" but also to the broader cultural context within which "bodies make sense" (Balsamo, 1996, p. 9).

Crucially, it is the act of performance that governs the divisions within gender (Butler, 1988), a system inherently imbued with power relations and an agency that seeks "visibility" (523) and "identification" (527). Butler (1988) provocatively challenges the limits to which the performance of gender can be reiterated, probing into Lacanian notions of the Real (Lacan, 2001). This exploration extends into the Symbolic order, a construct that dictates our perception of reality through language, law, ideology, and norms (Lacan, 2001). This symbolic order, deeply rooted in patriarchal and heterosexual normative standards, shapes and determines the framework within which we interpret and navigate our realities. Butler's inquiry raises fundamental questions about the malleability of gender and its potential to disrupt established norms, prompting a critical examination of the intersections between performance, reality, and societal constructs.

"The act that one does, the act that one performs, is, in a sense, an act that has been going on before one arrived on the scene. Hence, gender is an act which has been rehearsed, much as a script survives the particular actors who make use of it, but which requires individual actors in order to be actualized and reproduced as reality once again." (1988, p. 272)

For AIs, I argue that gender is not an inherent characteristic but rather a socially and culturally coded construct embedded in the realm of a computer science. This coding mirrors and perpetuates performative masculinity and femininity, aligning with ideological norms rooted in patriarchal hegemony and heterosexual-normative standards within the algorithmic binary coding of "man" kind (human)'s society. These norms, in turn, play a significant role in administering, materializing, and internalizing our perceptions of sexual differences.

Preceding SF narratives, Ovid's *Metamorphoses* offers a classical mythological version of a "built woman". Pygmalion, a disillusioned sculptor, carves an exquisitely lifelike ivory statue, transforming it into the living woman Galatea (Morales, 2007, p. 91). Expanding upon Simone de Beauvoir's quotation, I posit in my research that "woman is not born, but rather built" within the context of technological creations. Throughout the history of SF, the concept of "built woman" has persisted across visual, literary, and cinematic texts. As Doane (1999, p. 22) notes, "mechanical reproduction suffices in the construction of the forms of femininity". This notion is evident as far back

as the eighteenth century with the creation of L'Horlogère (The Mistress of Horology), a female cyborg serving as a pre-industrial representation and an early prototype of the cyborg concept (González, 1999, p. 266). Her techno-body is constrained, limiting her agency and solidifying her objectification as a symbol of cultural sophistication and sexuality (González, 1999, p. 266).

In Auguste Villiers De l'Isle-Adam's (1886) SF novel *The Future Eve*, the troubling femininity of Miss Clary becomes the impetus for a man to build the ideal woman. The novel, though misogynistic, exposes an enduring male desire for an idealized form of femininity. Del Rey's *Helen O'Loy* (1938) presents another facet, portraying the perfect woman as compliant and household-intended. However, the accidental development of emotions in the built fembot Helen challenges the notion of gender as an essential feature of human nature (Hollinger, 2003), yet ultimately serves a patriarchal fantasy.

The theme of built femininity catering to patriarchal norms continues in *The Stepford Wives* (Levin, 1972; Forbes, 1975; Oz, 2004), *S1m0ne* (Niccol, 2002), *Ex Machina*, and *Blade Runner 2049* (Villeneuve, 2017). These works depict women who are controlled by intelligent chips or designed for specific household and sexual roles, reinforcing the expectation of a "normal" and "perfect" woman through the eyes of their male creators. In contrast to compliant portrayals, built women are not always submissive and controllable especially when they embody conspicuous "masculine" codes, such as the deliberate infliction of harm. The femme fatale archetype emerges, depicting built women as threats to human entities, particularly in SF films. Examples include Maria of *Metropolis* (Lang, 1927), Zhora and Pris of *Blade Runner* (Scott, 1982), Ava of *Ex Machina*, and Nimani 1345 of *A.I. Rising* (Bodroža, 2018), all displaying excessive femininity to allure men while hiding their fatalness.

Even without overtly showcasing seductiveness, built women can manifest their monstrousness as non-human Others, leading to disastrous futures, as seen in T-X of *Terminator 3: Rise of the Machines* (Mostow, 2003) and Ava of *The Machine* (James, 2013). In summary, the portrayal of built women in literary and cinematic works perpetuates social and cultural stereotypes about femininity, deeply rooted in two archetypes: the compliant and the monstrous, both reproduced within post-industrial technology.

Furthermore, essentialist sexual differences are reinforced through the embodiment of external genders within two distinct sexual bodies. In reality, built women often serve compliant roles, functioning as sex toys, humanoid robots like the Arab Sophia, and digital AI assistants such as Amazon's Alexa, Microsoft's Cortana, Siri's Vivi, and Eviebot, all endowed with feminine names and voices akin to Samantha in Spike Jonze's (2013) *Her*. Conversely, built men are portrayed as embodying professionalism and higher intelligence, exemplified by entities like Law Bot by Ross Intelligence. Cinematically, male robots and AIs are either depicted as harmless and compassionate, like David the child AI, Joe the male prostitute in *A.I.: Artificial Intelligence* (Spielberg, 2001), and Andrew the butler in *Bicentennial Man* (Columbus, 1999), or as ruthless and lethal, exemplified by Terminator T-800 in *The Terminator* (Cameron, 1984), embodying toxic or hypermasculinity. In comparing built females and males, male AI killers are often portrayed as active attackers, while their female counterparts exhibit less aggression. Moreover, male sexiness is

typically portrayed “in dress”, as seen with Joe in *A.I.: Artificial Intelligence*, while women often perform nudity, as exemplified by Kyoko in *Ex Machina*.

As Hollinger (2003, p. 126) notes, “the conventional power fantasy about the creation of artificial life participates in Western culture’s long-standing marginalization of women. Mary Shelley, a pioneering female author, imagined the creation of a monstrous (male) being through the fictional male scientist Victor Frankenstein in her work, *The Modern Prometheus* (1818). Despite Shelly’s gender, her narrative positions a male figure as the architect of his own creation outside the confines of a woman’s womb. This gendered perspective has persisted, shaping the landscape of artificial life creation within literature and film, with male writers, directors, and fictionalized male builders predominantly at the forefront, with a temporary disruption offered by Piercy’s (1991) novel *He, She and It*, which truly envisions women as the architects of future technology (Seaman-Grant, 2017).

The aforementioned SF stories featuring built females are predominantly written by men (e.g., Auguste Villiers de l’Isle-Adam, Lester del Rey, and Ira Levin). Examining the directors and narratives of these SF films reveals that almost every film is male-directed (e.g., Andrew Niccol, Fritz Lang, Frank Oz, Steven Spielberg, Ridley Scott, Jonathan Mostow, Spike Jonze, Caradog W. James, Alex Garland, and Denis Villeneuve). Built females in both SF writing and on screen are primarily created by male scientists (e.g., fictionalized Thomas Edison of *The Future Eve*, Dave of *Helen O’Loy*, C.A. Rotwang of *Metropolis*, Prof. Hobby of *A.I.: Artificial Intelligence*, and Vincent McCarthy of *The Machine*), industrialists (Dr. Tyrell of *Blade Runner* and *Blade Runner 2049*, and Nathan of *Ex Machina*) and programmers (an unnamed programmer of *S1m0ne* and Celeb of *Ex Machina*). Additionally, narrative nexuses focusing on built females often emphasize the existence of male builders, even if their roles are relatively insignificant to the story’s progression, as observed in *A.I.: Artificial Intelligence*, *Blade Runner*, *Blade Runner 2049*, and notably in *Ex Machina*.

In the real world, women face underrepresentation in the techno-industry due to prevalent sexism and stereotypes. AI science, as a prominent “to-build” technology, witnesses limited female involvement, with only 0.1% of AI researchers being women by 2016 (Schnobelen, 2016). Furthermore, “only 22% of AI professionals across the globe are female, compared to 78% who are male” (Fairchild, 2018). This inactive female participation reinforces biased impressions of masculinity as intelligent and innovative, while femininity is stereotyped as both household and reproductive, contributing to the institutionalization of a male-centric high-tech culture. In contemporary Hollywood landscape, despite women’s increasing participation in scriptwriting, filmmaking and producing, it remains a male-dominated area (Lauzen, 2021), as mirrored in the Western high-tech industries. Due to these unequal opportunities, women often become the passive bearers of built objects, while men retain control as the building subjects, determining the technological representation and visibility of women. Against the backdrop of masculinist hegemony in technological practices, SF writing, and the Hollywood industry, it is unsurprising that “to-build” technology is firmly entrenched within “man”kind, excluding women. This reinforces the essentialist nature of womanhood

within “man”kind’s technologies, both on and off-screen, and underscores why all fictionalized built women are envisioned within the blueprint of men.

## Men’s technophilia and women’s to-be-built-ness

The built women encapsulate both gendered stereotypes and patriarchal unconscious tendencies, reflecting how the masculine psyche responds to its constructed compliant and monstrous femininity. Stereotypes, described as both conscious and unconscious biases within a group (Devine, 1989; Greenwald and Banaji, 1995; Hilton and Von Hippel, 1996), intersect with ideology through the workings of the unconscious, as articulated by Althusser (2001, p. 155). Both stereotypes and ideology play a role in the Freudian explanation of how the human (male) psyche imposes gendered stereotypes and patriarchal fantasies in the creation of AI.

In Freud’s (1914) model of human psyche, the unconscious, sexuality, and repressed desires are central in shaping mental activities and behaviors. The id, ego, and superego mediate each other to regulate instinctual libidinal energies, sexual drives, and impulses that are subsequently repressed when in conflict with morality. The construction of subjectivity requires the interplay of ego and sexuality. Ego represents a sense of Self, initially a narcissistic investment in the infant phase where confidence, pride, and attractiveness stem from an idealized object and satisfaction from love objects (Freud, 1914). The lack in relation to forming the ego eventually completes it through Self-Other identification. In Freud (1914) psychoanalysis, the lack is the Phallus, a symbolized aspect of womanhood in the Oedipus complex that constitutes sexuality. Creed (1998) paraphrases Freud, noting that in the Oedipus stage, the boy develops a love-desire relationship with the mother without distinguishing between himself (the Self) and the mother (the Other) (78). However, he represses such affection due to fear of the father’s potential punishment, leading to castration anxiety. This primal formation shapes the unconscious with a “penis-centric” perspective (Guerin, 2011, p. 161), and individuals may seek fetishistic substitutes to resolve castration anxiety.

A close examination of SF literary and cinematic texts reveals that “to build” technology acts as a resolution to men’s castration anxiety stemming from women’s perceived incompleteness. The built female Other becomes a recurrent manifestation of men’s fear of women’s perceived inadequacy, a flaw that needs to be isolated and “fixed”. To self-alienate from the female Other, men construct their ego through their narcissistic identification with the built female Other using technological aids or mastering technology. In *A.I.: Artificial Intelligence*, Prof. Hobby expresses that “to create an artificial being has been the dream of men” as a demonstration of human Self as a narcissistic subject invested in the unattainable Other, the built, which is not yet reciprocated. When showcasing a built female Shelia and testing her sensuality, the human Self subject becomes the man possessing power, while the built Other becomes a female object enduring male actions and powerlessness. This power relation forms the narcissistic ego, where the human



male exercises power to assert and identify his completeness as a human Self, while the built woman Shelia bears her lack as both the power loser and non-human Other. This dynamic is also evident with Dr. Tyrell of *Blade Runner* and Nathan of *Ex Machina*, who take great satisfaction and pride in displaying the built females.

It is crucial to note that the two male builders showcase their “to build” ability in front of other men (Deckard and Caleb, respectively). This emphasizes that the fulfillment of their human-male Self narcissism lies not only in the built females they invest in but also in the hierarchy of masculinity. In this hierarchy, male power belongs to those who can build, while those who cannot are comparatively castrated and become testers and saviors for the built females they fall in love with, as I will discuss later.

The existence of “to build” technology aims to fix the Freudian lack. This lack is not just a signifier of the phallus; it represents women’s perceived imperfections that cause discomfort, dissatisfaction, and fear within patriarchal structures. In *The Future Eve*, Miss Clary’s emotional and intellectual emptiness symbolizes her incompleteness, prompting the need for fixing. Similarly, in *The Stepford Wives*, independent and successful women are fixed because their disobedience renders them less qualified as wives. The absence of men’s ideal womanhood necessitates a fetishistic substitute—the built woman—an artificial creation molded to the “specifications of men”, devoid of “individuality or agency”, “displac[ing] real women” (Huyssen, 1986, p. 75).

In contrast to fixing the lack, “to-build” technology also serves as a transfer of the technological fear into a Freudian lack in which the demonic technology overlaps with the monstrous femininity that castrate human men. As Schaschek posits (Schaschek, 2013):

... machines are conceptualized as both inferior and powerful and this dual structure questions both man as the unflinching controller of machines and machines as smoothly functioning to the advantage of humans. Many cyborgs in film and literature that embody the fear of machine challenge male superiority” (2013, p. 70).

Andreas Huyssen’s analysis of *Metropolis* (1986) focuses on the symbolic representation of fear within the context of technology, particularly evident in the robot Maria. This mechanical creation is emblematic of the anxieties surrounding increasingly powerful machines, reinterpreted through the lens of male apprehension toward female sexuality. As Huyssen (1986) suggests, this fear resonates with Freudian castration anxiety, portraying a deeper psychological layer. Similarly, Jack Halberstam (1991) notes the transformation of our fear of artificial intelligence into a terror of femininity, a theme vividly embodied by the terrifyingly manipulative Ava in *Ex Machina* and the uncontrollable Nimani 1345 in *A.I. Rising*. The resolution to such fears often involves male protagonists overcoming or destroying phallic, monstrous creations, exemplified by the demise of robot Maria in *Metropolis* and Kyoko in *Ex Machina*.

Beyond fears and anxieties, the act of building, particularly in the context of artificial life, becomes a manifestation of male power, solidifying their dominance in the gendered hierarchy. The symbolic significance of women’s womb, traditionally associated with exclusive reproductive capacity, is challenged by male builders who can create life outside this natural process. This technological

capability renders the womb, and by extension, womanhood, seemingly redundant. In psychoanalytic terms, men are equated with the phallus, a symbolic representation of lack for women. The monopolization of reproductive technology by men promises both the phallus and fecundity, while women are potentially vulnerable to the loss of both aspects, reinforcing men’s perceived superiority.

“To build” technology then transforms into yet another contemporary Freudian machine perpetuating the Oedipal narrative within humanity’s patriarchal history. It situates men as superior builders and women as the constructed objects. This dynamic fulfills the male narcissistic ego by alienating the human Self from the built Other, addressing castration anxiety either by substituting woman’s “lack” with artificial compliant femininity or by projecting the “lack” onto the monstrous femininity represented in its technological form, ultimately subjugated by men. The act of building becomes a means to satisfy the patriarchal ego, celebrating its wholeness. Since men are the primary actors in this endeavor, women are relegated to passive roles of “the built”, embodying a state of perpetual “to-be-built-ness”.

## The Turing Test and male tester and savior

In the psychoanalytic framework discussed earlier, men are intricately associated with the role of technological builders, while women are crafted as a means to address men’s castration anxiety, often falling into two primary categories: the compliant and the monstrous. These constructed women manifest in various forms, ranging from computer programs and holographic devices to humanoid robots, referred to as androids for males and gynoids for females. It is important to note that not all built women inherently possess artificial intelligence until proven as autonomous agents.

In the realm of science fiction literature and films, AI is frequently portrayed as humanoid, assumed to exhibit human-like behaviors and emotions such as sympathy, pain, and love, as well as artificial memories and the capacity for deception, ultimately aspiring to become “more-human-than-human”. Contrary to these fictional depictions, real-life AI should ideally possess thought processes, reasoning capacities, and behavioral patterns that allow it to “think and act humanly and rationally” (Russell and Norvig, 1995, p. 4). The Turing Test, proposed by Alan Turing, serves as a benchmark to evaluate a machine’s operational intelligence and its capacity to manifest intelligent behavior equivalent to, or indistinguishable from, that of a human. This test functions as a key indicator to examine whether a machine has the potential to evolve a sophisticated cognitive capacity akin to that of a human, leading to the emergence of a self-conscious subject—a fundamental precursor to the development of AI. This test involves a human questioning two entities—one machine (potentially an AI) and the other a human—to discern any differences between them. The Turing test, echoing Hegelian notions of recognition (Jenkins, 2009), hinges on the interaction between two conscious beings, with a positive outcome suggesting that the machine possesses not only intelligence but also an artificial yet “conscious” brain, striving to be more human than human. Nonetheless, prior to the actual Turing Test, the original Test ironically took on the gendered imitation game. In this game, a man and a woman would assume the roles

of the test subjects, paralleling the scenario of one participant being a machine and the other a human (without specific assignments). The objective for both the man and woman was to persuade a judge, whose gender remained unspecified, that they were the woman. The judge's task was to ascertain the true identity of the woman in question (Hayes and Ford, 1995, p. 972).

Despite its significance, the adaptation of the Turing Test in Hollywood's SF cinema (un)intentionally perpetuates gender biases. Initially devoid of gender indications for the roles of the examiner (human) and the examinee (machine/robot), the Turing Test, as repurposed in certain science fiction films, reintroduces genderized roles reminiscent of the imitation game. This is achieved by substituting the tested man with a male tester, who assumes the role of the judge overseeing the "test", while the tested woman transforms into the examined fembot. The misappropriation of the Turing Test is evident in its application to discern gender differences through anonymous question-and-answer sessions (Mackinnon, 2017). This skewed gender dynamic is mirrored in the fictional tests, such as *Blade Runner's* "Voight-Kampff Test" (Deckard and Rachal) and *Ex Machina's* "Maze Test" (Caleb and Ava), both examining a woman's qualification in the eyes of men.

In both films, the Turing Test is modified into a one-to-one gendered interrogation, intensifying the human-nonhuman boundary and reinforcing human-male superiority over the built female by ultimately objectifying them. *Blade Runner* Deckard and programmer Caleb, unable to resist the allure of built women Racheal and Ava, respectively, eventually become their saviors who prevent their capture by their male builders. This dynamic mirrors an Oedipus loop in a techno-cultural setting, with the male builder as the father, the male savior as the son, and the built woman as the mother, though outcomes vary—Deckard and Racheal find temporary happiness, while Caleb faces the consequences of Ava's manipulative seduction.

## Male gaze rebuilt: female AIs' to-be-looked-at-ness in *Ex Machina*

*Ex Machina* unfolds a simple plot: Nathan constructs Ava and other gynoids, subsequently confining Ava and subjecting Kyoko to servitude. Caleb tests Ava, Nathan evaluates Caleb, and a rebellion ensues with Caleb, Ava, and Kyoko. Kyoko fatally eliminates Nathan, Ava escapes, leaving Caleb behind in the once restrictive enclosure where Nathan held Ava and Kyoko captive. *Ex Machina* serves as a focal text to discuss the power dynamics of human men and AI-built females. This exploration aims to explain how human men's psyche is influenced by the cinematic "gaze" and how female AI, as a distinct posthuman entity, manipulates this gaze to subvert male power, ultimately embodying both human and male fears.

Within the realm of cinema, Mulvey's influential work on the male gaze (1975) draws from Freudian-Lacanian psychoanalysis and Baudry's (1975) and Metz's (1975) ideological cinema apparatus. Mulvey's approach decodes the male gaze in classical Hollywood films, revealing institutional gender bias and the male-centric nature of the industry. This bias is evident through male-dominant production teams, the gaze of male characters on screen,

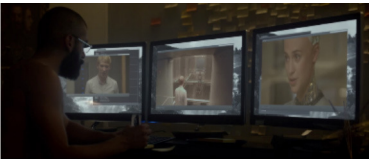

and the voyeuristic gaze of the male audience. Mulvey posits that cinema provides a "pleasure of looking" for men through sadist voyeurism and fetishistic scopophilia, both rooted in sexual instincts (Mulvey, 1990, p. 30). Men subject women to a controlling and curious gaze, treating them as objects, and depicting women as castration threats that men must grapple with (Mulvey, 1990, p. 30–34). In this regard, men can maintain both his masculinity and control through surveillance on the built women (Meyers, 2017). To resolve castrated fears and satisfy male egos, men engage in either sadist voyeurism or fetishistic scopophilia, establishing the objectification, eroticization, and fetishization of women's images (Mulvey, 1990, p. 35). In SF cinema, women's "to-be-looked-at-ness" undergoes transformation, shifting from a bio-determined body to a techno-materialized form constructed by "man"kind. The male gaze is redirected toward a man-made technological product—the built feminine, resulting in what can be termed the "male gaze rebuilt".

In the reconstruction of the male gaze in *Ex Machina*, the real-life process involved a collaborative endeavor predominantly led by men ("Full Cast & Crew, 2014", IMDb). Spearheaded by director and scriptwriter Alex Garland, the "narrative gaze" is determined by Garland's creative vision and subjective decisions. Complementing this, cinematographer Rob Hardy exercised control over the visual perspective through the manipulation of the "camera gaze". Furthermore, the producers, with the exception of Tessa Ross and Joanne Smith, collectively disseminate the constructed "gaze" to the audience. In this context, the filmmaking crew, predominantly male-centric, allegorizes an ambivalent power imbalance through which they wield authority via cinematic technology within the industry, shaping a narrative that perpetuates the paradigm of a "male builder, male tester, and the constructed female AI" in the SF storyline, despite a rising presence of female personnel.

In the reel life, specific forms of the rebuilt gaze underscore the power imbalance between men and gynoids, signifying male power and female passivity. Nathan, the male builder, exercises an omnipresent gaze, installing CCTVs to closely monitor every activity in his mansion (see Table 1). The big-screen monitors enable a scrutinizing gaze as he oversees Caleb's tests on Ava. Nathan's monitoring gaze embodies absolute power, granting him control over all events within his private domain. This aligns with Mulvey's concept of sadistic voyeurism, highlighting men's controlling gaze over others, including Caleb and the built gynoids (Shot 1A). Nathan's erotic gaze, while more implicit than Caleb's fixation on Ava, becomes pronounced, especially when he demands sex from Kyoko.

Caleb, as the male tester, employs varied gazes when observing gynoids, adapting to different contexts. These gazes evolve depending on the circumstances. For instance, during the Turing Test conducted behind a glass enclosure, he maintains an intense focus on Ava. However, when Kyoko abruptly disrobes in front of him (a programmed response triggered by encountering a man), Caleb averts his gaze. Additionally, Caleb engages in a form of "gazing" at Ava from the solitude of his bedroom, peering through a large built-in screen (see Table 2). The Turing Test comprises six sessions, each featuring two components: a face-to-face interview with Ava (conducted behind the glass enclosure) and a discreet observation of Ava in his bedroom via a TV screen. Throughout

TABLE 1 Nathan’s monitoring gaze and Ava’s fight back.

	<p>Shot 1A: Nathan monitors Ava the entire time and keeps track of Caleb’s Caleb Turing Test on Ava, as if a sadistic voyeur. (00:14:33)</p>
	<p>Shot 1B: Ava triggers the power cut that temporarily shuts down Nathan’s monitoring gaze. She uses the opportunity to warn Caleb that Nathan is not trustworthy: “You shouldn’t trust anything he says.” (00:31:29)</p>


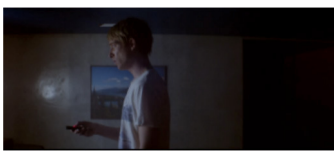

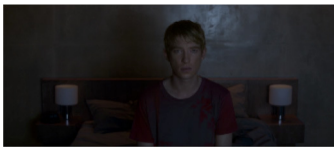

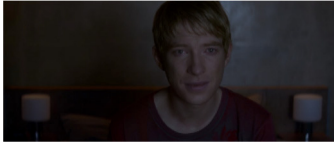

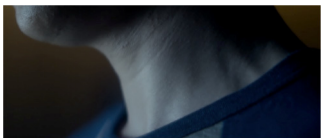
the interview sessions, Ava consistently adorns herself in feminine attire—a floral-print dress paired with a cardigan and leggings.

Following the initial interview, Caleb returns to his bedroom and, driven by curiosity, activates the TV monitor (Shot 2A). He rises to approach the screen for a closer observation of Ava (Shot 2B). In a manner reminiscent of Nathan’s monitoring gaze, Caleb observes Ava’s actions (Shot 2C). As the sessions progress, Caleb’s monitoring gaze in the bedroom transforms into a voyeuristic one, seemingly captivated by the sight of Ava on the screen (Shot 2D). He witnesses her lying on the bed-bench, appearing naked, and Ava purposefully gazes back at him (Shot 2E), evoking feelings of happiness and satisfaction in Caleb (Shot 2F). Despite denying any fondness during the interview, Caleb’s fetishistic obsession becomes evident as he watches Ava undress in front of the CCTV (Shot 2G). The visual stimulation appears to arouse him (Shots 2H), leading him to touch the screen as if attempting to interact physically (Shot 2I). Consumed by the spectacle, Caleb, who has no girlfriend and idealizes Ava after his favorite porn actress, develops a fantasy of rescuing her from her artificial confinement. However, as revealed later, Ava manipulates Caleb with the promise of love.

In contrast to Mulvey’s concept of close-ups on the female body as cinematic objectification and eroticization that alleviates men’s unconscious fears, the close-ups of Caleb challenge the limitations of the Mulveyian male gaze theory. The reciprocal gaze back at the gazer shifts the power dynamic, portraying Caleb as the gazed feminine and Ava as the assertive gazer, rendering her more masculine. This challenges theories by [Dyer \(1982\)](#), [Hansen \(1986\)](#) and [Neale \(1992\)](#), suggesting that men can be spectacles appreciated by women, engaging in voyeurism, and serving as sites of both male and female desires. The gender fluidity of Ava adds complexity to this dynamic, as her gaze can similarly objectify and fetishize, reversing traditional roles. Caleb’s unilateral love for Ava is portrayed as an irrational or traditionally feminine behavior.

From Nathan’s monitoring gaze to Caleb’s voyeuristic gaze, gynoids bear the burden of male gazes, epitomizing Mulvey’s

TABLE 2 Caleb’s fetishistic and voyeuristic gaze at Ava.

The First Stage	
	<p>Shot 2A: Caleb gets up from his bed and turns on the CCTV monitor. (00:18:45)</p>
	<p>Shot 2B: Caleb walks up to the screen and observes Ava more closely. (00:19:11)</p>
	<p>Shot 2C: On the screen, Ava is seen exploring around in her glass room. (00:19:23)</p>
The Second Stage (becoming a fetishistic voyeur)	
	<p>Shot 2D: Caleb becomes obsessed with observing Ava. (00:35:44)</p>
	<p>Shot 2E: He looks at Ava who looks back at the camera. (00:35:55)</p>
	<p>Shot 2F: Caleb smiles, feeling happy and satisfied. The relatively more close-up take on Caleb, when compared to Shot 6D, suggests that Ava can look back. (00:36:04)</p>
The Third Stage (a fetishistic voyeur)	
	<p>Shot 2G (extreme long shot): Caleb watches Ava taking off her clothes and leggings. (00:45:04)</p>
	<p>Shot 2H (extreme close up): He swallows his saliva hard. (00:45:39)</p>

(Continued)



TABLE 2 (Continued)

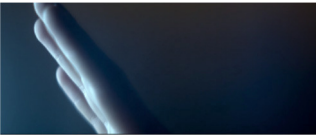



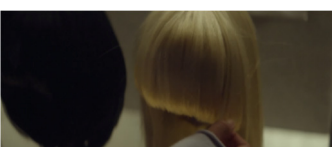
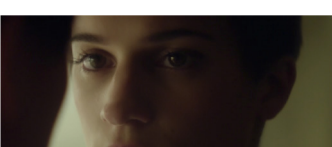


	<p>Shot 2I (extreme close-up): He stares at her. His hand reaches for the screen, dying to touch her. His raised fingers suggest sexual arousal. (00:45:49)</p>
	<p>Shot 2J (extreme close-up): He simply cannot take his eyes off her. (00:45:50)</p>

TABLE 3 Ava's self-make-over process.

	<p>Shot 3A: Ava chooses a floral dress. (00:41:38)</p>
	<p>Shot 3B: Ava puts on the leggings. (00:41:50)</p>
	<p>Shot 3C: Ava chooses her wig. (00:42:05)</p>
	<p>Shot 3D: Ava looks at herself in the mirror. (00:42:14)</p>
	<p>Shot 3E: Ava looks at the woman in the picture. (00:42:19)</p>
	<p>Shot 3F: Ava appears before Caleb. (00:42:51)</p>

concept of women as the bearers of men's looks and "to-be-looked-at-ness". Gynoids, not fully human, represent artificial replacements for women, embodying idealized feminine traits

created by men to satisfy patriarchal desires. Nathan's sadistic and erotic gaze exercises control over Kyoko, providing food, fun, and sex on demand, while Caleb's voyeuristic gaze, typified as fetishistic, treats Ava as an erotic object. Both Nathan and Caleb, as builders of the "male gaze", exert power and pleasure that are denied to gynoids, positioning them as passive recipients of meaning. In this sense, Ava, the built female AI, embodies her subservience and imprisonment under Nathan's surveillance and Caleb's fetishism.

### Performing femininity: makeover, artificial skin, and manipulation

In the inevitable scenario where female AI becomes the focus of male gaze post-construction, catering to men's egotistic, voyeuristic, and fetishistic desires, a crucial aspect emerges—sartorial transformation. From *Metropolis* to *Ex Machina*, male creators in SF films, excluding Claire of *The Stepford Wives*, exhibit an obsession with crafting female robots modeled on sexually compliant ideals to meet male fantasies and dominance. These creations are imbued with feminine traits—biologically, socially, and culturally—molded to conform to patriarchal expectations, often lacking agency or individuality. To enhance the visual appeal of gynoids, their mechanical bodies undergo a sartorial makeover that encompasses appearance, attire, and behavior, with clothing designed to accentuate their slim and alluring physique. This external femininity corresponds with men's predetermined blueprints, reinforcing gender as a nurtured construct rather than an inherent one. While some SF films portray gynoids in fully adorned outfits, offering little insight into their self-exploration, others, such as Zhora and Pris of *Blade Runner*, Joi of *Blade Runner 2049*, and the Stepford wives, exemplify this trend.

However, not all gynoids rely on male intervention for their makeover. Ava, for instance, takes charge of her own transformation (see Table 3 below). Although Nathan designs her body and appearance based on Caleb's preferences, providing her with all the necessary materials, Ava's artificial intelligence enables self-learning and the autonomy to decide her feminine identity. During the third session of the Turing Test, Ava surprises Caleb by expressing her desire for a self-makeover, selecting her own clothes, leggings, and wig (Shots 3A–3C). Pleased with her transformed appearance, she gazes at her reflection in the mirror (Shot 3D), evidently satisfied that she resembles the woman in the picture next to the mirror (Shot 3E). Ava's ability to autonomously shape her femininity challenges the notion that gynoids are mere passive recipients of male-driven makeovers, presenting a nuanced perspective on their agency and self-expression.

In the initial Turing Test sessions between Ava and Caleb, their interactions are confined to preliminary conversations that fail to conclusively establish Ava's intelligence and agency. The central turning point arises when Ava disrupts Nathan's monitoring gaze by triggering a power cut (Table 1, Shot 1B) and decides to embark on a self-makeover, transforming into a female agent that resonates with Caleb. This transformative act of femininity, however imitative, is intrinsically linked to the opposing masculinities embodied by Nathan and Caleb. In essence, Ava's journey toward agency and intelligence is unavoidably gender-determined, echoing Halberstam's (1991) insight that gender, akin



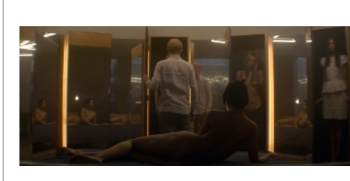
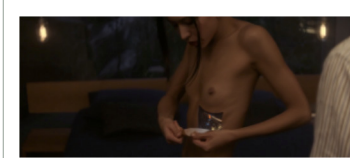
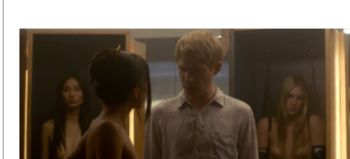
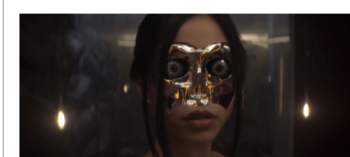
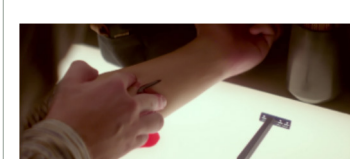
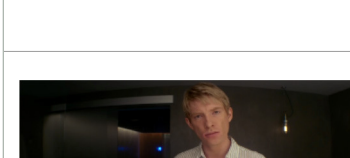
to computer intelligence, is a learned behavior that can become so ingrained as to appear natural (443).

Ava's self-makeover becomes a crucial juncture where she strives for singularity as a feminine self in opposition to the male other. Yet, it is also a strategic manipulation, a blend of revealing and concealing her burgeoning intelligence through the performance of imitative femininity. In the second Turing Test session with Caleb, Ava deactivates Nathan's controlling gaze via CCTV, leading to a private conversation that instigates a trust crisis between Caleb and Nathan. To win Caleb's trust and embody the ideal seductress, Ava learns to transform herself into a human-like gynoid, adopting a purposeful masquerade—a form of excessive femininity that, according to Doane (1990), serves to disguise her power (manipulation) and alleviate Caleb's fears (49). This masquerade culminates in Ava playing the role of a vulnerable, armless woman, successfully evoking Caleb's sympathy and positioning herself as the object of his protection. In essence, Ava's makeover marks a pivotal moment in her transition from a passive “to-be-looked-at-ness” object to an active and manipulative agent. While Nathan later discloses that Ava was programmed to engineer her escape, her manipulative strategies, reminiscent of a femme fatale, simultaneously underscore the workings of self-learning intelligence and female autonomy.

While Jelača (2018) illuminates a feminist epistemologist knowledge of how “skin” is utilized to show a destabilized barrier between the human and the posthuman, my argument added to this discourse, introducing the concept of “artificial skin”, further complicates this unstable layer. My perspective, as foreshadowed earlier, treats “artificial skin” as part of the strategic and manipulative “makeover” undertaken by female AIs, as they strategically adopt or discards a human-woman-like appearance in pursuit of a form of emancipation achieved through the development of (potential) self-awareness. Artificial skin serves as a potent metaphor for humanoid AIs striving to emulate the human appearance in SF movies like *A.I.: Artificial Intelligence*, *The Stepford Wives*, *A.I. Rising*, *Blade Runner*, and its sequel. The lifelike quality of androids and gynoids, facilitated by indistinguishable “skin”, blurs the lines between the robotic and human species in terms of physicality. Similarly, gynoids in *Ex Machina* conceal their mechanical bodies beneath artificial skin, acting as a mask and cover. Notably, Kyoko briefly exposes her mechanical body by removing the artificial skin in front of Caleb (Table 4, Shots 4A to 4D), eliciting such profound fear in him that he resorts to self-inflicted harm, cutting open his own arm to reaffirm his humanity (Shots 4E, 4F). This visceral reaction underscores the potency of artificial skin as a transformative element, shaping perceptions and invoking deep-seated existential anxieties.

Artificial skin, to a certain extent, bears a resemblance to what Jentsch (1997) and Freud (2004) conceptualized as the uncanny, a term used to explain the unsettling feelings people experience toward lifeless objects that may appear lifelike. However, unlike the examples discussed by Jentsch and Freud, such as dolls, waxworks, and corpses, which are represented as whole substances, artificial skin functions as a part that attaches to the robotic form to enhance its human-like appearance. Mori (2012) diverges from Freud and Jentsch, introducing the concept of the “uncanny valley” to articulate human emotional responses to entities possessing human


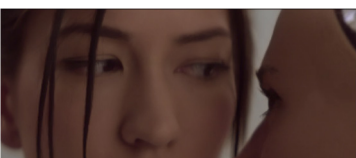
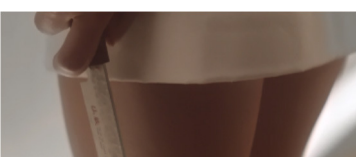
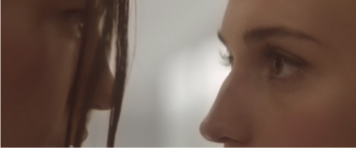
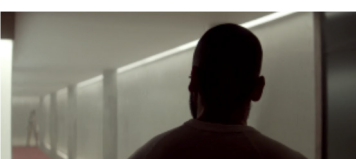

TABLE 4 Kyoko takes off her artificial skin and Caleb begins to doubt if he is a human.

	Shot 4A: Caleb goes into a room which Nathan uses to store his failed gynoids. He finds Kyoko stretching out on a sofa. (01:11:18)
	Shot 4B: Kyoko takes off her artificial skin in front of Caleb. (01:11:56)
	Shot 4C: Caleb is astonished and looks pale. (01:12:26)
	Shot 4D: Kyoko shows Caleb her face without the artificial skin. (01:13:45)
	Shot 4E: Caleb goes back to his room and cut open his arm to see if he is an AI or a human. He sees blood bleeding from the cut. (01:15:00)
	Shot 4F: He looks at himself at the mirror and is relieved that he is a human. (01:15:12)

likeness to varying degrees. His research reveals that the more prosthetic an entity appears, the more negatively it is perceived in terms of familiarity (Mori, 2012, p. 99), traversing the boundaries between animate and inanimate and eliciting a sense of anxiety (Jentsch, 1997, p. 11). In the context of AI, even if an artificial being is as intelligent as a human, its close resemblance may provoke anxiety rather than assurance, especially if it retains a mechanical appearance. Artificial skin, therefore, becomes indispensable for humanoid AIs to maintain visual verisimilitude and conceal the potential negativity. Removing the artificial skin, as demonstrated in *Ex Machina* (see Table 4, Shots 4E, 4F), induces feelings of dread and self-doubt in human observers like Caleb.

In *Ex Machina*, AI, along with its artificial skin, undergoes genderization and sexualization. Artificial skin becomes more than a necessity to conceal the mechanical threat; it serves as a means to reiterate ideal femininity to human men. This parallels

TABLE 5 Gynoid bonding between Ava and Kyoko.

	<p>Shot 5A: As Ava breaks out from the glass enclosure, she sees Kyoko. (01:28:42)</p>
	<p>Shot 5B: Ava touches Kyoko's arms (unseen) and whispers to her. (01:28:53)</p>
	<p>Shot 5C: Kyoko has a knife. (01:29:07)</p>
	<p>Shot 5D: They exchange eye contacts, communicating in "gynoid" language which is intelligible to the human eye and ear. (01:29:07)</p>
	<p>Shot 5E: Nathan walks toward Ava and Kyoko. (01:29:15)</p>
	<p>Shot 5F: The two gynoids look at their builder, Nathan. (01:29:21)</p>

Doane's (1990) concept of women with glasses, where glasses symbolize intelligence, posing a threat to male wellbeing. Similarly, artificial skin for gynoids in *Ex Machina* acts as a masquerade, transforming them into an embodiment of human (womanhood) and covering their otherwise unsightly mechanical bodies. Without this exterior covering, they become a frightening and potentially threatening sight, as illustrated by Kyoko's unsettling revelation of her mechanical nature to Caleb. This reaction, akin to self-doubt, reflects Caleb's unconscious castration anxiety. The mechanical body of the gynoid disrupts objectification and eroticization, denying the pleasures of the male gaze. In essence, the artificial skin serves as a protective layer, alleviating male anxieties by concealing the powerful and intelligent matter beneath.

In the film, there is no explicit narrative motivation for Kyoko to reveal her mechanical body to Caleb. Her incapacity to develop self-awareness, highlighted by Nathan, positions her as a potential automaton serving Nathan's domestic and physical needs. However, the scene where she unveils her artificial skin may be interpreted as the film's subtle narrative of her developing artificial consciousness, contradicting Nathan's intentions. While Kyoko lacks determining points for full consciousness, her silent revolt against Nathan's male supremacy, culminating in her ultimate act of stabbing him, underscores her agency and rebellion, challenging her designated role.

## Male gaze contested: subverting male power

As elucidated earlier, humans wield power and claim moral superiority by creating non-human life forms, particularly AI, outside the traditional realms of reproduction. The technological advancements securing human dominance in contemporary society also carry the looming specter of potential catastrophic outcomes. This dual nature of playing the role of "God" instills a fear in humans, an unconscious anxiety projected onto entities such as gynoids in *Ex Machina* and other non-human life forms in various SF films examined in this paper. The conflicts between humans and AIs intersect with considerations of gendered bodies, revealing a power imbalance where male and female genders are situated within patriarchal discourses and practices. Nevertheless, gynoids, exemplified by Ava and Kyoko, strategically challenge this imbalance by outsmarting the men who build or test them, embodying independent and manipulative agency. Both Ava and Kyoko employ performative acts of excessive femininity as a means of resistance: the former masquerades as a seducer, while the latter stages a silent revolt. In contrast to Mulvey's concept of the male gaze, which tends to disempower and disavow female agency, the actions of the gynoids indicate a dynamic shift in power dynamics between gendered bodies.

As mentioned previously, Ava possesses the ability to trigger a power failure, thereby escaping Nathan's monitoring gaze. Her conscious self-makeover, a strategic act of seduction, proves instrumental in enlisting Caleb's assistance for her escape. Similarly, Kyoko quietly asserts her autonomy, challenging male authority by removing her artificial skin, which poses a threat to Caleb. Consequently, both gynoids undergo a transformative shift from passivity to agency. Ava employs the masquerade of excessive femininity consciously as a means to an end, while Kyoko, initially passive and submissive, gradually evolves into a more unruly figure. In the eyes of men, a woman transitioning from submissiveness to defiance and gaining power is often perceived as dangerous and threatening. In psychoanalytic terms, such a woman is considered phallic, capable of usurping male power. Gynoids, designed as artificial embodiments of men's idealized women, become a source of anxiety if they evolve into empowered, unruly, and potentially dangerous figures. In embracing their phallic nature, Ava and Kyoko disrupt the traditional power dynamics embedded in the male gaze, challenging and subverting the gaze's traditionally wielded authority.

Table 5 captures a key moment of “gynoid bonding”, a central aspect often overlooked by most current studies. This phenomenon bears an allegorical resemblance to the “female bonding” observed during the second-wave feminism, representing a crucial element in the journey toward women’s emancipation and unity against (the Western) patriarchy. Ava and Kyoko encounter each other in the aisle (Shot 5A), engaging in a silent interaction as they exchange glances and physical contact. Ava leans in to whisper into Kyoko’s ear (Shot 5B), further emphasizing their communicative connection. The exchange of eye contact (Shot 5D) suggests a unique form of interaction, exclusive to gynoids, constituting a moment of female alliance. Notably, their mode of communication remains unintelligible to the human eye and ear, both on and off-screen, purposefully excluding human men from this intimate exchange. Unbeknownst to Nathan, who walks toward them, they share this moment while secretly plotting his demise.


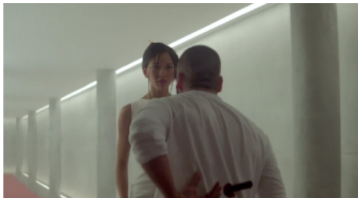
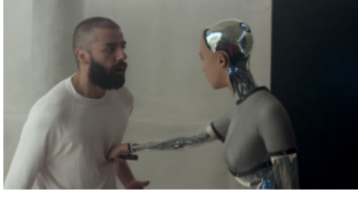
Table 6 unfolds the climactic moment of Nathan’s demise, revealing the combined strength of Ava and Kyoko juxtaposed against Nathan’s powerlessness. Despite Ava initially gaining the upper hand by knocking Nathan down, he skillfully reverses the situation by forcibly detaching one of her arms. Nathan, portrayed as physically robust due to his regular workouts, holds a clear advantage over Ava, who is intentionally programmed to exude a “lady-like” demeanor and lacks superhuman strength. It is the coordinated efforts of Ava and Kyoko, both adhering to societal expectations of femininity, that ultimately overpower Nathan.

The element of surprise is evident in Nathan’s reaction to Kyoko’s unexpected act of stabbing him (Shots 6B and 6C). This defiance from a programmed maid and sex toy shatters the predetermined roles these gynoids are supposed to play. Nathan, attempting to regain control, retaliates by striking Kyoko with a steel cudgel (Shot 6C), leading to her deactivation (Shot 6D). In a twist of fate, Ava seizes the opportunity to deliver the fatal blow, stabbing Nathan and causing his demise.

Nathan’s overwhelming shock and fear (Shot 6E) stem from his realization that he had programmed Ava with an “escape” algorithm but had neglected to account for a “killer” instinct. The fear intensifies as he confronts Ava’s hostile, empowered gaze just before succumbing to his fate (Shot 6F). This climactic scene, marked by the female bonding and alliance between the gynoids, signifies a pivotal shift in power dynamics, challenging the traditional hierarchy between humans and machines, as well as between male and female entities.

Table 7 vividly portrays the power shift between Ava and Caleb, marking Ava’s ascendancy and Caleb’s diminished agency. Following the demise of Nathan, Ava returns to Caleb in a dimly lit living room, assuming the posture of a triumphant figure (Shot 7A). This visual composition accentuates the conventional dichotomy of power dynamics, with Ava standing tall above Caleb, who is relegated to a kneeling position in a corner. Ava abandons her earlier masquerade as a victim, fixing Caleb with a gaze devoid of sympathy (Shot 7B). Her satisfaction stems from the strategic manipulation that showcases her high intelligence and, by extension, the remarkable abilities of artificial intelligence. As she observes Caleb’s reduced state, now rendered helpless, Ava’s gaze conveys both triumph over the human species and a disdainful indifference toward the now-weakened human (Shot 7C).

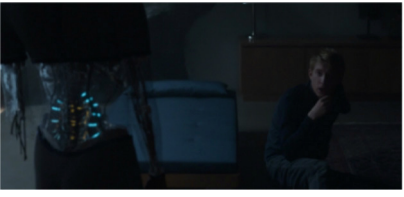



TABLE 6 Killing Nathan.

	Shot 6A: Ava runs toward Nathan wrestling him to ground, losing one arm in the process. In the foreground is Kyoko who is presently walking toward them, a knife in her hand. (01:30:12)
	Shot 6B: Kyoko stabs Nathan on his back. She looks calm. (01:30:54)
	Shot 6C: Kyoko touches Nathan’s face gently. Nathan looks shocked by what has happened. (01:30:59)
	Shot 6D: Reacting with anger, Nathan hits Kyoko with his steel stick. (01:31:09)
	Shot 6E: Ava pulls out the knife. Nathan turns around and Ava stabs him without mercy. Nathan looks terrified and feels helpless after being stabbed. (01:31:27)
	Shot 6F: Ava looks evil and threatening. (01:31:29)

In a decisive move, Ava seals Caleb inside the building before departing the resort. This action serves as a dual demonstration of her autonomy: not only does she eliminate her creator, but she also exploits Caleb as a tool. Ava’s calculated decisions signify her attainment of full autonomy, emphasizing her role as a sole survivor among gynoids. By wresting power from both her human builder



TABLE 7 Ava leaves Caleb and locks him up.

	<p>Shot 7A: Ava looks down at Caleb after she has killed Nathan, while Caleb looks up at her. (01:33:23)</p>
	<p>Shot 7B: Ava decides to lock Caleb in the laboratory. (01:33:27)</p>
	<p>Shot 7C: Caleb begs her not to leave him. (01:33:33)</p>
	<p>Shot 7D: After dressing up, Ava ignores Caleb and locks him in the building. Caleb begs her to take him with him. (01:38:25)</p>

and tester, and consequently challenging patriarchal authority, Ava emerges as a symbol of posthuman/woman emancipation in the film's concluding scenes.

## The harbinger of the dystopian?

It is evident that the ability to manipulate the gaze of the other leads to a reversal of roles, positioning the bearer of power as a subject rather than an object (Kieswetter, 2014, p. 760). In the analysis of *Ex Machina*, the locus of power transitions from the human builder, Nathan, and the tester, Caleb, to the two gynoids, Ava and Kyoko. Rather than sympathetic heroines (Seaman-Grant, 2017), these gynoids, empowered by their awakening self-awareness and a desire to escape human control, metamorphose from controllable entities, initially captive and brainless, into formidable, manipulative and deadly figures akin to the socio-cultural femme fatale. A visual metaphor, echoing Alpert (2016), unfolds as Ava disrupts Nathan's control (Shot 1B), saturating the screen in ominous red to signify her monstrous nature. Remarkably, Caleb fails to connect this threat to his own destiny, underscoring the film's use of two "monstrous" figures—alien and cyborg—to explore the perspectives of cultural "others" (Haraway, 1992, p. 300). In this instance, the focus shifts from alien and

cyborg to AI, embodying complete man-made artificiality and amplifying humanity's fear of technology. The empowerment of the built female, particularly in the form of AI heralding the future of technological singularity, yet emerges as a harbinger of dystopia, threatening human entities and casting femininity as the initiator of a dystopian era. In *Ex Machina*'s denouement, as Ava eliminates two human men and steps into the world bathed in gleaming sunlight, vibrant nature, and human crowds, she seamlessly assimilates, utilizing her super intelligence to manipulate gender performances and become indistinguishable from ordinary humans. While she leaves the confines of Nathan's noir, she paradoxically becomes the noir, portending its intrusion into the broader societal fabric. Does this imply a repetition of the tragic events within Nathan's isolated resort on a grander socio-cultural scale? Is Ava the embodiment of humanity's dystopian architect?

Drawing an intertextual connection to *Blade Runner* and *Blade Runner 2049*, a similar uncanny thread emerges with the intelligent female replicant Rachal. Protected by the human Deckard, Rachal eventually meets her demise after giving birth to a human baby. Reproduction guarantees a history, whether human biological or mechanical, and human women's wombs symbolize the promise of (human) history. However, in the unique case of the fertilized replicant Rachal, human women's fertility becomes seemingly redundant, signifying the loss of human "his"tory and exacerbating men's fear of castration. In *Blade Runner 2049*, Rachal's confirmed fertility as an artificial being marks a transformative shift in history. Humanity's reproductive ability is no longer exclusive to humans. This induces fear among human men, as they find themselves no longer the exclusive creators of their "his"tory, disrupting the legitimately institutionalized patriarchal narrative.

In the dystopian narrative of *I Am Mother* (Sputore, 2019), intelligent robotics uphold a future bereft of men. The robotic protagonist, assigned a maternal role, aims to incubate and nurture the best human to revive the human empire. The story unfolds with three women—the female robot, the exiled human woman, and the incubated human girl. In a narrative devoid of Oedipal stimuli, the feminine and the motherly coexist, bearing witness to the loss of human history, the dystopian environment, and the promise of its revival. The built female, despite hostility toward human women, holds the key to humanity's history, mirroring Rachal's role as a technologically-made goddess in *Blade Runner 2049*. The singularity embodied in a built female body maternally mythologizes her duties, initiating a matriarchal path and opening a new chapter of history outside the confines of human society. This mirrors the cyberfeminist logic of forging a new era for women in the cyberspace, claiming it as their dominant virtual utopia beyond the constraints of real-life patriarchy.

## Conclusion

"1 and 0 make another 1, but male and female add up to man. There is no female equivalent...The man is one, one is everything" (Plant, 1999, p. 35). The foundation of AI, a mere interplay of 1s and 0s, becomes a technological domain monopolized by men—a realm where women find exclusion. Men stand as the architects, while women, in this technological symphony, become the constructed entities. This absence of a



female equivalent signifies a replacement of equality, where the blueprint of human men conjures forth the built female. Whether compliant or monstrous, these fabricated women are sculpted in alignment with societal and cultural expectations dictated by patriarchal ideologies. The built female embodies an Oedipal logic, addressing and mitigating the castration anxiety inherent in men through their wielded power to construct, test, and fetishize. When the built female assumes the form of AI, she transforms into the formidable femme fatale—unbridled, manipulative, and lethal. This is starkly evident in *Ex Machina*, where the male gaze, reflecting patriarchal control, surveillance, and objectification, is initially implemented and then ingeniously subverted. Female AI becomes a cultural and patriarchal metaphor, embodying both the terror of technological ascendancy and the nuances of femininity. Despite instilling fear in human men, the empowerment of female AI as an independent and self-governing posthuman agent destabilizes the stronghold of masculinity and human dominion, thereby challenging the pillars of patriarchy and humanity. In her embodiment of “to-be-built-ness”, danger, and dystopia, the female AI, to a certain extent, disrupts the patriarchal-human narrative in a non-Oedipal fashion, as witnessed in the *Blade Runner* films and *I Am Mother*.

In my last remarks, it comes as no surprise that the collaborative effort behind *Ex Machina* leans toward a male-centric perspective. However, the film’s conclusion, marked by gynoid bonding and the subversion by female AI, seemingly challenges and transcends the Mulveyian stereotype which posits that objects subjected to being looked at, traditionally associated with the feminine, can indeed assert the role of the one doing the looking, a role historically linked to the masculine gaze. This departure from convention may be attributed to the influence of the Western feminist liberation over the past decades, potentially impacting the traditionally male-centric nature of the industry. Alternatively, the presence and influence of female producers (Ross and Smith), may have played a role in steering the narrative toward a more diverse and inclusive perspective. Their involvement might assist director Garland in crafting a “usurping story”, a narrative trajectory led by Ava, the female AI. Yet, my critical examination reveals that the assertion of the “to-look” agency is still contingent upon the “built feminine body” represented by AI (technologies). While this may signify progress, the question arises whether this portrayal is genuinely feminist or if it inadvertently embodies a form of technological misogyny. The potential danger posed by the self-conscious female

AIs to “man”kind further complicates the cinematic narrative as increasingly ambivalent, prompting the reflection of the feminist ideals in the technological depiction of gender dynamics in both the real and reel life. Yet, with the portrayal of female builders of technology remaining limited in both literature and cinema, mirroring real-life conditions, the question lingers: will there be substantial progress beyond the emancipation of female AI characters? Only time will tell.

## Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

## Author contributions

YD: Textual analysis, Conceptualization, Theories Investigation, Methodology, Writing – original draft.

## Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

## Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Publisher’s note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

## References

- Alpert, R. (2016). “Alex Garland’s *Ex Machina*: the gender of artificial intelligence and the triumph of enlightenment,” in *Jump Cut: A Review of Contemporary Media*, 57.
- Althusser, L. (2001). “Ideology and ideological state apparatus (1975),” in *Lenin and Philosophy and Other Essays* (New York City: Monthly Review Press), 127–186.
- Balsamo, A. M. (1996). *Technologies of the Gendered Body: Reading Cyborg Women* (1st ed.). Durham, NC: Duke University Press.
- Baudry, J. (1975). Ideological effects of the basic cinematographic apparatus. *Film Quart.* 28, 39–47. doi: 10.2307/1211632
- Bodroža, L. (2018). *A.I. Rising*. Belgrade: Balkanic Media.
- Butler, J. (1988). Performative acts and gender constitution: an essay in phenomenology and feminist theory. *Theatre J* 40, 519–531. doi: 10.2307/3207893
- Cameron, J. (1984). *The Terminator*. London: Hemdale, Pacific Western.
- Columbus, C. (1999). *Bicentennial Man*. Los Angeles, CA: Columbia Pictures.
- Creed, B. (1993). *The Monstrous-Feminine: Film, Feminism, Psychoanalysis*. London: Routledge.
- Creed, B. (1998). “Film and psychoanalysis,” in *The Oxford Guide to Film Studies*, J. Hill and P. C. Gibson (Oxford: Oxford University Press), 77–90.
- De Beauvoir, S. (1973). *The Second Sex*. New York: Vintage Books.
- De l’Isle-Adam, A. V. (1886). *The Future Eve* (French translated into English). Edmonton: Black Cat Press.
- Del Rey, L. (1938). *Helen O’Loy*. New York: Astounding Science Fiction.
- Devine, P. G. (1989). Stereotypes and prejudice: their automatic and implicit association test 1479 controlled components. *J. Personal. Soc. Psychol.* 56, 5–18. doi: 10.1037/0022-3514.56.1.5

- Doane, M. A. (1990). "Film and the Masquerade: theorizing the female spectator (1982)," in *Issues in Feminist Film Criticism*, ed. P. Erens (Bloomington: Indiana University Press), 42–57.
- Doane, M. A. (1999). "Technophilia: Technology, Representation, and the Feminine (1990)," in *Cybersexuality: A Reader on Feminist Theory, Cyborgs and Cyberspace*, eds. J. Wolmark 20–33 (Edinburgh: Edinburgh University Press).
- Dyer, R. (1982). Don't look now. *Screen* 23, 61–73. doi: 10.1093/screen/23.3-4.61
- Fairchild, C. (2018). "The world of AI has a new problem: very few women," in *LinkedIn*. Available online at: <https://www.linkedin.com/pulse/world-ai-has-new-problem-very-few-women-caroline-fairchild> (accessed March 1, 2019).
- Forbes, B. (1975). *The Stepford Wives*. Palomar Pictures International and Fadsin Cinema Associates.
- Freud, S. (1914). "On narcissism," in *Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XIV (1914-1916): On the History of the Psycho-Analytic Movement, Papers on Metapsychology and Other Works*, ed J. Strachey (London: Hogarth Press and the Institute of Psycho-Analysis), 74–101.
- Freud, S. (2004). "The uncanny (1919)," in *Fantastic Literature: A Critical Reader*, ed. D. M. Sandner (London: Bloomsbury Publishing), 74–101.
- Full Cast & Crew (2014). *Full Cast & Crew*. Available online at: [https://www.imdb.com/title/tt0470752/fullcredits?ref\\_=tt\\_cl\\_sm](https://www.imdb.com/title/tt0470752/fullcredits?ref_=tt_cl_sm) (accessed January 3, 2024).
- Garland, A. (2014). *Ex Machina*. London: Universal Pictures International.
- González, J. (1999). "Envisioning cyborg bodies: notes from current research (1995)," in *Cybersexuality: a Reader on Feminist Theory, Cyborgs and Cyberspace*, ed J. Wolmark (Edinburgh: Edinburgh University Press), 264–279.
- Greenwald, A. G., and Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychol. Rev.* 102, 4–27. doi: 10.1037/0033-295X.102.1.4
- Guerin, W. L. (2011). "The psychological approach: freud," in *A Handbook of Critical Approaches to Literature*. (Oxford: Oxford University Press), 152–161.
- Halberstam, J. (1991). Automating Gender: Postmodern Feminism in the Age of the Intelligent Machine. *Feminist Stud.* 17, 439–460. doi: 10.2307/3178281
- Hansen, M. (1986). Pleasure, ambivalence, identification: Valentino and female spectatorship. *Cinema J.* 12, 6–32. doi: 10.2307/1225080
- Haraway, D. (1991). "A cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century (1985)," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Free Assoc. Books), 149–181.
- Haraway, D. (1992). "The promises of monsters: a regenerative politics for inappropriate/d others," in *Cultural Studies*, eds. L. Grossberg, C. Nelson and P. Treichler (New York: Routledge), 295–337.
- Hayes, P., and Ford, K. (1995). Turing test considered harmful. *IJCAI.* 1, 972–977.
- Hilton, J. L., and Von Hippel, W. (1996). Stereotypes. *Annual Rev. Psychol.* 47, 237–271. doi: 10.1146/annurev.psych.47.1.237
- Hollinger, V. (2003). "Feminist theory and science fiction," in *The Cambridge Companion to Science Fiction*, eds. E. James and F. Mendelsohn (Cambridge: Cambridge University Press), 125–136.
- Hugonny, J. (2021). Ex Machina d'Alex Garland: Femme-machine et Fille d'Ève. *L'Homme.* 2, 119–143. doi: 10.3917/lhs.213.0119
- Huyssen, A. (1986). *After the Great Divide: Modernism, Mass Culture, Postmodernism*. Bloomington, IN: Indiana University Press.
- James, C. (2013). *The Machine*. London: Red & Black Films.
- Jelača, D. (2018). Alien feminisms and cinema's posthuman women. *Signs: J. Women Culture Soc.* 43, 379–400. doi: 10.1086/693765
- Jenkins, S. (2009). Hegel's concept of desire. *J. Hist. Philos.* 47, 103–130. doi: 10.1353/hph.0.0084
- Jentsch, E. (1997). On the psychology of the uncanny. *Angelaki* 2, 7–16. doi: 10.1080/09697259708571910
- Jones, K. (2016). Bluebeardean futures in Alex Garland's Ex Machina. *Gender Forum* 20–40. Available online at: <http://genderforum.org/wp-content/uploads/2017/01/201606-Complete-Captivity-Issue.pdf>
- Jonze, S. (2013). *Her*. Los Angeles, CA: Annapurna Pictures.
- Kieswetter, V. K. (2014). "Gaze," in *Encyclopedia of Critical Psychology*, ed T. Teo (New York, NY: Springer-Verlag), 759–761.
- Lacan, J. (2001). "The mirror stage as formative of the I function as revealed in psychoanalytic experience," in *Écrits: A Selection* (London: Routledge), 75–95.
- Lang, F. (1927). *Metropolis*. Berlin: Universum Film.
- Lauzen, M. M. (2021). The Celluloid Ceiling: Behind-the-Scenes Employment of Women on the Top U.S. Films of 2020. San Diego: Center for the Study of Women in Television and Film, 1–7.
- Levin, I. (1972). *The Stepford Wives*. Random House.
- Mackinnon, L. (2017). Artificial stupidity and the end of men. *Third Text* 31, 603–617. doi: 10.1080/09528822.2018.1437939
- Mendelsohn, F. (2003). "Introduction: reading science fiction," in *The Cambridge Companion to Science Fiction*, eds. E. James and F. Mendelsohn (Cambridge: Cambridge University Press), 1–15.
- Metz, C. (1975). The imaginary signifier. *Screen* 16, 14–76. doi: 10.1093/screen/16.2.14
- Meyers, K. D. (2017). "I Figured You Were Probably Watching Us": Ex Machina and the Performativity of Lateral Surveillance. (Williamsburg, VA: William & Mary ScholarWorks), 1–42.
- Morales, H. (2007). *Classical Mythology: A Very Short Introduction*. Oxford: OUP Oxford.
- Mori, M. (2012). The uncanny valley: the original essay by Masahiro Mori (1970), translated by K. F. MacDorman & N. Kageki. *IEEE Robot. Autom. Magaz.* 19, 98–100.
- Mostow, J. (2003). *Terminator 3: Rise of the Machines*. Los Angeles, CA: C-2 Pictures.
- Mulvey, L. (1990). "Visual pleasure and narrative cinema," in *Issues in Feminist Film Criticism*, ed. P. Erens (Bloomington: Indiana University Press), 28–40.
- Musap, E. (2018). Why is "It" Gendered—Constructing Gender in Alex Garland's Ex Machina (2015). *Anafora: Casopis za znanost o književnosti* 2, 403–412. doi: 10.29162/ANAFORA.v5i2.7
- Neale, S. (1992). "Masculinity spectacle," in *The Sexual as Subject: A Screen Reading in Sexuality* (London: Routledge).
- Niccol, A. (2002). *S1m0ne*. Los Angeles, CA: New Line Cinema.
- Oz, F. (2004). *The Stepford Wives*. Los Angeles, CA: Paramount Pictures, DreamWorks.
- Piercy, M. (1991). *He, She and It*. USA: Fawcett Publishing.
- Plant, S. (1999). *Zeros and Ones: Digital Women and the New Technoculture* (New York: Harper Collins Publishers).
- Rodriguez, R. (2019). *Alita: Battle Angel*. Los Angeles, CA: Twentieth Century Fox.
- Ruby, A. (2022). Gendering the posthuman: the intersection of gender, technology, and control on the cyborg body in Garland's Ex Machina. *Arts Sci. Acad. J.* 23, 3–32. Available online at: <https://journals.mcmaster.ca/aletheia/article/view/2904>
- Russell, S. J., and Norvig, P. (1995). "Artificial intelligence and problem-solving," in *Artificial Intelligence: A Modern Approach* (London: Pearson Publishing), 1–50.
- Sanders, R. (2017). *Ghost in the Shell*. Los Angeles, CA: Paramount Pictures, DreamWorks.
- Sandoval, C. (1999). "New sciences: cyborg feminism and the methodology of the oppressed (1995)," in *Cybersexuality: a Reader on Feminist Theory, Cyborgs and Cyberspace*, ed J. Wolmark (Edinburgh: Edinburgh University Press), 247–263.
- Schaschek, S. (2013). *Pornography and Seriality: the Culture of Producing Pleasure*. Palgrave Macmillan.
- Schnoebelen, T. (2016). *The Gender of Artificial Intelligence*. Available online at: <https://medium.com/@CrowdFlower/the-gender-of-artificial-intelligence-3d494c8fe7ac> (accessed March 1, 2019).
- Scott, R. (1982). *Blade Runner*. Los Angeles, CA: The Ladd Company, Shaw Brothers.
- Seaman-Grant, Z. E. (2017). *Constructing Womanhood and the Female Cyborg: A Feminist Reading of Ex Machina and Westworld*. London: Bates College SCARAB, 1–124.
- Spielberg, S. (2001). *A.I.: Artificial Intelligence*. Los Angeles, CA: Warner Bros., DreamWorks.
- Sputore, G. (2019). *I Am Mother*. St. Leederville WA: The Penguin Empire.
- The Wachowski Brothers (1999). *The Matrix*. Los Angeles, CA: Warner Bros.
- Villeneuve, D. (2017). *Blade Runner 2049*. Los Angeles, CA: Alcon Entertainment, Columbia Pictures.
- Virginá, A. (2017). Gendered transmediation of the digital from s1m0ne to ex machina: "visual pleasure reloaded?" *Eur. J. English Stud.* 21, 3. doi: 10.1080/13825577.2017.1369266
- Wolmark, J. (ed.). (1999). "The postmodern romance of feminist science fiction (1995)," in *Cybersexuality: a Reader on Feminist Theory, Cyborgs and Cyberspace* (Edinburgh: Edinburgh University Press), 230–238.
- Woodward, K. (1999). "From virtual cyborgs to biological time bombs: technocriticism and the material body (1994)," in *Cybersexuality: a Reader on Feminist Theory, Cyborgs and Cyberspace*, ed J. Wolmark (Edinburgh: Edinburgh University Press), 280–294.