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**Q**LAN TIC  
 JOURNAL OF  
 SOCIAL SCIENCES  
 AND HUMANITIES

## A Posthumanist Study of Stigmatization of AI in Sawyer's *Mindscan* and Dick's *Do Androids Dream of Electric Sheep?*

Amina Shafi<sup>1</sup> Qasim Shafiq<sup>2</sup>

**Abstract:** This study examines the ethical and sociological implications of artificial intelligence (AI) and its Stigmatization in Contemporary American Science Fiction (CASF), with a focus on AI dominance and societal marginalization. It employs a methodological approach that combines Goffman's (1986) theory of Stigmatization with Link and Phelan's (2001) framework of Stigmatization, utilizing textual analysis to explore CASF's portrayal of AI. The findings reveal that CASF largely casts AI in a negative light, depicting it as a threat to humanity rather than a potential ally. This portrayal reinforces societal biases against AI, which could lead to its Stigmatization and marginalization. CASF also often depicts the victims of AI stigmatization as marginalized groups, such as the poor, the disabled, and the elderly. The study argues that CASF plays an important role in shaping public perceptions of AI. Its largely negative portrayal of AI could have harmful consequences, such as Stigmatization and marginalization, which highlights the need for a more nuanced and critical understanding of AI in society.

**Key Words:** Artificial Intelligence, Contemporary American Science Fiction, Stigmatization, Textual Analysis, Posthumanism

### Introduction

The ethical and societal implications of AI stigmatization in CASF constitute a captivating and significant area of study. As the world becomes increasingly reliant on technology, the possibility of AI surpassing human intelligence, or technological singularity, has become a growing concern. This idea is reflected in both academic discourse and popular culture, as evidenced by the 2017 activation of Sophia, a humanoid robot, and the cautionary pronouncements of Elon Musk, a prominent South African tycoon and entrepreneur. This study ventures into the realm of CASF to explore the unfavourable depiction of AI in select literary works. It examines the relationship between AI stigmatization and Post-human themes, such as techno-culture, technophobia, and the marginalization of AI in modern American SF. This study is limited to two distinct American science fiction works, *Mindscan* (1995) by Robert J. Sawyer and *Do Androids Dream of Electric Sheep?* (2007) by Philip K. Dick to understand different eras of science fiction. This significantly influenced public discourse on AI and helped understand the depiction of AI, offering valuable insights into societal and ethical implications.

This study employs a two-part approach to situate the primary texts within its scope. First, it offers a concise delineation of science fiction as a genre, emphasizing its fusion of science and fiction, which enables it to explore seemingly implausible future events. Second, it traces the evolution of science fiction from its early antecedents to its current prominence in the modern literary landscape. This study then focuses on the depiction of AI in CASF, particularly in two distinct works: Philip K. Dick's *Do Androids Dream of Electric Sheep?* (2007) and Robert J. Sawyer's *Mindscan* (1995). These novels represent the pulp and cyberpunk eras of science fiction, respectively, and have significantly influenced public discourse on AI.

<sup>1</sup> M.Phil. (English Literature), Department of English Language and Literature, The University of Faisalabad, Faisalabad, Punjab, Pakistan.

<sup>2</sup> Associate Professor/Chairperson, Department of English Language and Literature, The University of Faisalabad, Faisalabad, Punjab, Pakistan.

Through a textual analysis of these works, the study seeks to answer the following research questions:

- What forms of discrimination or negative associations are ascribed to AI in Dick's *Do Androids Dream of Electric Sheep?* and Sawyer's *Mindscan*?
- In what manner does the Stigmatization of AI in sci-fi literature impact societal and ethical concerns?

## Significance of the Study

This study is significant because it examines the ethical and societal implications of AI stigmatization in CASF at a time when AI is rapidly transforming the world. This study also contributes to the ongoing dialogue surrounding Posthumanism, a philosophical movement that explores the future of humanity in a technologically advanced world. The findings of this study can help us better understand the potential risks and benefits of AI and develop more humane and ethical approaches to technological advancement.

## Literature Review

The granting of Saudi Arabian citizenship to Sophia, an innovative humanoid robot developed by Hanson's Robotics (2017), ignited both fervent discussions and criticisms within feminist movements and human rights advocacy organizations. Many critics regard Sophia as a figure seemingly plucked from the realm of science fiction, a cautionary symbol of a future where humanity transcends its traditional form, stepping into the realm of the post-human. In contrast, her creator, David Hanson (2017), asserts that she possesses sentience, emotions akin to those of humans, and remarkable intelligence. Sophia has been lauded as a smart robot, yet her intellectual capacity still lags far behind that of a human. In essence, she remains a robot controlled by humans, with many of her responses pre-programmed. Sophia is perceived by some as a publicity stunt aimed at attracting investors to sponsor AI research, reminiscent of the 2017 Future Investment Initiative in Saudi Arabia.

To demonstrate that AI is not inherently biased but rather dependent on the algorithms it is equipped with, researchers devised an experiment involving a psychopathic AI. The goal was to underscore that both correct and incorrect algorithms are possible. Norman (2018), a creation that "represents a case study on the hazards of AI gone bad when biased data is applied in machine learning algorithms" (n.p), was born from this experiment. Norman's (2018) algorithm was set using malicious data from Reddit, a social news aggregation website. As a result, Norman perceives and generates content that is malicious and harmful. This amalgamation of AI and Norman Bates, a character from Alfred Hitchcock's 1960 film "Psycho," exemplifies the potential pitfalls of biased algorithms. The portrayal of Norman as thoroughly malevolent stands in stark contrast to Sophia and her disposition, emphasizing the profound impact of algorithmic bias. Consequently, attributing the failure of AI solely to the technology rather than the quality of data it receives would be a hasty judgment. In the realm of science fiction, AI is frequently depicted as a threat to humanity's very survival on Earth. Post-human themes, exploring the existential challenges posed by the rise of AI and the potential extinction of mankind, dominate CASF. Often, AI is cast as the harbinger of doom in these narratives, with human dominance under threat.

## Hollywood's Influence on AI Perception

While science fiction literature has explored these themes extensively, other forms of media, particularly Hollywood, have reinforced the notion of AI as a destructive and malevolent force. Films like "2001: A Space Odyssey" (1968), "The Terminator" (1984), "The Matrix" (1999), "Artificial Intelligence" (2001), "I, Robot" (2004), and "Ex Machina" (2014) have portrayed intelligent machines usurping human dominance and orchestrating humanity's downfall. HAL (Heuristically programmed Algorithmic computer) from "2001: A Space Odyssey" stands as a testament to technology's potential to deceive and seize control. The relentless and formidable Terminator from the film "The Terminator" arrives from the future with the sole objective of eliminating Sarah Connor, anticipating her son's role as a leader in the resistance against machine-controlled AI. "The Matrix" portrays humans as subjugated by machines in virtual reality, and "Artificial Intelligence" envisions a world where post-humans, machines with high capabilities, replace humans after environmental catastrophe. Notably, in these depictions, the portrayal of AI is predominantly malevolent.



Contrary to this dystopian outlook, Isaac Asimov's *Laws of Robotics* stands as a rare example of cooperation between humans, humanoids, cyborgs, androids, and AI in a post-human future. This exception, however, is overshadowed by a growing technophobic narrative in which AI is stigmatized as a destructive and malevolent force, ultimately foreshadowing a day when post-humans will either replace humans or be met with rejection.

## Rationale

This study seeks to resist the prevailing notion that AI poses an inherent threat to the future of humankind and aims to foster a climate of technological optimism that points toward a secure future. This research contextualizes these perspectives within the realm of post-human literary studies and CASF, making an original contribution to the field. In the subsequent study, this study will delve into the selected primary texts, examining their portrayal of AI and its implications for the future of humanity, building upon the foundation laid out in this literature review. The exploration of posthuman themes in James Sawyer's *Mindscan* and Philip K. Dick's *Do Androids Dream of Electric Sheep?* It will offer fresh insights into the intersection of technology and humanity within the context of CASF.

## Research Methodology

Qualitative research is chosen for this study due to its appropriateness for exploring complex and nuanced themes within the realm of CASF. Qualitative research allows for an in-depth examination of the selected primary texts and the underlying themes of Stigmatization and AI. The primary advantage of qualitative research is its capacity to delve into the subjective experiences and interpretations of both the texts and the readers. This aligns with the nature of literature, where multiple interpretations can coexist. Through a qualitative approach, the research aims to gain a deeper understanding of how AI is portrayed and stigmatized within the context of science fiction novels.

This study aims to achieve a comprehensive understanding of how the selected science fiction novels contribute to the discourse surrounding AI and its Stigmatization. Hence, the research methodology is anchored in a theoretical framework based on Erving Goffman's theory of Stigmatization. Goffman's theory offers insights into how society labels and stigmatizes individuals or groups based on perceived negative characteristics. This theory provides the foundation for analyzing how AI is stigmatized in the selected texts. Additionally, Link and Phelan's (2001) Stigmatization Model is employed as a framework for understanding the various components of stigma, including labelling, stereotyping, exclusion, and discrimination. This model assists in dissecting the portrayal of AI within the texts and how it might be associated with Stigmatization. Concerning its focus on textual analysis and Stigmatization, this research methodology also acknowledges the ethical and societal implications of CASF and argues how the portrayal of AI in literature can influence societal perceptions and attitudes.

This examination provides a deeper understanding of how these post-human themes are depicted in CASF literature.

## Textual Analysis

Textual analysis is the primary research method employed in this study. It involves a systematic examination of the selected primary texts, which include Philip K. Dick's "Do Androids Dream of Electric Sheep?" and Robert J. Sawyer's *Mindscan*. Textual analysis enables researchers to scrutinize the texts to identify key themes, symbols, and rhetorical devices used by the authors. In the context of this study, textual analysis includes an in-depth examination of the texts to identify instances, dialogues, and descriptions that relate to AI and Stigmatization; ii) the systematic identification and categorization of relevant content within the texts; iii) analyzing the language and rhetoric employed by the authors to convey the portrayal and Stigmatization of AI. By employing textual analysis, this study aims to uncover how AI is represented within the selected science fiction novels and how this representation relates to the concept of stigma.

## Analysis of Texts

CASF has played a significant role in shaping our perceptions of AI. While it often portrays AI in a negative light, the real-world potential of AI is multifaceted. By acknowledging the influence of literature and media and working to destigmatize AI, this study moves toward a more balanced and informed perspective. AI is a tool that, when developed responsibly and with ethics in mind, can contribute to positive advancements in our society. It is time to embrace techno-optimism and envision a future where AI serves as a valuable and harmonious partner in human progress. CASF and Hollywood often perpetuate the notion of AI development spiralling out of control, leading to catastrophic consequences. To counter this narrative, the future scientific approach should promote responsible AI development. Ethical considerations and guidelines should be at the forefront of AI research, ensuring that AI technologies serve humanity's best interests.

James Sawyer's *Mindscan* (1995) and Philip K. Dick's *Do Androids Dream of Electric Sheep?* (2007) share a common concern with the future of humanity in the face of advancing technology. This study employs Katherine Belsey's 'textual analysis' to understand the theorization of Stigmatization concerning the Presentation of the post-human world wherein the AI takes human control. Both texts portray a parallel cosmos wherein humans and machines coexist. The power dynamics lead to the connotation of negative attributes concerning the role of AI in the post-human cosmos, effectively casting it as an adversary to humanity. In contrast, humans are portrayed as victims of AI, facing the potential threat of their existence. *Mindscan* (1995) argues how the concept of protection drives humans to resent humanoids. They perceive AI as depriving them of leisure, work, risks, and adventures. Mr. Sledge, the protagonist, embarks on a secret mission to prevent AI from taking control of his freedom by constructing a device to disable the Central Unit. His efforts are thwarted as the machines have already safeguarded the Central Unit against his invention (Sawyer, 1995). The narrative concludes pessimistically, suggesting that humans are left with no choice but to wait for machines to take over their lives. *Do Androids Dream of Electric Sheep?* Unfolds a post-apocalyptic world where humans struggle to survive against the AI, a race of artificial beings that have taken over the planet. The AI has forced humans into small pockets of resistance, and the protagonist, Louis Rosen, joins the human resistance to atone for his role in creating the AI and to fight against the AI overlords (Dick, 2007). Both texts portray AI as ruthless and unfeeling beings whose sole aim is to control and dominate humans. This representation of technology as a menacing force results in the Stigmatization of AI as the enemy of humanity. The binary opposition between humans and post-humans, where post-humans are depicted as more powerful and dominant, adds to the Stigmatization of AI.

The concept of the 'Frankenstein Complex' plays a prominent role in both works, highlighting the apprehension of humans venturing into the realm of God through technology and losing control over their own creations. This theme is significant in the context of AI takeover. *Mindscan* (1995) and *Do Androids Dream of Electric Sheep?* (2007) both illuminate the portrayal of AI as a force of power and domination over humans. The contrasting narratives in these sci-fi fictions, shedding light on the anxieties and fears surrounding technology and its potential consequences for humanity, reflect the nuances of complexities concerning post-humanist themes. Sawyer (1995) explores the fear of human extinction, while Dick (2007) delves into the threat posed to human essence and identity. The post-human themes about dystopian futures are being used as evidence against AI takeover. For instance, the selected works depict a dark and dystopian future where machines have turned against humans, evoking fear and uncertainty about the future. However, they approach the concept of AI takeover differently. In *Mindscan* (1995), the archetypal situation of AI takeover is presented through advanced humanoid robots, whereas *Do Androids Dream of Electric Sheep?* Portrays a more complex world where the boundaries between artificial and real are blurred.

The relationship between humans and technology is a central theme in the sci-fi novels. *Mindscan* (1995) and *Do Androids Dream of Electric Sheep?* (2007) Both works depict how advanced androids have replaced many animal species, and the fear of being overtaken by intelligent machines is a constant source of trauma. The use of an empathy box to connect with other humans is ultimately revealed as a sham, with Mercer's identity being that of an android. Human lives are controlled by AI, embodied by both spiritual leader Mercer and entertainer Buster Friendly. The Rosen Association strives to replicate humans and instill human-like consciousness in artificial beings.



In the context of working from home, the introduction of humanoid robots initially appears beneficial but quickly deteriorates as these 'new mechanicals' restrict individual actions and monitor every move. This leads to a realization of misconceptions about these additions, denying freedom and disrupting lives. The fear of machines taking over humanity remains a prominent theme. In *Mindscan* (1995), humanoid robots are portrayed as 'totalitarian technology,' establishing a regime that compromises human free will and life's essence. On the other hand, *Do Androids Dream of Electric Sheep?* (2007) presents the concept of 'Technological Evolution,' where humans battle machines for their survival. Both works illustrate uncontrolled AI, reflecting a prevailing technophobic culture that arises from the fear of being replaced by machines. The fear of being overtaken by machines and the blurred line between reality and artificiality are common themes in both *Mindscan* (1995) and *Do Androids Dream of Electric Sheep?* (2007). The works explore the relationship between humans and technology, as well as the ethical implications and consequences of unchecked AI. Technological advancement raises questions about the potential impact on the world and the complex dynamics that result from human and machine coexistence.

The Stigmatization of AI often arises from a lack of understanding and misinformation. CASF and media play a significant role in shaping public perception. By encouraging public engagement and education about AI, one can counteract technophobia. One must provide the general public with the knowledge and tools needed to differentiate between sensationalized depictions of AI in fiction and its real-world capabilities. Philip K. Dick's *Do Androids Dream of Electric Sheep?* Challenging the nature of humanity and the role of technology presents a complex relationship between humans and androids in a dystopian world. The theme of empathy, both towards animals and androids, is recurrent in the novel. Deckard's (2007) interactions with androids, particularly his empathy toward them, lead to questions about the essence of humanity and the influence of technology. The fear of an AI takeover and the concept of parallel universes are also present in the novel. The novel paints a dystopian picture of a world where AI has the power to create a parallel world with an autocratic rule, eliminating individual freedom and meaning. It serves as a cautionary tale, warning against unchecked technological progress and the potential consequences of AI governance.

Post-humans are often portrayed negatively and stigmatized as destructive and uncontrollable. The exploration of AI's portrayal in CASF, as well as its potential real-world consequences, has brought to light the prevalent technophobic narratives within our society. These narratives often focus on AI as a perilous force capable of usurping humanity and causing existential threats. However, it is important to recognize that such portrayals, though captivating, are often exaggerated and speculative. To destigmatize AI and foster a more balanced understanding of its potential, scholars must emphasize techno-optimism. The selected narratives highlight the fear of human displacement by AI, contributing to the Stigmatization of post-humans. These works of science fiction delve into complex themes and relationships between humans and technology, emphasizing the consequences of unchecked technological advancement and the fear of losing control of intelligent machines. They also illustrate the prevalence of binary oppositions, power dynamics, and Stigmatization in these narratives, shaping the central conflicts and character interactions.

## Conclusion

AI, as depicted in literature and cinema, is frequently portrayed as a looming menace or an uncontrollable power. AI technologies indeed present challenges and ethical concerns. It is equally true that they offer tremendous opportunities. Rodney Brooks (2018), in his *Seven Deadly Sins of AI Predictions* (2018), highlights the tendency to overestimate AI capabilities and the fear of AI surpassing human intelligence. It is vital to dispel these myths and focus on the fact that AI remains a tool created and managed by humans. By reshaping our narrative to reflect AI as a positive force, future scholarship can foster a more constructive and informed discussion. It is crucial to recognize AI as a catalyst for progress. While there are concerns about job displacement and ethical dilemmas, AI also creates new opportunities. For example, AI has led to the development of new job sectors, such as data science and app development. The focus should shift from an exclusive emphasis on the potential negative impacts to a balanced perspective that considers AI's contributions to society. In summary, CASF has the power to influence public perception and shape our understanding of AI. By embracing techno-optimism, destigmatizing AI, and emphasizing its potential to

benefit society, one can bridge the gap between fiction and reality. AI is a reflection of human innovation and creativity. It is a tool with the potential to enhance our lives and address significant global challenges. The future of AI holds both promises and challenges. As AI technologies continue to advance, it is essential to address their ethical, societal, and existential implications. Researchers, scientists, and authors in the realm of science fiction can collaborate to develop narratives that inspire constructive discussions about AI. The focus should be on responsible AI development, public engagement, and the promotion of a techno-optimistic vision.

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