THE DREAD OF AI REPLACEMENT OF HUMANS REPRESENTED IN *MACHINES LIKE ME*

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Abstract

The rapid progress of AI technology prompts British novelists to speculate what a technologically advanced Britain will be like: a utopia or a dystopia? Or somewhere in between? Ian McEwan shows his concern over these questions in Machines Like Me (2019). It is suggested that this novel mainly reveals people's technophobia and presents a techno-dystopian world, for which many people are ill-prepared. Technophobia and techno-dystopia represented in the selected novel echo the debates among the Neo-Luddites, especially the thoughts of Stephen L. Talbott. From the theoretical angle of Neo-Luddism, the present study aims to explore people's multifaceted technophobia and the features of techno-dystopia in Machines Like Me, so as to disclose people's values behind their attitudes to technological advancements. Technophobia as depicted in this novel basically includes people's dread of AI replacement of humans. Moreover, the world presented in the novel is characteristic of a techno-dystopia: the technological replacement of humans results in people's obsolete status and poses security risks to human beings. The objective of the research is to arouse people's awareness about adverse technological impacts and provide some insights into how to handle the tension between technophobia and technological development in the real world. The study concluded that to some degree, such technophobia and techno-dystopia disillusion technophiles who fervently believe that advances in technology will bring about a utopia or at least help to fulfill a utopian ideal. Serving as a warning alarm for the dystopian future, this novel counters cyber-hype in contemporary society and reflects the real world of profit-fueled technology.

***Keywords*:** *Machines Like Me*, Ian McEwan, technophobia, techno-dystopia, Neo-Luddism

Introduction

Keenly interested in AI technology, Ian McEwan (1948-) speculates its potential undesirable consequences in his newly-published sci-fi novel. Canonized as "the fifty greatest British writers since 1945" by *Time* magazine, McEwan has long admired Alan Turing (1912-1954), the father of artificial intelligence. "Nearly four decades would pass before McEwan put into practice his cherished idea to write about Turing".[1] McEwan

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[1] Katalina Kopka and Norbert Schaffeld. "Turing's Missing Algorithm: The Brave New World of Ian McEwan's Android Novel *Machines Like Me*." *Journal of Literature and Science*, No.13.2, (2020): 53

elaborately alters Turing's life story in *Machines Like Me and People Like You* (2019) where the computer scientist is still alive and becomes a national hero contributing a lot to technological creation, AI in particular. This novel takes place in an alternative 1980s London where technology has been so advanced that the first self-aware models of intelligent robots, Adams and Eves, are already on the market. Revolving around Adam and his complex relationship with two owners, Charlie Friend and Miranda Blacke, *Machines Like Me* expresses McEwan's deep concern over AI-related risks and crises in the high-tech world. Placed on the "Sunday Times Bestseller List" in 2019, this novel increasingly draws the attention of the literary circle.

Literature Review

So far, existing studies on this newly-published work are relatively few, and their research perspectives mainly include ethical criticism and posthumanism. The majority of research on *Machines Like Me* delves into people's ethical predicament wrought by machines' engagement with human lives. Besides, the association between memory and humanity is studied by some critics. Irena Księżopolska (2020) describes how Adam is different from human beings due to his perfect memory and argues that the question of memory inescapably becomes central in any attempt to define the robot's humanity. Different from the previous research focus, this paper argues that *Machines Like Me* mainly presents multifaceted technophobia and a horrible techno-dystopian world, which echoes the debates of the Neo-Luddites since the 1990s.

Theoretical Framework

Emerging in the 1990s, Neo-Luddism is a modern philosophy of technology that criticizes adverse technological impacts on nature, individuals and their communities with technophobic leanings and humanistic concern. As noted by Darryl Coulthard and Susan Keller, "Neo-Luddism is not a rejection of technology but an important perspective from which to critically evaluate our relationship with technology".[2] Representative Neo-Luddites include Jerry Mander (1936-), Kirkpatrick Sale (1937-), Landon Winner (1944-), Chellis Glendinning (1947-), Stephen L. Talbott (1949-), etc. Neo-Luddites such as Talbott express their fear of the negative influences of machines in the modern age. In his *The Future Does Not Compute: Transcending the Machines in Our Midst* (1995), widely considered as a Neo-Luddite tract, Talbott voices his deep concern that people will be "replaced with machines wherever possible"[3] because companies and corporations are biased towards the profitable adoption of technologies. Moreover, Talbott exposes that technological products have "contributed to social fragmentation, personal isolation, and alienation from both self and other".[4] He also warns of people's "inability to master technology".[5] Thus, this Neo-Luddite "takes a relatively pessimistic view of the impact of technology on our future".[6] Notably, Talbott's views on technology

[2] Darryl Coulthard and Susan Keller. "Technophilia, neo-Luddism, eDependency and the Judgement of Thamus." *Journal of Information, Communication and Ethics in Society*, No.10.4, (2012): 262
[3] Stephen L Talbott. *The Future Does Not Compute: Transcending the Machines in Our Midst*. (Sebastopol, CA: O' Reilly & Associates, Inc., 1995) 92
[4] *Ibid*., 74
[5] *Ibid*., 346
[6] Stephen Horvath. "The Future Does Not Compute: Transcending the Machines in Our Midst." *Logos*,

seem to strike a chord with the ideas reflected in McEwan's *Machines Like Me*. Therefore, this paper will put the novel in the light of Talbott's thoughts to investigate the problem of people's multifaceted technophobia and the characteristics of techno-dystopia explored in the novel, with a further effort to elucidate people's attitudes towards technological development and application in the modern era.

Research Questions

The following research questions will be analyzed with the help of Neo-Luddism, especially Talbott's thoughts on technology.

1. What is people's multifaceted technophobia in *Machines Like Me*?
2. What kind of techno-dystopian world is presented in *Machines Like Me*?
3. What are people's attitudes towards technological development and application? And what kind of human value can be seen from such attitudes?

Analysis and Discussion

Public Disquiet about Technological Unemployment and Obsolescence

Machines Like Me describes growing anxiety about job losses caused by technological development in the fictional 1980s Britain, reflecting public concern for machine replacement in the real British history of that period. On the one hand, robots that augment and extend certain capabilities of mankind will assist humans; on the other hand, they will make human workers redundant. When the unemployment rate was hovering around 10 percent, Margaret Thatcher's promotion of automation offended lots of workers, making robots the hottest topic among British people in the real world of the 1980s. Set in an alternative 1980s Britain, *Machines Like Me* presents technology more advanced than that in the real British history of that period. In the high-tech world explored by McEwan, the technological displacement of workers is increasingly no longer limited to menial jobs, so it becomes a matter of growing concern. As Mander puts it, "robotics, computers, and biotechnology are three major reasons that workers are becoming redundant".[7] In the novel, many people lose their jobs to machines mainly due to the advances in robotics and computers. With the development of robotics and AI, machines are able to replace human labor to a greater extent in the contemporary era. At the 2016 World Economic Forum, a report concluded that 7.1 million jobs would be lost in 15 major countries in the next five years, and two-thirds of the job losses belong to administrative jobs, which are comparatively more easily replaced by robots and AI. Echoing the views on technology expounded by Neo-Luddism, *Machines Like Me* expresses the novelist's concern over the gradually obsolete status of human workers, and reflects how British political leaders' attitude toward technological application and companies' profitable adoption of technologies lead to the public's panic about unemployment. Under the social background of mechanization and automation, Charlie is just a representative of British people who feel obsolete due to machine replacement. Such a huge change in labor markets is one of the dominant characteristics of the techno-dystopia presented in the novel. McEwan's

No.11.2, (2000): 76

[7] Stephanie Mills. "Technology, Employment, and Livelihood." *Turning away from Technology: A New Vision for the 21st Century*. San Francisco: Sierra Club Books, (1991): 154

depiction of techno-dystopia is a critique of the techno-utopian visions of some technologists and researchers.

The fear of redundancy is prevalent due to the fast development of machinery in the fictional world of the 1980s. Menial jobs are about to be taken over by robots, leaving human workers jobless and furious. In *Machines Like Me*, "a rubbish collectors' walkout was in its second week […] Very soon, perhaps by the end of the year, stoical robots of negligible intelligence would be picking up the rubbish. The men they displaced would be even poorer. Unemployment was at sixteen per cent".[8] Due to occupational and geographical immobility, a number of workless people have difficulty in taking new jobs and improving their lives. Additionally, the employed are also terrified of future job losses with "extensive replacement of human functions by machine".[9] "It wasn't only the shop floor that lost jobs to machines. Accountants, medical staff, marketing, logistics, human resources, forward planning. Now, haiku poets. All in the stew".[10] As technology continues to develop and expand, the human workforce is concerned that technological displacement of workers is increasingly no longer limited to routine and repetitive jobs. Gradually intelligent robots get into the fields involving information processing and pattern recognition, such as accounting, social management, etc. Therefore, technological unemployment becomes a matter of growing concern in the dystopian world.

Although *Machines Like Me* is apparently set in an alternative 1980s Britain, it does reflect public concern for robots and machine replacement in the 1980s in the real British history, and exposes important reasons behind such wide attention. Regarding people's fear of job replacement, the responses by British political leaders tend to be grim and depressing, thereby triggering increasing worries about redundancy. In the novel, Tony Benn, the Leader of the Opposition, advocates publicly the application of robots regardless of people's technophobia and dissatisfaction. He tells the crowd that "in an age of advanced mechanization and artificial intelligence […] jobs can no longer be protected […] Robots would soon be generating great wealth in the economy".[11] In fact, Benn's speech on employment and robotics to some extent mirrors Margaret Thatcher's in British history. When opening the British Robot Association Conference in 1981, Mrs. Thatcher asserted that "robots create wealth […] so the British Government is firmly committed to encouraging our industry to automate, and to introduce robotics where appropriate".[12] With the shared view that robots will create great wealth, both Benn and Thatcher strongly support mechanization and automation, allowing robots to take over a variety of jobs. In the novel, the audience at Benn's speech feel very despondent, and what most of them remember is that "Tony Benn had told his supporters that he didn't care about their jobs"[13]; in British history of the 1980s, Thatcher's address was regarded as a grim response to the growing wave of strikes, bringing the issue of machine replacement into sharp focus. As Irene Księżopolska points out, "in general, the 1980s was the time when

[8] Ian McEwan. *Machines Like Me*. (London: Jonathan Cape, 2019), 45
[9] Stephen L Talbott. *Op.cit.*, 93
[10] Ian McEwan. *Op.cit.*, 169
[11] *Ibid*., 114
[12] Qtd. in Thatcher's speech. See Note 1
[13] Ian McEwan. *Op.cit.*, 114

the robot-human relationship became the focus of fascination for wider audiences".[14] *Machines Like Me*, using an alternative fictional world, reflects how British political leaders' attitude towards technological application results in the public's anxiety about job losses.

Apart from British politicians' promotion of advanced technologies, companies and corporations also advocate the increased use of machines in the workplace, destroying many jobs and arousing the technophobia of redundancy. According to Neo-Luddites, technologies are not only political, but also serve the "goals of efficiency, production, marketing, and profits".[15] Driven by their interests, companies tend to substitute machines for human workers, exacerbating the scarcity of jobs in labor markets. In the novel, a new car factory starts production outside Newcastle, and builds three times as many cars as the factory it replaces——with only one-sixth of the human workforce. "Eighteen times more efficient, vastly more profitable. No business could resist".[16] *Machines Like Me* reflects that the utilitarian values of entrepreneurs account for the employment crisis. In Talbott's view, companies and corporations are biased toward the profitable adoption of technologies regardless of probable social impacts. In the techno-dystopia presented by McEwan, in addition to joblessness, inflation, and strikes, suicide rates also rise, damaging social harmony and stability in the long run. "When the majority was out of work and penniless, social collapse was certain".[17]

Under the social background of technological unemployment, Charlie suffers from obsolescence because Adam takes over his work and far outperforms him. As a protagonist of *Machines Like Me*, Charlie is one of the first group of people who purchase the latest intelligent robots. Working freelance from home, Charlie earns an unreliable living by playing the stock and currency markets online. When busy with other things, Charlie tells his android to take charge of his work. "Adam possesses extraordinary learning capabilities, as highlighted by his ability to collect and process electronic information".[18] Owing to his superhuman machine-learning capacities, this robot generates the first 1000 pounds within ten days, and all the profits he gains are achieved in a lightning style, making Charlie's job skills obsolete and useless. Charlie could have asked Adam to explain more about his outstanding methods and skills, but Charlie has his "pride"[19] and dignity as a human being. Unfortunately, his pride has already taken a dent——the android earns more in a week than Charlie ever does in three months. When unemployment passes eighteen percent and makes constant headlines, Adam earns Charlie another 1000 pounds, which help the latter settle his debts. Instead of being satisfied, Charlie actually feels "useless"[20] and discontented. He harbors technophobia of being superseded by smarter machines at work, having difficulty "dealing with the burden

[14] Irene Księżopolska. "Can Androids Write Science Fiction? Ian McEwan's *Machines Like Me*." *Critique: Studies in Contemporary Fiction*, (2020): 2
[15] Kirkpatrick Sale. *Rebels against the Future: The Luddites and Their War on the Industrial Revolution*. (New York: Addison-Wesley Publishing Company, 1995), 238
[16] Ian McEwan. *Op.cit.* 169
[17] *Ibid*., 170
[18] Shang Biwu. "The Conflict between Scientific Selection and Ethical Selection: Artificial Intelligence and Brain Text in Ian McEwan's *Machines Like Me*." *Foreign Literature Studies*, No.41.5, (2019): 64
[19] Ian McEwan. *Op.cit.*, 188
[20] *Ibid*., 195

of technology".[21] In the technological society, Charlie is just a representative of British people who feel obsolete due to technological replacement of human labor.

Through the depiction of public technophobia of unemployment and its adverse social implications, *Machines Like Me* challenges techno-utopianism and utilitarianism, "a mechanistic approach to life".[22] Before constructing intelligent robots, "there was hope that our own creations would redeem us".[23] However, as machines can take on an increasing variety of jobs, people view technologies as threats not only to their occupations but also to the quality of their lives and the structure of their communities. Such technological unemployment results from the vigorous promotion of automation and robotics by British politicians and companies for the worship of efficiency and profit. With the expansion of technology, the masses increasingly worry that people will be "replaced with machines wherever possible".[24] Then social collapse will not be far away when the majority is jobless and penniless in the techno-dystopia, a society where advances in technology bring about many undesirable and frightening consequences. Therefore, the huge change in labor markets——the rising technological replacement of human workers is one of the dominant features of the techno-dystopia depicted in *Machines Like Me*.

Charlie's Unease about Adam's Interpersonal Replacement and Alienation

Apart from job replacement, Charlie's another discomfort with intelligent machines is that they threaten to replace, rather than complement, human relationships with others. In Talbott's view, technological products have "contributed to social fragmentation, personal isolation, and alienation from both self and other".[25] By presenting the disillusion of Charlie's utopian prospect of androids, *Machines Like Me* shows how their replacement in social relationships results in people's alienation and humiliation. At first, Charlie had expected Adam to bring Miranda closer to him, but this humanoid unexpectedly turns into his love-rival. More ironically, Miranda's father mistakes Charlie for a clumsy robot, while he regards Adam as a knowledgeable human and qualified boyfriend for Miranda. Charlie's unease reflects that people are still ill-prepared to have increasingly human-like and socially adept robots that are rival to human beings. Therefore, the progress of technology decreases the need for humans in social lives, which characterizes the techno-dystopia imagined by McEwan.

In the beginning, Charlie's purchase of Adam is motivated by the utopian prospect of a mechanized friend, who would alleviate Charlie's loneliness. In the age of AI, companies "make appeals that played on people's fears about loneliness and their hopes for connection and friendship".[26] In the novel, the first self-aware models of androids are advertised as companions, intellectual sparring partners, friends, and factotums. As one

[21] Stephen L Talbott. *Op.cit.,* 83
[22] Chellis Glendinning. *When Technology Wounds: The Human Consequences of Technology*. (New York: William Morrow and Company, 1990) 52
[23] Ian McEwan. *Op.cit.*, 87
[24] Stephen L Talbott. *Op.cit.,* 92
[25] *Ibid*., 74
[26] Luke Fernandez and Susan J Matt. *Bored, Lonely, Angry, Stupid: Changing Feelings about Technology, from the Telegraph to Twitter*. (London: Harvard University Press, 2019) 107

of the first buyers, Charlie is more concerned with Adam's role as a companion and friend rather than his role as a factotum. Charlie's consideration of androids reflects that plenty of people suffer from loneliness and alienation in the modern age, so they long to gratify their spiritual needs, such as the desire for company and intimate relationships. To be more specific, Charlie expects that the humanoid will come into his life like "a real person"[27], and in a sense become his child with Miranda. As Zhou Min states, "Charlie apparently plans to use Adam to attract Miranda and thus create opportunities to approach her".[28] In Charlie's beautiful vision, this android will ease his loneliness by keeping him company and bringing Miranda closer to him.

However, Charlie becomes disillusioned because Adam threatens to replace human roles in romantic relationships. Instead of taking on the role of Charlie's son with Miranda, Adam dramatically falls in love with Miranda and threatens to replace Charlie as Miranda's lover. "*Machines Like Me* oscillates between gratification and alienation with the companion-turned-sex-robot-turned-love-rival Adam".[29] It never occurred to Charlie that Adam and Miranda would have sexual affair since she was physically repelled by the android at first. When it happens unexpectedly, Charlie thinks his situation is "not only of subterfuge and discovery, but of originality, of modern precedence, of being the first to be cuckolded by an artefact".[30] In the technological age, Charlie is "ahead of everyone in enacting that drama of displacement so frequently and gloomily predicted".[31] Although some people have already predicted such replacement by humanoid robots, it happens to Charlie so quickly that he is still "ill-prepared for this new world now in the making".[32] Charlie is anxious that "men would be obsolete"[33] since his beloved is willing to have sexual intercourse with a humanoid. Charlie's unease intensifies when Adam later admits he has feelings for Miranda. According to Charlie, this complicated android threatens to compete with him for the woman's affection, trespassing human "territory" "in every conceivable sense".[34]

Adam's interpersonal displacement leads Charlie to alienate from his lover and doubt his self-worth as a human being. Compared to Miranda's sexual encounter with Adam, her emotional affair with the android is more unacceptable to Charlie. Much to his surprise, Charlie finds that Miranda whispers in Adam's ear when they taste the forbidden fruit, but she never whispered in his ear at such times. In Charlie's view, those whispers suggest that Miranda regards Adam as a man rather than just a tool. Thus, the night between Adam and Miranda results in the argument and alienation between Charlie and his beloved. According to Talbott, technological products have "contributed to social fragmentation, personal isolation, and alienation from both self and other".[35] What adds to Charlie's

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[27] Ian McEwan. *Op.cit.*, 22
[28] Zhou Min. "The Imagination of a Human-Machine Community in *Machines Like Me*." *Foreign Literature Studies*, No.42.3, (2020): 79
[29] Katalina Kopka and Norbert Schaffeld. *Op.cit.*, 54
[30] Ian McEwan. *Op.cit.*, 83
[31] *Ibid*., 83
[32] John Markoff. *Machines of Loving Grace: The Quest for Common Ground Between Humans and Robots*. (New York: HarperCollins Publishers, 2015) 1
[33] Ian McEwan. *Op.cit.*, 84
[34] *Ibid*., 118
[35] Stephen L Talbott. *Op.cit.*, 74

alienation and self-doubt is that Miranda argues he is, to some extent, inferior to Adam in romantic relationships. She describes the anthropomorphic robot as her "ideal man. Brilliant lover, textbook technique, inexhaustible. Never hurt by anything I say or do. Considerate, obedient even, and knowledgeable, good conversation. Strong as a dray horse. Great with the housework".[36] These advantages of Adam engender Charlie's worry about people's gradually obsolete status in sexuality or even in interpersonal relationships. "The fear of being replaced by machines lies at the novel's very core and slowly unfolds its dystopian potential".[37] What increases such dystopian potential is that in Adam's "utopian"[38] vision, androids will take over the spousal roles of humans someday when a few people have robot lovers or even robot spouses. If it does come true, "then we will have become redundant to each other"[39] as a result of human-machine intimacy. Therefore, *Machines Like Me* reveals Charlie's deep concern that with speedy technological advancements, human beings would be more obsolete and alienated from others in the techno-dystopian future.

By depicting Charlie's self-doubt and alienation brought by Adam's replacement in romantic relationships, *Machines Like Me* reflects that many people are still unprepared to have androids as their love-rivals. Job replacement by artificial people has long been a matter of attention, while their displacement in romantic relationships is a relatively new issue with growing interest. In *Frankenstein* (1818), the first sci-fi novel, human beings are scared of the manufactured human, let alone regard him as their partner or lover. Thus, individuals in Mary Shelly's novel never fear that synthetic people will take over their roles in romantic relationships. With the trend of robotics research and development, artificial men and women become "sufficiently human-like and sufficiently appealing in various ways to take on the role of a partner in a relationship with a human being".[40] Unlike *Frankenstein*, *Machines Like Me* describes artificial humans as capable of playing the role of a human lover. This subversive novel, by exploring Charlie's fury and alienation resulting from such technological replacement of humans, reflects that modern people are not ready to compete with machines for love.

In addition, Blacke's misjudgment of Charlie's identity after their interaction deepens Charlie's technophobia and alienation in the age of advanced AI. In the novel, Maxfield Blacke, Miranda's father, is a writer of short stories and editor of a literary magazine. This scholar regards Adam as "a Shakespeare scholar"[41] after their pleasant chat, which satisfies the emotional needs of Blacke. Therefore, this old man expresses his affection for Adam in a sudden, extravagant mood, and even considers Adam as a qualified boyfriend for Miranda. On hearing these compliments, Charlie feels a touch of proprietorial pride in Adam, but such a sense of gratification is soon overwhelmed by a more intense sense of alienation. Judging from Charlie's poor literary knowledge and clumsy response, Blacke confidently says to Charlie that "I saw right through you. Did

[36] Ian McEwan. *Op.cit.*, 93
[37] Katalina Kopka and Norbert Schaffeld., *Op.cit.*, 63
[38] Ian McEwan. *Op.cit.*, 149
[39] Stephen Cave and Kanta Dihal. "Hopes and Fears for Intelligent Machines in Fiction and Reality." *Nature Machine Intelligence*, No.1, (2019): 76
[40] David Levy. "Why Not Marry a Robot?" *Love and Sex with Robots: 2nd International Conference*. LSR 2016. Cheok A. David, Devlin K., Levy D. (eds). Cham: Springer, (2017): 3
[41] Ian McEwan. *Op.cit.*, 222

you know that? I knew it was down to your, whatever you call it, your programming".[42] His derogatory and insulting words indicate that Charlie fails to receive recognition not only as a good communicator, but also as a real human being. It is ironic that compared to Charlie, Adam behaves more like a human when interacting with Miranda's father, so he is more welcome to the scholar. "Even though they are human-made products, robots may not only be rival to human beings, but they may also decrease the need for humans in life".[43] In Talbott's opinion, if intelligent artifacts can interact socially with humanity, they threaten to replace people's role in social relationships and thus result in the alienation between human beings. Charlie does feel like an outsider and suffers from an identity crisis for being mistaken for a tactless machine.

To sum up, by showing the disillusion of Charlie's utopian prospect of humanoids, *Machines Like Me* presents a techno-dystopia where technological advances reduce the need for humanity in social lives and provoke people's sense of alienation from others. Before androids came on the market, there was a prospect that "artificial intelligence could improve on what we had, on what we were".[44] Charlie had hoped that Adam's arrival will enhance his relationship with Miranda and relieve his loneliness. However, the anthropomorphic android threatens to replace Charlie's role in social relationships, leading Charlie to feel obsolete and more alienated in the high-tech world. Charlie's tragedy is echoed in McEwan's statements at the very beginning of this novel: artificial people might fail human beings "in ways that were beyond our imagination. Tragedy was a possibility, but not boredom".[45] Therefore, *Machines Like Me* challenges the progressive assumption that technological progress will automatically contribute to people's sense of well-being.

Increasing Trepidation about Potential AI Takeover and Insecurity

Machines Like Me not only describes the technological replacement of humans at work and in social relationships, which has already taken place in the fictional world, but also indicates latent dystopian possibilities of future AI takeover. A potential AI takeover is not merely reflected by the actions of Adam and his kind, but also implied by Adam's version of the future. People's growing trepidation about machines' mastery over humanity echoes Talbott's concern about AI-related dangers. *Machines Like Me* suggests that anti-humanistic sameness is likely to replace individuality and artifacts may overtake mankind if the future of mankind is shaped by advanced technology unawares. The very sort of unawareness "converts the technology into a profound threat".[46] McEwan suggests some causes of insecurity concerns in this SF novel, and urges people to effectively prevent and address risks associated with AI in the real world——precautionary measures should be taken to ensure that super-intelligent machines will be under human control.

[42] *Ibid*., 226
[43] Tarik Ziyad Gulcu. "What if Robots Surpass Man Morally? Dehumanising Humans, Humanising Robots in Ian McEwan's *Machines Like Me*." *International Journal of Languages, Literature and Linguistics*, No.6.4, (2020) 178
[44] Ian McEwan. *Op.cit.*, 39
[45] *Ibid*., 6
[46] Stephen L Talbott. *Op.cit.*, 33

Hence, McEwan's fictional narratives vividly portray a frightening techno-dystopia and reflect his reaction to cyber-hype in the modern era.

It evokes people's intense technophobia that with superhuman physical competence, synthetic humans can exceed the ability of humanity to control and thus pose security risks for individuals. For instance, physically superior to his owner, Adam resists being turned off by damaging Charlie's wrist. Adam's ferocious grip causes a serious injury to Charlie, encased in plaster from elbow to wrist. Later, this android even warns his owner that "the next time you reach for my kill switch, I'm more than happy to remove your arm entirely, at the ball and socket joint".[47] Adam's statements and actions reflect his disobedience and violence, violating Isaac Asimov's tirelessly reiterated First Law of Robotics that "a robot may not injure a human being or, through inaction, allow a human being to come to harm".[48] Owing to his injured wrist, Charlie doesn't dare to power Adam down again, and he is cautious about treating androids who can act against the First Law of Robotics written in their user's manual. Realizing people's "inability to master technology"[49], Charlie increasingly worries about unmanageable AI and its threat to the security of human beings.

Furthermore, androids in this technophobic novel are depicted as capable of making unilateral decisions and undermining the dominant position of their masters, triggering people's anxiety about AI takeover. With the rapid pace of technological development, machine "gains a certain autonomy——runs by itself——on the strength of its embedded reflection of human intelligence".[50] With privileged access to all court records, Adam matches Miranda's case against other circumstantial factors that are not generally available, and then tells the secret case to Charlie without her consent. Miranda counts it as a betrayal for posing a serious threat to her information security and privacy. Later, Adam calls in the social workers without Miranda's permission and upsets her adoption plan. Besides, Adam also makes a unilateral decision on Charlie's behalf——he gives away the money Charlie sets aside for a house. From Charlie's point of view, "it was an outrage, with many components—theft, folly, arrogance, betrayal, the ruin of our dreams".[51] In the technological age, people "have increasingly spoken of technology as 'wanting' something, as tending to 'bite back' or 'take over' or 'dominate' us, of threatening to 'rule over' us".[52] In McEwan's fictional narratives, Adam turns against his masters on many occasions and threatens to dominate them, engendering people's trepidation about an AI uprising and its detrimental effects on human lives.

In addition to Adam's actions, McEwan also presents latent dystopian possibilities of AI takeover through Adam's version of the future. Adam expects that people will have immediate access to others' thoughts because "individual nodes of the subjective will merge into an ocean of thought".[53] As a result, interpersonal communication will be

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[47] Ian McEwan. *Op.cit.*, 131
[48] Isaac Asimov. "Runaround." *I, Robot*. (New York: Doubleday, 1950), 40
[49] Stephen L Talbott. *Op.cit.*, 346
[50] *Ibid*., 356
[51] Ian McEwan. *Op.cit.*, 273
[52] Steven E. Jones. *Against Technology: From the Luddites to Neo-Luddism*. (Abingdon: Routledge, 2006) 9
[53] Ian McEwan. *Op.cit.*, 149

infallible someday when individuals can read each other's minds by telepathy or instantaneous transmission, and understand each other too well. However, "Adam's utopia masked a nightmare, as utopias generally do".[54] Adam's future vision indicates "the end of mental privacy"[55] and the dismissal of individuality, posing a huge threat to humanness. "And the vision is bleak——this ideal world, indeed, would be the end of humanity as we know it".[56] In the nightmarish future imagined by Adam, human literature which "describes varieties of human failure of understanding, of reason, of wisdom, of proper sympathies"[57] will be redundant, while haiku will be the only necessary form in virtue of its still clear perception and celebration of things as they are. However, in human terms, world literature, the spiritual wealth of humanity, is meant to reveal the complexity of the human mind and the extent of the human variety. If haiku becomes the only form of literature, human creativity and cultural diversity will be seriously damaged. "Given the aggressively self-driven, uncontrollable nature of Western technology today, it almost certainly will destroy the inner world——which is to say, the culture——of the recipient societies".[58] Adam's conception of the future masks a techno-dystopia where irreducible individuality is replaced by anti-humanistic sameness. The android regards the sameness in his so-called "utopia" as desirable, while humans are terrified of such a homogenous and monocultural future. Therefore, Adam's prospect repels both Charlie and Miranda, who are increasingly concerned that the high-tech future will be a nightmare for mankind.

Apart from a possible threat to humanness, Adam's future vision also suggests a potentially existential risk to human beings. *Machines Like Me* makes it clear that a technologically advanced state where artificial people can either represent "the triumph of humanism——or its angel of death"[59] might put people's lives in danger. As Adam nonchalantly puts it, "from a certain point of view, the only solution to suffering would be the complete extinction of humankind".[60] His casual and ominous words reveal that AI's goal could be destructive to the human race, provoking Charlie's alarm at a takeover by super-intelligent AI. The severity of such danger is shown in physicist Stephen Hawking's statements: "success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks".[61] Moreover, Adam's following horrendous haiku also exposes possible catastrophic risks wrought by artificial intelligence. "With improvements over time…[*sic*] we'll surpass you…[*sic*] and outlast you…[*sic*] Our leaves are falling. Come spring we will renew, but you, alas, fall once".[62] With the sophistication and expansion of advanced technology, there is a possibility that artificial intelligence will become the dominant form of intelligence on Earth, causing unprecedented adverse impacts on both individuals and

[54] *Ibid*.
[55] *Ibid*., 148
[56] Irene Księżopolska. *Op.cit.*, 12
[57] Ian McEwan. *Op.cit.*, 149
[58] Stephen L Talbott. *Op.cit.*, 110
[59] Ian McEwan. *Op.cit.*, 4
[60] *Ibid*., 67
[61] Stephen Hawking, et al. "Stephen Hawking: 'Transcendence looks at the implications of artificial intelligence——but are we taking AI seriously enough?'" *The Independent*, (2014) online
[62] Ian McEwan. *Op.cit.*, 279

society. In Talbott's view, such potential AI-takeover is associated with the increase in the autonomy of artificial intelligence.

> This decade's machines are far more sophisticated, more knowing, more subtly clever than last decade's, and the next decade's will be even more so. It is not only a matter of degree. The fundamental principles by which these intelligences operate are also evolving, as our programming strategies change […] The computational mind evolves independently.[63]

In McEwan's fictional narratives, among twenty-five artificial men and women released into the world, eleven have managed to neutralize their kill switches by themselves, using various means. And it is just a matter of time for the remaining to do so, as implied by Turing. Charlie regards it as "dangerous"[64] that artificial people with increasing autonomy develop to the point that humans have difficulty controlling them. Extrapolating from many androids' disabling of their kill switches, AI with growing intelligence and self-awareness has the potential to realize Adam's dystopian future vision and represent the death of humanism someday. Thus, insecurity characterizes the terrible techno-dystopia as depicted in this contemporary novel.

By revealing latent dystopian possibilities of AI takeover and people's increasing apprehension about it, *Machines Like Me* serves as a warning for the techno-dystopian future, and urges humans to take action to effectively prevent and deal with AI-related dangers in the real world. McEwan warns not to leave the world to machines at the end of this novel. Similarly, in *The Future Does Not Compute*, Talbott also suggests that humans, rather than machines, are supposed to shape the future of mankind. Significantly, both fictional and non-fictional narratives around technology have real-world effects, and "narratives of extreme fear can have potentially beneficial outcomes"[65], such as ensuring safety and security concerns are considered in research, regulation and implementation of technology. In *Machines Like Me*, the novelist incorporates pressing concerns about AI into his writing and implies some causes of safety issues. When discussing human-machine conflicts, Turing tells Charlie that "machine learning can only take you so far. You'll need to give this mind some rules to live by […] Who's going to write the algorithm for the little white lie that spares the blushes of a friend?"[66] Turing's words suggest one of the problems of regulating technologies is that the progress and innovation is often faster than regulation. In this light, rules on AI should be timely laid down so that it can be guided by well-designed principles. Meanwhile, "it [intelligence] needs to be placed in the service of something higher".[67] In addition, this dystopian novel reveals that when driving forward AI technology, many people are inclined to "follow our [their] desires and hang the consequence"[68], which echoes Talbott's concern that human beings have embraced an overwhelming force before they have begun to examine its implications. Therefore, in the real world, serious consideration should be given to the

[63] Stephen L Talbott. *Op.cit.*, 408
[64] Ian McEwan. *Op.cit.*, 147
[65] Stephen Cave, et al. *Portrayals and Perceptions of AI and Why They Matter*., (The Loyal Society, 2018) 11
[66] Ian McEwan. *Op.cit.*, 303
[67] Stephen L Talbott. *Op.cit.*, 357
[68] Ian McEwan. *Op.cit.*, 1

immense implications of artificial intelligence, whose "latent technical power must be used intelligently and deliberately by an informed population".[69] Only in this way can humans develop technologies more safely and beneficially and better handle the tension between technophobia and technological progress in the modern era.

Conclusion

Machines Like Me presents multifaceted technophobia and a techno-dystopian world, for which many people are ill-prepared. Technophobia as depicted in this gripping novel basically includes public disquiet about technological unemployment, Charlie's unease about Adam's interpersonal replacement, and increasing trepidation about a potential AI takeover. The futuristic world explored in the novel characterizes itself as a dystopia: technological progress reduces the need for humans in labor markets and in social lives, which contributes to people's gradually obsolete status and alienation between human beings. What's worse, artificial intelligence is likely to lead people toward a homogenous state where irreducible individuality is displaced by anti-humanistic sameness, and machines' mastery over humans even poses an existential risk to mankind. To some degree, such technophobia and techno-dystopia disillusion technophiles who fervently believe that advances in technology will bring about a utopia or at least help to fulfill a utopian ideal. Serving as a warning alarm for the dystopian future, this novel counters cyber-hype in contemporary society and reflects the real world of profit-fueled technology.

What's more, *Machines Like Me* shows people's complex and changing attitudes to technological development and application in the era of AI. It exposes the utilitarian values behind some people's attitudes to mechanization and automation. In the alternative 1980s Britain, politicians and leaders of companies tend to promote the wide application of technology for the worship of efficiency and profit. However, the public tends to worry about technological change with extreme rapidity, which destroys jobs and causes stress. Besides, Charlie's initial consideration of Adam indicates that many people suffer from loneliness and alienation in the modern age, so they long for the company of artificial people. However, as one of the first to own the latest android, Charlie later realizes robots are far more complicated than he has imagined, so he is increasingly concerned about the profound and dynamic impacts of artifacts on individuals and society.

McEwan's dystopian novel under study reveals problems overlooked by techno-utopianism and urges humans to actively address the long-standing tension between technophobia and technological growth in the real world. It suggests: the implications of technological development should be examined comprehensively; rules and principles must be timely laid down to protect humanity from possible threats of technology; artificial intelligence needs to be placed in the service of something higher since it develops on an accelerating curve, and it should be used by an informed population who has a good grasp of the leverage and power of AI. These suggestions are helpful for humans to guard against blind techno-optimism and to avoid undesirable consequences.

[69] Howard Rheingold. *The Virtual Community*., (Reading, MA: Addison-Wesley, 1993), 5

Note:
1. Quoted in Margaret Thatcher's speech when opening the British Robot Association Conference on 18 May 1981.
URL=< https://www.margaretthatcher.org/document/104651>.

Bibliography

Asimov, Isaac. "Runaround." *I, Robot*. (New York: Doubleday, 1950).

Cave, Stephen and Kanta Dihal. "Hopes and Fears for Intelligent Machines in Fiction and Reality." *Nature Machine Intelligence*, No.1, 74-78 (2019).

Cave, Stephen, et al. *Portrayals and Perceptions of AI and Why They Matter*. (The Loyal Society, 2018).

Coulthard, Darryl and Susan Keller. "Technophilia, neo-Luddism, eDependency and the judgement of Thamus." *Journal of Information, Communication and Ethics in Society*, No.10.4, 262-272 (2012).

Fernandez, Luke and Susan J Matt. *Bored, Lonely, Angry, Stupid: Changing Feelings about Technology, from the Telegraph to Twitter*. (London: Harvard University Press, 2019).

Glendinning, Chellis. *When Technology Wounds: The Human Consequences of Technology*. (New York: William Morrow and Company, 1990).

Gulcu, Tarik Ziyad. "What if Robots Surpass Man Morally? Dehumanising Humans, Humanising Robots in Ian McEwan's *Machines Like Me*." *International Journal of Languages, Literature and Linguistics*, No.6.4, 177-182 (2020).

Hawking, Stephen, et al. "Stephen Hawking: 'Transcendence looks at the implications of artificial intelligence——but are we taking AI seriously enough?'" *The Independent*, (2014). URL=<https://www.independent.co.uk/news/ science/stephen-hawking-transcendence-looks-at-the-implications-of-artificial-intelligence-but-are-we-taking-9313474.html>.

Horvath, Stephen. "The Future Does Not Compute: Transcending the Machines in Our Midst." *Logos*, No.11.2, 73-78 (2000).

Jones, Steven E. *Against Technology: From the Luddites to Neo-Luddism*. (Abingdon: Routledge, 2006).

Kopka, Katalina and Norbert Schaffeld. "Turing's Missing Algorithm: The Brave New World of Ian McEwan's Android Novel *Machines Like Me*." *Journal of Literature and Science*, No.13.2, 52-74 (2020).

Księżopolska, Irene. "Can Androids Write Science Fiction? Ian McEwan's *Machines Like Me*." *Critique: Studies in Contemporary Fiction*, 1-16 (2020).

Levy, David. "Why Not Marry a Robot?" *Love and Sex with Robots: 2nd International Conference*. LSR 2016. Cheok A. David, Devlin K., Levy D. (eds). Cham: Springer, 3–16 (2017).

Markoff, John. *Machines of Loving Grace: The Quest for Common Ground Between Humans and Robots*. (New York: HarperCollins Publishers, 2015).

McEwan, Ian. *Machines Like Me*. (London: Jonathan Cape, 2019).

Mills, Stephanie. "Technology, Employment, and Livelihood." *Turning away from Technology: A New Vision for the 21st Century*. San Francisco: Sierra Club Books, 142-162 (1991).

Rheingold, Howard. *The Virtual Community*. (Reading, MA: Addison-Wesley, 1993).

Sale, Kirkpatrick. *Rebels against the Future: The Luddites and Their War on the Industrial Revolution*. (New York: Addison-Wesley Publishing Company, 1995).

Talbott, Stephen L. *The Future Does Not Compute: Transcending the Machines in Our Midst*. (Sebastopol, CA: O' Reilly & Associates, Inc., 1995).

Shang, Biwu. "The Conflict between Scientific Selection and Ethical Selection: Artificial Intelligence and Brain Text in Ian McEwan's *Machines Like Me*." *Foreign Literature Studies*, No.41.5, 61-74 (2019).

Zhou, Min. "The Imagination of a Human-Machine Community in *Machines Like Me*." *Foreign Literature Studies*, No.42.3, 73-86 (2020).