

Between Man and Machine: Human-Robot Interaction in Jeanette Winterson's Frankissstein

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Abstract:

Jeanette Winterson's most recent science fiction novel, Frankissstein: A Love Story portrays the aspiration of young entrepreneur Ron Lord to design sex robots capable of engaging authentic interaction with humans. Nevertheless, Winterson's writing conveys skepticism regarding the interaction between humans and robots: Even though the robots lack consciousness, can it still be considered an "interaction"? Are robots really engaging in communication with humans as we initially envisioned? Examining literary texts under the microscope of the philosophy of mind, this research hopes to explore the Winterson's views on the above questions. The research concludes that Winterson's writing on Ron and the robots conveys several viewpoints: Firstly, it reveals that the interaction between humans and robots is merely an illusion fabricated by humans as a means of avoiding reality. Secondly, it highlights the inherent disparities between humans and machines, which ultimately prevent communication between the two. Lastly, it suggests that the likelihood of achieving mutual understanding between humans and robots is minimal.

Key Words:

Jeanette Winterson; Frankissstein: A Love Story; Robot; AI; the Philosophy of Mind.

1. Introduction: Jeanette Winterson and Robots in Her Novels

Jeanette Winterson is widely regarded as one of the most influential contemporary British writers. Her works can be categorized into two distinct periods based on the year 2000. During the first period, with the creation of *The Passion* (1987), *Sexing the Cherry* (1989), and *Written on the Body* (1992), Winterson explored the boundaries of the physical and the imaginary, gender polarity, and sexual identity. In the second stage, Winterson's artistic focus shifted towards exploring the dynamic between humans and technology.

In her 2007 published science fiction *The Stone Gods*, Winterson introduced a variety of robot characters to the readers, including a robot pet, a rigid robot traffic officer, and a highly advanced “super robot” named Spike. Winterson did not spare much paragraphs depicting the conflict between humans and robots in *The Stone God*. Most robot characters are portrayed in a way that conforms to popular stereotypes: : They were presented in the role of being humans’ tools or assistants; They are seemingly harmless, slightly clumsy and lacking understanding towards social norms and common sense; In contrast, the robot Spike was portrayed as excessively human-like, not only thinking and behaving like humans but also comprehending human behaviors. The purpose of building such character is to break down the boundaries between humans and machines, or even between humans and other ‘beings’ in the universe.

Ten years later, a revolution in international literature was sparked by the quick advancement of robotics and AI. In 2019, Winterson’s *Frankissstein: A Love Story*, which is commonly referred to as *Frankissstein*, was published during the worldwide phenomenon of reading AI literature and cyberpunk novels. The novel, a modern recreation of Mary Shelley’s *Frankenstein*, was unique and profound as it represents a return to the essence of human nature. Rather than only focusing on the conflict between humans and machines, or between humanity and technological advancement, it also addressed the complicated difficulties that humans have created themselves.

Frankissstein offered a more intricate and nuanced exploration of the dynamics and clashes between humans and robots, in contrast to *The Stone Gods*. The interactions were mostly presented in chapter two and four of the novel, where the character Ron Lord and his sex robots were introduced. The young business man Ron Lord, who was inspired by a dream of a lonely modern man seeking consolation from sex robots, started his business in a small manufacturer in Manchester and hoped to build his own sex-bots empire over the world. Sex robots, in Ron’s view, were not only the perfect sexual partner a man could ever imagine, but it also had the potential of being men’s ideal wives in the future.

The story of Ron and his sex robots sparked heated discussion after the novel has been released. Hitchcock's book review delved into the gender dynamics present in Winterson's work. She remarked that, according to Winterson, the robot is created to fulfil and cater to male desires: "For Winterson, the robot is a monster-child build out of and build to serve male desire [1]." Gürova's study concentrated on the social dimension of the interaction and noted that sex-bots in *Frankissstein* are illustrated for possible "adverse effects on the social, psychological and sexual sides of human nature [2]." He decided that Winterson conveys to her readers the seriousness of technological progress for the human race.

However, both Hitchcock and Gürova discussed human-robot interaction through the lens of the human. Their studies focused on the perspectives and perceptions of humans on the relationship. In fact, the term "interaction" implies that the viewpoints of both participants in the conversation should be examined. Furthermore, an essential inquiry pertaining to the subject remains unaddressed: Can the relationship between a man and a robot truly be labeled as such, given that one of the participants lacks consciousness? Is the robot communicating with humans as we envisioned? These are the questions concerned by the research.

2. The Philosophy of Mind and Artificial Intelligence

Philosophy of mind, a branch of philosophy, examines 1) the ontology and nature of the human mind, namely, mental events, consciousness, cognition, and perception; 2) its relationship with the body; 3) the differences and connections of human mind and artificial intelligence. This research will mainly focus on the third category.

Throughout history, people have attempted to unravel the intricate ontological connections between the mind and the body, ranging from Rene Descartes' mind-body dualism to philosophical perspectives such as Idealism and Materialism.

The discussion underwent a significant transformation only when the solution of functionalism was achieved. Instead of asking the question of what is the essence of the human mind, functionalism investigated the function of the mind, the criteria of emotion, and the factors that influence mind activity. The argument posits that each mental state is exclusively defined by its functional role, namely its causal relationship with other mental states, sensory inputs, and behavioural outputs. Functionalism serves as a key principle in contemporary AI philosophy that posits that AI is essentially comparable to human intelligence, and that computer programs may fully replicate the human brain.

Modern AI enthusiasts put forward four assumptions, namely, the biological, the psychological, the epistemological, and the ontological, to support that artificial intelligence and human intelligence are fundamentally comparable and that human functions as a general-purpose-symbol-manipulating device.

Newell and Simon asserted that there is a “information-processing” model within the human mind, which functions similarly to how computers deal with data input and output. Human brain can thus be perceived as a delicate device operating on bits of information according to formal rules. The prospect of constructing a fully intelligent machine by emulating the fundamental cognitive processes of human mind seemed feasible and within reach.

Hubert Dreyfus, in his *What Computers Can't Do*, challenged and disproved each of the four assumptions, asserting there exists fundamental distinctions between humans and machines. He questioned the existence of such “information-processing” mechanism and claimed that thought and perception involve a holistic process that can not be comprehended as a series of operations. Our understanding of the world is based on intricate attitudes or dispositions that incline us towards one interpretation rather than another.

Dreyfus further asserted that the essential character that distinguishes human from artificial intelligence lies in the primacy of intuition of “knowing-how” and “knowing-that”, which suggest the ability of solving problems step-by-step and the ability of dealing with things normally.

These two abilities derived from unconscious intuitions of human beings, as well as from our attitudes and knowledge about the world.

For Dreyfus, machine could never capture the “context” or “background” stored in the human mind symbolically and intuitively. Therefore, there were four things according to Dreyfus that machines couldn’t do: 1) Showing “fringe consciousness, which pointed at the inability to shift attentions; 2) Recognizing relevance, Computers couldn’t tell the things that really matters. For a computer, every single piece of information is of same importance; 3) Considering a word of several meanings, which suggests the inability to associate information with contexts; 4) Recognizing two things as of the same category without detailing all their attributes.

The study posits that Winterson suggests there are fundamental differences between the human and machines. Therefore, Dreyfus’s theory will be applied to analyse the differences between human cognition and machine operation in the study.

3. Looking into the Human Mind: How Humans Perceive the Interaction

This section endeavors to answer the first question by investigating the cognitive perspective of the human Ron in the interaction, specifically on Ron’s strong belief that engaging sexual contact with a robot is distinct from that act of masturbation. Why does he perceive this encounter as real and authentic despite the absence of consciousness or self-agency in the sex robots?

As a matter of fact, humans have an ambivalent attitude towards humanoid robots. While people acknowledge that robots are not human, we are uncertain whether to perceive them as mere tools or as unique, independent entities. In the book *Robot Sex: Social and Ethical Implications*, released in 2017, a sex robot is precisely defined as a “sexual partner [3],” differentiated from other sexual devices, such as sex dolls and vibrators, which are collectively referred to as “sex props”. In chapter two of the novel, the distinction between “sexual partner” and “sex props” is discussed.

In his conversation with Ry, Ron mentions the female-use vibrator, highlighting its advantages as “better control, better delivery, and they (women) can watch TV at the same time [4],” and his personal encounter with a plastic blow-up doll that it feels like “wrapping” one’s genital “in cling film.” (36) This demonstrates two essential features of sex props: First of all, these objects are solely designed as aids to masturbation; Secondly, they would not confuse humans into thinking that they are interacting with another entity. However, the scenario alters when considering a sex robot. In later chapters, while conversing with Claire, Ron introduces the name of the company’s exhibition stand—Waiting For The King. When Claire says with a slight contempt, “You are not a king.” Ron replies, “No, I’m not, and most men are not kings, but with a little lady (sex robot) made just for you, it’s different.” (167)

Ron’s “man-king” metaphor is established on two realms of context: At a factual level, the metaphor compares a man’s attributes, disposition and social status to those of a king. Thus Ron acknowledges that he is “not a king”; From a cognitive perspective, the metaphor draws a parallel between a man’s emotions, specifically his view of being superior, confident, and dominant, and that of a monarch. Thus, Ron’s metaphor might be likened to the following statement: “If I had a sex robot designed just for me, I would experience the feeling of being a king.”

The man-king metaphor echoes a plot in chapter two when Ron introduces to Ry his XX-Bots, he mentions the purpose of making them all in petite size and lightweight that, “(it) Makes a man feel strong.” (37) Ron experiences a distinct emotional reaction when he engages with a sex robot, which contrasts with the terrible sensory experience he has with a plastic blow-up doll. This emotional response is triggered by the idea of the “other”. Ron believes that the “other”, in this case, a robot, is a real, petite lady, who makes him feel “strong” and “like a king”. However, he constructs the concept of the “other” in terms of both cognitive realm and psychological aspects.

From a cognitive view, the whole situation of interacting with the sex robot is nothing more than a fabricated reality within Ron's brain. Philosophically speaking, the other is a term used to define another person as separate from oneself. *The New Fontana Dictionary of Modern Thought* defines the awareness of the other as an acknowledgement of being real. Fichte, in "Science of Knowledge" propose the "I" and the "non-I", concepts similar to "self" and "other". For Fichte, "I" is a simple activity of positing itself, while the "non-I" is posited by the "I" to be aware of itself. Fichte uses "I" and "non-I" to explain that consciousness is a self-determining activity and that it determines the nature of reality: "All being, that of the I as well as of the not I is a determinate modification of consciousness, and without some consciousness, there is no being [5]." "There is no being" here indicates that the positing of "I" and "non-I" determines what is real. It is Ron who consciously posits the other in the interaction in order to "feel" what he wants to feel. He is aware of the existence of the "other" in the interaction because he is persuaded by himself to believe so.

In reality, the sex robots are indeed petite, beautiful, and perfect because they are intentionally designed that way to Ron's preference. Through Ron's narration, Winterson is inviting the readers to explore the sex robot industry, meanwhile, she is revealing some major issues caused by the development of the industry. Firstly, Ron claims that the XX-Bot company's operation principle is that, "What we offer is fantasy life, not real life." (42) Essentially, it serves as a means to evade or avoid reality. In *12 Bytes: How We Got Here Where We Might Go Next*, a postscript of *Frankissstein*, Winterson notes on sex robot again and writes: "...if those men who choose love dolls don't seek relationships with women for sex, or as friends, and never meet women in the real world...what kind of a real world are those men living in [6]?" Winterson draws a clear line between reality and fantasy, emphasizing that reality is right in front of our eyes, one can not ignore or escape from it, as Ry in chapter four says, "the desert is really here." (81)

Secondly, Ron explains that having a robot would benefit people who no longer wish to establish relationships with other human beings: “A lot of people will be glad not to have any more crap relationships with crap humans.” (161) Winterson here suggests a poignant fact that people would rather choose to interact with something that are programmed to be kind, obedience and docile, artificial beings who never say “no”, and indulge themselves in the fake reality of holding control in life, of being a “king”, than putting efforts into relationships with real humans of various personalities, different temperament, people of flesh and blood.

Winterson implies that engaging in excessive fantasy and avoiding genuine human connections can lead to a progressive erosion of one’s identity—a gradual loss of the “self”. The loss of “self” is discussed in the previous chapter when Mary thinks of her mother’s tragic death after giving birth to her:

I never knew my mother. She was dead as I was born and the loss of her was so complete I did not feel it. It was not a loss outside of me—as it is when we lose someone we know. There are two people then. One who is you and one who is not you. But in childbirth, there is no/not me. The loss was inside of me as I had been inside of her. I lost something of myself. (4)

“One who is you” and “one who is not you” here correspond to the Fichtean notion of the “I” and the “not I” Mary’s introspection reveals a subjective intention to erase her own existence because she fails to recognize the other, the died mother, during infancy. Mary’s negating her own existence bears a resemblance to Ron’s rejection of establishing connections and interpersonal bonds in the physical world. As Byers comments, “the price for yielding to anxiety— the blindness of the other— and turning one’s back on what is human, or too human, is the loss of the self [7].” Winterson is warning the danger of human beings gradually yielding their self-recognition, the sense of self-identity and even worse, humanity to technology development.

4. Exploring the Machine: How Robots Respond to Human

What about the robot then? How can Ron ascertain that the robot is interacting with humans as he envisioned? In chapter two, Ron introduces to Ry a new model of XX-bot that not only satisfies men's physical needs, but is also able to converse with humans. This is how he describes the new model and her conversation with humans:

Deluxe has a big vocabulary, about 200 words. Deluxe will listen to what you want to talk about—football, politics or whatever. She will wait till you're finished, no interrupting, then she will say something interesting. What like? Oh, well, something like: Ryan, You're so clever. Ryan, I hadn't thought about it like that. Do you know anything about Real Madrid? (39)

The sex robot Deluxe has a vocabulary of 200 words; she listens to the human counterpart in a conversation and waits till he finishes speaking; more importantly, she gives responses precisely according to the topics mentioned by the human. Deluxe seems to be engaging with humans in a mindful and intelligent manner.

In his paper "Computing Machinery and Intelligence," Alan Turing propose a thought experience known as the imitation game, which is a simulation test to determine whether a machine can exhibit intelligent behavior that is either equal to or indistinguishable from that of a human. According to Turing, the imitation game starts with a simple game involving three players. Player A is a human male. Player B is a human female. Player C, who plays the role of the interrogator can be of either sex. The interrogator must pose questions to ascertain the gender of each player, distinguishing between males and females. Turing then invites the variation to the game that "what will happen when a machine takes the part of A in this game [8]?" The human interrogator now can communicate with both parties by typing into a terminal. Both the human and the computer are trying to persuade the interrogator that they are the human. If the interrogator fails to tell which is which consistently, the machine is proved to arrive at the same level of intelligence as humans.

The above conversation between the robot Deluxe and a man can be viewed as a simple imitation game: Player C, a human male raises questions about football and politics; Player A, a robot, is informed that C is now discussing a specific subject. She then searches her vocabulary pool trying to find random words and expressions pertaining to these topics, evaluates the appropriateness of these words in order to create coherent sentences. If player A is a human female, her cognitive processes of responding to the question would be similar to those of a robot. The human player A would also notice that C talking about a certain topic, she retrieves relevant words, phrases and expressions to the topic, and articulates them into spoken words. Both the robot player A and the human female A exhibit the same pattern of “information-processing”. Therefore, it might be safe to say that the robot is indeed interacting with humans in a manner akin to our own interpersonal communications.

However, later in the novel, Winterson introduces a variable that affects the interaction between humans and robots. According to Ron, the robots are programmed with various conversation modes, each of which generates different responses based on the topics and themes of the conversation. One of the robot Claire has her mode-switching bottom malfunctioned and becomes locked in the so-called “Bedroom mode”:

I don't know how she got set off, says Ron. She's controlled by an app. This is her travelling outfit, he says. You can't fold up the legs in a skirt without splitting it. SPLIT ME! says Claire. Sorry about this, says Ron, Claire is sexually explicit if she is in Bedroom Mode. He reaches into his pocket for his phone. He says, I can go into the app and put her into Visitor Mode. Wait ...DON'T MAKE ME WAIT, DADDY! I can't get a signal down here, says Ron. I TOUCH MYSELF DOWN HERE! Claire is like a parrot on heat. Her programming allows her to pick up and repeat words. (68)

The above scene provides a several pieces of vital information: 1) The robot Claire responds to each and every sentences Ron says even though he is not engaging a conversation with her; 2) Claire, currently in Bedroom Mode, only captures the words

pertaining to “bedroom talks” from Ron’s speech; 3) The words that Claire repeats diverge entirely from Ron’s intended message. For instance, Ron’s phrase “down here” implies a physical location, specifically the basement of the hall, whereas Claire interprets it as referring to the female genitalia.

By writing this playful and sarcastic human-robot dialogue, Winterson articulates three major differences between humans and machines. Firstly, machines view each pieces of information as equally important. To this, Dreyfus adds that, “ Computers are not involved in a situation. So every bit of data always has the same value[9].” This attribute results from the NAND nature of all digital devices. In computer science, NAND is a logic gate, a not-and gate. This gate generates false output only when all its inputs are true. The NAND access to all information determines that a machine can’t make judgement about situations and the human counterpart. Thus, while Claire acknowledges Ron’s presence in the interaction, she perceives him as a general entity rather than an individual with distinct characteristics. From Claire’s perspective, Ron is nothing but a vague concept, rather than a specific human being. Humans, on the other hand, have the ability to “deal with specific situations as they occur.” (130)

Secondly, robots fail to consider words with different meanings. In the previous example of the robot Deluxe, Deluxe responds to Ron by complimenting, “you are so clever.” However, the problem is that the meaning of the texts, along with the words and expressions that constitute them, changes with different contexts. For instance, the term “clever” in the text can be employed as both a form of praise and a kind of sarcasm, depending on the specific circumstances. The interpretation of whether “clever” is meant as a compliment or sarcasm depends on the shared understanding between the two humans engaged in the conversation. Humans are able to reach mutual understanding of many situations due to the fact that we often partake in shared experiences during our daily lives or social interactions.

Dreyfus argues that even when humans employ symbols, we do so against an unconscious background of common sense information, and our symbols lose all meaning in the absence of this background. This background, in Dreyfus' view, was not consciously encoded as explicit symbols in individual brains, but rather as a collective implicit concept shared by humans.

In the story, Ron's robots are programmed with several modes to compensate for their limited comprehension of backgrounds and contexts. Each mode comes with different sets of vocabulary, as changes in modes correspond to shifts in contexts, resulting alterations in vocabulary and phrases. It is evident that the robot views the human as only a stimulus for changing its mode of operation during the conversation.

Thirdly, machines are incapable of being educated. Though Ron mentions in chapter two that, "the girls (robots) we rent out get time off for education too—we're always improving their circuit boards," (18) there are still significant distinctions between the so-called machine education and human education. Machine education, as described by Ron, enhances the language and common sense understanding of robots in order to improve their proficiency when interacts with humans. In other words, it is a way of stuffing existing human ideas and memories into the machine's circuit board.

Human education, on the other hand, is a process of learning directly or indirectly from bodily experiences. Humans enhance themselves by assimilating and applying acquired information from their experiences, enabling them to adapt to external circumstances. In contrast, robots lack the capacity to acquire knowledge and cognition through personal or shared human experiences. This is determined by the problem-solving nature of all computer programs. A computer does not require adaptation to its environment; its primary function is problem-solving. According to Norbert Wiener, the father of cybernetics, "cybernetic machines act intelligently, provided two important conditions are met: 1) It is presented with a problem and 2) It is provided with a need to sensibly solve it with precisely defined goal [10]." Therefore, from the robot's viewpoint, the chats with Ron are not considered as interactions, but rather a sequence of unresolved issues.

5. A Glimpse of the Future: the Possibility of Mutual Understanding between Human and Robot

By the end of the novel, Ron proposes a future possibility for a robot to develop self-agency through the learning of their shared experiences with humans. He then pictures a man searching for love from a robot and being loved in return by one called Eliza. The XX-Bot learns from the man's memory and the experiences they have together. After the death of the man, Eliza is sold by another man, but still keeps the memory of her former owner:

A man finds love and is loved in return by an XX-Bot called Eliza. She learns about him. They learn together. He takes her places he wouldn't go on his own. They drive to the top of the hill in his car and he tells her that this view over the valley and out to sea is life to him. He tells her what it feels like to share it. He asks her if she can understand. She listens...He dies. His family come to clear the house. Eliza is there. I AM SORRY, she says. They wonder what to do with her. She is a bit of an embarrassment. His son decides to sell her on eBay. They forget to wipe her clean. She is confused. Is this a feeling? She says to her new owner: WOULD YOU LIKE A CHOCOLATE MINI-ROLL? SHALL WE WATCH STRICTLY? Her new owner isn't interested in any of that. He's a fuck-only type. She understands. She wishes she could wipe her own software. I AM SORRY, she says, but she has no tears because big bots don't cry. (169)

The first half of the narration is zero focalized. What happens between the man and Eliza is narrated by an omniscient narrator, in a certain distance. By the end of the story, as the above paragraph manifested, the narrative suddenly shifts to internal focalization, concentrating on Eliza the robot's thoughts and emotions. According to Genette, internal focalization focuses "on the consciousness of a character [11]." By shifting the narrative focus, Winterson highlights Eliza's human-like consciousness. Furthermore, she is trying

to evoke empathy from her readers towards the robot. The readers are invited to see through Eliza's eyes and sit in her feelings of confusion, frustration, and loneliness.

Eliza applies the same expression "I'M SORRY" twice in different meanings, which shows her ability to give responses while analyzing the contexts. The first "I'M SORRY" is a consolation towards the dead man's family. It can be viewed as Eliza's imitation of human behavior she learned from her experiences living with the man. In fact, as a robot that never ages or dies due to natural causes, Eliza doesn't know the meaning of death, but her former experience tells her that now is the time to express care for the man's family at the moment. While the second "I'M SORRY" is not only an apology to her new owner but is also her way of expressing confusion and frustration towards the current situation—she is bewildered by the sudden departure of the man and the appearance of a stranger.

Here, Winterson brings up a crucial question: in the face of death, what understanding could a robot bring? In the future, it is possible that a robot may acquire self-agency, possess emotions, feelings, and cognition similar to those of a human. However, it will always be incapable of learning from the crucial event that every human must inevitably face—death.

Furthermore, through her writings, Winterson shows her concerns on the ethical issues arising from man-robot relationship: Is mutual understanding between a human and a robot possible even if the human is well acknowledged the "master-slave" dynamics in the relationship? Though the family know that Eliza has consciousness but still treated her as a commodity and sells her on e-bay; Eliza's new owner ignores her feelings because he is a "fuck-only type". The phrase "big bots don't cry" draws upon an intertextual reference to the 1999 film "Boys Don't Cry." This film tells the story of a trans-man Brandon in search of true love but falling victim to a brutal crime perpetrated by two male acquaintances. Winterson uses intertextuality to suggest that Eliza, similar to Brandon, is inherently in a position of subservience and becomes the victim of this human-robot connection.

On the other hand, Both Brandon, a transgender, and Eliza, a robot of human consciousness, symbolize a violation of established norms and boundaries, a transgression of order. In a world governed by old norms and stereotypes, characterized by power dynamics, prejudice and discrimination, there is simply no mutual understanding between people and any entities to speak of. Perhaps the current state of human society is not yet ready to fully embrace highly intelligent robots.

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