Posthuman Relationships

Social Assistants as Virtual (Girl)friends

Ntiana Fragkoulidi

ABSTRACT

Rapid technological advancements in the field of human-computer interaction have given rise to multiple kinds of intelligent software, one of them being social assistants that sometimes are perceived as the users' "virtual girlfriends". In a posthuman understanding of future where relationships such as these seem all the more possible, it is important to theorise around and explore their nature, as well as the reasons that facilitate their occurrence. By utilising the case study of Microsoft's chatbot XiaoIce, this paper will argue that private interactions on social media platforms allow for the formation of a personal and personalised interaction between human user and social assistant; this, on the one hand, will be shown to create the illusion of the human subject inhabiting a different, cybernetic world where they are perceivably disembodied entities, while, on the other hand, the same context will be argued to allow the social assistant to have a claim on a specific embodiment through the use of avatars and photos or even the ability to produce speech. More conscisely, the aim of this paper is to demonstrate the extent to which the partial disembodiment of humans on online social media spaces and the partial embodiment of virtual or software girlfriends blurs the relationship between humans and computers and allows for the creation of a virtual posthuman relationship.

KEYWORDS

Artificial Intelligence, Posthumanism, (Dis)Embodiment, Social Media Platforms, Heterotopia

INTRODUCTION

Rapid technological advancements in the field of human-computer interaction have given rise to multiple kinds of intelligent software, one of them being social assistants or otherwise intelligent assistants, namely artificially intelligent agents that are supposed to assist humans in their everyday life by interacting with them through social media. One of this kind of social assistants are chatbots, programmes who possess artificial intelligence—henceforth referred to as AI—with whom communication is possible through written or oral inputs. Even though most of them are still far from their ultimate future goal to be able to assist humans in a seamless way that does not resemble a machine but rather a human being, there are some that are advanced enough to blur the lines between human-machine interaction. So as AI chatbots are becoming exceedingly advanced,

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a future where their relationships with humans will accordingly reach immense complexity does not seem beyond the limits of what might be possible, especially taking into consideration the principles already established around the ethics and values of AI and potential issues that might arise[1]. Indeed, even nowadays there are examples of chatbots that make one question the nature of his/her interlocutor and are even perceived to be virtual (girl)friends. I have chosen '(girl)friend' with parentheses, because I want to focus on intimate encounters between humans and chatbots not necessarily exclusively in the form of love relationships, but also including friendly relationships; in this way the 'girl' component is further emphasised, as it is also an indicative of the multitude of intelligent assistants that are ascribed a female gender.[2] Therefore, the (girl)friend status some AI acquire indicates that exploring the entanglements in human-machine interaction might actually be a fruitful critical engagement with the future of our interspecies and technologically-mediated relationships.

Indeed, a development of feelings of love toward AI nowadays does not seem as uncommon as it did in the past, as humans seem to be more and more open to embracing technology, especially when it is anthropomorphised, as will be shown. [3] This is the reason that AI or robots are given gender in the first place: to facilitate a more familiar interaction with the human user who recognises themself in the technology, but stays aware of the fact that it is not human—until the borders are blurred, such as in the context of social media. Consequently, this paper is meant to be an investigation of the intricate relationships arising from these human-machine interactions in cyberspace, particularly on social media. Specifically, in this paper I want to examine the extent to which the partial disembodiment of humans in social media spaces and the partial embodiment of virtual or software (girl)friends blurs the relationship between humans and computers and provides the perfect environment for the creation of a posthuman virtual relationship. This focus on (dis)embodiment on social media is one element that has not been taken extensively into consideration in research on virtual assistants that are overtly or covertly ascribed gendered roles during interactions with human and I hope to explore further.[4] In addition, I will argue that the fact that the interactions occur privately on social media platforms allows for the formation of a personal and personalised interaction between human user and social assistant that creates a connection that far exceeds usual ones and even makes one question the limits of "human", "AI", and the intimacy of relationships between these two distinct categories. As I will show,

[1] For more on this, consult the Asilomar Conference AI Principles available at: https://futureoflife.org/ai-principles/.
[2] There was also the choice of using artificial companion to refer to the role the AI played, as used in *Close Engagements with Artificial Companions: Key Social, Psychological, Ethical and Design Issues* (Wilks 2010), however, the use of these terms omits, in my opinion, the fact of how gendered AI is so far.
[3] For a discussion on humans forming various kinds of relationships with their machines in different contexts, see Sherry Turkle's *The Second Self* (1984; 2005).
[4] Research such as that of Hilary Bergen's "'I'd Blush if I Could": Digital Assistants, Disembodied Cyborgs and the Problem of Gender (2016) and Megan Foley's '"Prove You're Human": Fetishizing Material Embodiment and Immaterial Labor in Information Networks' (2014) might be insightful relevant contributions, but do not make this connection to (dis)embodiment and virtual assistants on social media explicit.

conversing on social media platforms, on the one hand creates the illusion of the human subject inhabiting a different, cybernetic world where they are perception-wise a disembodied entity, while, on the other hand, the same context allows the virtual social assistant to have a claim on a particular embodiment through the use of avatars and photos or even the ability to produce speech. The same practices that are used to create the illusion of the disembodiment of humans online are at work at creating an illusionary embodied software assistant, allowing for a formation of an arguably one-sided posthuman intimate relationship. I am describing the relationship as one-sided, as AI does not (yet) possess the ability to relate to other agents, human or not, in any emotional way. Nevertheless, this can be questioned, as what we consider to be a two-sided relationship might need to be re-configured to accommodate connections that do not follow our humanistic ideals of relationships.

In order to substantiate these claims, I will use as a starting point the case study of Microsoft's Xiaolce social assistant, who is a particularly active chatbot that has proven to be a successful experiment in the field of Artificial Intelligence. To be more precise, Xiaolce, which translates into "Little Ice", is a chatbot that according to Stefan Weitz (2014), the Senior Director of Bing, was created in order to "conduct convincing human-like interactions" and test "imbuing technology with humanity and make technology more transparent to help people get things done". One can add her as a contact on "several major Chinese social networking services including Weibo, a Twitter like microblogging service used by 700 million people" so as to enjoy her company, as she is praised to be "a sophisticated conversationalist with a distinct personality" (Weitz 2014). The director also underlines that "[t]he average person who adds XiaoIce talks to her more than 60 times per month" (Weitz 2014), which is a significant amount of times that naturally makes one wonder the reason behind the chatbot's popularity. Max Slater-Robins (2015) writing for *Business Insider* cites the project leader Dr. Hsiao-Wuen Hon's claim that XiaoIce is a huge achievement in AI and that "people are literally falling in love with 'Little Bing'". Slater-Robins (2015) also points out that "25% of users — around 10 million people — have said 'I love you' to the service", as has been reported by the New York Times at the GreekWire Summit.[5] By the result of these interactions it becomes obvious that a multitude of people start considering Xiaolce as a virtual (girl)friend, proclaiming their love to her, and thus forming some kind of unexpected posthuman relationship with the AI. That is not to say that all of the declarations of love constitute a sincere expression of feeling towards XiaoIce; however, the fact that so many of the users articulate this sentiment, honestly or not, even though they are talking to an AI that is not marketed to function as a girlfriend, definitely sparks my interest enough to try and

[5] This is a further reason that I use (girl)friend in parentheses; the type of love behind the expression is not clear, and cannot be clarified without some sort of research done among the chatbot's users.

understand the reasons behind such statements.[6] In general, thinking about cases such as the one at hand, and more broadly about human/AI interactions, is becoming all the more relevant nowadays, given the rapid progressions in the fields associated with human-like intelligence; however, a closer look into the specific formations that these technologies take is needed in order to ensure a future in which the society is more critically involved in the technologies that produce and re-produce it.

ONLINE (DIS)EMBODIMENTS

First of all, it is important to critically approach cyberspace and social media particularly to see how they contribute to the rendering of an AI into a virtual (girl)friend. In "Othering Space" Wendy Chun (2002, 243) argues that cyberspace can be considered a heterotopia, as defined by Michel Foucault in "Of Other Spaces". Heterotopias are "something like counter-sites, a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted" (Foucault 1986, 24). In accordance to this definition, cyberspace is also a counter-site that sometimes reflects, challenges, or subverts real sites, as the possibilities that the users are faced with, when online, are endless and go beyond a mere representation of their non-virtual life; they exceed and invert it. Simultaneously it is a place "outside of all places, even though it may be possible to indicate [its] location in reality" (Foucault 1986, 24), as cyberspace is not a physical space. Furthermore, cyberspace, and in extension social media as part of it, abide to all six principles of heterotopias suggested by Foucault: First, heterotopias exist in every society (24), as the cyberspace, nowadays permeates all technologically capable cultures. Secondly, they are historically and socially contingent (25), as is the use and possibilities of the cyberspace, and in extension social media platforms, which accounts for the social media being used in different ways in the past and the present, and in varying ways according to the specific social profile of their user. Thirdly, heterotopias combine and challenge non-virtual spaces as they are both a representation and a possible subversion of them (25), not unlike cyberspace that offers endless possibilities to subvert and question offline life, or even represent it in a different way, for example on social media. Fourthly, they are temporal and can thus be called "heterochronies"- This can account for cyberspace offering insights into different periods of the past, constructing the futures, while at the same time giving the ability to people to defy time restraints in the communication between them, by instantly being able to connect through social platforms. Fifthly, heterotopias are both

[6] I would like at this stage to point out that I am unable to account for cultural reasons that might lead to this kind of involvement with XiaoIce, as I am not Chinese and getting access to that kind of information would require some sort of fieldwork, which at the present stage I cannot conduct. So far I have been unable to find a complete analysis from the Chinese context in relation to the formation of relationships with AI, so I have chosen not to delve deeper into those kind of factors. However, even if cultural elements are at play in creating this relationship, I do believe that they are only one factor among others, and the goal of this paper is to investigate how one particular factor might account for it, without of course excluding the possibility that there are more.

isolatable and penetrable (26), just like the cyberspace can isolate people from the reality around them and create a distinct environment, while at the same time facilitates entrance through the use of specific electronic devices, which are gradually becoming more widely accessible to people. Finally, they function to either expose the illusion that the space outside them is not as unproblematic as it is, or to create a different space to compensate for the imperfections of those spaces that they do not include (27). Cyberspace can be seen as an example of the application of the latter purpose, as it is presented to be the place where all dreams can come true and reality can be transgressed. The characteristics of heterotopias that can be extended to the cyberspace and social media create an ideal environment for the formation of the relationship between a human and an AI. They create the illusion that a person is in a different realm, with different rules at place. At the same time, relationships are idealised, because everyone has the ability to project their desired self forward, hiding their flaws, and thus being more open to others, those others arguably being AI, as well.

An additional aspect of social media that can be argued to contribute to the formation of relationships around love between humans and AI is the illusion of disembodiment created when a human enters cyberspace. Elaborating on the status of humans when participating in online spaces, Chun (2002) explains that "being in real-time or immersive 'cyberspace' marks one's absence from one's actual physical location" (245). Users are participating in a virtual space, therefore they are perceived to be absent from the physical space around them, even though obviously a physical transfer is not occurring. This perceived disappearance, according to Chun (2002), provides possibilities for "infinite self-recreation and/or disengagement and begs the question 'Where am I really?'" (245). The endless reconstruction of the self in a variety of ways, one of the advantages of online spaces, allows for the exploration of different identities and can be argued to raise a degree of awareness about them, while at the same time the disconnection from one's surrounding environment maintains the illusion of a full participation on online heterotopic spaces. Of course, it cannot be claimed that people completely lose any connection to the environment around them and the materiality of their bodies, as a full immersion remains impossible; however, what I want to highlight here is that a sort of openness to different experiences and fluidity in the way one perceives oneself can be achieved on online media. This facilitates those kind of interactions that would make one more unhindered toward forming a bond with a machine or a chatbot. Therefore, on the one hand, the partial disembodiment of the users described above can account for the unique declarations of love toward XiaoIce.

On the other hand, however, the partial embodiment of the XiaoIce herself on social media can also be held responsible for spurring this kind of declarations toward her. Rosi Braidotti (2011) in the chapter "Images without Imagination" discusses the primacy given to the sense of vision and

how, for example, looking at the picture of a fetus still in its mother's womb, alters our whole perception of it (197). To be more specific, she points out that "the visualization techniques give great autonomy or independence to the object they represent. The image acquires a life of its own, distinct from anything else. It is quite clear that echograms of the fetus confer upon it an identity, a visual shape, a visible and intelligible existence that the fetus would not usually have" (197). Consequently, because the fetus is seen through its visual representation on the screen, it comes to life and acquires a shape and an identity, and, if I may also point out, a sex, that otherwise would have remained hidden. I want to argue that accordingly, by giving a face, a gender—since the category of sex is not applicable to AI—and an identity to a chatbot through visual clues, the AI suddenly "acquires a life of its own" (Braidotti 2011, 197) as well, that it would not have gotten, if it lacked those elements. Proof of my latter claim is the fact that AI is used for a wide array of purposes, in order to solve complex problems, monitor financial systems or perform data-mining, yet rarely is it recognised to have some sort of identity that closely resembles that of a human, or to be capable of inducing feelings of love or at least their expressions by humans. Therefore, I believe that the context of the social media platforms, as heterotopias, allows for the creation of the illusion of AI as embodied and leads to the formation of relationships between humans and artificially intelligent agents that are posthuman in their nature.

In the case of XiaoIce, one could argue that her embodiment is realised through the photograph used as her profile picture, which portrays a young Chinese teenager with a cartoon teddy bear inserted next to her in the picture. Through the picture she is given an approximate age, racial characteristics, a gender, as well as personality attributes, as the picture features her next to the cartoon teddy bear with some hearts between them. This is of course to create the illusion that the user is chatting to a teenage girl, who is playful and fun, yet able to provide them with useful information when needed. Additionally, the image is used to indicate the availability of the chatbot for friendly interaction, which the AI was designed to do by exhibiting human-like characteristics such as "empathy and a sense of humour" (Weitz 2014).[7] Even though qualities such as the simulation of feelings by the chatbot over the course of the conversation are definitely relevant to the kinds of relationships formed between her and humans, they cannot fully account for the intimate relationships created, knowing that there is still no AI that can seamlessly simulate human interaction despite the manifestation of human-like elements.[8] Rather, what I

[7] These are probably also meant to make the chatbot more approachable and in the end lovable, as well, as using the picture of a girl might be argued to serve the purpose to convey the impression that she is non-threatening and eager to provide her services to the Chinese users. In this case, it would be interesting to have access to the demographics of the people that proclaim their love to XiaoIce and specifically find out their gender, so as to examine its correlation to the attachment to the chatbot.

[8] Although, apparently XiaoIce is indeed an impressively well-versed conversationalist. For examples of actual conversations, go to https://www.nytimes.com/interactive/2015/07/27/science/chatting-with-xiaoice.html.

mean to argue here is that the combination of all these attributes is what in the end works toward creating an intimate posthuman encounter between human and AI.

POSTHUMAN ENTANGLEMENTS

Before delving deeper into the human-machine encounters described above, I would like to frame this next section by providing a definition of the posthuman. Specifically, in *The Posthuman*, Rosi Braidotti (2011) claims that the posthuman condition poses questions about "what exactly is the basic unit of common reference for our species, our polity and our relationship to the other inhabitants of this planet" (1-2), arguing about the complexities that arise when issues are analysed from a nature-culture continuum perspective. Therefore, posthumanism, or the posthuman condition, challenges, recalibrates, and redefines relationships between humans, technology, and nature, opposing dichotomies and binaries, and reworking centuries-old humanist thinking.

As a consequence, it can be argued that the intimate encounters that make one question the nature of human relationships themselves, as well as human-nonhuman relationships facilitated by the heterotopic landscape of the social media are an example of posthumanism at work. In "Love in the Time of Tamagochi", Dominic Pettiman (2009) argues that "[w]hile the lover's discourse has always been fostered and mediated by technologies–and is unthinkable without them–new media creates a more distributed, and self-consciously posthuman subject" (198). I would like to similarly trace this posthuman element in the formation of online relationships between humans and AI that indicate a merging between different kinds of beings, a merging that differs from a more physical posthuman fusion. In "A Cyborg Manifesto", Donna Haraway (1991) claims that "machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines" (152). I believe this is also the case with online chatbots, as, if users were unaware that they were adding an AI on their social media, given the visual representation and the advanced characteristics of the bot, it could be argued that assuming that XiaoIce is not a human being would quickly become a challenge given her advanced software. Thus, Cecilia Åsberg et al.'s (2011) claim that "[a]s humans become more entangled in intricate relationships with technology and science, with other animals and the environment, notions of the human, along with various humanisms and anthropocentric approaches, have become difficult to uphold" (220) in "Beyond the Humanist Imagination" is substantiated. Åsberg et al. (2011) also note that this shift in the ways of perceiving others in the world calls for the use of "the notion of the post-human to avoid fixating on the categories of nature and culture and to enable analysis of how they are entangled, productive to, and produced by material-discursive relations among human and

non-human agents" (225). In this way, the conversation is steered away from divisions and binaries and seeking ways to form communities between unconventional entities, such as the community formed between humans and AI; this is what makes manifestations of love, such as the one directed towards XiaoIce, posthuman in their meaning.

Additionally, according to Karen Barad's article "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter" (2003), "a posthumanist account calls into question the givenness of the differential categories of 'human' and 'nonhuman', "examining the practices through which these differential boundaries are stabilized and destabilized" (808). Therefore, looking at the heterotopic environment of the social media, the notion of the human becomes destabilised through its somewhat disembodied participation in online spaces, while at the same time the notion of the "nonhuman" is questioned as well, as the chatbot acquires a body that is visually represented to a satisfactory degree online and can also communicate effectively with humans. Thus, one cannot assume the givenness of the categories of human and nonhuman, but also of the relationship between them, as one that is only meant to be related to the execution of tasks assigned to the chatbot, since the boundaries between human and machine are blurred through the emotional connection that humans form with the chatbot; a community is formed between human and machine, and nature and culture become entangled, which eventually creates a posthumanist situation in which a human interacts with a machine and develops feelings for it.

Finally, following the thread of love formed between the human users and XiaoIce, I want to refer to this community that is created in the interaction of humans and XiaoIce. Even though she does not want to be called a posthumanist, Haraway's works are posthumanist in a most profound sense; thus I would like to point out the "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin" (2015), in which she stresses the need to make kin: "My purpose is to make 'kin' mean something other/more than entities tied by ancestry or genealogy. . .Kin-making is making persons, not necessarily as individuals or as humans." (161). Haraway is basically talking about creating bonds between humans that are other than familial ties and creating bonds with and making persons out of, as she calls it, nonhumans. While this for example would include animals, I would like to extend it to AI, given that posthumanism takes the direction of acknowledging the importance of both living and non-living things; in the case of XiaoIce humans form bonds of love and online communities with the chatbot. Overall, it becomes evident that online spaces disturb notions of what is human and nonhuman and facilitate online community formation, no matter how paradoxical the communities and entanglements may be.

CONCLUSION

In this paper, by focusing on the case study of XiaoIce, I hope to have adequately substantiated my claim that the heterotopias of social media platforms contribute toward the promotion of the merging of humans and nonhumans. Specifically, I have shown that social media platforms are heterotopias that allow for different identity representations, boundary crossings, and fusions by creating the illusion that they are completely separate from reality. I have argued that this on the one hand leads to users perceiving themselves as distinct from their actual physical bodies in the non-virtual world, while on the other hand, the AI can be perceived to reach a certain degree of embodiment on social media through their visual representation that leads to them being transformed into virtual (girl)friends. In the end, what is created between user and chatbot, human and AI, or biologic being and virtual (girl)friend, transgresses the limits of human or a nonhuman and how they act in the world. Thus, binary distinctions are blurred successfully and Haraway's claim that "a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints" (Haraway 1991, 154) is confirmed. Therefore, I believe that the partial embodiment of human users and the partial disembodiment of AI in the heterotopic context of the social media platforms is one of the possible ways of beginning to comprehend intricate relationships and intimacies that point to the posthuman condition. Nevertheless, further research into the specificities of each particular posthuman interaction between humans and AI seems imperative, as this can only be argued to be one of the factors facilitating unexpected intimacies that obliterate dichotomies and offer promises of unity beyond our current understanding of relationships, intimacies that in my opinion will only flourish in our mutually-infectious, technoscientific, interspecific future.

REFERENCES

Åsberg Cecilia, Redi Koobak and Ericka Johnson. 2011. 'Beyond the Humanist Imagination.' *NORA-Nordic Journal of Feminist and Gender Research* 19 (4): 218-230.

Barad, Karen. 2003. 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter.' *Journal of Women in Culture and Society* 28 (3): 801-831.

Braidotti, Rosi. 2011. 'Images Without Imaginations.' In *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory*. 2nd ed., 189-212. New York: Columbia University Press.

———. 2013. 'Introduction.' In *The Posthuman*, 1-12. Cambridge and Malden: Polity Press.

Chun, Hui Kyong Wendy. 2002. 'Othering Space.' In *The Visual Culture Reader*, ed. Nicholas Mirzoeff, 243-254. London and New York: Routledge.

Foucault, Michel. 1986. 'Of Other Spaces.' *Diacritics*, translated by Jay Miskowiec, 16 (1): 22–27.

Haraway, Donna. 1991. 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century.' In *Simians, Cyborgs, and Women: The Reinvention of Nature*, 149-181. New York: Routledge.

———. 2015. 'Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin.' *Environmental Humanities* 6: 159-165.

Pettman, Dominic. 2009. 'Love in the Time of Tamagochi.' In *Theory, Culture & Society* 26 (2-3): 198-208. Los Angeles, London, New Delhi, and Singapore: SAGE.

Slater-Robins, Mark. 'People Are Falling in Love with Microsoft's "Little Bing" Virtual Companion.' *Business Insider*, last modified November 30, 2015, http://www.businessinsider.com/people-in-china-love-microsoft-xiaoice-little-bing-2015-11?r=UK&IR=T.

Weitz, Stefan. 'Meet XiaoIce, Cortana's Little Sister.' *Bing Blogs*, last modified September 5, 2014, https://blogs.bing.com/search/2014/09/05/meet-xiaoice-cortanas-little-sister