### **ORIGINAL ARTICLE**



# The human relationship in the ethics of robotics: a call to Martin Buber's I and Thou

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**Abstract** Artificially Intelligent robotic technologies increasingly reflect a language of interaction and relationship and this vocabulary is part and parcel of the meanings now attached to machines. No longer are they inert, but interconnected, responsive and engaging. As machines become more sophisticated, they are predicted to be a "direct object" of an interaction for a human, but what kinds of human would that give rise to? Before robots, animals played the role of the relational other, what can stories of feral children tell us about what it means to be human? What of 'relationship' do AI and robotic scientists draw on to generate ideas about their relational others? I will address these questions by reference to the work of Martin Buber in *I and Thou*.

 $\begin{tabular}{ll} Keywords & Dialogical phenomenology \cdot Human- \\ robot interaction \cdot Human relationship \cdot Feral children \cdot \\ Attachment theory \cdot Ethics of care \cdot Gendered attachment. \\ \end{tabular}$ 

# 1 Buber, I-Thou and I-It relations

In contrast to life in a feudal European village which had less opportunities for social interactions beyond a fixed small population, today Europeans, North Americans and Japanese citizens live in urban cities with high populations and opportunities for new social interactions have exponentially increased. Moreover, in nations with high urban



populations there is also significant levels of reported loneliness (Holt-Lunstad et al. 2015). Simultaneously it in these 'advanced' and economically privileged countries that are at the forefront of promoting new narratives about robots as relational others. It seems that more opportunities to interact with people does not equate to more availability or relationship between people. Online social networking sites, such as Facebook provide even more possibilities for ties to be accounted for, quite literally in numerical terms. Robotic machines have become part of the narrative to rescue humans from their social difficulties (robots for autism), difficulties in forming relationships (sex-robots for adult men) and declining independence and loneliness (robots for ageing adults). Robotic scientists propose to develop machines can aid all these problems and simultaneously save healthcare budgets from catastrophic overload by providing robots in lieu of companions, therapists or paid carers (Parks 2010). It is estimated that by 2030, at least two active aged adults (16-65) will be required to care for every 1 aged adult (65+), this is combined with declining birth rates in Europe, will create a lack of '20.8 million (6.8 percent) people of working age' (EU Demographic Change 2005). In an age of proliferating machines intended to be relational it seems fitting the relational work of Martin Buber's I and Thou (1937) be called on to assess these developments. Martin Buber, a theological philosopher and proponent of the dialogical tradition emphasized the importance and quality of relationships that humans could have with each other and the world around them. Buber in his 1937 classic I and Thou opened up new vistas for understanding intimate relations as related to primary words I-Thou and I-It. He writes:

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To man<sup>1</sup> the world is twofold, in accordance with his twofold attitude.

The attitude of man is twofold, in accordance with the twofold nature of the primary words which he speaks.

The primary words are not, isolated words, but combined words.

The one primary word is the combination I-Thou.

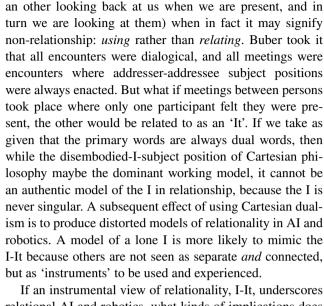
The other primary word is the combination I-It; wherein, without a change in the primary word, one of the words He and She can replace It.

(Buber 1937, p. 3).

For Buber, primary words were always twofold because they signified intimate relations. For Buber I-It signified relations with other based on experience, on extracting use from others like instruments. When Buber wrote of I-Thou he wrote of coming to meet the other as it is. One might resist Buber's formulation of combined relations of I-Thou and I-It as poetic description of intimate relations or is there truth to this poety? Are there really these combinations that Buber writes about in I and Thou? In this paper I examine how the other is connected with the I through relations. Buber's work emphasized that no person exist solely without another because the primary words are dual words—I-Thou or I-It, addressee and addressed are relational. Buber took issue with Cartesian dualism 'I think therefore I am', a detached and severed I. For Buber, it is incomprehensible to think of lived human experienced as a detached 'I' floating around in time and space, and on occasion coming into contact with another detached 'I'. As Stawarska explains:

...classical phenomenology may be subject to an individualist bias that privileges first-person subjectivity over against communal relationality and leads to the neglect of I-you connectedness (2009, p. iv).

I want to suggest that it is this disembodied-I model that predominates in AI and robotics, and this is more evident in spheres that focus on "relational" AI (chatbots, AIbots) and robotics (social robotics, humanoid robotics). Though it may seem counter intuitive to believe that



attention to 'relations' always implies 'relationships' (i.e.,

If an instrumental view of relationality, I-It, underscores relational AI and robotics, what kinds of implications does this have for human relations? The term robot is one that is ambiguous. In its earliest formulation in the 1920s it was created to refer to a fictional character that was only built to labour without love, personhood, freedom and subjectivity (Čapek 2004; Richardson 2015). Therefore the term has been associated with describing feelings of depersonalisation in the workplace. There are even psychological conditions where humans report 'feeling like a robot' or automaton (Medford, Sierra et al. 2005), and this is worth considering in the light of Buber's formulation as an 'I-It'—a person only related to as an experience or instrument of another. Could such an epistemology exist in a practice of AI and robotics that invokes terms such as relations or empathy? Then there are technological artefacts called robots, that while being robots, may never have an ontological experience of feeling like one. It is to this issue we now turn.

## 2 'Being a Machine'

Sherry (1984) makes an insightful observation while beginning her tenure as new faculty at the Massachusetts Institute of Technology (MIT). She had trained as a psychotherapist and had witnessed her client's express their feelings of despair by referring to the vocabulary of machines to emphasize these feelings of depersonalization. Turkle contrasted a patient's report of feeling like automation with that of an engineer who positively embraced 'being a machine':

Soon after I arrived at MIT, an incident occurred which captures my shock of recognition that I was in a different world. In the morning I had worked with a patient in psychotherapy who, for many months, had been using the



<sup>&</sup>lt;sup>1</sup> Buber wrote at a time when it was convention to use the gendered term 'man' to stand in for men and women. Feminist authors have challenged this view that the use of man was neutral, but instead reflected power relations which put man at the top of the hierarchy (Romaine 1998). Therefore, when citing original source material such as Buber I use the exact phrasing that Buber used, but in representing his views today I use gender neutral human understood as a cultural and biological being. In anthropological narratives, the term 'person' is preferred over human, as a person is the expression of a being in a cultural matrix of relations with others, recognized as a legal, economic, social, and political entity and part of a kinship network with identifying characteristics of personhood as mother, father, sister, or brother etc., (Strathern 1988). In the interdisciplinary field of robotics, the term human is used more extensively, except when a particular group is identified as a research cohort (for example, children with autism, adults with Alzheimer's, elderly adults etc.,).

image of 'being a machine' to express his feelings of depersonalization, emptiness and despair. That evening, I went to a party for the new MIT faculty. I met a young woman, a computer-science major and one of my students, who was listening to a heated conversation about whether machines could ever think. She was growing impatient: 'I don't see what the problem is—I'm a machine and I think.' (1984, p. 328–329).

When humans 'feel' like or are 'being' a machine, they refer to an experience of detachment and indicate (typically) a problem in their experience as a human. Could this also be the case when one is 'thinking like a machine' as the computer-science major above? For some, thinking like a machine free from feeling is a commendable achievement. The human who thinks like a machine is thought to have attained a state of 'logical' clarity free from the trivialities and confusions of emotion. Such stereotypes of machine-minded-man 'systematizing' or the Extreme Male Brain (Baron-Cohen 2004), populate literature on gender differences in sciences, mathematics and engineering (Baron-Cohen et al. 1998). For some, the restricted interests in sociality and absence of feeling and empathy of males underlies his scientific genius (Baron-Cohen et al. 1998, 2009), it is females, according to Baron-Cohen that is biologically programmed to 'empathize' and take care of others. Actually one not need any formal clinical diagnoses (autism, depersonalization, and depression) to use the term 'robot' to describe a feeling of not quite feeling human. The term robot is used in everyday English language, often by employees who want to describe their experience of working in monotonous jobs, take this example of employee reflections on working in an Amazon warehouse:

We are machines, we are robots, we plug our scanner in, we're holding it, but we might as well be plugging it into ourselves.

(BBC News, 2013).

The technological fields of robotics draws on a model of physical sciences which proposes that humans *are* machines, just very complex ones (Brooks 2002) and differences between humans and machines does not exist at the molecular level, it is only the assemblage of the matter, the form it takes that differs. At the core, all life is made up of atoms and subatomic particles. This back and forth between humans as machines and machines as human is implicit in narratives of robots.

Relation-based technologies of AI and robotics are designed with increasing sophistication and proposed to be more than intermediary machines, connecting one human to another, but a *direct object* of a relational encounter (Breazeal 2004; Brooks 2002; Kurzweil 2000). AI and robots are imagined to be an end in themselves robots are created to act in intimate spheres of human relationships, as friends, companions, carers, therapists and as sex machines

and experts predict a revolution in personal robotics that will be akin to the revolution in personal computing (Gates 2007). Engineered robots *are* machines made of artefactual materials. In fiction, robots occupy multiple modalities, and can be biological or mechanical and have forms that are anthropomorphic, zoomorphic or alien. While robots or AI that would meet the criteria of Strong AI have been created by engineers and AI researchers<sup>2</sup> this has not restrained them from asserting that humanlike robots and AI are predicted, sometimes at a specified point in the future.

However, if the *explicit* starting point is the position of robotics scientists is that humans *are* machines, then what is the starting place for relationship?

# 3 Species-specific sociality: feral children and attachment theory

Before robots and AI, humans have imagined relational caregiving lifeworlds with animals. Evidence of human-animal relationships are used as the template to imagine human-robot relationships. If humans can have affections for nonhuman animals, then why not robotic machines? Animals then act as the 'other'—in the role of the intermediary and/or the direct-object of a relation. But what kind of role have animals played in human life, particularly the early years, and how do such interactions shape what it means to be a social-human?

Starting in the 1980s as a significant alternative to Enlightenment humanism, social scientists called into question human exceptionalism and the assumption that sociality is restricted to the human species. Rather, such scholars as Haraway and Latour have explored how sociality runs parallel with other species (Haraway 2003) or artefacts (Latour 2005). But this collapse of attention to human species specific sociality has taken the form, of dissolving the distinctions between persons and things by extending sociality to artefacts. The tie between humans and machines is animals, who have long acted as the intermediary, the platform of otherness to humans before AI and robots took their place to examine what it means to be human. While few would promote or use robots or AI for taking direct care of infants (at least for now) human childhood is a crucial and sensitive period of life, where intimacy, trust and bonding is vital for a child's

<sup>&</sup>lt;sup>2</sup> Cyberneticist Kevin Warwick has taken parts of machines and inserted them into his body, a practice increasingly commonplace in robotic prosthetics. The mechanical prosthetic is more than just added, it is integrated into a network of nerves into the body, which allow muscle signals to activate the prosthetic. This practice has led to a reassessment of what it means to be human if parts of the machine are integrated into the body (Warwick 2004).



affective, cognitive and motor development. It is the period of life that is experienced and shaped exclusively by intimate relationship with parents and significant caregivers. Robotic scientists carry out experiments to test the effectiveness of their robots on children or adults who already have experienced significant person-centered care. One cannot talk about adults without referencing and taking into account their formation as children, where social and relational bonds are formed (Dykas and Cassidy 2013). Let us turn to feral children to explore this in more detail.

As new narratives of relationality and care by machines begin to take shape there have been other tales where care and relationality feature as a hallmark of interspecies collaborations. Stories of children raised by wild animals are important here. Narratives of feral children have long provided a staple of myths, fairy tales and alternative relational imaginings. The feral child is a way of imagining what life would be like to live in the care of another species (Shattuck and Candland1994; Sprehe 1961). The stories of Kamala and Amala of Midnapore South-West of Calcultta reportedly raised by wolves,<sup>3</sup> Kaspar Hauser of Germany or the Savage girl of Songi in France, The accounts feral children are controversial, politically and racially charged narratives of civilization versus savagery and justification for cultural exploits against colonial subjects, and animal cruelty and experimentation (Haraway 1991; Newton 2002). The question for now is can animals raise children? And what kind of children would they raise?

Children raised in the wild, by wolves, apes, pigs or dogs are notoriously unreliable to verify because these meetings took place when children were too young to recount the experiences. Stories of feral children explored what kind of relationship with another is necessary to develop human capacities. The 'feral children', when found, were said to lack speech, language, motor skills and "culture" (Candland 1995; Dennis 1941; Newton 2002; Shattuck and Candland 1994). All children are threatened with annihilation when a caregiver is unavailable, this is because human infants arrive into the world lacking in speech, language, motor control and self sufficiency. The extended period of nurturance requires several years of care. Rudyard Kipling's The Jungle Books is one such tale of a child raised by apes and these stories connect with a deep fear of abandonment. Newton (2002), author of Savage Girls and Wild Boys: A History

<sup>&</sup>lt;sup>3</sup> It is reported this was a story fabricated by the missionary to receive funds and suspicions were aroused because of racial arguments against 'native evidence' amidst the flourishing of Indian Independence (Newton 2002, p.g 192–193).



of Feral Children explains his fascination with these accounts:

Every child fears abandonment. The displaced, unspoken anxieties of a family life fed those familiar, petty losses...and if a fear of abandonment partly informs this book, a sense of a faltering relationship with someone implacably remote, then here is also the guilty terror of abandoning (p. 8).

What do these stories of children in the wild tell us? Zingg (1940) presents a chronological history of cultural accounts of feral children including those from Linnaeus, who placed these accounts within scientific study in 1758, through to Buffon (1750) who introduced the concept of 'feral man' more widely in culture, to the French Enlightenment thinker Jean Jacques Rousseau in his infamous work on inequality Discourse on the Origin of Inequality (Rousseau 2000). Of thirty-one case studies of feral children, Zingg provides the ages of only four children, the youngest is 2 years old. For the remaining twenty-seven children no information about their ages is given (p. 500). The youngest known infant, the Leopardboy of India was abandoned at 2, and aged 5 years when rescued. Issues that concerned scholarly gentlemen who recorded these cases indicated behavioral, speech and language and cognitive difficulties in the children. Some reported, that the child, such as Irish Sheep-boy (1672) would 'bleat' (ibid). For cases of feral man are divided into two classes '(a) those who have wandered away into the wilds to survive by their own efforts unaided by human contact; and (b) children nurtured by wild or domesticated animals' (Zingg 1940, p. 493). The topic of feral children is shrouded in mystery, and mythical accounts merge with verified accounts that occur in rural locations in which these meetings between animal and child are possible. Together these accounts demonstrate caregiving is more than the provision of the bare necessities of life (if you'll pardon the pun), more than meeting physical needs. Affective bonds and socialization experienced through human relationship are essential for a child. What I am trying to emphasize here is a reciprocal species-specific sociality, another is already present and simultaneously engaged in human interactions, and this is not an exact copy, but a unique subjectivity and personhood. One human is not acting on another as an object, an 'I-It, but an other, who is in turn developing and engaging their own species specific sociality.

(Sprehe 1961)put it as thus:

The data from feral man shows clearly the drastic effects that social deprivation can have on the human person. The absence of interaction with other human beings renders man *behaviorally* non-human (my emphasis p. 167).

That there are so few known cases of children surviving the wild, demonstrates that caregiving relations with other

humans are fundamental to a child's physical survival, a theme central to Attachment Theories model of human intimacy (Bowlby 1997, Ainsworth 1978). Moreover, these cases also show us that the infant's capacities develop in relation with others, speech, language, thought and motor skills shaped by relational interactions, implying the relational caregivers have a profound impact on the development of infants and children (Crittenden and Ainsworth 1989). The parent/carer of the infant does more than keep the child alive, but is the best option for a child if she is to survive at all. Attachment theories and accounts of wild children do not diminish human relationships with animals. An animal is a sentient other *other* and more than a machine (non-living property) as nonhuman animals sustain themselves like humans, and are preoccupied with many of the same activities as humans: reproduction, eating, sleeping, defecating, rearing young, while uniquely species-specific in which their species being lifeworld manifests.

What we find in all cases of feral children is a breakdown in human relations that give rise to these accounts. Zingg also notes that the kinds of behaviours described in accounts of feral children are also observed in children who have been severely neglected and abused 'similar ones of children shut away from human association by cruel, criminal, or insane parents. ... They show the same effects from isolation' (1940 p. 493). In some cases, an animal may give a child (or adult) an important affective bond that is not provided by a parent or other close relationship. Take the case of Ivan Mishukov, raised in a family of violence and alcoholism, later ended up becoming homeless at around 4 years old. He befriended wild dogs who became his substitute family. But Ivan was abandoned most of all by those who were meant to make him feel safe, his family (Newton 2002). He survived because he was at an age where he could act with some independence from his 'carers' but this is the exception rather than the rule and many children will perish in these circumstances. Children take years to mature, and do not have access to independent legal, economic or political rights. It was other humans that abandoned Mishukov.

If anything we should be concerned to keep young infants, who are developing their species specific sociality, away from robots and AI (Sharkey and Sharkey 2010) if their producers make claims that these robots are 'social beings' and interacting with them is akin to 'interacting with another person' as Breazeal claimed in her book *Social Robots* (2004). It is these claims that present ethical challenges because they do not take into account species specific sociality, attachment and bonding that is so crucial to a person's development. In socially relating to others, children are developmentally impacted by the one in the role of the 'other'. From studies in developmental psychology and attachment theory, the caregiver(s) is having

a dynamic effect on the child's development. It seems reasonable to extend this idea, Buber did, to relationships a person is engaging with throughout life and not just in the first years of it.

The inspiration for imagining human-robot relationships is drawn again from animal species, particularly humancompanion animal relationships (Haraway 2003). As noted earlier, humans do not have relations with companion animals without first, and importantly receiving care from humans (Enfield and Levinson 2006). This means that animals are not the core experience of human beings, and not quite shaping the person in the way that 'interspecies' proponents claim. Therefore I take issues with claims, such as those proposed by Patton who writes human-animal relations 'cannot be regarded as incomplete versions of human-human relations' (Sandry 2015). But this does not take into account how human life world are primarily created though bonds with kin or other human caregivers, and these are the core relations. Human infants may enjoy the company of animals and develop deep bonds with but the attachment is not their core relational experience. As humans are relational, and the cores of these relations are intimate parents/carers in the first instance, and later different kinds of relationships, a person is never really alone. Even if you are physically alone, you are psychically connected to others.

### 4 Animal companions and robot companions

Roboticists draw inspiration from human-animal interactions, and note the value of species crossing potentialities. Before concluding there is a more insidious undercurrent that is articulated by referring to robot potentialities by equivalence with animals. The source of this error is Cartesian dualism, the mind is transcendent but the body, animals and machines are not. Animals, bodies and machines are not equivalent, the complex sociality of animal species, that are living beings, engaged in their own species specific sociality are not comparable to inanimate artefacts, no matter how much robotic scientists lay claims to animals for this purpose. The experiments of Harlow and Zimmermann (1959) on infant macaque monkeys are important to reference here. In his famous studies on material bonding in monkeys, he separated infant monkeys from their mothers, and put them in a metal cage. In the cage was an artifical surrogage made out of wire and had a food bottle attached, and another with soft cloth covering the metal frame. When released into the cage, the monkey would go to the wire surrogate to eat, but after its physical needs were met, it would spend the remaining time on the cloth monkey. After the experiments, the monkeys were put with other monkeys but they were unable to mate, displayed

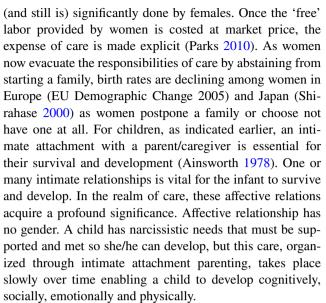


extreme distress, and agressiveness. When monkeys, like humans, are deprived of intimate attachment with their own species there are severe consequences. Richardson (2016a) shows how argument for "machine rights" are located in a discourse of animal rights (Gunkel 2014; Darling 2012), but comparisons between animals and machines are situated between the mechanistic worldview of Cartesian philosophy, and the 'everything is connected' philosophy of the cyborg (Haraway 1991). The proponents of 'robot rights' or 'machines rights' map onto to machines, human relations with animals, which are wholly incoherent. Machines are always property; they are made up of parts that are commodities. Animals may be exchanged as commodities but their bodies and lived experiences exist outside of human-made artefacts. Animals are pulled into property relations of human cultures, but they are not it. Robots and AI can never exist outside of property relations because they are commodities. Robots and AI are inside property relations, not living relations. Robots and AI at best might mimic behaviours and relations, but they are not participating as living and sexed relational beings.

For a human to become relational with an animal, they must first have been supported enough to an adequate degree by human caregivers. In this sense it is not really possible to map human-human relations on to human-animals relations, nor arguably is it possible to map humananimal relations on to human-robot relations. To return to Buber, the quality of intimate relationship is essential to the development of each human, whether it takes a form of I-Thou or I-It. While machines sometimes mediate relations between persons, the machine itself is an intermediary. Moreover, robotic scientists transfer aspects of the self into the machines they create. In robotics labs at MIT, researchers engaged with the robots as extensions of themselves, one researcher diagnosed with post traumatic stress disorder used theory of PTSD in the development a memory system for her robot, while another with repetitive strain injury in his hands became the creator of a robot hand (Richardson 2010). However, the role of machines as intermediaries is not what this article is directly addressing, it is the machine as a direct-object of a relationship, an end in itself as Kant [1924–1804] would claim, not as a means to something else.

### 5 Gendered care and abandoning relations

The making of relational robots is an important area of robotics with robots now predicted to occupy more roles in healthcare, therapy, and personal intimacy. It is here we can draw on the gendered models of ethics of care developed by Carol Gilligan (1982). Care is highly gendered. The provision of care for the elderly, children and adult males was



Enter the robotic machines and the robotic scientists who propose that machines can take over the caring role. While robotics is a field with prominent female leaders such as Kerstin Dautenhahn (2007) and Cynthia Breazeal (2004) is it still a field largely dominated by men, who cast their robots, not as inert machines but as machinelike-children (Richardson 2015). I know of many robotic scientists who shared responsibilities for childcare, but only one that took leave to care solely for his child. The gendered model of care that is organized through cultural, social, economic, legal and political practices is expressed in robotics. Redefining the meaning of care from an affective practice done by human caregivers, to another kind, done by machines is one of the most significant changes in the last 15 years.<sup>4</sup> These new narratives, promoted by robotic researchers and futurologists such as Ray Kurzweil are the source of concerns among the lay public as demonstrated in a 2012 survey citizens from 27 member states. The researchers found:

Robots should not be used to care for people—EU citizens also have well-defined views about the areas where robots should be banned. Views are most emphatic when it comes to the care of children, elderly people and people with disabilities, 60% of EU citizens saying that this is an area where robots should be banned.

(Eurobarometer 2012).

The view that intimate and care roles are best done by people and not machines is a challenge for people in the field of post-humanism who devalue the person. Donna Haraway's classic *Cyborg Manifesto* (1991) advocates the



<sup>&</sup>lt;sup>4</sup> It might be helpful to ask how male roboticists who themselves have not taken on significant areas of responsibility for caring for their loved ones on a fulltime or semi permanent basis can now become responsible for developing a new species of relational robot?

dissolution of ontological differences between humans, animals and artefacts. A theme extended in new ways by actor-network theorist Bruno Latour (2005) who further does away with the human as a distinctive being in social relations, analytically proposing the human is one of many parts in an assemblage made up also of nonhumans (Richardson 2015). No one would dispute the fact that humans are situated in a complex universe made up of persons, things, machines, data, prescriptions or whatever makes up the 'multiplicity' (Mol 2002) or can be analytically represented as 'assemblages' (Latour 2005) but such proposals deny the importance and centrality of species-specific sociality. Humans operate within a species-specific sociality, as do apes, penguins or bees. Humans could no more meet the needs and wants of penguins or bees than they could ours. There are spaces of coexistences that suggest closeness (apes) and distances (bees) in ontological resemblance or lived experiences of a species. To be direct about this point, Latour's view of the world would not be possible if there was not some human caring for him as an infant, and making his survival possible so he could later became a theorist who diminishes the importance of the human in lived life.

I and Thou takes a position about the importance of relations. Let us look at how the 'relationship' is described in commercial and lab based robotics. Roboticists imagine a future where humans will be in relationships with machines or even cared for by machines (Sharkey and Sharkey 2012). Robots, such as Pepper is a case in point. Promoted as the 'World's first personal robot' Pepper is designed to interact with humans and its manufacturers claim:

With this emotion function, Pepper's emotions are influenced by people's facial expressions and words, as well as his surroundings, which in turn affects Pepper's words and actions. For example, Pepper is at ease when he is around people he knows, happy when he is praised, and gets scared when the lights go down.

(Press Release Softbank/Aldebaran Robotics, June 2015).

Elsewhere I describe this as 'mechanical sociality' (Richardson 2015), an instrumental view of humans and their relations. Pepper is a new addition in a long line of robots that have humanlike faces and bodies, and appear to mimic human behaviors and therefore add socially-communicative sense to the interface of a machine; some robots have even scripted sentences that can be utilized when in conversational mode with people (Richardson 2015).

I and you are forms of address and require a speaker and a listener. One cannot speak I or you without someone to address, herein lies their dialogical nature (Buber 1937). Buber captured this so eloquently in his work, but it came with a proviso about the kind of address that could take place between persons. Let us explore what Buber meant by I-Thou and I-It.

Relation is mutual. My Thou affects me, as I affect it (p. 15).

It is this attention to mutuality and simultaneity that is articulated through Buber and attachment theories rather than robotics and AI.

#### 6 Conclusion

Buber's poetic view of the two-fold relationships is a universe away from the models that are circulated in robotics science when drawing on the model of the human and relationship. The problem of foregrounding relations based on 'I-It' keep reinforcing the non-relational epistemology found in descriptions of relations. The other becomes an instrument of the I to be used and experienced rather than engaged in simultaneous and mutual relations given in the I-Thou. Many robotic scientists and AI researchers propose that these artifacts will one day achieve self-sufficiency, and surpass the human potential. That relations with robots will be indistinguishable from relations with persons. Such a view point fails to acknowledge how persons are changed through attachments; this is explicit in childhood but also important for people throughout the course of their lives. While robots and AI may develop in extraordinary ways, their potential as relational others is limited because the ground from which they rise is instrumental, an I-It. Robotic and AI scientists, despite their intelligence, cannot manufacture intimate relations.

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