

How does the landscape of ethical responsibility shift when a direct moral agent is not motivating action, such as is the case with automated carebots—which are being programed to exhibit empathy within the healthcare industry?

There has been much discussion of *Artificial Intelligence* over the past several years, but more recently there has been accelerated interest in an even more innovative topic: *Artificial Empathy*. This discussion primarily revolves around ‘carebots:’ robots designed to provide patient care within the healthcare field. Some of these are very benign machines that assist ‘live’ healthcare providers with ordinary tasks, such as lifting patients in and out of beds. These are either completely external devices or exoskeletons that a healthcare provider ‘wears,’ and which minimize the lift effort for the human.

What is more provocative are those ‘carebots’ that serve in some ways as substitutes for the ‘live’ healthcare provider...and which are programmed to respond empathically to the needs of the patient. There has been an explosion of such ‘carebots’ in Japan, where the aging of the population—coupled with a diminution of a sense of familial commitment on the part of the young—has created a critical need for greater efficiency in geriatric healthcare. Particularly when addressing the care needs of patients suffering from dementia and/or full-blown Alzheimer’s disease, ‘carebots’ have come into vogue. The advantages include the fact that ‘live’ caregivers can easily find themselves in circumstances of ‘empathy fatigue;’ in fact, the literature in this field includes recommendations that humans temper their impulse to care in order to avoid such fatigue. ‘Carebots’ are seen as not falling prey to such fatigue, as they can hear the same patient story literally hundreds of times without expressing frustration and or weariness.

But can such ‘carebots’ actually exhibit empathy?

The ‘big idea’ here is that the ethic of care, as popularized by such seminal writers as Carol Gilligan and Nel Noddings, requires a dyadic interaction that actually is grounded in love. While it is not too much of a stretch to imagine that robots can exhibit *Artificial Intelligence*, and even engage in learning behavior, the act of care is more organic and less mechanistic than the development of rational thought. ‘Carebots’ can *masquerade* love, and perhaps do so in ways that are absolutely convincing to those with diminished cognitive capacity—such as those with dementia and/or Alzheimer’s disease.

But can they authentically care...and if not, is ‘Artificial Empathy’ justified merely because, even if not authentic, ‘carebots’ serve to reduce healthcare costs and provide a sense of well-being for patients?

This proposed discussion session will evaluate the innovative notion of ‘*roboempathy*,’ illustrating this construct with absolutely contemporary real examples—while exploring the moral and ethical implications of creating ‘carebots’ that, while seeming to exhibit love, actually in the final analysis are a ruse.

And one more tack will be taken in closing, as the facilitator considers whether or not ‘carebots’ exhibiting *Artificial Intelligence* conjoined with *Artificial Empathy* might actually learn to restrain their own ‘emotions’ to the point that they, as with their human counterparts, seek to avoid empathy fatigue as well as the even more insidious moral distress that is so endemic within the healthcare field.

References:

- Asada, M. 2014. *Development of artificial empathy*. Neuroscience Research. Elsevier.
- Asada, M. 2015. *Towards Artificial Empathy: How Can Artificial Empathy Follow the Developmental Pathway of Natural Empathy?* International Journal of Social Robotics, Volume 7, pp 19-33. Springer.
- Demeure, V., Niewiadomski, R. and Pelachaud, C. 2012. *How Is Believability of a Virtual Agent Related to Warmth, Competence, Personification, and Embodiment?* Presence: Teleoperators & Virtual Environment Volume 20, Number 5, pp 431-448. Massachusetts Institute of Technology.
- Gilligan, C. 1982. *In a Different Voice: Psychological Theory and Women's Development*. Harvard University Press, Cambridge, Massachusetts, USA and London, England.
- Kopacek, P. 2014. *Ethical and social aspects of robots*. Proceedings of the 19th World Conference, The International Federation of Automatic Control, Cape Town, South Africa.
- Noddings, N. 1984. *Caring: A Relational Approach to Ethics & Moral Education*. University of California Press, Los Angeles, USA.
- Scheutz, M. and Crowell, C.R. 2007. *The Burden of Embodied Autonomy: Some Reflections on the Social and Ethical Implications of Autonomous Robots*. In Proceedings of the 2007 IRCA Conference. Rome, Italy: IEEE-RAS
- Sharkey, A and Sharkey, N. 2012. *Granny and the robots: ethical issues in robot care for the elderly*. Ethics and Information Technology Volume 14, Issue 1, pp 27-40. SpringerLink.
- Srivastava, M. 2016. *The Computational and Aesthetic Foundations of Artificial Empathy*. Intersect Volume 10, Number 1, pp. 1-12.
- Stahl, B.C. and Coeckelbergh, M. 2016. *Ethics of healthcare robotics: Towards responsible research and innovation*. Robotics and Autonomous Systems Volume 86 pp. 152-161. Elsevier.