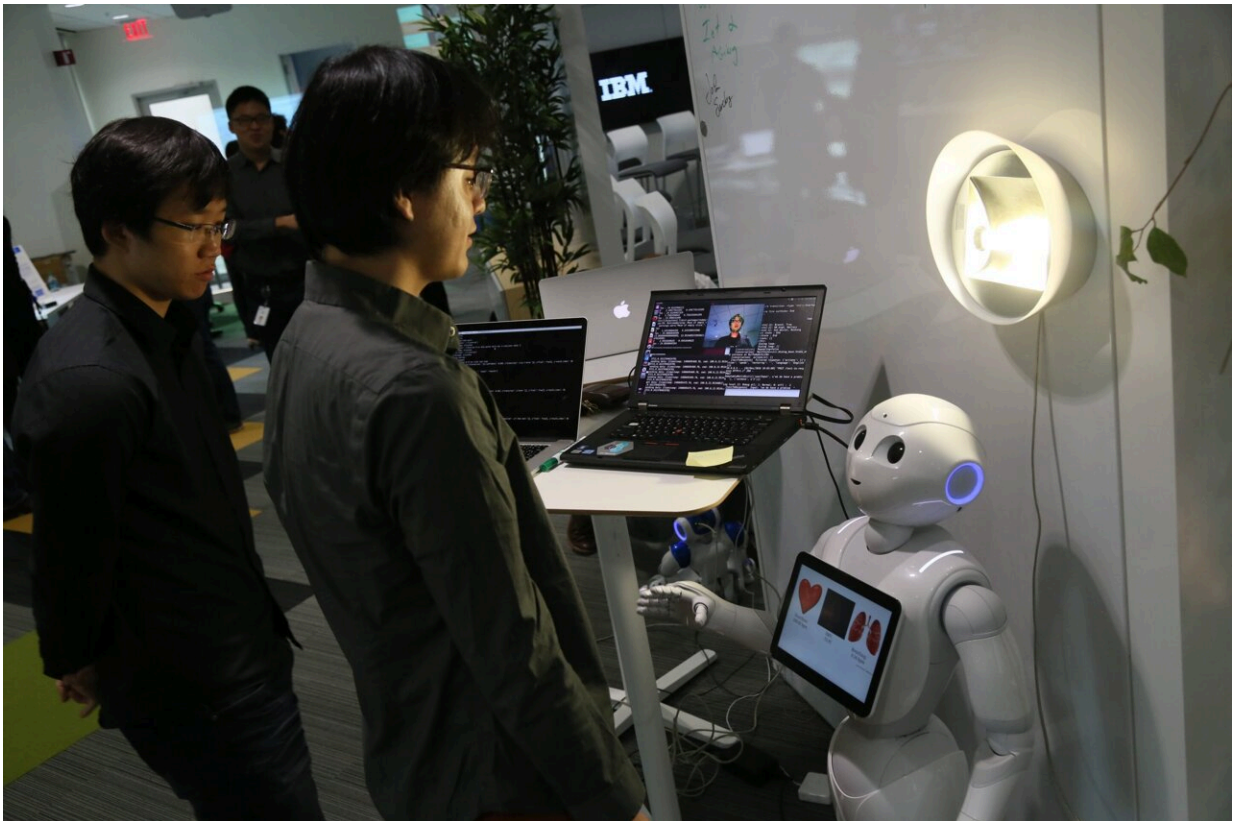


# AI nursing ethics: Viability of robots and artificial intelligence in nursing practice

July 10 2023

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The introduction of robots powered by artificial intelligence has the potential to address the shortage of nurses. However, it raises several ethical issues that must be addressed before developing and deploying intelligent robots for nursing tasks. Credit: IBM Research from flickr

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The recent progress in the field of robotics and artificial intelligence (AI) promises a future where these technologies would play a more prominent role in society. Current developments, such as the introduction of autonomous vehicles, the ability to generate original artwork, and the creation of chatbots capable of engaging in human-like conversations, highlight the immense possibilities held by these technologies. While these advancements offer numerous benefits, they also pose some fundamental questions.

The characteristics such as creativity, communication, critical thinking, and learning—once considered to be unique to humans—are now being replicated by AI. So, can intelligent machines be considered 'human'?

In a step toward answering this question, Associate Professor Tomohide Ibuki from Tokyo University of Science, in collaboration with medical ethics researcher Dr. Eisuke Nakazawa from The University of Tokyo and nursing researcher Dr. Ai Ibuki from Kyoritsu Women's University, recently explored whether robots and AI can be entrusted with nursing, a highly humane practice. Their work was published in the journal *Nursing Ethics*.

"This study in applied ethics examines whether robotics, human engineering, and human intelligence technologies can and should replace humans in nursing tasks," says Dr. Ibuki.

Nurses demonstrate empathy and establish meaningful connections with their patients. This human touch is essential in fostering a sense of understanding, trust, and emotional support. The researchers examined whether the current advancements in robotics and AI can implement these human qualities by replicating the ethical concepts attributed to human nurses, including advocacy, accountability, cooperation, and caring.

Advocacy in nursing involves speaking on behalf of patients to ensure that they receive the best possible medical care. This encompasses safeguarding patients from medical errors, providing treatment information, acknowledging the preferences of a patient, and acting as mediators between the hospital and the patient.

In this regard, the researchers noted that while AI can inform patients about medical errors and present treatment options, they questioned its ability to truly understand and empathize with patients' values and to effectively navigate human relationships as mediators.

The researchers also expressed concerns about holding robots accountable for their actions. They suggested the development of explainable AI, which would provide insights into the decision-making process of AI systems, improving accountability.

The study further highlights that nurses are required to collaborate effectively with their colleagues and other healthcare professionals to ensure the best possible care for patients. As humans rely on visual cues to build trust and establish relationships, unfamiliarity with robots might lead to suboptimal interactions. Recognizing this issue, the researchers emphasized the importance of conducting further investigations to determine the appropriate appearance of robots for facilitating efficient cooperation with human medical staff.

Lastly, while robots and AI have the potential to understand a patient's emotions and provide appropriate care, the patient must also be willing to accept robots as care providers.

Having considered the above four ethical concepts in nursing, the researchers acknowledge that while robots may not fully replace human nurses anytime soon, they do not dismiss the possibility. While robots and AI can potentially reduce the shortage of nurses and improve

treatment outcomes for patients, their deployment requires careful weighing of the ethical implications and impact on nursing practice.

"While the present analysis does not preclude the possibility of implementing the ethical concepts of nursing in robots and AI in the future, it points out that there are several ethical questions. Further research could not only help solve them but also lead to new discoveries in ethics," concludes Dr. Ibuki.

**More information:** Tomohide Ibuki et al, Possibilities and ethical issues of entrusting nursing tasks to robots and artificial intelligence, *Nursing Ethics* (2023). [DOI: 10.1177/09697330221149094](https://doi.org/10.1177/09697330221149094)

Provided by Tokyo University of Science

Citation: AI nursing ethics: Viability of robots and artificial intelligence in nursing practice (2023, July 10) retrieved 3 May 2024 from <https://medicalxpress.com/news/2023-07-ai-nursing-ethics-viability-robots.html>

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