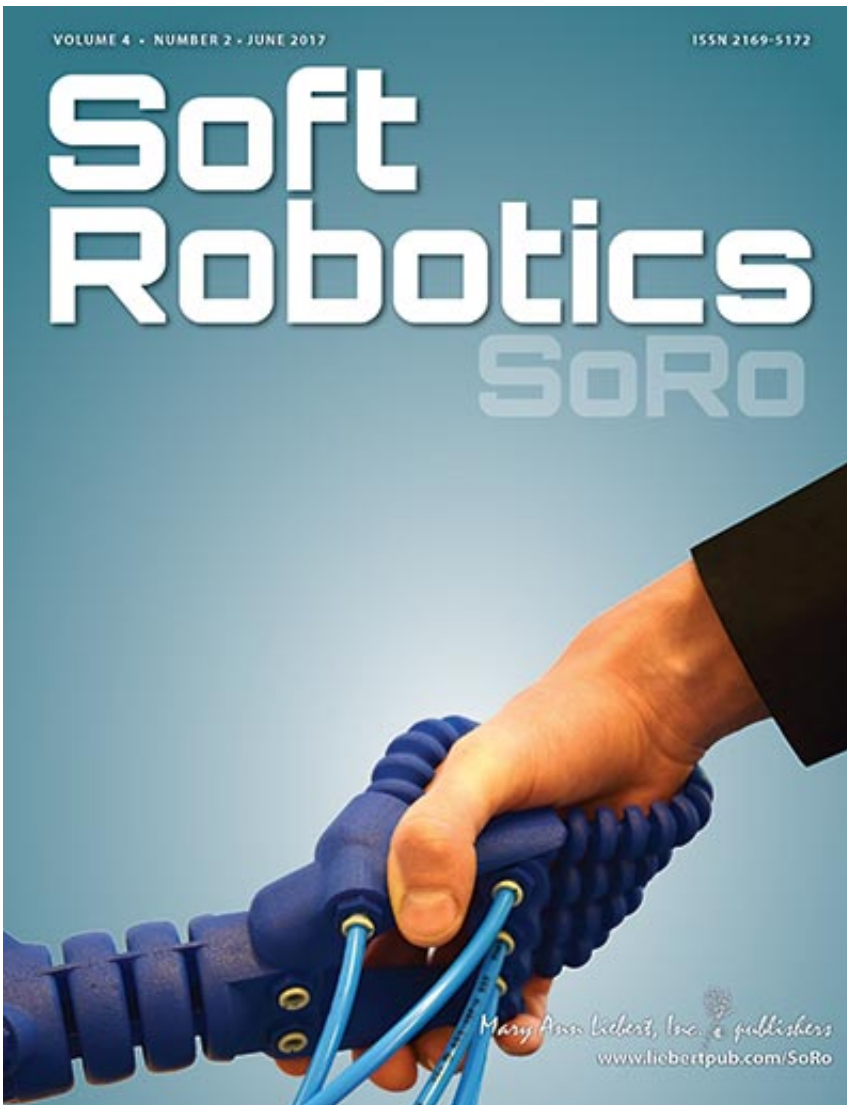


# Designing soft robots: Ethics-based guidelines for human-robot interactions

July 25 2017

---



Credit: Mary Ann Liebert, Inc., publishers

Soft-bodied robots offer the possibility for social engagement, and novel tactile human-robot interactions that require careful consideration of the potential for misplaced emotional attachments and personally and socially destructive behavior by users. The ethical challenges related to human-robot interactions and how these should contribute to soft robotics design in the context of social interaction are discussed in a compelling new article in *Soft Robotics*.

Thomas Arnold and Matthias Scheutz, Tufts University, Medford, MA coauthored the article entitled "The Tactile Ethics of Soft Robotics: Designing Wisely for Human-Robot Interaction." They examine a broad range of topics, including the ability of [soft robots](#) to touch and interact with their environments, the potential risks of humans forming one-directional emotional bonds with robots, and what social robots should be intended to accomplish. To illustrate some of the ethical challenges involved in soft robotics and the possible risks for society, the authors discuss the example of sex robots.

Drs. Arnold and Scheutz offer three general guidelines for how soft robotic technology should be developed within the context of social human-[robot](#) interaction. They encourage the soft robotics community to address these ethical challenges as a way of improving the quality and effectiveness of human-robot interactions. "Soft robot technology will soon bring us machines that interact directly with humans; it is essential that we start to think about the impact these might have on social situations. This paper outlines some of the major issues and provides excellent guidelines for a serious discussion of human-robot relationships," says Editor-in-Chief Barry A. Trimmer, PhD, who directs the Neuromechanics and Biomimetic Devices Laboratory at Tufts University (Medford, MA).

**More information:** Thomas Arnold et al, The Tactile Ethics of Soft Robotics: Designing Wisely for Human–Robot Interaction, *Soft Robotics*

(2017). [DOI: 10.1089/soro.2017.0032](https://doi.org/10.1089/soro.2017.0032)

Provided by Mary Ann Liebert, Inc

Citation: Designing soft robots: Ethics-based guidelines for human-robot interactions (2017, July 25) retrieved 28 April 2024 from <https://phys.org/news/2017-07-soft-robots-ethics-based-guidelines-human-robot.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.