



MAY 12-16 2025 · CHICAGO, IL USA · REHABWEEK.ORG



Category: Development of Technology

Workshop Title: RoboEthics - Bioethical Issues in Robotic Development and Clinical Uptake

Organizer(s): Moria Fisher Bittmann, National Institutes of Health, Preya Tarsney, Northwestern University and Shirley Ryan AbilityLab, Shelly Benjaminy, Northwestern University and Shirley Ryan AbilityLab

Speaker(s): Levi Hargrove, Shirley Ryan AbilityLab; Paul Ford, Cleveland Clinic; Meghan Morrow, Northwestern University

Workshop Time: 13:45 - 15:15

Attendee Engagement: Our proposed agenda includes a interactive panel discussion of diverse perspectives and 45 minutes dedicated to small group breakout sessions with time for a report out at the end. We thank you for your consideration!

Abstract: As technological advancements in healthcare accelerate, the integration of robotic and bionic devices presents both transformative opportunities and complex ethical challenges. This workshop aims to explore the multifaceted bioethical implications associated with the deployment of these technologies in clinical settings.

We will begin by examining the ethical landscape surrounding the use of robotic and bionic devices to replace, regulate, or otherwise assist human function. Key issues to be addressed include informed consent, burden and benefit sharing with research participants, regulatory frameworks, and equity of access. Further questions include those related to the invasiveness, autonomy of individuals using bionic and robotic devices, and post-trial responsibilities of researchers to participants with an implantable device. Additionally, we will examine the implications of data privacy and security, as many of these devices collect and transmit sensitive health information.

Workshop participants will be exposed to perspectives from technologists, ethicists, clinicians, patients, and economists through interactive panel discussions and break-out sessions. By the end of the workshop, attendees will gain a deeper understanding of the ethical landscape surrounding robotic and bionic devices in healthcare, empowering them to incorporate considerations of social responsibility into the sustainable translation of novel technologies. Participants will leave with practical tools and frameworks for addressing ethical challenges, fostering a socially and scientifically conscientious dialogue that prioritizes patient welfare and equity alongside innovation in the evolving field of medical technology.

This workshop will be hosted by the National Institute of Biomedical Imaging (NIBIB) at the National Institutes of Health (NIH) in partnership with the Donnelley Ethics Program at Shirley Ryan AbilityLab.