

Soft Robot Aesthetics: Notes on Reshaping Soft Robotics into a Soft Science

Jonas Jørgensen



Abstract

Soft robotics designates a relatively recent approach to designing robots anchored in the simple idea of using pliable and elastic materials such as silicone rubbers rather than metal or plastic.

In this talk I will present examples of my own work on soft robotics which spans the realms of art and engineering. I conceptualize this work under a transdisciplinary research agenda dubbed *Soft Robot Aesthetics*, which seeks to unite interests and methodological approaches drawn from artistic research, art history, human-robot interaction, and technical soft robotics research. The broad overall aim of the research is to explore alternative versions of what soft robotics might be or become if approached from the point of view of art and aesthetics. But also, how fruitful interactions can be created between soft robotics research and fields of aesthetic practice to attain a more nuanced understanding of the potentials and consequences of rendering a robot soft.

The material I will present includes theoretical and art critical reflections, soft robotic artworks, and experiments on human-soft robot interaction and soft robot control. Through these examples, I seek to elucidate how artistic and aesthetic practices may generate other types of questions and insights about soft robots, as well as outcomes that are of use to robotics research more broadly.

Biography

Jonas Jørgensen is assistant professor at the Biorobotics section of the University of Southern Denmark (SDU) and affiliated with its newly founded Center for Soft Robotics. Jonas was formally trained as a physicist (BSc) and an art historian (BA, MA) at Copenhagen University and Columbia University (New York). He did his PhD on soft robot aesthetics at the IT University of Copenhagen as a member of the Robotics Evolution and Art Lab (REAL). Jonas has given talks, presented papers, and organized workshops related to his research on soft robotics and robotic art at several international robotics and media art conferences and festivals. His collaborative robotic artworks have also been exhibited at art venues internationally. Jonas currently serves as management committee member representing Denmark in the EU COST action CA18136 “European Forum for Advanced Practices” (2019-2023). Together with Maja Smrekar he is also a partner in EU’s STUDIOTOPIA program.

More info: jonasjoergensen.org