

TECHNIQUES FOR PHYSICAL STORYTELLING

GUEST SPEAKER: DR. SARAH KUSHNER



June 2, 2026
11:00AM-
12:00PM

In Person:

Room 1054-1055 of 3675
Market Street

Zoom:

Meeting ID: 879 3419 9472
Passcode: 071204

Abstract:

From ancient cave paintings to modern theme parks, humans have always used physical spaces to tell stories. This talk explores how we can bridge the gap between art and technology by using innovative engineering to create more immersive and accessible narrative experiences. We will dive into three distinct projects that push the boundaries of physical art. First, we will look at an algorithmic approach to designing "invisible" support structures, allowing audiences to walk through floating art exhibits without seeing the machinery holding them up. Next, we will explore interactive zoetropes that sync strobe lights and audio to reveal hidden plot elements, transforming a traditional optical illusion into a dynamic story. Finally, we will discuss an affordable animatronics kit designed to empower K-12 students to blend engineering with creative expression through papercraft puppetry. Ultimately, this work demonstrates how mechanical design can pave the way for the future of education, entertainment, and interactive spaces.

About Dr. Sarah Kushner

Dr. Sarah Kushner is a Drexel Alumni. Her main research interests lie at the intersection of computational fabrication, geometry, HCI, and storytelling. She explores the kinds of technology that empower users to create and tell stories through digital or physical means, whether that be animatronic robots, zoetropes, or computer animation. Additionally, she is interested in geometric shape deformation in the context of animation and medical imaging.

In 2024, she finished her PhD in the Dynamic Graphics Project Lab at the University of Toronto. Before that, she completed her MS in Informatics (2017) in Grenoble, France at Grenoble INP and the Inria lab there in the Graphics, Vision and Robotics specialty. She received a Bachelor of Science degree at Drexel University (2016) in Philadelphia.