

Robotics AI and The Future of Theatre

Hersch Nathan
Michael Bergmann
Jada Vercosa



01

**Introduction
and Overview**

02

**Guided
Discussion**

03

Open Q & A

Presentation and Pamphlet Link



www.herschnathan.com/usitt24.html



Hersch Nathan

University of Kentucky Class of 2026

Undergraduate Researcher at Intelligent Robotics Arm Lab

Pursing Electrical Engineering and Theatre Dual Degrees

Focus areas:

- Autonomy, Robotics, and Controls
- Signal Processing
- Automation, Puppetry, and Design

Peewinkle's Puppets, Apprentice

Institute of Electrical and Electronics Engineers, Member

Puppeteers of America, Member

Michael F Bergmann

Associate Professor in Performance at The Creative School
Associate Director of the Design + Technology LAB
Associate Researcher at the Creative AI Hub

TRiPL (Technological Research in Performance Lab)

Research interests:

- AI and technology in Performance
- Post-anthropocentric improvisation
- Human-robot and Human-AI interaction
- Digital media creation and storytelling

torontomu.ca/bergmann

Toronto
Metropolitan
University

The
Creative
School





Jada Vercosa
Undergraduate,
University of Connecticut

Major: Management and Engineering for Manufacturing

Concentration: Naval Science and Technology

Minors: Entertainment Engineering and Industrial Design

Research Areas: Education Pedagogy and Curriculum, Artificial Intelligence Leveraging and Integration, and STEM Interest Maintenance



Grounding Definitions

Artificial Intelligence (AI)

- refers to machines' ability to perform tasks that typically require human intelligence, such as learning, problem solving, and decision-making

Contemporary AI

- Refers to the recent wave of user-friendly and interactive AI technologies. AI is becoming more accessible and easy to use.

Example 1: ChatGPT 3.5



ChatGPT 3.5 ▾



You

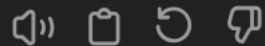
How can AI be used in technical theatre? Short response

< 2 / 2 >



ChatGPT

AI can be used in technical theatre for tasks such as automating lighting cues, sound mixing, set design optimization, and even assisting in choreography through motion tracking and analysis. It can streamline workflows, enhance creativity, and improve efficiency in production processes.



Message ChatGPT...



Example 2: Microsoft Designer



Designer

PREVIEW



Sign in

Describe the design you'd like to create ⓘ

early 19th century france

Click to try this suggestion: "Create an elegant design inspired by early 19th century France."



Add media Generate image ⓘ

Generate

Skip and start with a [blank design](#)

Explore more prompts

Size ▾



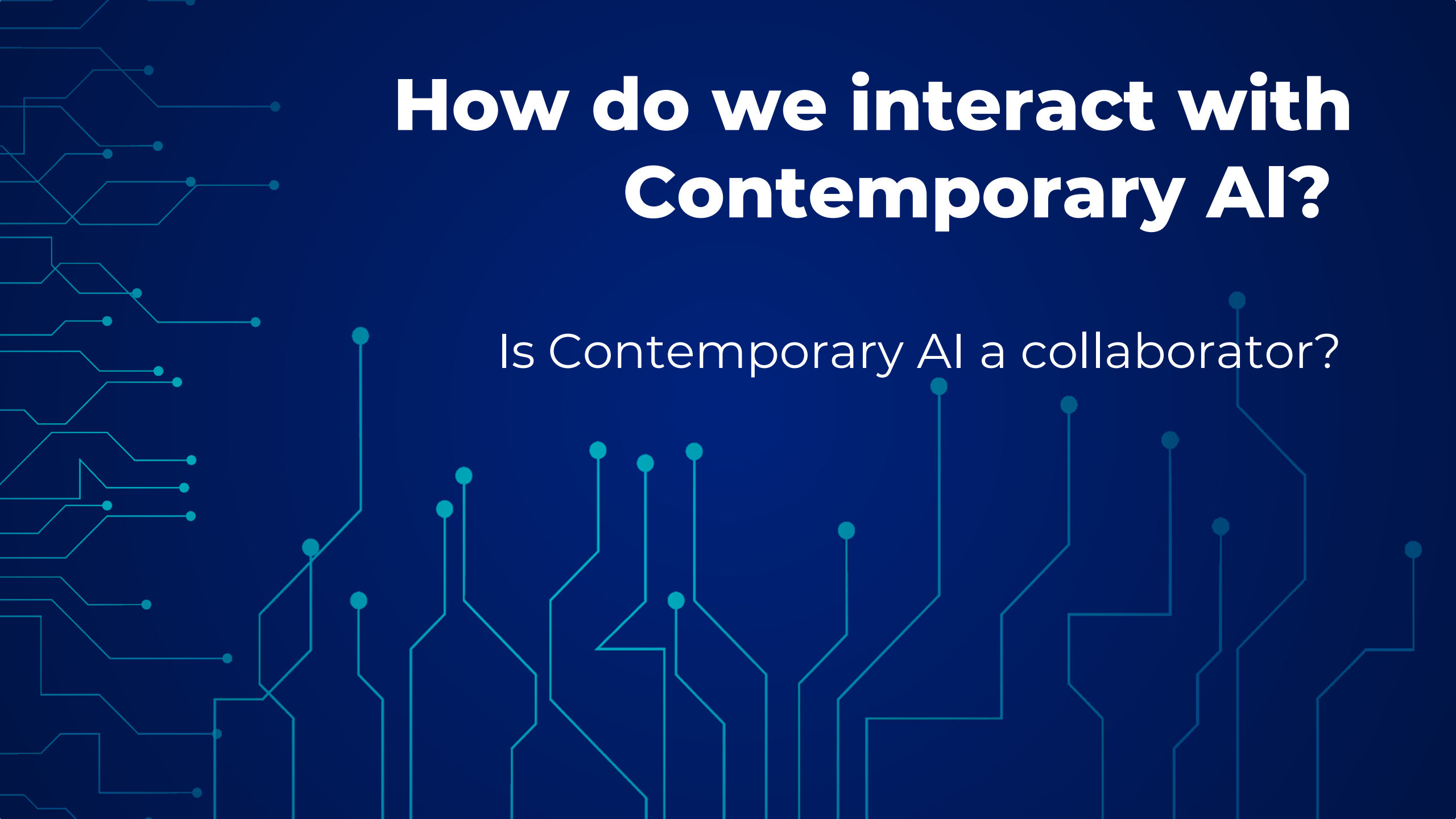
Download

Customize design



02

Guided Questions



How do we interact with Contemporary AI?

Is Contemporary AI a collaborator?

What is creativity?

Is creativity teachable?





When is it safe to use Contemporary AI?

Is Contemporary AI equitable?



How do we use AI?

Just because we can do something with
technology should we?



03

Open Q and A

Presentation and Pamphlet Link



www.herschnathan.com/usitt24.html