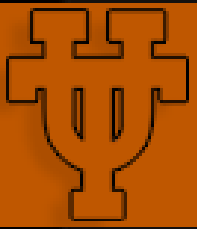




2023 EDGE Roundtable Discussion

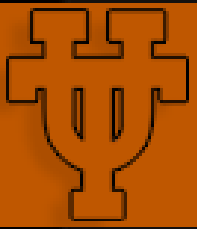
November 21st, 2023

Moderator: Dr. Molly H. Goldstein



Format

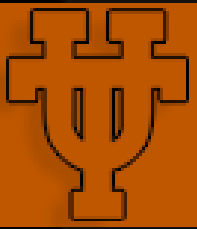
- Please review the questions on the following slides and **reply via email with your top three choices** for the questions that you would like to lead the discussion of.
- During the session, we hope that one of the Advisory Board members can lead the discussion of each question and provide their expert opinion and insight as a starting point for the discussion.



Question 1

Experiences and good practices in teaching generative design and other advanced engineering technology with college students and industry professionals (including, but not limited to generative software)?

Discussion leader: Dan Banach

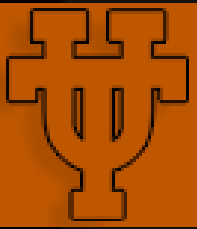


Question 2

Insights on recent advances in generative AI in and beyond engineering (general - LLM's, image generation, etc.)? How can advances outside of engineering be applied to engineering contexts?

- a. *Follow up* - Which engineering / technological spaces do you feel would benefit the most from generative AI?
- b. *Follow up* - Since most generative design tools focus on early brainstorming / prototyping phases, how do you think generative AI could be used in later design phases? Where else do you think it could be used?

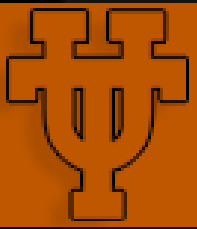
Discussion leader: Rachel Switzky



Question 3

How important is knowledge and experience in generative design software for students after they graduate? Do you think this will change in the future (i.e., will relevant experience be more or less important for students going forward)?

Discussion leader: Susan Shaw



Question 4

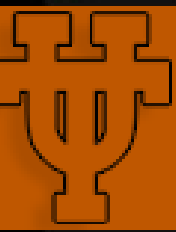
Human-AI design collaboration:

- a. Which tasks are best accomplished via human cognition, and which tasks are best accomplished via generative AI?
- b. In an ideal scenario (no political or resource constraints), what role should humans have in design, and what role should AI have in design?

Follow up - Thoughts on cross-modal generative AI and how can they be applied to engineering design?

Follow up - How do you view engineering design in the far future, e.g., 2060? What are the roles of humans, and what are the roles of AI?

Discussion leader: Zhenghui Sha



Question 5

How can we leverage recent advances in educational research to study generative design thinking?

Discussion leader: Onan Demirel