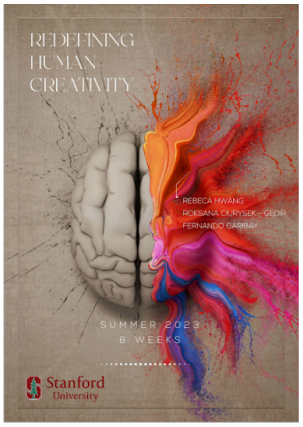
MS&E 75 Redefining Creativity: Designing Human Connections in an AI World



Teaching Team:

- Rebeca Hwang (rebex@stanford.edu)

Course Assistant (CA):

- Anushikha (nushi27@stanford.edu)
  Tyler Juffernbruch (ty1@stanford.edu)

Weekly Meetings:

Tuesdays 3 pm - 5:50 pm at Hewlett 102

Course Description:

With the recent developments in generative AI, we are pressed to reflect on what differentiates human creativity from its machine-originated counterpart. This course draws from lessons from creativity in the arts to teach engineering students methods for creativity derived from musicians, artists and problem solvers. For our engineering students to learn creativity as a skill that is distinguishable and differentiated from generative artificial intelligence, this course explores, for instance, the anatomy of a Hollywood pop song and the process behind the creation of globally impactful art. Students learn how to transfer these skills into the creation of engaging entrepreneurial solutions, for effective storytelling, and developing their unique personal and professional stories. Students learn skills to unlock creative power which they will apply in the course as a design vehicle for a wide range of applications in engineering, self-expression, technological exploration, and the development of solutions that are centered around human connection and emotional engagement with the user. Sessions are practical, drawing tools and lessons from interdisciplinary individuals with wide-ranging careers. No artistic or entrepreneurial experience is necessary.

Course Objectives:

- Understand new tech trends in relation to AI and its application in creative industries
- Unleash our own creativity in articulating your unique personal value proposition to the world
- Become familiar with new tools and platforms for content creation, showcase tangible examples in which AI tools can augment human creativity
- Work as a team to understand the role of human creativity in entrepreneurship
- Identify human agency in delegating to machines the aspects of creativity that we intend to be non-essential to human enrichment
- Have fun!

Course Calendar:

Date	Description
6/25	Introductions – Rebeca Hwang will provide course intro via video recording **The Entangled History of Creativity and Technology by Alex Cohen** -
7/2	**AI and Music: Grammy winner Fernando Garibay shares his AI augmented music composition strategy** **“**How to Write a Hollywood HIT song" Songwriting/Producing as a case proxy for creativity as a skill The Garibay Creativity Framework – Part 1 ● Limbic and subconscious (Micro-traumatic Stimulus) ● Triage, Self-authoring, ● Bond, Define, Assess the Instrument, ● Trust and safe space, ● Laser focus, ● Positive Deviance, ● Originality and Sui Generis Creativity as a Skill – Part 2 ● Bond (Collaboration from 1 to many) ● Assess the instrument ● Trust and safe space ● Laser focus H. Positive Deviance ● From Originality to Sui Generis/Showcasing LLM/Diffusion model ● limitations
7/9	**AI and Problem Solving Under Extreme Pressure: Former Marine Mike Sherbakov highlights humans’ inherent advantage over machines under uncertainty** (https://greatnessventures.com/mike)
7/16	**Human Connections and Networking as our best defenses against the threats of AI** **By Noah Berkson** **Overview of AI Tools for Creativity by Anushikha Singh and Tyler Juffernbruch**

	https://www.linkedin.com/in/noahberkson/
7/23	**Metaverses and our mirrored identities: what we learn from 25 years of Second Life by Philip Rosedale**
7/30	**Sculptures, Immersive Experiences and the Future of User Experiences. By Revel Woodard and Sebastian Cao**
8/6	**The Business Model of Our "Likeness": Digital Twins, AI influencers, AI models and AI Frankensteins**
8/13	**The Future of Creativity in Entrepreneurship** **Final Class Presentations** **Course Wrap-Up**

Office Hours:

Meetings will generally be one-on-one and held over zoom. Each week a Google Sheet will be sent out on Canvas where students can sign up for a 15 minute slot.

Meeting Days/Times (subject to change)	
Rebeca Hwang	Check Google Sheets (changes weekly)
Anushikha Singh	Thursday, 1-3 pm, Zoom/In-person (also available on request over email)
Tyler Juffernbruch	Tuesday, 9-10 am, & 1:30-3 pm, Zoom/In-person (also available on request over email)

Attendance:

It is mandatory to attend every class as part of your participation grade. Any missed classes will take a toll on your overall class grade. Exceptions may be made in extenuating circumstances at the discretion of the teaching staff – if this applies, please contact a member of the teaching staff as soon as possible and copy the course assistant.

Grading Breakdown: Assignment Instructions will be published on Canvas and explained during class.

- Participation/Attendance (25%)
- Assignment 1: Build Your "Augmented Creativity" Practice (20%). **Due 7/12 at 5 PM PST**

- Assignment 2: Design Your Life & Identify your Human Superpower with AI tools (20%). **Due 7/29, 2024 at 5 PM PST**
- Final Team Project (teams of 4-6 people): New Business Models with Generative AI (35%). **Decks to be submitted on 8/12 at 5 PM PST. Class Presentation on 8/13.**

Credit: 3 units

Honor Code Policy:
Violations of the honor code are serious offenses, even in this course with the use of artificial intelligence tools. It is important that students are aware of the honor code and adhere to its rules for all assignments and projects. Briefly, violations of the honor code include all forms of academic dishonesty, including but not limited to copying another's work, failure to footnote appropriate sources, and anything else that prevents the student from using their own brains and judgment. If a student is unsure if an action violates the honor code, they should bring it to the attention of an instructor. Collaboration is a large part of this course, but individual work is done solely by the student and any help from outside sources must be cited.

Students with Documented Disabilities:
Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, URL: http://studentaffairs.stanford.edu/oae).