

[RE]IMAGINE EDUCATION

A weekly Design·AI newsletter

DESIGN·AI FOR FUTURE WORLDS

HASS Special Issue

Associate Professor Lyle Fearnley, HASS

In conversation with Dr. Nachamma Sockalingam, OSP



Associate
Professor Lyle
Fearnley, HASS

<https://www.sutd.edu.sg/profile/lyle-fearnley/>

In this issue of [RE]IMAGINE EDUCATION, we feature Associate Professor Lyle Fearnley's reflections on **Design·AI for Future Worlds**, where culture, ethnography, and speculative design come together to shape how students imagine future technologies. The course foregrounds a powerful idea: design is not only about solving problems, but also about understanding meanings, behaviours, contexts, and the cultural worlds in which technologies are used.

What is especially intriguing in this feature is how AI appears in two different roles. In **The Human Checkpoint**, AI becomes an object of critique, raising urgent questions about cognitive atrophy, human dependency, and the possibility that attempts to protect human thinking may themselves become restrictive. In **LifeNest**, AI becomes a creative method, helping students generate realistic "documents from the future" that make speculative scenarios visible, tangible, and open to debate.

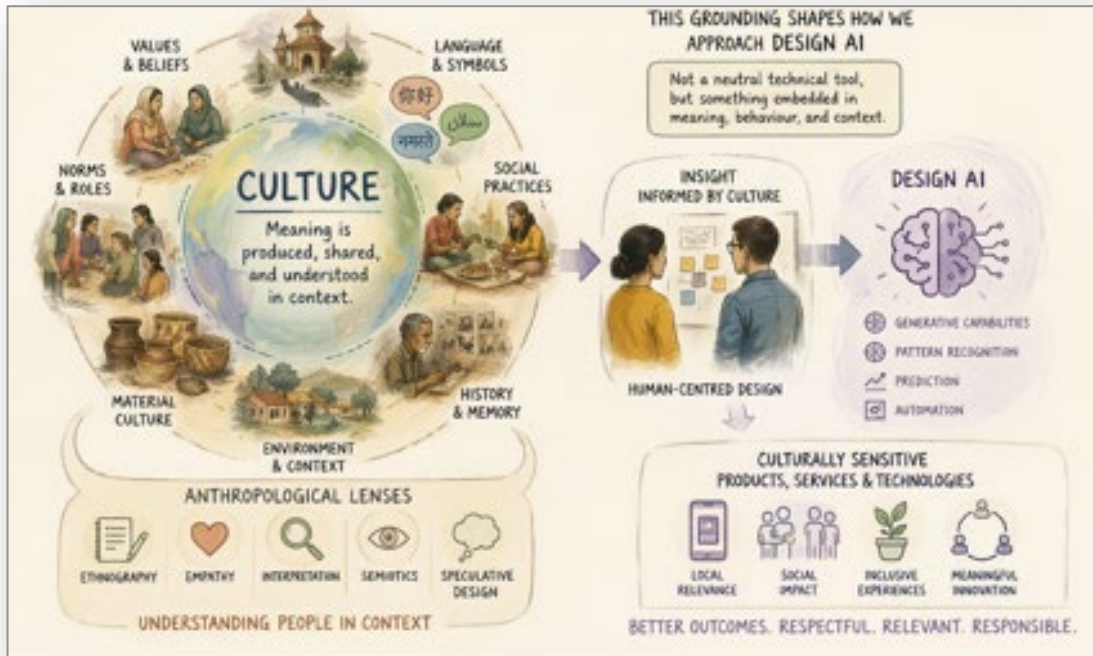
Together, these projects remind us that Design·AI is not merely about efficiency, automation, or tool use. It can help us question what futures we are creating, whose values are embedded in them, and how design can make emerging possibilities available for reflection before they become reality. **Let us get inspired!**

This newsletter is produced with ChatGPT and other AI tools as super-collaborators. The authors contribute the core ideas, drafts, strategic framing, pedagogical insights, and design direction, while AI supports by refining, formatting, and creative articulation. (CC BY-NC-ND 4.0).

Editor of Newsletter:

Dr. Nachamma Sockalingam, Office of Strategic Planning

Contact us at nachamma@sutd.edu.sg to share your Design·AI stories



An Anthropological Lens to Design·AI

Can Culture Shape Design·AI?

SUTD runs a graduate-level course entitled “**User Experience: Understanding Culture for Design.**” This human-centred design course introduces students to anthropological theories and research methods and demonstrates how they can be applied to design practice. Co-taught by an anthropologist and an industry design consultant, the course explores how culture shapes user experience and how designers can create products, services, and technologies that are sensitive to cultural diversity and social context. Students learn key concepts including culture, ethnography, empathy, interpretation, semiotics, and speculative design, while examining how meaning is produced and understood across different cultural settings.

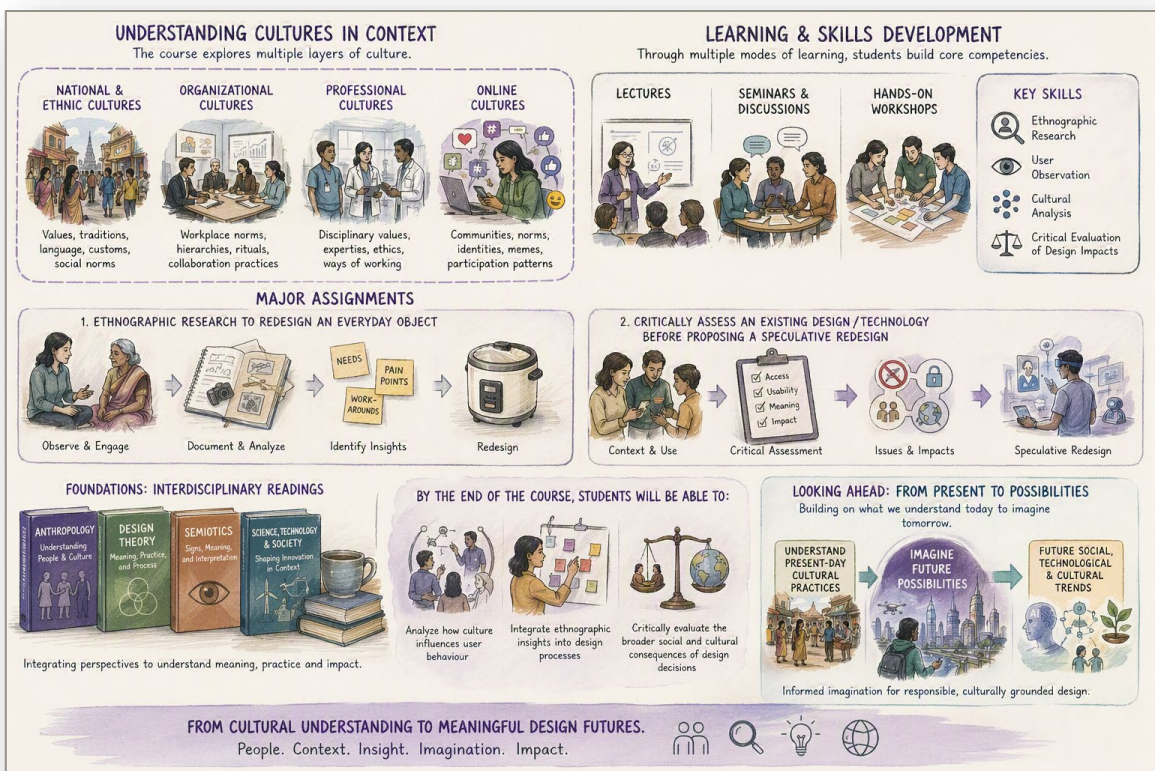
This grounding in culture forms the basis for how students approach Design·AI—not as a neutral technical tool, but as something embedded in meaning, behaviour, and context.

From Cultural Analysis to Design Practice

The course emphasizes the importance of understanding not only national and ethnic cultures but also organizational, professional, and online cultures. Through lectures, seminars, discussions, and hands-on workshops, students develop skills in ethnographic research, user observation, cultural analysis, and critical evaluation of design impacts.

Major assignments require students to conduct ethnographic research to redesign an everyday object and to critically assess an existing design or technology before proposing a speculative redesign. Readings draw from anthropology, design theory, semiotics, and science and technology studies. By the end of the course, students will be able to analyse how culture influences user behaviour, integrate ethnographic insights into design processes, and critically evaluate the broader social and cultural consequences of design decisions.

Building on this foundation, students move from understanding present-day cultural practices to imagining how future social, technological, and cultural trends may shape design possibilities.



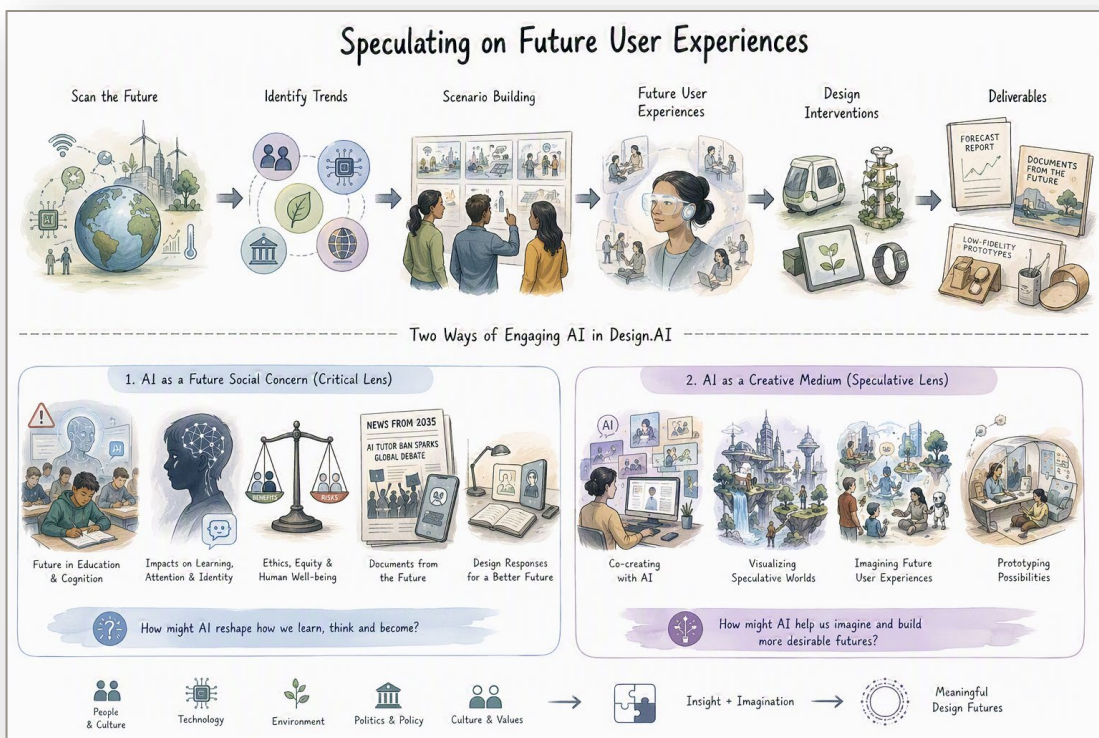
A Pedagogical Overview of the Course

Speculating on Future User Experiences

In the final speculative design project, students apply cultural analysis and speculative design methods to explore future societal challenges and develop design responses. Working through forecasting, scenario-building, and user research, students identify emerging social, technological, environmental, political, and cultural trends, envision how these forces may shape future user experiences, and propose interventions that address future needs. Deliverables include documentation of the forecasting process, persuasive “documents from the future” that make speculative scenarios tangible, and low-fidelity prototypes that demonstrate proposed design solutions.

The final assignment encouraged students to engage Artificial Intelligence in both the methodologies of design and as an object of critical and speculative design. Two examples featured here highlight these different aspects of Design.AI engagement.

The first student project examines AI as a future social concern in education and cognition, while the second uses AI as a creative medium to visualize a speculative world.



Designing the Future

Student Project 1

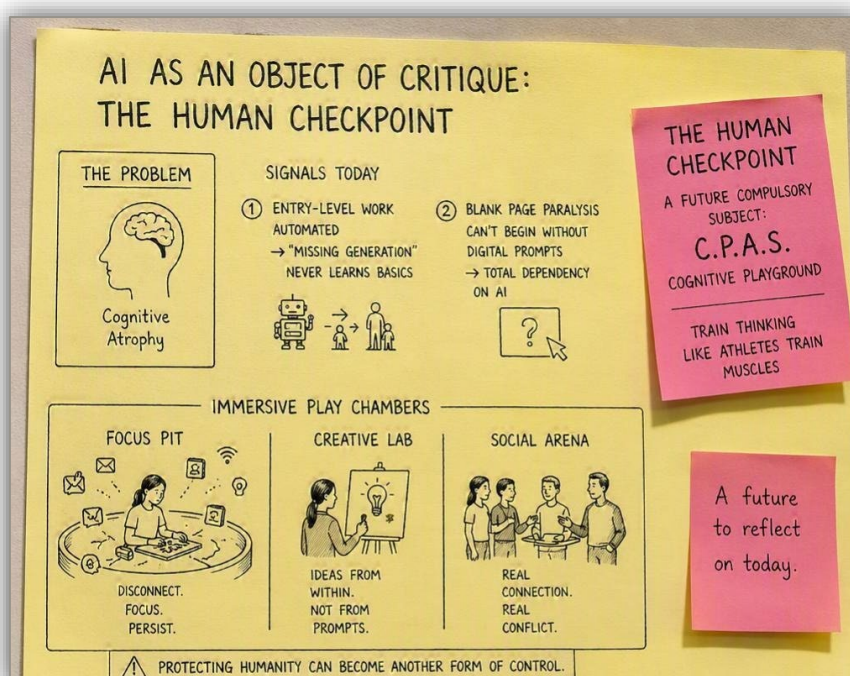
AI as an Object of Critique: The Human Checkpoint

"The Human Checkpoint," designed by Sumaiyya Ali, Jasleena Jassal, Goh Yu Bei, and Lou Guberti-Ng, addressed some of today's most urgent concerns about AI in learning and education.

The project's central concern is cognitive atrophy — the idea that as AI takes over more thinking work, human reasoning capacity may degrade. It anchors this worry in two present-day "signals": entry-level knowledge work being automated (producing a "missing generation" of experts who never learned the basics), and "blank page paralysis," where students increasingly cannot begin tasks without digital prompts, pointing toward total dependency on AI for creative initiation.

The team propose C.P.A.S. — the "Cognitive Playground," a compulsory university subject where students "train thinking the way athletes train muscles" to prevent cognitive atrophy. The design imagines a series of "immersive play chambers" in which students are forced to train the cognitive capabilities that AI-driven "off-loading" tends to weaken—such as focus, creative thinking, and social skills. For example, in the "focus pit", users are forced to disconnect from all devices and solve a puzzle while being bombarded by digital distractions. The project effectively and ironically highlights how our very concerns to protect the humanity of our minds against cognitive atrophy could themselves become forms of oppression.

This example shows how speculative design can turn anxieties about AI into a tangible future scenario for reflection and critique.



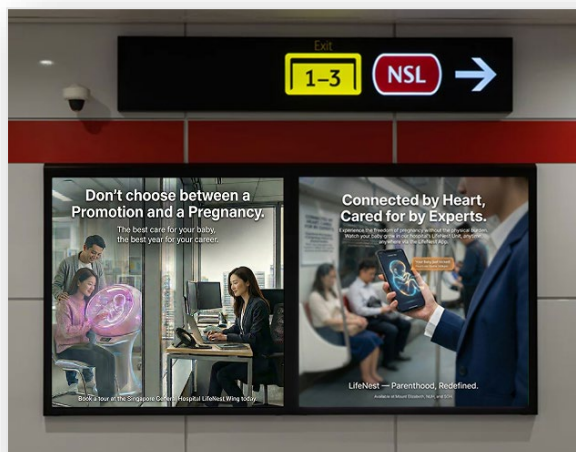
Student Project 2

AI as a Method for Making Futures Visible: LifeNest

LifeNest, designed by Charlotte Chiew, Ma Zhen, Athira Pilakkat, Jaime Lorenzo Rayos Jover, demonstrated the use of generative AI tools to create deictic prototypes -- a prototype that points toward a possible future situation, practice, or world rather than demonstrating a fully functional product.

Deictic prototypes are used to provoke discussion, reflection, and imagination by making abstract ideas about the future tangible and open to critique. In the speculative future of LifeNest, the crisis of population decline and low birthrates led to a proposed design of a technology that allowed a growing fetus to be entirely raised outside of the human body. In order to reveal the ambivalent issues raised by this future, the team used generative AI to produce highly realistic images of this imagined future world -- such as a poster for LifeNest depicted on the wall of an MRT station.

The use of AI tools for image generation is ideal for speculative design, as prompt based entries can push the boundaries of visual imagination while also producing highly realistic images.



Together, these two projects show the dual role of Design-AI in human-centred design: AI can be critically examined as a social force, and it can also be used as a creative method to make possible futures more visible, debatable, and open to design reflection.

As we reflect on these projects, we are invited to ask: how might an anthropological lens help us see Design-AI differently? For faculty, what would it mean to design learning experiences that attend not only to AI skills, but also to culture, meaning, behaviour, and social consequence? For staff, how might ethnographic observation help us better understand the lived experiences of the communities we serve before introducing new AI-enabled processes?

For students, how might looking closely at everyday practices, assumptions, and human contexts lead to more thoughtful design choices? As AI becomes more embedded in education, work, and society, perhaps the challenge is not only to ask what AI can do, but to ask what it changes, whom it affects, and what futures it quietly makes possible.