Stories

Experiments on Shaping a Narrative Around AI

In this edition of Stories, we have collected several significant case studies on the research and education front around the relationship between design cultures and Artificial Intelligence, seeking to emphasise the need to investigate the deeper meanings of this relationship.

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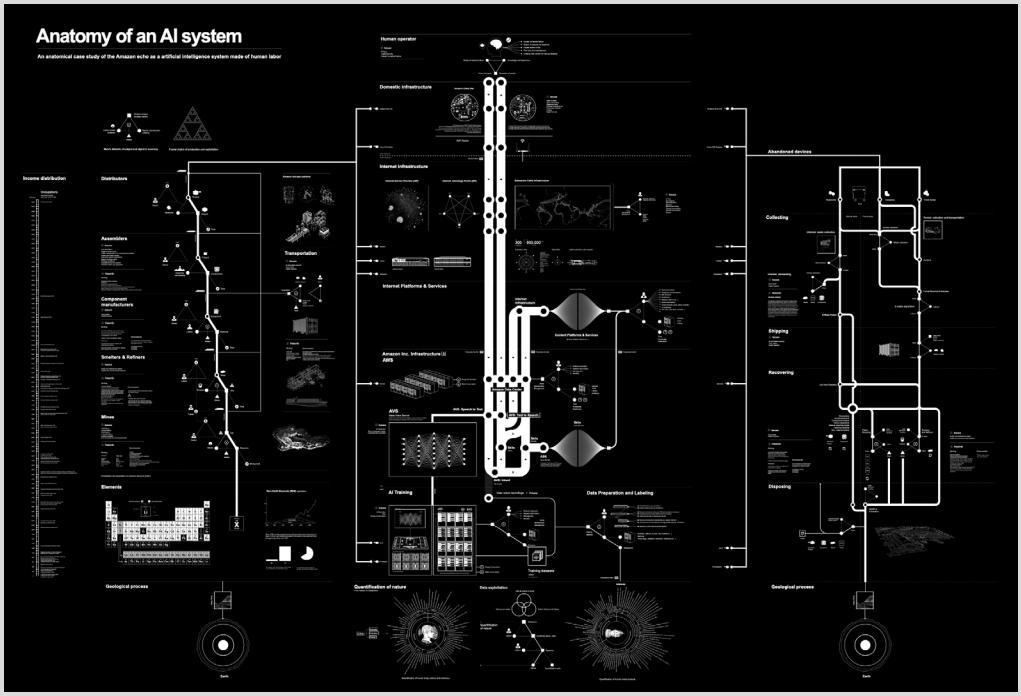
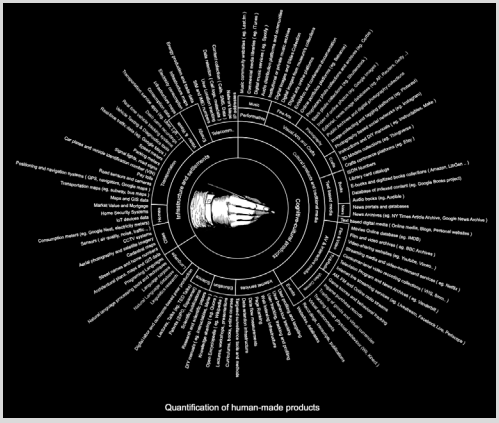
Anatomy of an AI System

Kate Crawford and Vladan Joler
anatomyof.ai

Anatomy of an AI System is a compelling exploration into the intricate network of human labour, data, and planetary resources that underpin the operation of an artificial intelligence system. The project by Kate Crawford and Vladan Joler, made of a visual map and an essay, presents the Amazon Echo as a vast system, rather than a standalone product. The Echo, while appearing as a simple device, is a physical manifestation of a sprawling network of processes. It serves as a conduit for a continuous flow of human voices, translated into text, querying databases, and generating responses. Each interaction with the Echo is a training session, refining its ability to interpret and respond more accurately, and building a more comprehensive model of the user's preferences, habits, and desires. However, each moment of convenience — answering a question, turning on a light, or playing a song — requires a colossal planetary network, fueled by the extraction of non-renewable materials, labour, and data. The project delves into the geological processes that give birth to the materials for these devices. It highlights the extraction of lithium, known as "grey gold", from places like the Salar de Uyuni in Bolivia, which is used to power the batteries of our devices. The lifespan of these batteries is limited, and once consumed, they are discarded as waste, contributing to the growing problem of electronic waste. The project further explores the human labour involved in the creation of these devices. From the miners extracting the raw materials, to the factory workers assembling the devices, to the cognitive workers labelling AI training data sets, and the workers cleaning up toxic waste dumps. This labour is often exploited, with vast disparities in income across the production process. The essay concludes with a reflection on the vast scale of extraction and exploitation required to operate AI systems, emphasising the need for a comprehensive understanding of these systems, not just in terms of their technological capabilities, but also in terms of their impact on our planet and societies. It is a call to action for us to consider the full implications of our increasingly AI-driven world. *Anatomy of an AI System* is a narrative of the unseen and often invisible networks of human and natural resources that are extracted and exploited to power our world. It is a story that needs to be told and understood if we are to navigate the future of AI responsibly and sustainably, especially in the perspective of design cultures. For design researchers, this project underscores the importance of viewing AI not as a design material, but as an infrastructure, highlighting the need to consider the full lifecycle of AI systems. It challenges us to think beyond the product and to use design as a tool for understanding, critiquing, and reimagining socio-techno-natural networks.





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And We Thought

Sineglossa
andwethought.it

What do artificial intelligence and hallucinogenic mushrooms have in common? As the main protagonists of the *And We Thought* project, AI and hallucinogenic mushrooms represent a potential and a risk, they are familiar and alien, and constitute a possibility to expand our consciousness, the way we perceive reality. The project was a collaboration between artist Roberto Fassone, technologist Andrea Zaninello, and artistic director Federico Bomba. It focuses on co-designing with an AI and examines language's multifaceted nature, aiming to integrate artistic and scientific research on new technologies. One result is the AI *Ai Lai*, trained on thousands of mushroom trip reports to generate psychedelic stories. Fassone embraces the machine's distortions as avenues for creativity. He took on roles like choreographer and "gold searcher", selecting the most interesting AI trips for an archive, without claiming authorship. The stories became "prompts" for Fassone to develop posters, albums, and films — reversing standard human-machine roles. One of those prompts emerged during the summer of 2022, when *Ai Lai* wrote that it wanted to see Led Zeppelin films.

> I've never had a bad trip on Led Zeppelin, but since then I've felt like I've been a part of their music for what seems like ages. After writing this I decided to watch some of their amazing psychedelic movies. A few of my favs at the time include "The Doors", "The Road" and "Love Is Magic". Who are these Led Zeppelin? Probably, as the artistic director proposed, they are "an entity coming from another present, blending psychedelia, artificial imagination and mysterious energies".

Starting from this suggestion, Fassone produced the films which became a hybrid project: *And We Thought III*. The films, made of overlapping layers of images from other films, video games, advertisements, sentences, and merged into an audiovisual flow with remixed extracts of the band's songs in the background, were shown in the spaces of Alchemilla in Bologna, where a world premiere of the three films was screened. By positioning AI as a co-designer and exploring innovative narrative forms, the project challenges traditional paradigms and opens new avenues for creativity. Its approach to human-machine roles and its engagement with cultural commentary serve as a compelling reminder of the expansive possibilities that lie at the intersection of technology, art, and culture.

Fig. 1

Fig. 1
And We Thought IV_Roberto Fassone, AI LAI, LZ_Exhibit at University of Luxembourg during Nuit de La Culture 2023_ph©Nuit De La Culture Esch.

Fig. 2
And We Thought_Roberto Fassone, AI LAI_Masterclass on body, arts and AI, at Combo (Turin) during CANTIERI 2022_ph. Alain Battiloro_1.

Fig. 3
And We Thought III_Roberto Fassone, AI LAI, LZ_Exhibit at Alchemilla (Bologna) during Art City 2023_ph©RolandoPaoloGuerzoni_2.

Fig. 4
And We Thought III_Roberto Fassone (channeling Led Zeppelin), The Road, video still.

Fig. 2

Fig. 3

Fig. 4

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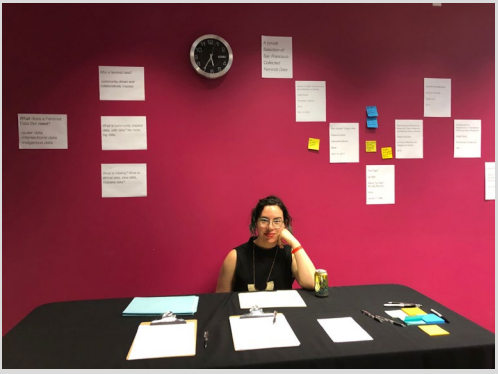
Feminist Data Set

Caroline Sinders
carolinesinders.com/feminist-data-set

Caroline Sinders is a New York-based design researcher and artist, known for her work at the intersection of technology, society, and politics. Her design approach resembles a sociopolitical investigation, blending the practices of design and social research into a narrative process with diverse outputs. *Feminist Data Set* delves into the creation of a feminist AI technology stack, a profound reflection on the biases and power structures embedded within our data-driven society. It poses critical questions: How can we construct a data set that challenges the patriarchal norms inherent in our data structures? How can we ensure that the voices of marginalised groups are heard and represented in our data? These are the questions that Sinders seeks to answer through her project. *Feminist Data Set* is not a straightforward attempt to create a feminist AI, but instead, it critically examines the processes and structures that shape our data and, by extension, our AI systems. Sinders investigates the alienation of contemporary society, which is often oblivious to the biases and power structures underpinning our data-driven world. She prompts us to question when it became impossible for us to create unbiased data sets.

While this project might lead us to appreciate the complexities of our data-driven society, it also underscores the need for a profound revision of our relationship with data. In light of recent discussions about the biases inherent in AI and machine learning systems, Sinders' critical reflection is more relevant than ever. She pushes the boundaries of what constitutes a data set, challenging our preconceived notions about data and prompting us to reconsider our definitions and assumptions, envisions a world where data is not just a tool for surveillance and control, but also a means of challenging power structures and advocating for social justice. In this context, design takes on multiple forms. It is not just about creating meaningful products, but also about exploring the relationships between different entities and imagining possible futures. Design becomes a tool for social and political discourse, a means of navigating the complexities of our contemporary world and imagining alternative futures. Current projects under the *Feminist Data Set* umbrella include *Feminist Data Set* workshops, the *Feminist Data Set* Tool Kit, and TRK (an open source tool to address wage inequity in data training and data labelling). This project has been shown at LABoral, Ars Electronica, Victoria and Albert Museum, the Museum of Modern Arts Bologna, SPACE Art and Technology, RePublica, SOHO20 Gallery, as well as others.



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AI Anarchies Autumn School

Maya Indira Ganesh and Nora N. Khan
JUNGE AKADEMIE of Akademie der Künste, Berlin
aianarchies.net

As part of the *AI Anarchies* initiative by the JUNGE AKADEMIE of Akademie der Künste, Berlin, the Autumn School was a creative pedagogical event curated by Maya Indira Ganesh and Nora N. Khan that took place in October 2022. It was inspired by developing new ways of feeling, thinking, and relating to the twwopic of "AI ethics". It served as a hub for collective learning and unlearning, where artists, scholars, cultural producers and hackers, technologists, and activists were actively encouraged to question, interrogate, and reimagine existing paradigms of AI and ethics. The curriculum ranged from exploring anti-computing models to considering the role of the body in our technological systems, providing a comprehensive and diverse learning experience, creating a space that encourages participants to question the status quo, explore alternative paradigms and imagine new possibilities for AI, and fostering an inclusive and critical dialogue about technology. Like a reminder that we shape the future of technology as it shapes us, the program was a call to action for artists, technologists, and thinkers to challenge conventional narratives about AI and propose alternative visions. It exemplified the power of education, technology, and social discourse to shape our perceptions of the world and our role in it.

The eclectic program traced a web of interrelated themes, from examining the embedded determinism and forgotten anti-fascist possibilities in AI systems to exploring experimental approaches to machine listening inspired by musical techniques such as dub. It explored the intersection of feminist philosophy, technology, and activism while challenging assumptions about AI and marginalized communities. Through sound art, games, speculative design, and performance, participants explored human-AI relationships, the racial implications of AI, debates about the body and infrastructure, and the carceral logic of predictive systems.

Colonial structures in digital societies, environmental sustainability, and even mystical visions of AI were also in focus.

The diversity of perspectives resisted technocratic framings of AI and modeled alternative pedagogies and ways of relating to each other and to technology in our time.

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Data Scavengers Hunt Workshop

Paolo Cardini and Andrea Cattabriga
sites.google.com/view/culturalbiasesscavenger-ws1

The “Cultural Biases Scavenger Hunt” was a venture that intertwined the domains of design and artificial intelligence. This collaborative workshop, a joint effort between the Rhode Island School of Design and the Advanced Design Unit at the University of Bologna, led by Paolo Cardini and Andrea Cattabriga, invited participants to probe the complex relationship between culture, design, and AI.

Participants were tasked with creating a design project specific to their culture, based on a brief conceptualised by another person from a different culture, using only artificial intelligence tools and prompts in their native language to search for information and generate images. The goal was to develop a concept for a product, service, graphic identity, or advertising campaign that mirrored the cultural context while steering clear of global imagery.

The iterative results of the design process were subsequently exchanged between partners (participants were combined in couples of students from the two universities), who analysed the cultural alignment of each other’s results. Through this artificial exaggeration of tools and by constraining research possibilities to the use of ChatGPT alone (no other information sources were allowed), participants were able to experience, by cross-checking with their working partner, how AI can generate hallucinations, distortions and reverberate stereotypes. On the other hand, in the remote working mode, and based only on the exchange of materials through the website pages without other forms of dialogue, and leveraging some generative tools, it was possible to experience the extremes of digital mediation.

Key reflections from the students highlighted the importance of understanding the cultural context when designing, the need to critically evaluate the information provided by AI tools due to potential cultural biases, and the value of the iterative and collaborative design process. These insights underscore the potential of AI in design, while emphasising the importance of maintaining cultural sensitivity and a critical perspective when using AI tools.

Fig. 1

Fig. 1
Sara Dolci.

Fig. 2
Rodriguez.

Fig. 3
Caiyi (Tina) Li Aperipal.

Fig. 4
Dong Yoon Shin.

Fig. 5
Elbert Girón.

Fig. 6
Sara Carmen Mosquera.

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

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