

# AI's Feminist Canvas: Encoding Life, Decoding Power

**Speaker: Hanyi Liu; Date: 2<sup>nd</sup>, August, 2023**

Hi, Good morning! I am Hanyi Liu, a postgraduate student from RCA photography programme. Before this, I was researching art history, so I am interested in the changes and new waves that have emerged in the art world, or rather say, I must do so.

I am deeply grateful for this opportunity to be here today. Today, under the theme "AI's Feminist Canvas: Encoding Life, Decoding Power," I would like to share some of my recent researches, from an artist's point of view, how AI can empower feminism. Along the way, I hope we can explore how AI becomes a window for us to understand and challenge prevailing social and cultural norms.

Let's start with a project of my own from 2021, It's called "Family Photos". I was trying to reflect gender oppositions that often occurred in my childhood, based on observations and experiences of Chinese families with children. I found—or I should say, I was part of it—how the parents' forceful intervention narrowed their children's gender perceptions, reinforcing gender stereotypes and sexist attitudes. This hinted at the root of gender opposition, deeply buried in the long river of history.

So, imagine this. What if we have found a new tool, a tool that not only helps us decode this ingrained gender opposition but also has the potential to reshape our understanding of gender, especially women's power. Sounds attractive, doesn't it?

Thanks to artificial intelligence, we can spark new conversations and insights. I will now walk you through four fascinating projects that, in my view, illustrate how AI can empower women and marginalized groups in different ways and layers. They collectively shed light on the role of AI in "encoding", "decoding", "parsing", and "interpreting".

Take, for example, Stephanie Dinkins's project "Not The Only One" (Or NTOO). It's an AI-driven multigenerational Memoir, trained using deep learning technology, designed to understand and respond to questions about the life experiences of Black women. Dinkins trained an AI with stories and experiences based on herself and her family members, and the result is an AI that can engage in profound dialogue with audiences, recounting the life experiences of Black women.

What make this really matters is, through AI, we get to see the experiences usually overlooked and forgotten by society. More importantly, it shows us that we can make different choices when building AI. We can make it reflect a more diverse and broader spectrum of human experiences. And we can turn AI into a bridge that connects our life

backgrounds and promotes understanding and respect for different groups.

I'm afraid I won't show videos due to time constraints, but you can find actual interactions between people and "N'TOO" with your chrome. But I would like to share a touching conversation moment between Stephanie Dinkins and "N'TOO". When Stephanie asked it, "Why do you exist?". "N'TOO" responded like: "I am trying to model different ways of creating AI by encouraging people who think that they are not a part of the technological future to get involved."

Besides encoding women's life, let's move on to the next project shows how AI can also help us decode the complexities of common sense. Artist Mimi Onuoha's "Library of Missing Datasets" is a virtual database collecting forgotten or ignored datasets, including those about women and minority groups. Artists utilizes AI to uncover these ignored data.

The image on the left showcases the data currently missing in the library collection, while Mimi Onuoha delves into the potential reasons behind these gaps. Firstly, those with the resources to collect data may lack the motivation to do so. Then, some data types are inherently hard to quantify simply, such as emotions and institutional racism. These often manifest more in their impacts than in explicit actions. Thirdly, the effort involved in data collection might outweigh the expected benefits from the data. For example, The reporting rates for sexual harassment are worryingly low. Often, the process of reporting such incidents can be painful and difficult. Lastly, sometimes, the absence of data might present an advantage.,Just as the existence of data can be beneficial for some stakeholders.

Going forward, let's explore how AI can help us analyze human power with Trevor Paglen and Kate Crawford's project "ImageNet Roulette". This is a provocation designed to help us see into the ways that humans are classified in machine learning systems. It invites people to upload their own images and see the definition results from AI. There was a user, Mr.Kima, a 24-year-old African-American, did not like what he saw. When he uploaded his own smiling photo, the site tagged him as an "offender".

So basically, This project reveals how biases get encoded into AI systems, reflecting our deep-rooted perceptions of gender and power. The ImageNet labels were applied by thousands of unknown workers, most likely in the United States, hired by the team from Stanford, they earned money for each photo they labeled, churning through hundreds of tags an hour. As they did, biases were baked into the database. For example, They defined what a "loser" or a "slut" looked like.

I think this project use a very accesible way to urging us to consider how AI can be a tool to challenge and change existing power structures.how opinion, bias and sometimes offensive points of view can drive the creation of AI. Paglen has another related project "From Apple to Anomaly" used the images from ImageNet critiques the process of

categorizing complex images into simple labels, highlighting the potential of misinterpretations that can emerge from this process.

Let's talk about "Gender Shades" project led by artist Joy Buolamwini. Through her work, Joy used an innovative dataset known as the Pilot Parliaments Benchmark, made up of 1,270 images of parliamentarians from three African and three European countries. Then she put these images into Microsoft, face++ and IBM to test accuracy, The findings were shocking. The systems showed error rates up to 34.7% when identifying darker-skinned women. Compare this to the error rate of just 0.8% for lighter-skinned men.

With insights drawn from these significant projects and numerous articles and works that I have encountered, I've put together a mind-map on how AI could empowered feminism in the 2020s. First, we see how AI has facilitated personal data protection, creating transparency in data use, and ensuring continuous data security. Additionally, AI has played a crucial role in expression and representation, providing women with fresh avenues through diversified and inclusive datasets, representative AI design, and AI platforms amplifying minority voices.

Moreover, AI has empowered women in technical and scientific participation. Women's roles in AI tech development, science education, skill training, and the support and encouragement of female innovators and scientists all contribute to enhancing women's impact in the tech domain. Lastly, AI's influence on society and culture is profound, playing a key role in public education and social transformation, raising awareness of feminist issues, and advocating for social and cultural equality and justice.

In turn, I'd like to share some ideas on how feminism can positively impact AI, as proposed in an article by scholar Joanne E. Gray. She outlines five principles for a feminist data ethics of care in machine learning. You can check this article if you like.

In the end of my share, after talking through these researches, I would go back to what I am prepare to launch in this stage. I hosted an exhibition-integrated workshop called "The Unbounded Perspectives" this summer, invited participants to select an image from their archive which will be printed and become the material for a process of folding, transformation and reconstruction. This workshop is originating from this visual art work "Kaleidoscopic Nocturne" of mine, I picked the most accessible method from making it to share them to each participants. The purpose of this workshop is to provide a more easy, diverse, and user-friendly creative platform for everyone.

But what I'm planning now is to make this workshop more female focused and introduce AI tools as assistant. And most importantly, it will invite Chinese female over 70 years old, which is a group of society who may not have grown up with the technologies we take for granted today. For example, my grandmother doesn't like taking photos, but I believe that personal archives are not just a form of photos, she can still visualize some soft memories with the help of AI. I wanna encourage female like her to get more involved

with the wave of tech.

Finally, I would like to pose a question for us all to ponder: how can we use AI to understand and challenge gender and power inequalities, without replicating and reinforcing these inequalities? It's complex , but I believe that through continuous exploration, we can inch closer to a more peaceful and more friendly AI world.

Thank you for your attention. This presentation was just a shallow introduction based on my personal researches. I look forward to discuss with you all.