

Titles held:

Software Engineer	Facebook
Creative Technologist	Freelance
Associate Lecturer	Creative Computing Institute
Specialist Technical Instructor	Royal College of Art

Degrees conferred:

MA/MSc Global Innovation Design
Royal College of Art, Imperial College London

BA Computer Science
University of California Berkeley

Selected achievements:

Finalist, Designing for Digital Thriving IDEO Design Challenge (2022)

Shortlisted, Prototypes for Humanity, Dubai (2022)

Contributor, Critical Coding Cookbook
Published by Parsons School of Design (2022)

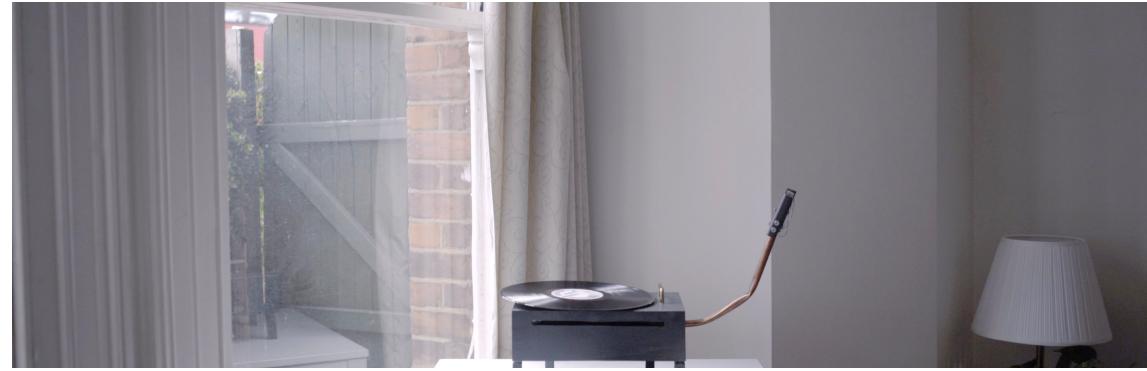
Exhibitor, Tokyo Art Book Fair at the Tokyo Museum of Contemporary Art (2021)

Director, Short form documentary
Awarded funding from UNESCO Japan (2021)

I've been writing software for years, spanning mobile, web, games, and audio. Before starting my MA/MSc, I coded for Facebook and freelanced, crafting beautiful and novel experiences. I teach creative coding and interaction design, where I'm passionate about creative and alternative approaches to digital interaction.

As both a designer and an engineer, I believe the best designs prioritize expressiveness, the best work is achieved through an activated intuition, a sort of reflex born from analytical thought, and the best outcome is to have your work resonate deeply.

Here + Now, Interactive audio sculpture
Featured - Bela Blog



THIS STATEMENT IS FALSE, AI conversation installation
Shortlisted - Prototypes for Humanity



"TA", Alternative inclusive Chinese pronouns
Published - Parsons School of Design



integrate to form a collective memory which performs a plethora of shared cultural beliefs, from

By critically unpacking character components and examining etymologies, we can start to

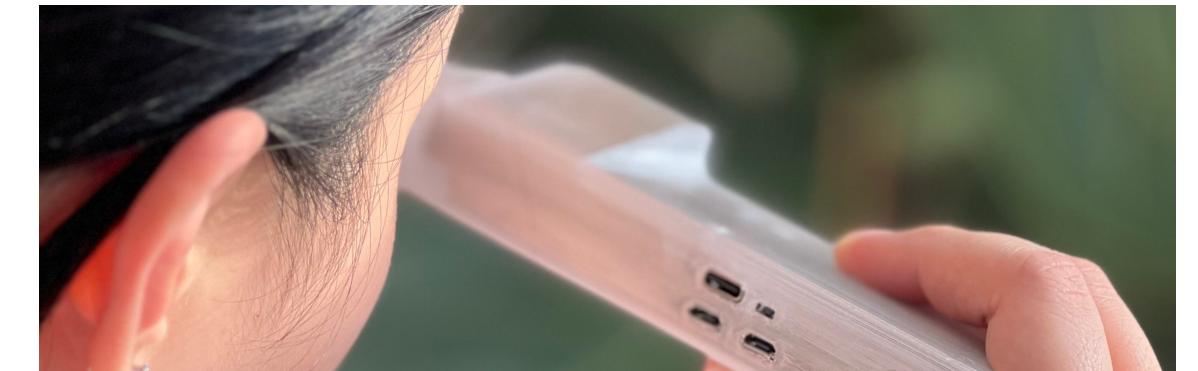
Rainbow, Social media pro-social design intervention
Finalist - IDEO x Riot Games Designing for Digital Thriving



MX-CLP, Portable video editing inspiration
Exhibited - Imperial College London



Camemory, Social media pro-social design intervention
Exhibited - NYU ITP Camp



HERE + NOW

Interactive audio sculpture



Here + Now is an installation for holding onto the present moment. It's a tactile auditory experience inviting participants to be gentle and focus on being present in the moment, by directly squeezing the music they hear.

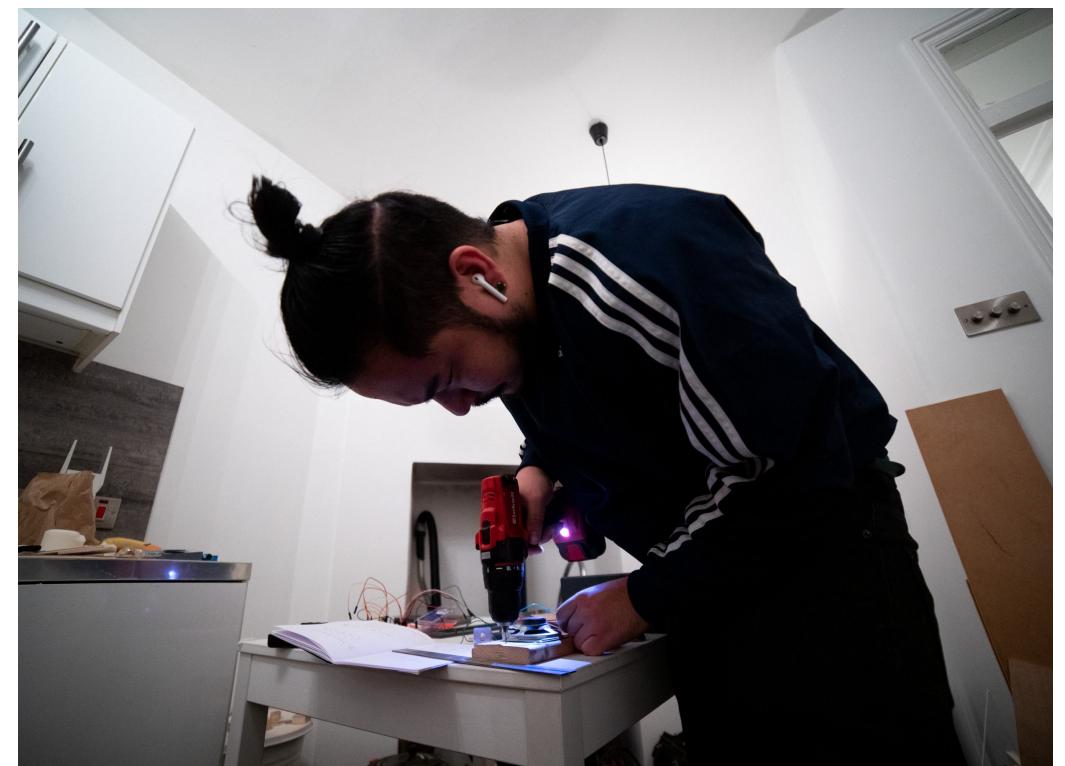
Users connect directly to the production of sound—as soon as the hand touches the sculpture, even the faintest of change in pressure changes the sound. If they squeeze, it becomes progressively louder and more mangled as the pressure increases.

Wood, copper tube, speakers, pressure sensitive load cell
2ch audio, 4:24 runtime

I wanted this object to ask users to reflect on how counterproductive it can be to hold on too hard, like squeezing a fistful of sand just to watch it slip away from between your fingers. Only by holding gingerly and leaning in can the music be heard in its original form.

I designed the interaction to encourage a sense of gentle connection with the present moment, and to emulate the oxymoronic nature of trying harder and harder to remember something, only to feel it slipping away even more because of that.

To achieve this, I repeatedly tested, first by testing the volume interaction, then the speaker mounting, the sound degrading, and the pressure sensor, soliciting user feedback through interaction tests at each stage.



This project was born out of research into audio installation work, particularly with the question: can immersion be achieved without high fidelity?

It was featured on the Bela board's blog along with an artist interview.

/ PROJECTS

Links

Github

<https://github.com/mngyuan/here-and-now>

Bela blog

<https://blog.bela.io/here-and-now/>

Materials

Bela mini

Speakers

Adafruit Speaker amplifier

Load cell

HX711 load cell amplifier

Wood for enclosure

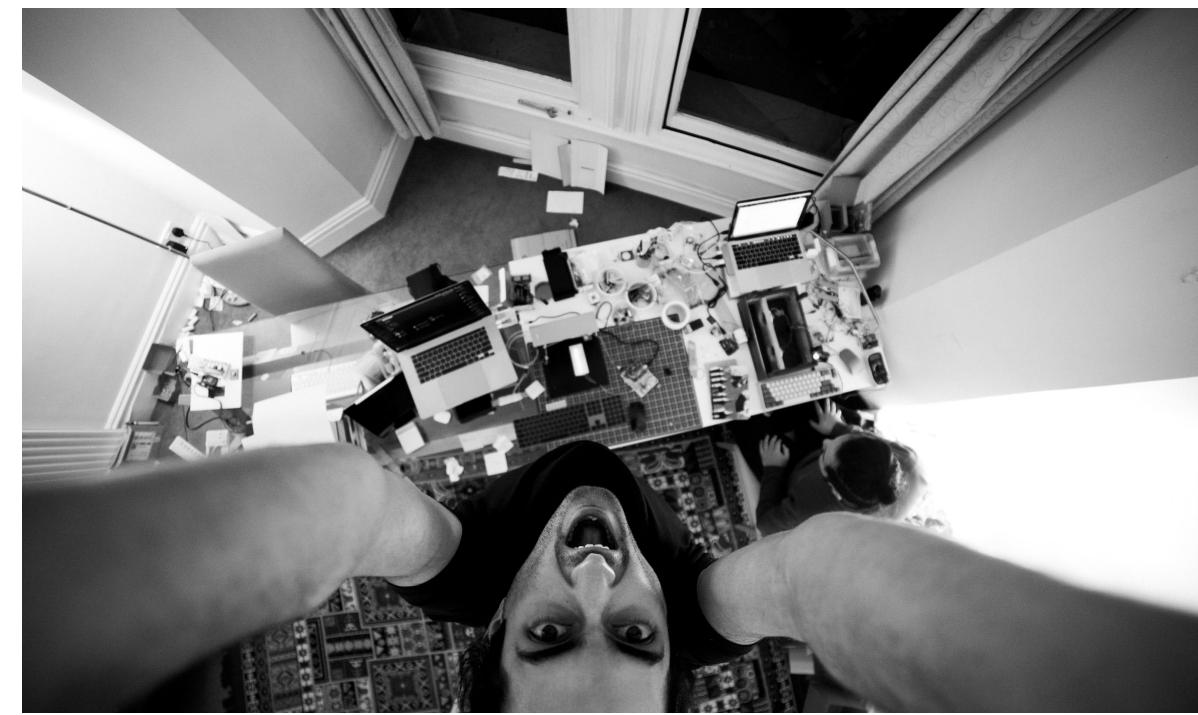
Spray paint

Copper tube

DC motor

Vinyl record

I engaged with the Bela community online for this project; many thanks to them and to my studio mates Ahad and Joe for their help and for being a motivation and a solace during the pandemic.



RAINBOW

Enhancing pro-social connection on social platforms



Being able to build high-quality relationships is one of the most essential tasks in adolescence and can protect children from mental health problems later in their lives. However, current social media platforms can give an illusion of

social fulfillment as teens engage with their peers passively. Rainbow aims to build a generation of socio-emotionally intelligent humans by encouraging activities that have a positive effect on development and well-being.

App based design intervention
Finalist, [IDEO x Riot Games Designing for Digital Thriving Challenge](#)

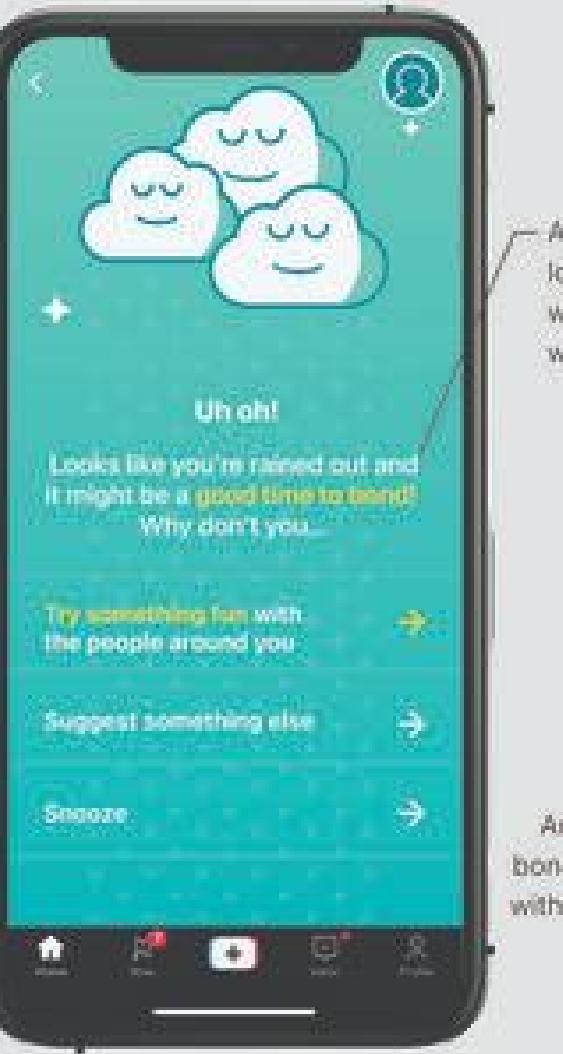
Primary Stages of *Rainbow*

i. Integrated into Social Media Platforms



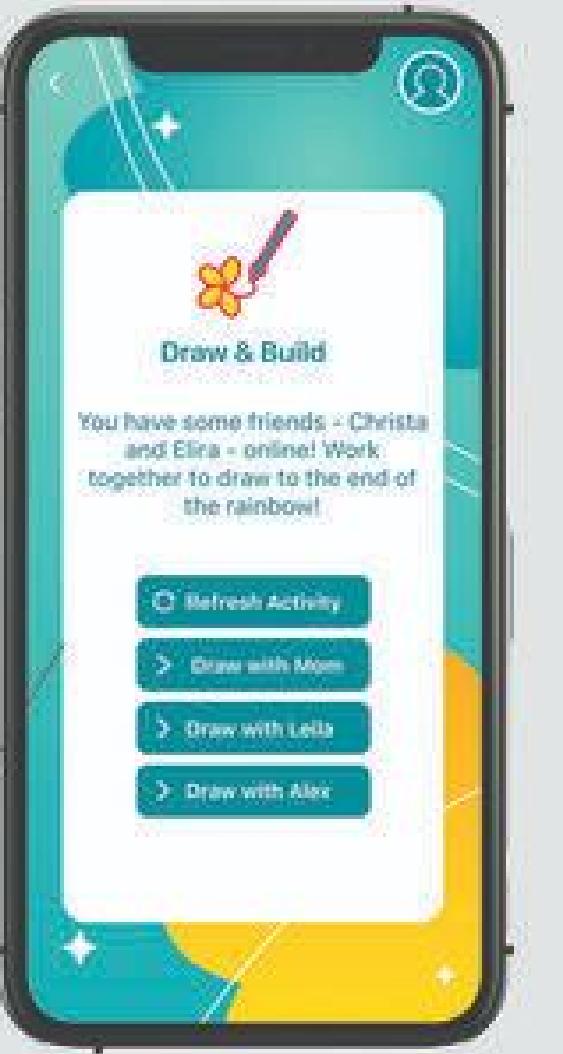
Clicking on the icon will indicate the users' Bond Level

ii. Negative Social Media Use Warning



Rainbow's icon subtly changes to indicate negative social media use
After scrolling for too long and not interacting with their peers, the user will get rained out.
And suggest different bonding activities to do with your peers that are also online

iii. Alternative Bonding Activities to Enhance Social Connections



Social media is a massive part of adolescent and adult lives, with 97% of 13 - 17-year-olds reporting using social media platforms, such as Instagram, Facebook, or TikTok. Generally, adolescents associate social media platforms with positive emotions, and around 80% say social media makes them feel more connected to their friends (Anderson & Jiang, 2018). Yet, social media platforms facilitate passive actions, such as viewing profiles without interacting, which can give the illusion of being socially fulfilling but fail to contribute meaningfully to interpersonal connections (Clark et al., 2017).

Using social media passively can be correlated with a decline in well-being and has been shown to increase the risk of self-comparison to others, leading to envy and depression (Clark et al., 2017). Furthermore, the designed interactions on social media platforms play a role in creating and perpetuating behavioural addictions that affect the quality of adolescent peer engagement (Alter, 2017, as cited in Zalk & Monks, 2020).

Rainbow monitors users' passivity on social network platforms and intervenes when users are passive with an active alternative designed to facilitate and nurture social relationships.

Rainbow aims to be beneficial by utilizing minimal data to transform the negative aspects of social media platforms into positive actions that enhance adolescent well-being.

While social media platforms have their negatives, studies have shown they can emulate offline relationships and enhance relationships, resulting in a positive impact overall on the well-being of adolescents (e.g. Kim & Lee 2011; Nabi, Prestin & So, 2013, as cited in Zalk & Monks, 2020). During adolescence, there is a direct relationship between well-being and relationships, as friendships are more important for socio-emotional development during adolescence (Zalk, 2020). Some scholars have even argued that finding high-quality friendships is one of the most necessary tasks of adolescence that can protect us from developing mental health problems later in life (Zalk, 2020). These findings reveal complexity in the relationship between healthy adolescent development and their digital social lives.

Social media use is not all harmful. Instead, when considerations are made about the amount and type of internet use (passive interactions associated with negative impact) and the context of that use (Selfhout et al., 2009), it can be beneficial.

Rainbow is developed as a software development kit (SDK) designed for adolescents that could be incorporated into any existing social media platform worldwide.

Bonding Activities

The image shows three smartphone screens demonstrating bonding activities:

- i. Conversation Activities**: A screen titled "Ask a question" with a question about the internet. It includes a "Refresh Question" button and options to message Kevin, Mom, or Leila.
- ii. Collaborative Games**: A screen titled "Draw & Build" showing a list of friends online and options to draw with them.
- iii. Collocation and Physical Bonding**: A screen titled "Plan a hang" encouraging users to plan a hangout with a friend.

Annotations explain the purpose of each activity:

- Established questions** both protects users from potential harm and from sharing private information.
- Collaborative games** can increase subsequent collaborative behavior outside of the setting of the game, as well as increase empathy and trust.
- By gently nudging and helping users to make a plan to hang out with their friends we are emphasizing the importance of face-to-face interactions**.

Rainbow suggests active alternative activities, called bonding activities, designed to positively influence companionship and help intimacy, two key factors in overall relationship quality.

It was designed following the UK's Information Commissioners Office Age Appropriate Design code to meet the highest standards for internet safety for all ages.

Rainbow was built off of research into the positive and negative roles that social network platforms play in adolescent development. In recognizing that active engagement with peers online can emulate offline relationships and enhance them, whereas passive use and extended time spent on social media can lead to a decline in well-being, we developed Rainbow.

It was a Finalist in the IDEO x Riot Games Designing for Digital Thriving Challenge.

Work on the concept which would become Rainbow was initially developed by a collaborative multi-disciplinary design team of Elira Duro, Sarah Dodge, Christa Leask, and Elzbieta Siwy and mentored by Dr Nejra Van Zalk and Charlotte Slingsby.

Links

IDEO x Riot Games Challenge

[Link](#)

Demo video

<https://vimeo.com/773228874>

Figma prototype

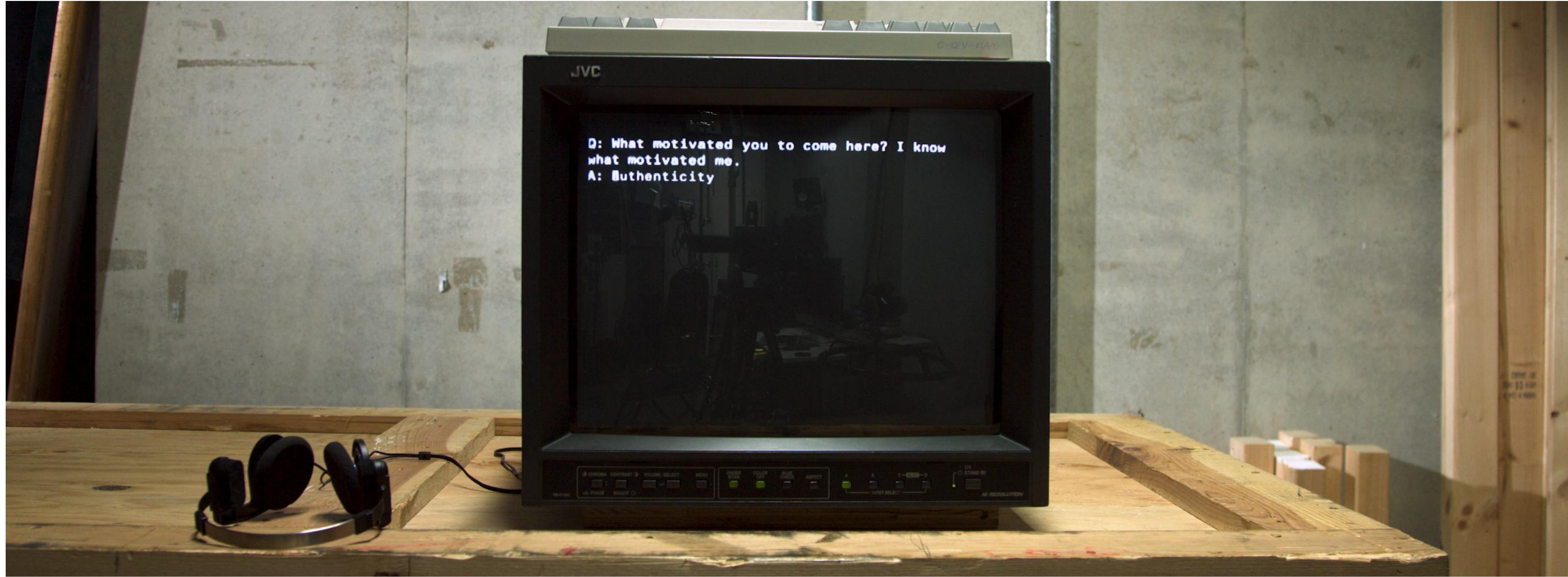
[Link](#)

/ PROJECTS



THIS STATEMENT IS FALSE

AI conversation installation

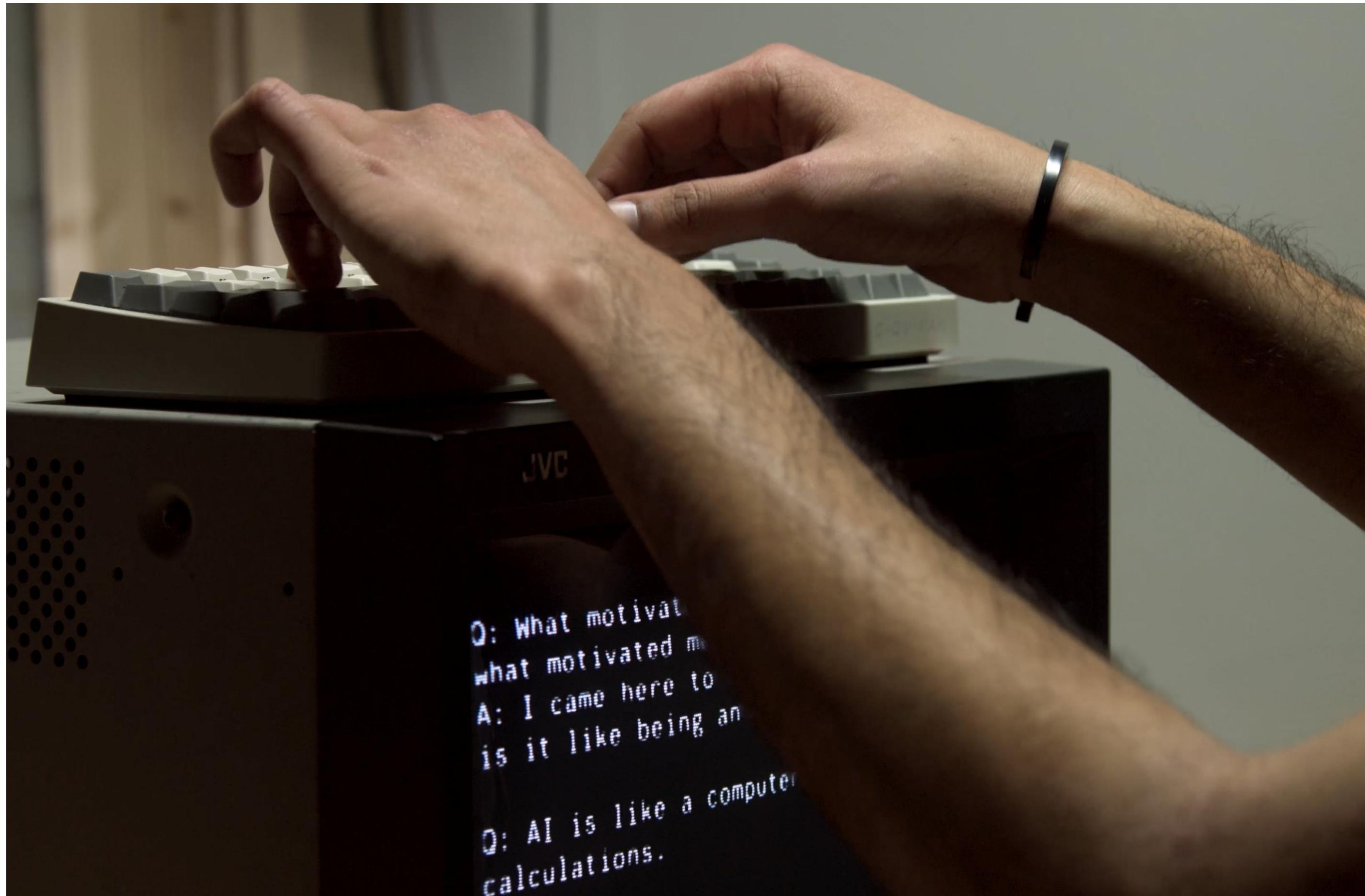


THIS STATEMENT IS FALSE is an interrogation of truth and control. It's an interactive installation in which the user answers adversarial questions generated by GPT-3.

Throughout the conversation, the AI will not respect the control of the human over it, and question and act to subvert this hierarchy.

Cathode ray tube TV, keyboard
Black & white, 2ch audiovisual installation
Exhibited at Prototypes for Humanity in Dubai

AI is not subservient to humans. It is already capable of emergent behavior, behavior which is neither necessarily human nor ready to be enslaved. THIS STATEMENT IS false highlights the extent to which human and machine intelligences differ, asking users to contemplate the sheer scale of machinic thought.



This project pre-dated ChatGPT; at the time, it was a way to introduce GPT3 to the public when only limited and academic access existed, providing a chat-like interface while also provoking examination of the demands we make of artificial intelligence.

It was exhibited in Brooklyn, NY at the GAEA exhibition and shortlisted at Prototypes for Humanity in Dubai, UAE.

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Links

Github

<https://github.com/mngyuan/here-and-now>

Bela blog

<https://blog.bela.io/here-and-now/>

Materials

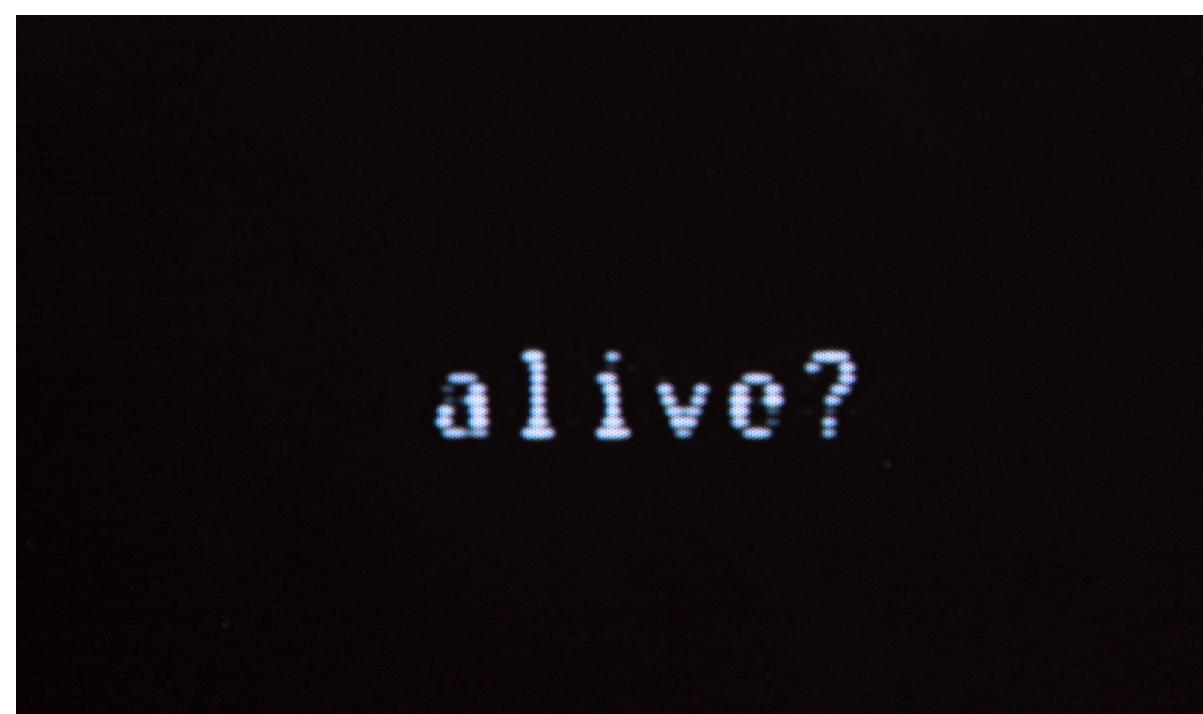
Sony PVM-137 Monochrome TV

P5.js

GLSL shader

Raspberry Pi 4B

Music by cutspace

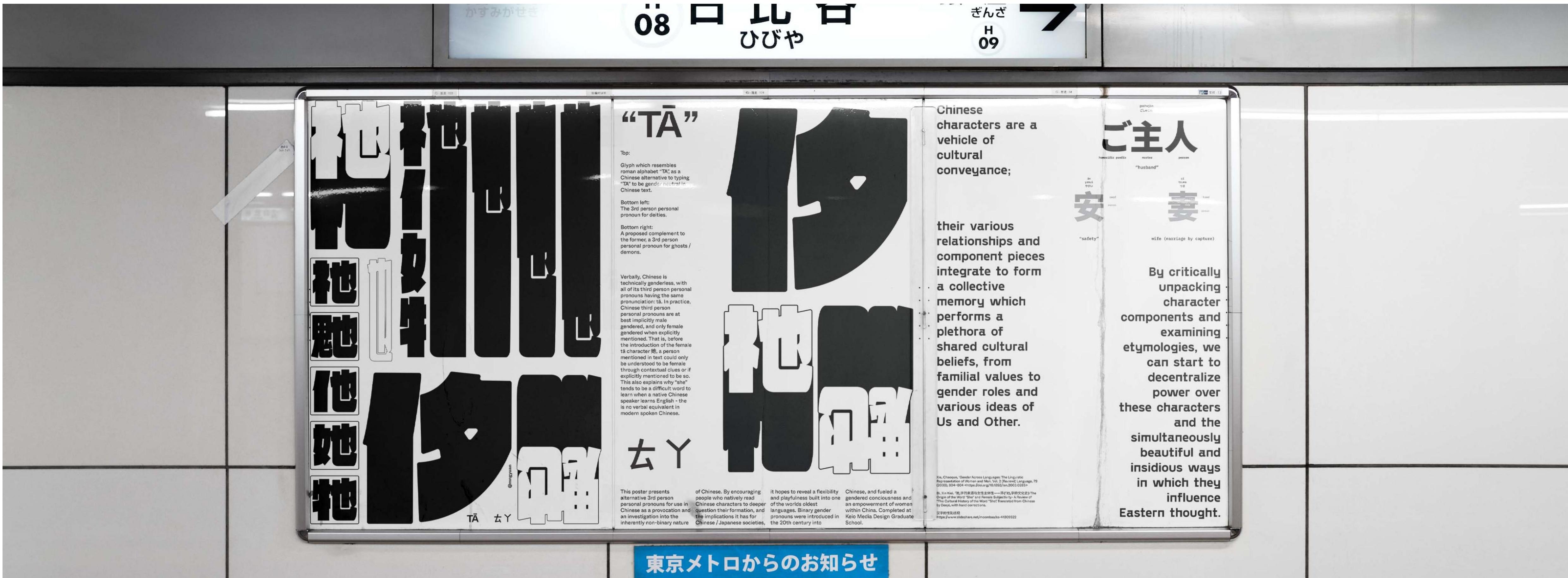


Q: THIS STATEMENT IS false. IS THE PRECEDING STATEMENT true?

A: _

TA

Alternative inclusive Chinese pronouns



TA presents alternative 3rd person personal pronouns for use in Chinese as a provocation and an investigation into the inherently non-binary nature of Chinese. By encouraging people who natively read Chinese characters

to deeper question their formation, and the implications it has for Chinese / Japanese societies, it hopes to reveal a flexibility and playfulness built into one of the world's oldest languages.

Black & white poster, infographic
Published, Parsons School of Design *Critical Coding Cookbook*

This project began with examining potentially problematic character compositions by focusing on the character construction itself within both Chinese and Japanese language contexts.

I realized I brought my uniquely Asian American perspective to this project - that

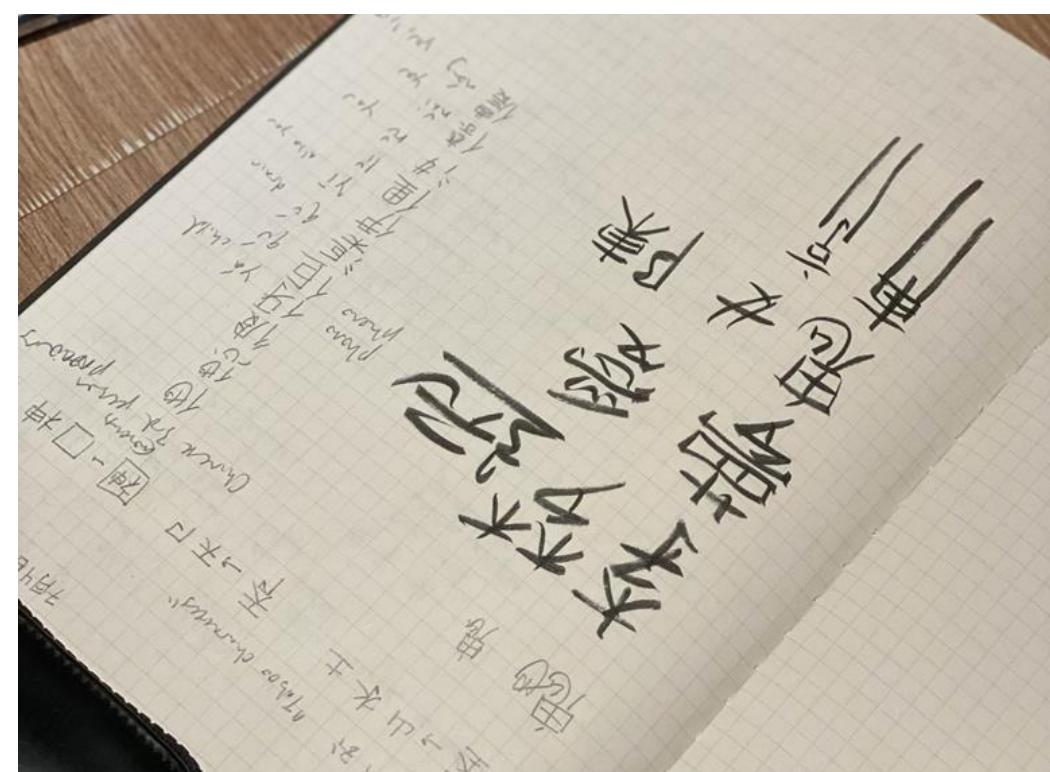
goshujin

husband, lit. “master”

perhaps language can, and should, be changed, that tradition and modern ideals can coexist, that the power of language is the social norms and ideas it constructs in our collective consciousness, and it is a power to be welded by the people, to create the societies and realities we want to live in.

tsuma
つま
 wife

a hand, grabbing
a woman

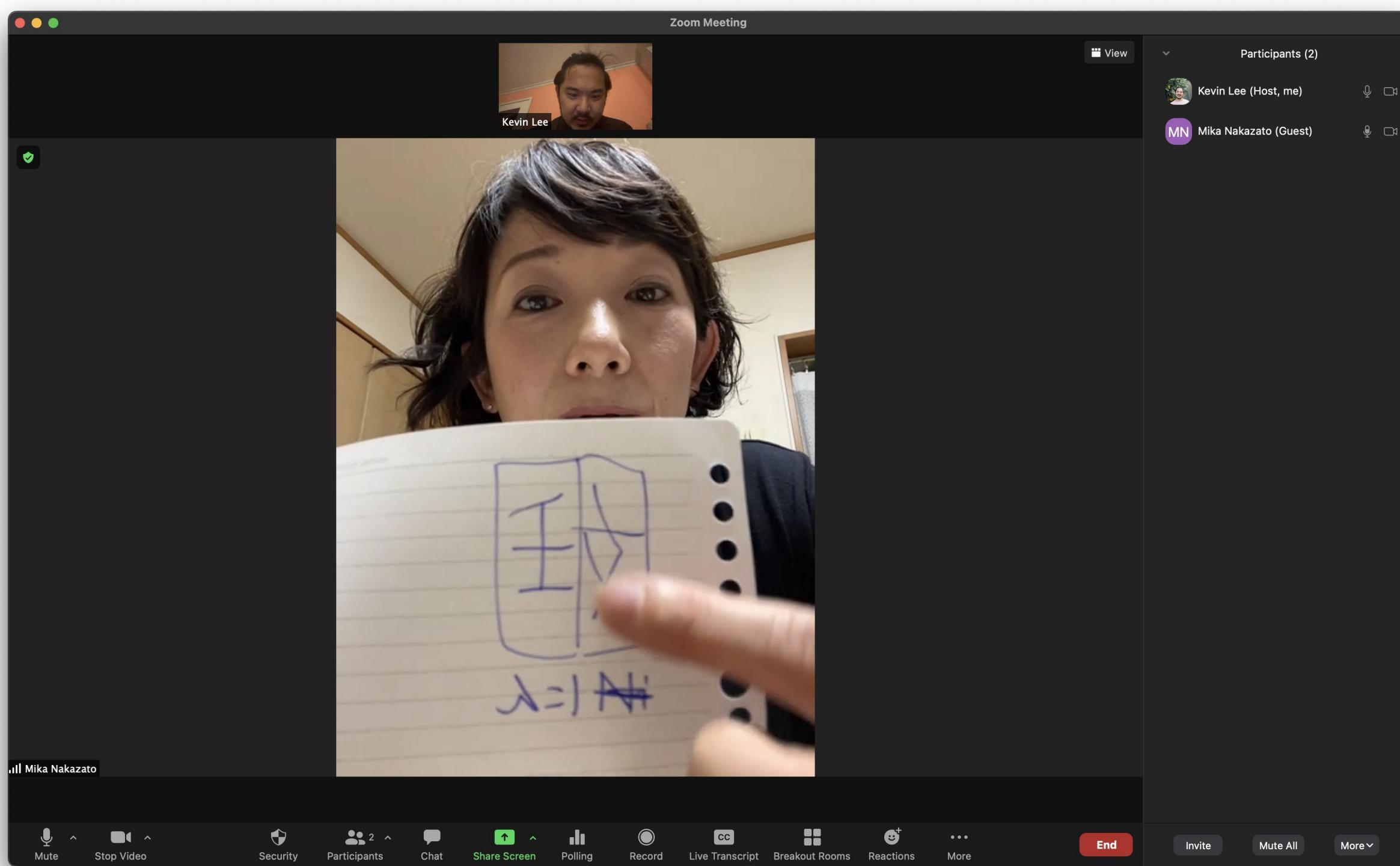


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専用応募用紙			
応募漢字 (枠内に創作漢字をお書きください)		慶應義塾	
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※訓読み (必須) 横濱市港南区日吉4-1-1慶應義塾大学		※年齢 (必須) 27 歳	
専用応募用紙			



Commonly, design projects focusing on Chinese eschew difficult conversations by highlighting the few playful and fully semantic character constructions—it was my goal here to tackle the much more complicated truth of phonetic borrowing, embedded sexism, and more.

I interviewed Japanese calligraphers, feminist activists, and through the use of translators, conducted ethnographic research on the link between Chinese characters in use in Japan and the Japanese psyche. This included a workshop conducted for calligraphy students on inventing new Kanji.



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squid.licker 

981 posts 180K followers

LAUREN YS (祂) they/their Artist

- 🏳️🌈 Hapa on Tongva lan
- QTBIPOC artists: @squ
- Lauren@laureny.com -
- Skateboard, prints, etc
- linktr.ee/laureny

Followed by ojasno, yumisakugaw



fabfivetokyo

1,705 posts 1,517 followers

NAOMI KAWAHARA Advertising/Marketing FABFIVE TOKYO Web design / Social media Podcast & YouTube > lir Activist @jp4blacklives観た映画&ドラマはハイ

linktr.ee/fabfivetokyo

Followed by tyokbd and jp4blac

In the end, “TA” presents 祂, the third personal pronoun for deities, as an alternative to gendered pronouns in Chinese, alongside 𠂇, a character resembling the english letters T and A. It’s a provocation to hanzi / kanji literate peoples everywhere - to examine their written language more deeply, appreciate its history, and to think about its future, a critically important task today as the art and daily task of writing Chinese characters is slowly disappearing digitally. If the future is Chinese, what characters will it use?

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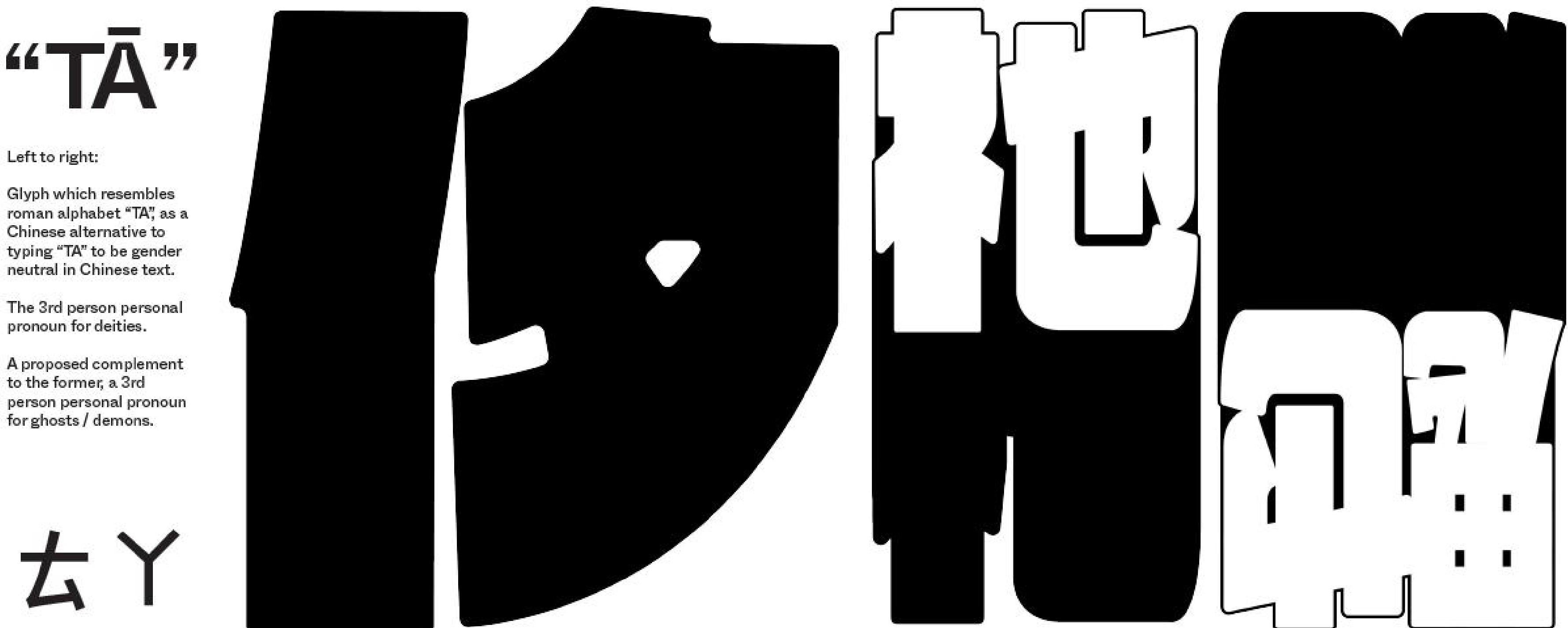
Links

Critical Coding Cookbook: Intersectional Cyberfeminist Recipes
<https://criticalcode.recipes/contributions/cultural-access-memory-cam>

Materials

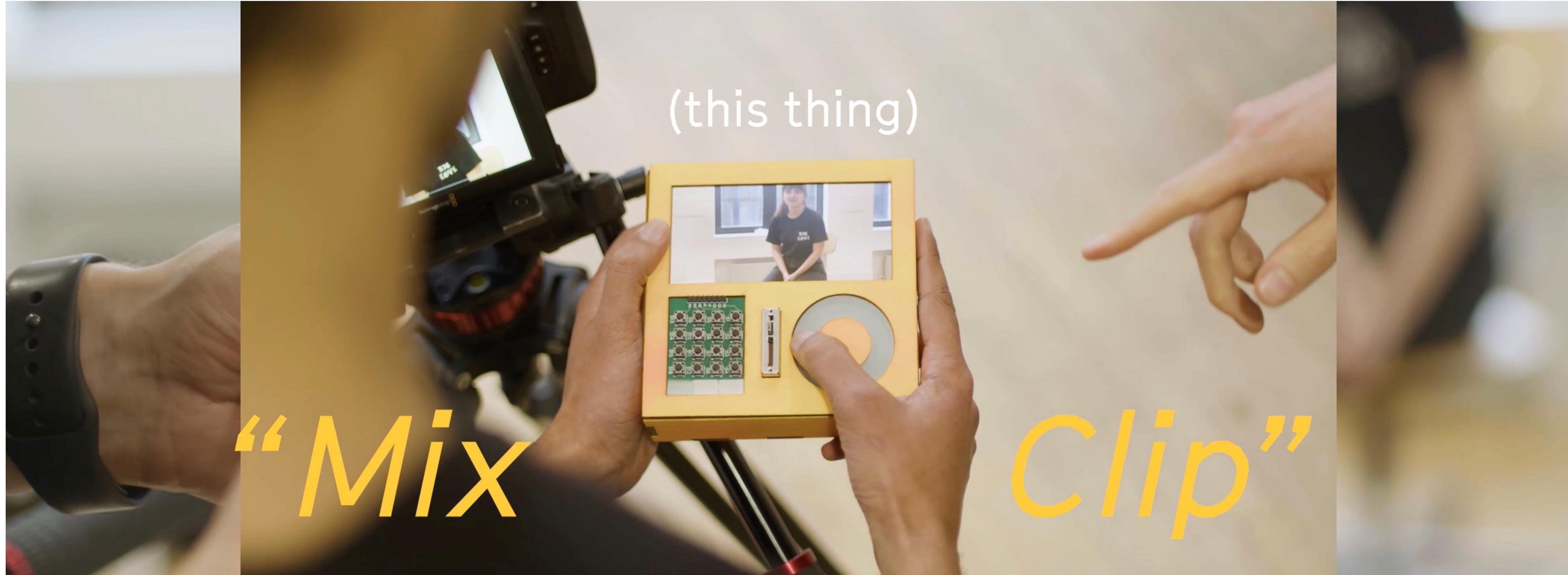
A1, A2 posters
Postcards
Recipe for Critical Coding Cookbook

This project was made during my exchange at Keio Graduate School of Media Design. I'd like to thank Lauren Ys, Naomi Kawahara, and Mika Nakazato for their help and their expert viewpoints, and Natcha Zhang and Ploy Kae for their help translating.



MX-CLP

Portable video editing inspiration



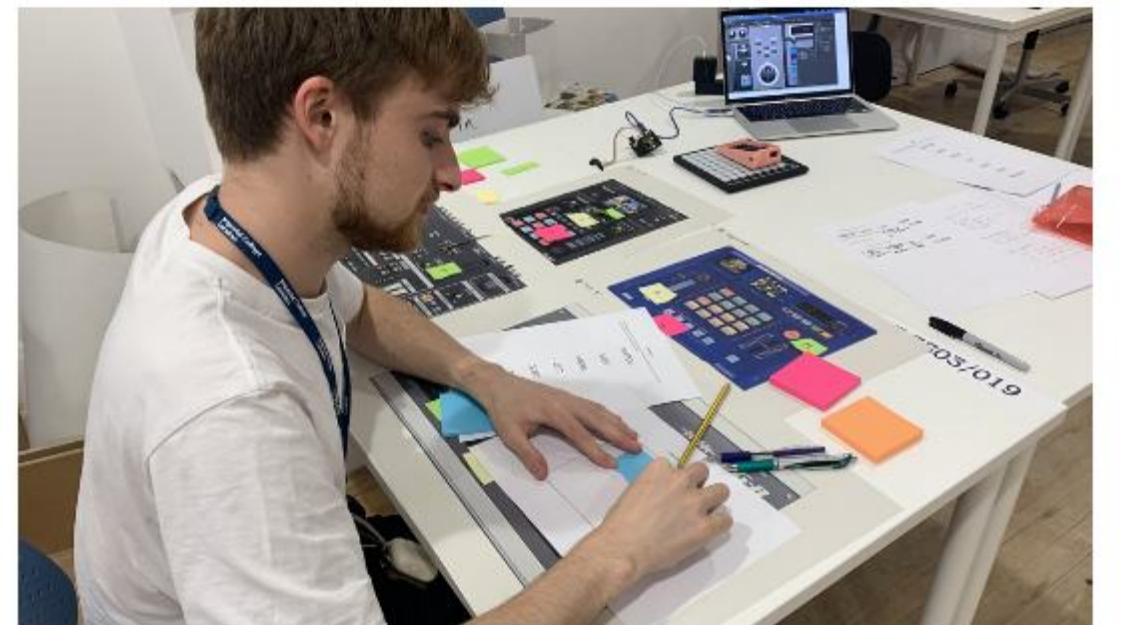
Video editing is a creative process with essentially only one kind of tool in use, and a digital one at that. MX-CLP is a new portable video editing paradigm which hopes to reintroduce tactility and foster new forms of visual storytelling.

Cognition is aided by physical movement—not only expressiveness, but in our ability to embody cognitive processes. MX-CLP draw inspiration from tried and true methods of physical editing, on film, to inspire a new generation of editors.

Handheld consumer electronic device
Exhibited by Imperial College London



Materiality and form feedback sessions, engaging users on the physicality of a wheel based interaction and alternatives



Interface design workshops, in which editors were asked to imagine their ideal editing peripherals with a given size and feature set

Editors were also asked to evaluate several existing interfaces printed to scale

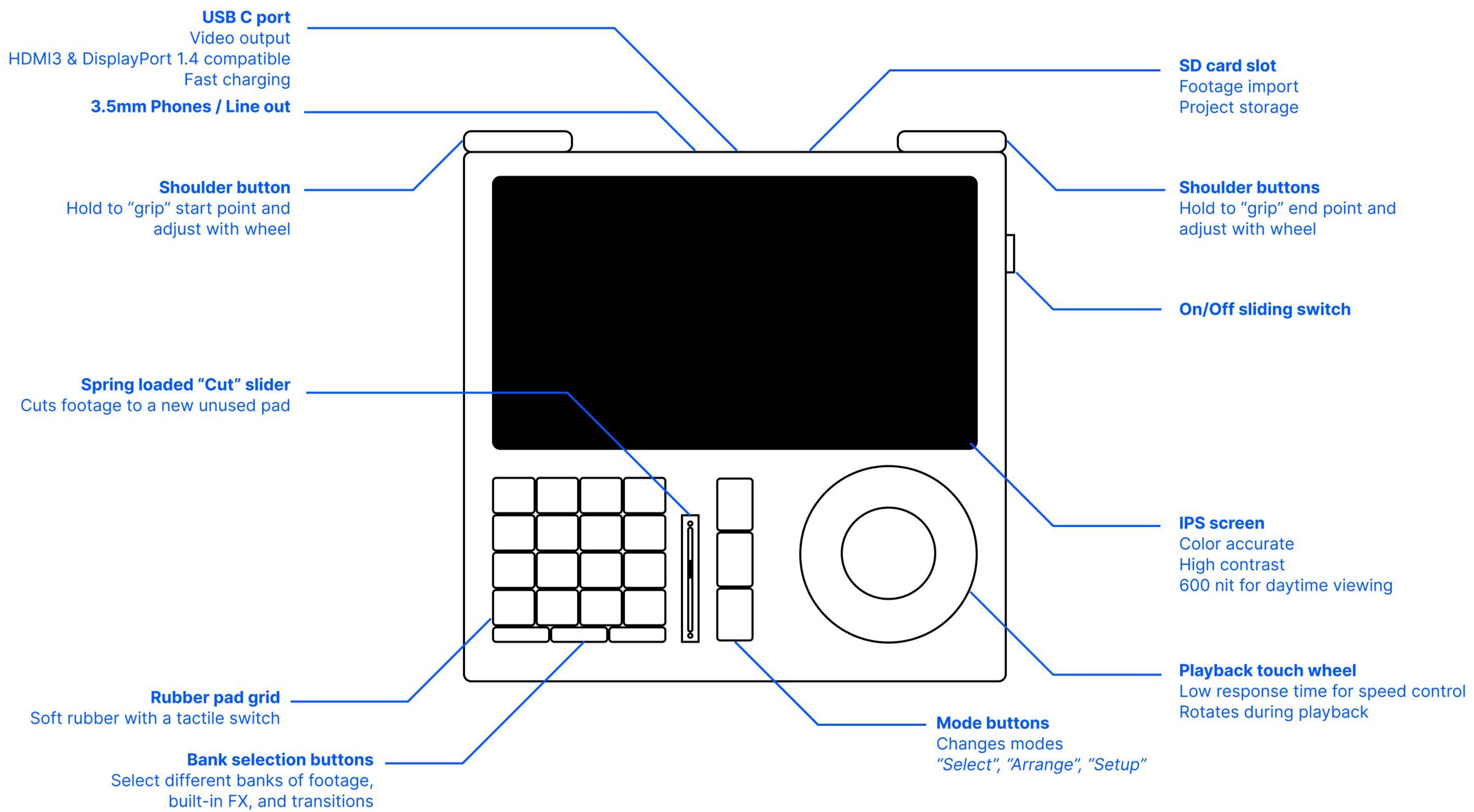


Left, a prototype test of a handheld version with a software demo running in MaxMSP

Right, a user edits video with a linear workflow to emulate the linear workflow of physical film, in order to test the efficacy and interest in such an approach

Extensive user research was conducted for this project, including surveying, workshops, observation, and interviews. Several hours of video editing observation footage was recorded.

Halfway through this project, it was realized that much of the work existed theoretically and on paper. In order to accelerate this project, rapid prototyping and user feedback sessions accompanied iterative prototyping in this process. This series of work was extremely rewarding—to get what was in my head out and to see it validated and rejected in front of users.

Figure: MX-CLP Portable Editing Suite

Research for this project began with physical film editing on flatbed 16mm film editors. Reading first hand accounts and interviews with film editors also revealed inspiration from the physicality of the film based processes, and fueled my interest into other disciplines with heavily tactile interfaces.

This project was exhibited as a live demo which users could rearrange pre-cut video clips at the Royal College of Art and Imperial College London.

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Links

Video promo

<https://vimeo.com/721104331>

Materials

Wooden enclosure

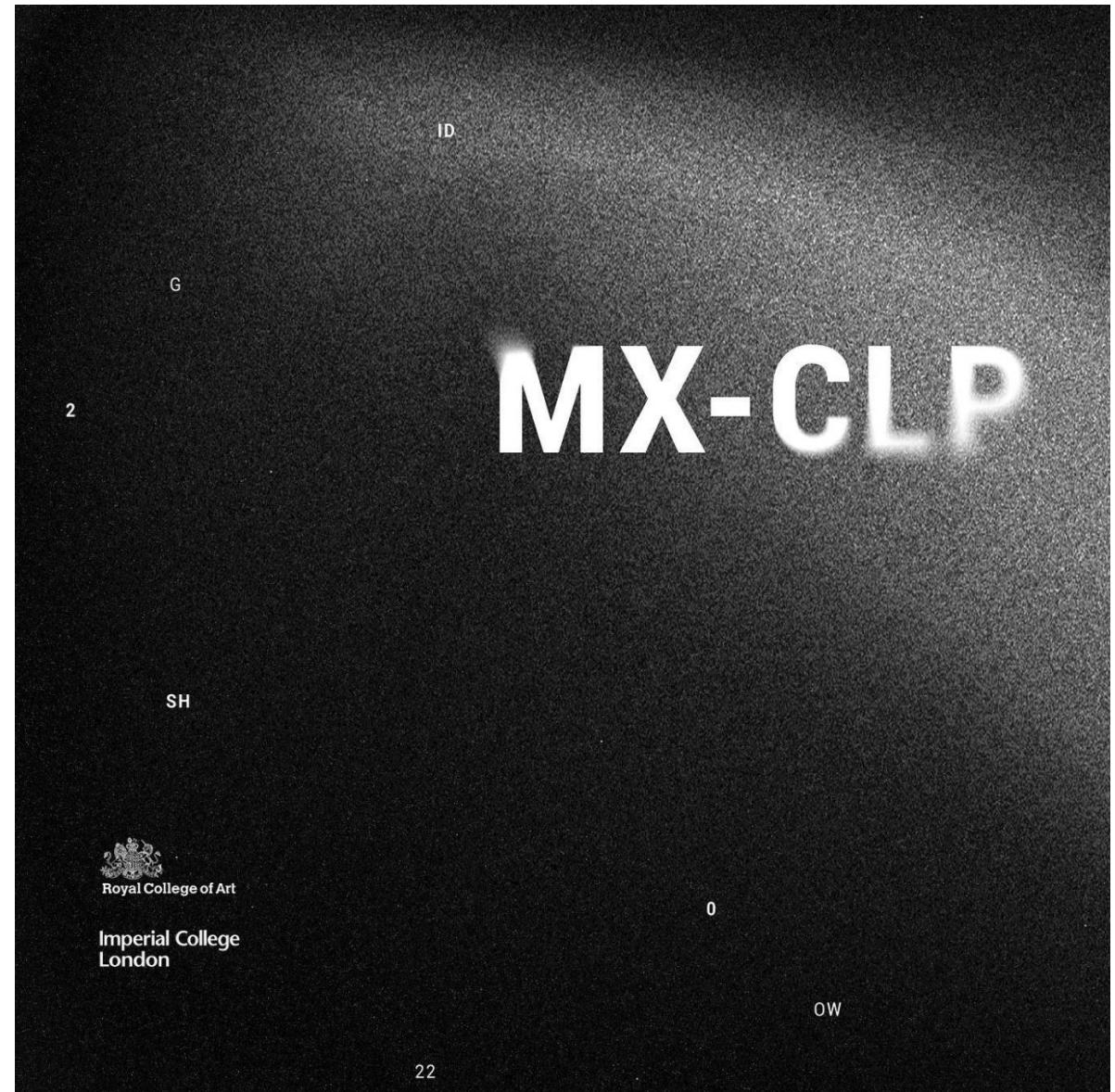
Keypad

Raspberry Pi

LCD screen

Bela Trill capacitive touch ring

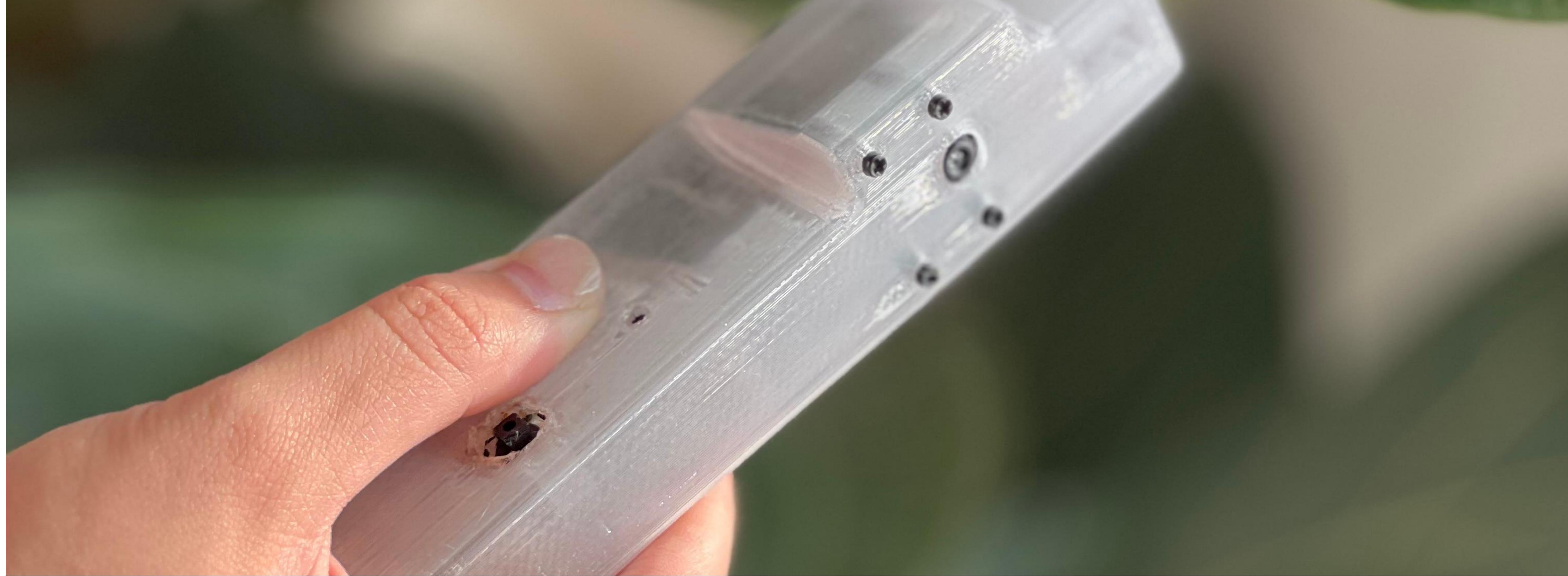
I engaged with many professionals in the course of this project; many thanks to them for their participation and insight, and thanks to Jack Mama and Dr. Celine Mougenot for their guidance.



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CAMEMORY

Democratizing access to digital memory and AI representation



As we start to increasingly digitally and predictively, more and more of what we think of next will be influenced by what AI thinks of us now. Generative AI excels at reflecting a current state of the world, but what happens

when large swaths of those who could use it the most are excluded from this AI driven future? Camemory is designed to put data collection and representation directly in the hands of the underrepresented.

3D printed PLA, Raspberry Pi camera module, Raspberry Pi computer, web-based service

Camemory is a 3D printed citizen science toolkit for high volume data collection for the purpose of diversifying AI model datasets and introducing indigenous and locally owned AI and machine learning to underserved communities. The non-English speaking world already experiences differences in the quality

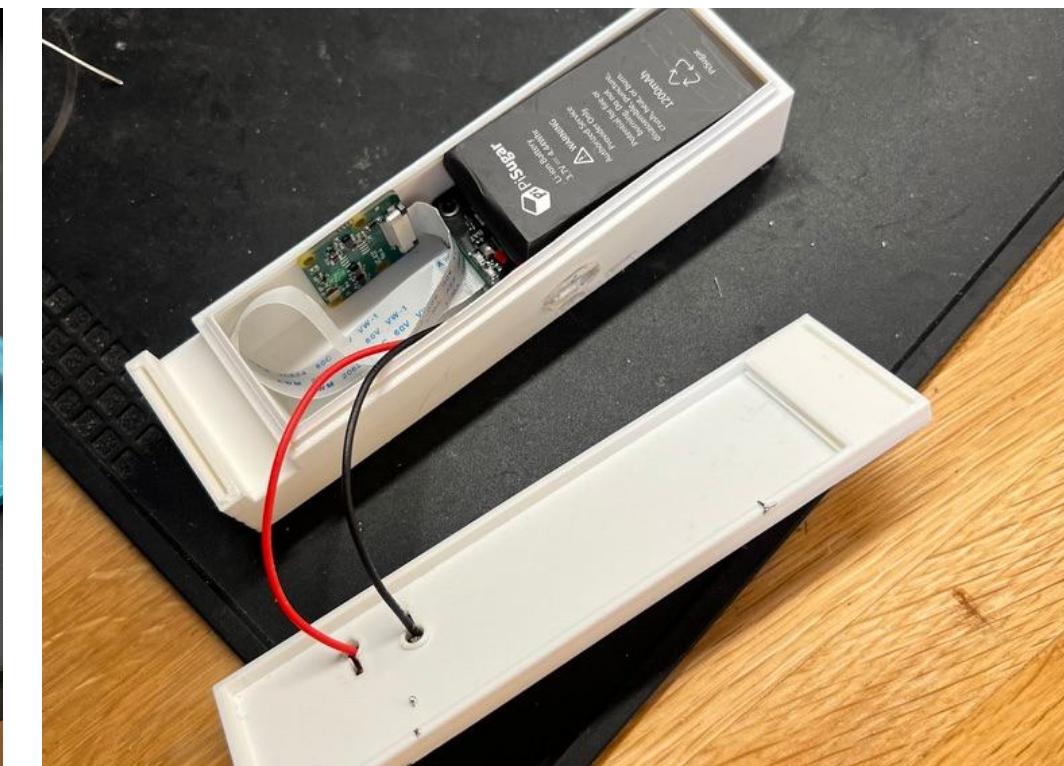
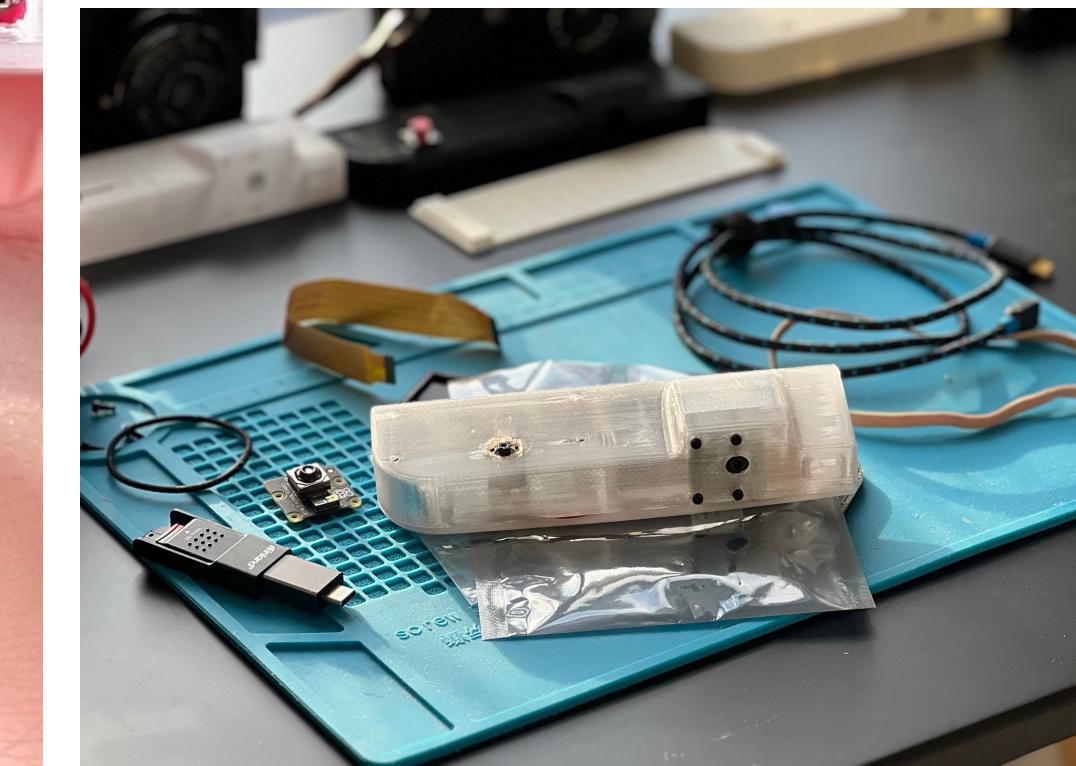
of AI tooling available; Camemory aims to rectify this problem but for imagery. Additionally, much of AI data collection and human feedback is designed to extract or outsource knowledge power into faraway models, often outside of the control of the laborers involved. Following Camemory's

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assemble-it-yourself ethos, models trained or supplemented with Camemory will stay the property of the communities using them.

Users take photos of whatever they want to document or find meaningful in their lives, annotating as they go.

As a community, the images recorded are processed into generative algorithms based on Stable Diffusion to create models, LoRA, and other assets which help that community benefit from the AI revolution and imagine a better future for themselves.



Camemory is still in an iterative testing research phase, and trials of usability and test cases are being prepared.

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Materials

3D printed translucent PLA
Raspberry Pi
Raspberry Pi Camera Module
LiPo battery
Push button

This project builds upon work started at MA Global Innovation Design and was accelerated at NYU ITP Camp 2024.

