HOWW
CAN I
HELLP
YOOO U

18 February 2025

Yufan, KD, Ricci

BACKGROUND

We focus on how Stammer could not fully access the online automated service system.

ASR
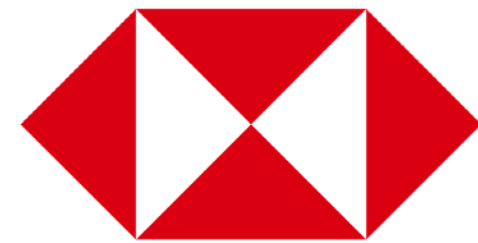AUTOMATIC SPEECH RECOGNITION

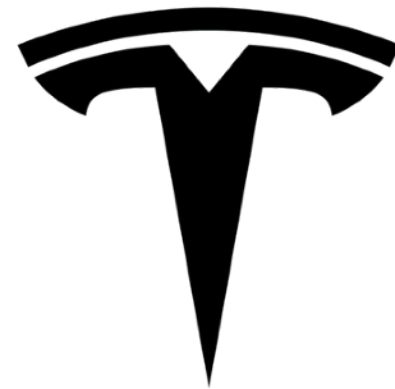What can I help you with?
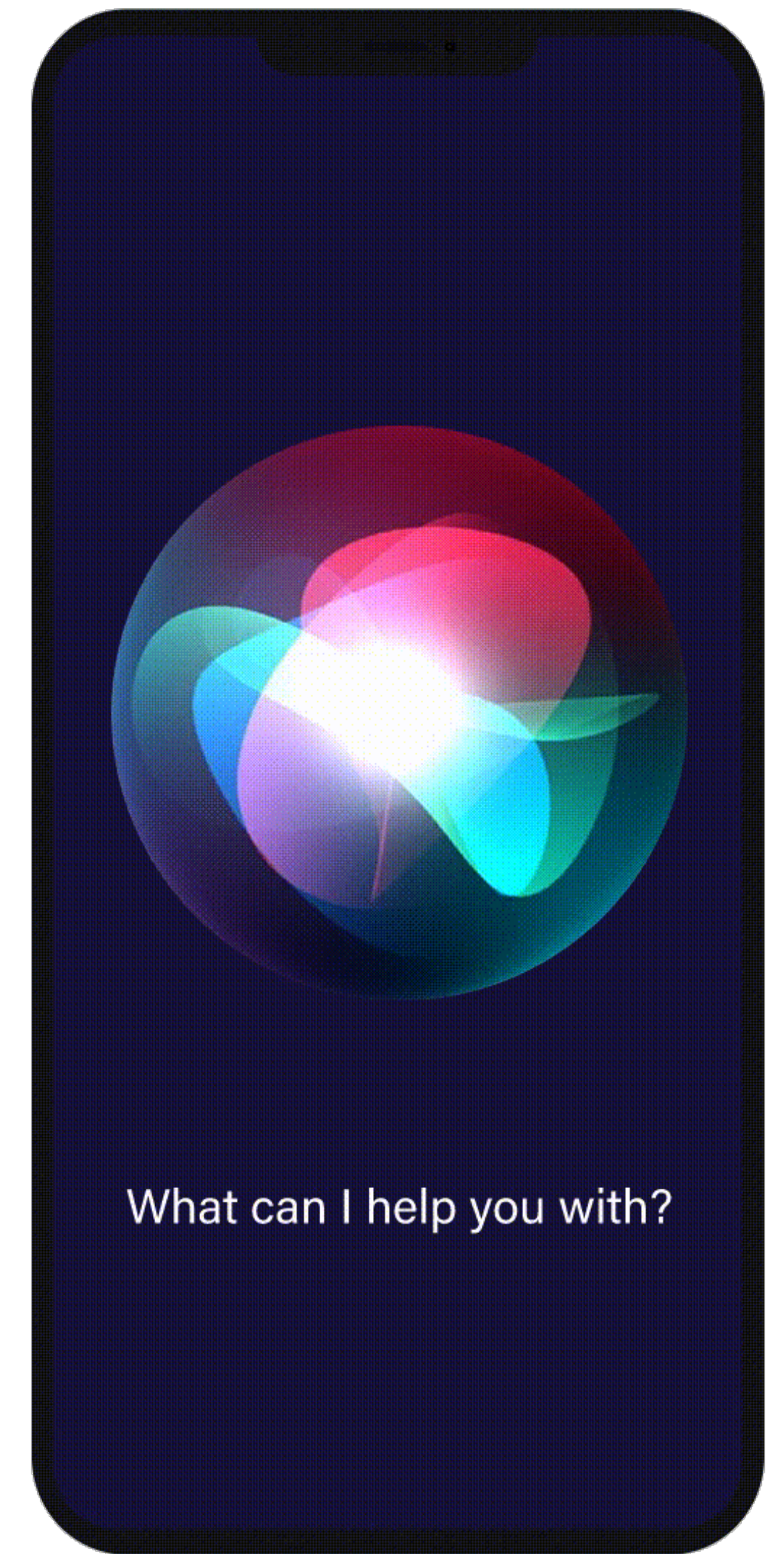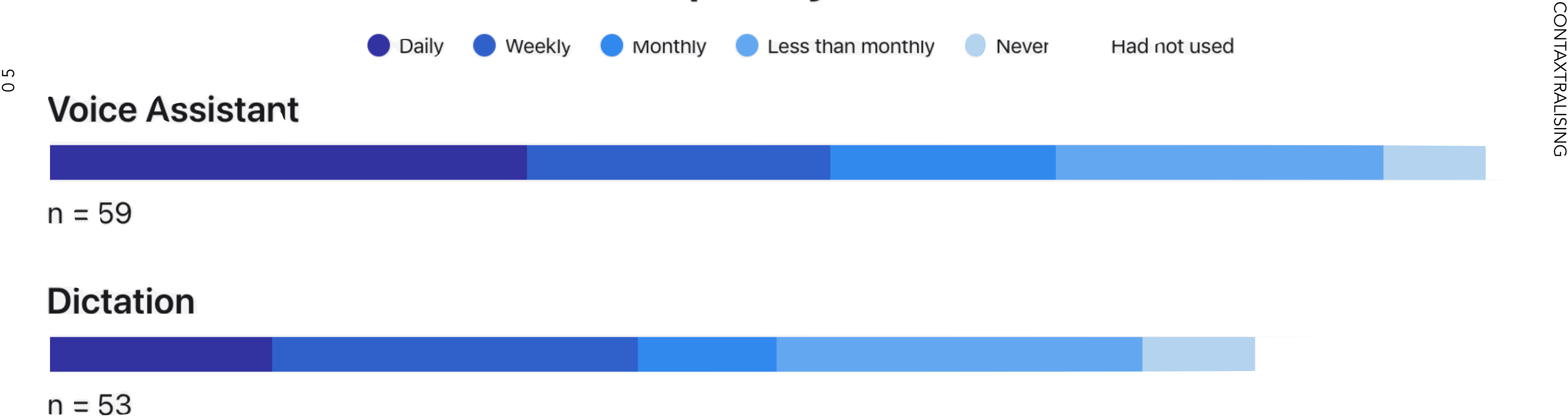
QUESTION

How frequently do the stammers use the ASR system?

FREQUENCY OF USE ASR

Many of the 61 stammers used speech technology regularly, albeit at lower rates than the general population.

Frequency of Use

● Daily   ● Weekly   ● Monthly   ● Less than monthly   ● Never   Had not used

Voice Assistant

n = 59

Dictation

n = 53

REAL-WORLD PERSPECTIVE

A podcast that explores the perspective of individuals who stutter.

CONTAXTRALISING

"As a person who stutters, my friend is now wary of voice assistants. Google Assistant cannot understand stuttering. Currently, the error rate for voice assistants when responding to non-stutterers is 5%, but **for stutterers, it is 40-50%.**"

"If it were a human service representative, they would notice the stuttering and wait to communicate with you. However, large language models interrupt and say, 'I don't understand. Can you repeat?' In the past, my friend was afraid of calling customer service because stutterers often face communication difficulties.

Now, his biggest fear is calling customer service and being answered by a robot, as he is completely unable to get through. Previously, with human agents, he could take his time to speak, but with a robot, it's completely impossible."

"Although human customer service takes longer, at least they can figure out what's going on.

Now, there is no way to communicate at all — it's completely impossible."

Stigmatization of stuttering undermines the quality of life for people who stutter (PWS):

Frequent social rejections

Higher risk of mental health problem

More likely to be underemployed

20 - 35% reduced earning

Stuttering is a complex neurodevelopmental condition that is estimated to impact

1 - 4 %

of the adult population

CONTAXTRALISING

THE FEATURE RYTHEMS

Repetition

Prolongations

Blocks

st - st st - st - stutter

Pro-lo-o-o-o-on-n-ng-ng-gation

PWS

It's okay!

Independent magazine spreading stuttering pride

STUTTERING Is OK! Because what I say is worth repeating
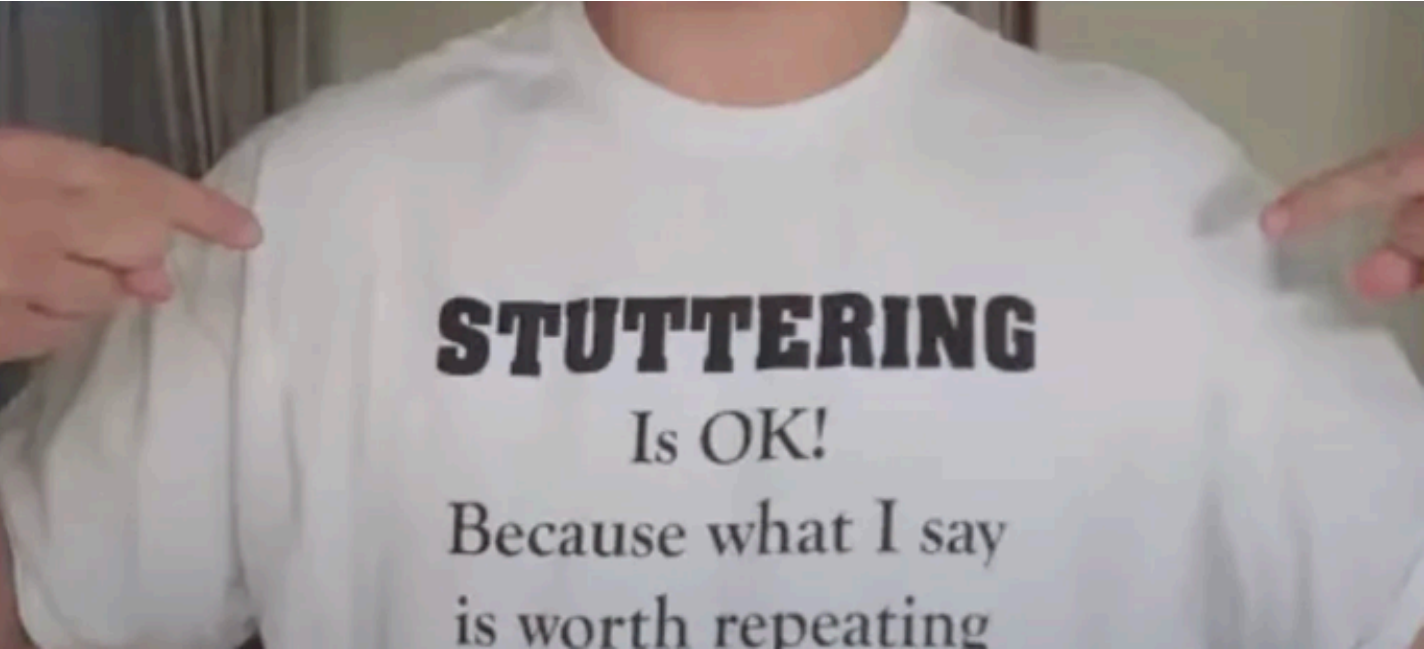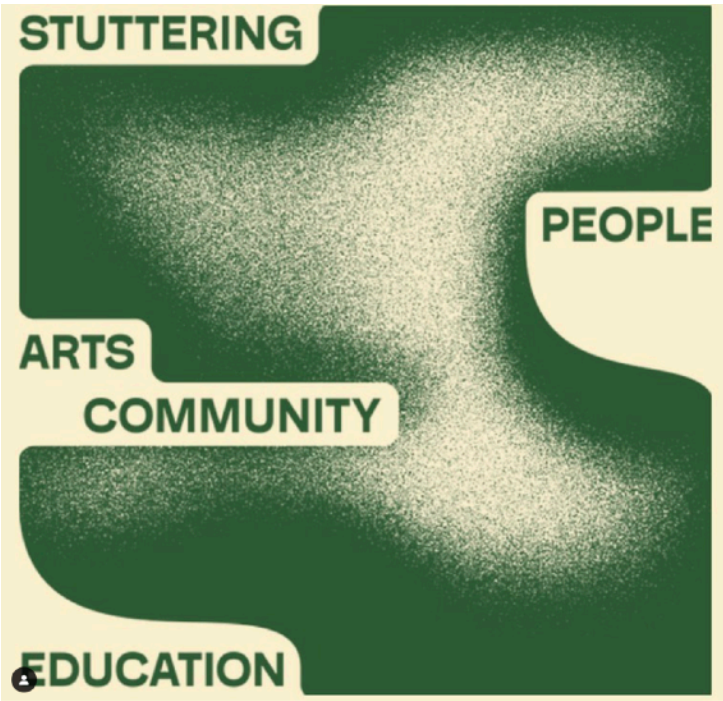
When I stutter I am speaking my own language fluently.
Erin Schick[5]

Allowing people to hear your stutter is a step in the right direction.
Chris Constantino[4]

STUTTERING PEOPLE ARTS COMMUNITY EDUCATION

" In Ellis's poetic but political artwork, disfluency instead becomes a means to exist outside of ordinary time, as defined by a white-dominated world. "

Kadish Morris

Dysfffluent
ISSUE 2: Stammering Pride

The pprouder I (((get, the more change ha llthappens
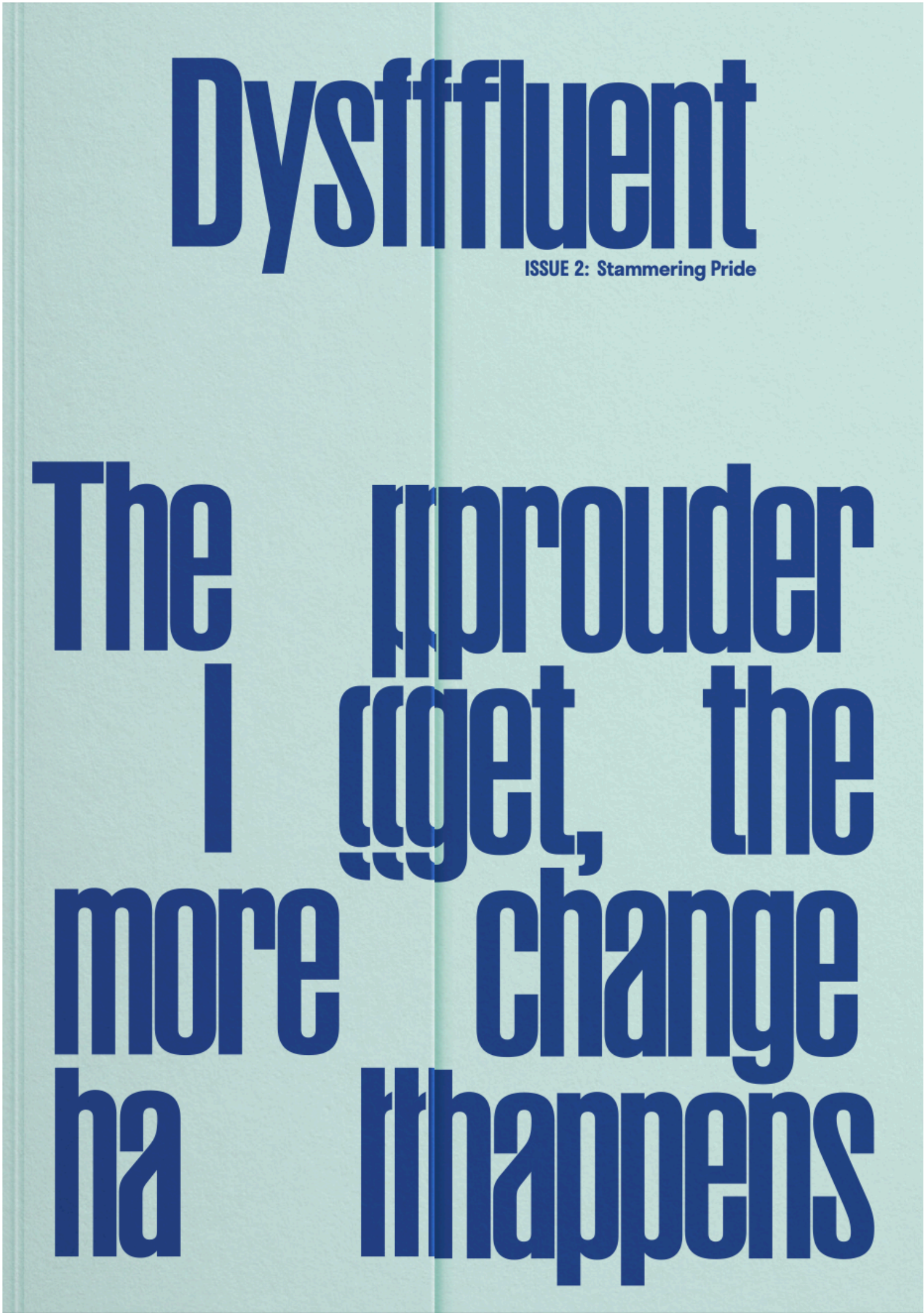
IMPACT

We utilize the technique of imitation,
from the first-person perspective, as a
means of exploration.

QUESTIONNAIRE

Shaomei

The founder and CEO of AImpower.org, Shaomei was previously a researcher at Facebook and Instagram.

Committed to researching and co-creating empowering technologies to serve marginalized communities.

CONTAXTRALISING

Reply: Research Inquiry | Speech AI & Stuttering

2025年2月12日 星期三 17:42

Y

收件人: Shaomei Wu

Hi Shaomei,

I'm very happy to receive your reply!
Below are some questions we would love to ask you:

Research Background
1. As someone who used to stutter, what inspired you to pursue this research? Was there a moment when you realized, "This is really important"?
2. In the early stages of your research, how did you balance the technical aspects with user experience? Are there any compromises in current AI speech recognition research?

Social Perception vs. Technical Challenges
3. In your research, how do people who stutter perceive their speech difficulties? Do they feel social pressure or emotional burdens because of it?
4. What do you think is the biggest challenge in making AI speech recognition work for people who stutter—technical limitations or social attitudes? (For example, do past negative experiences make them hesitant to use voice technology?)

Impact of AI Speech Technology
5. If AI speech systems were better suited for people who stutter, would it change how they see their own speech abilities? Would they feel more comfortable using voice input in public?
6. Do you think "fluent speech" is a standard imposed by society rather than the only way to measure communication skills? Could this affect how AI speech technology develops?

User Experience & Improvements
7. Based on your research, do people who stutter face noticeable difficulties when using voice AI (e.g., Siri, Google Assistant, phone customer service)? Are there any typical cases you can share?
8. What improvements do you think AI speech recognition needs to better support people who stutter? (For example, longer response times, not interrupting, text input support, etc.)

We are in email communication with Shaomei Wu and have received her support. We are currently waiting for her response to our survey.

CONCEPT

We aim to create an interactive space that truly listens, allowing language to slow down.

We call on the public to recognize the systemic bias in AI speech recognition against people who stutter and other non-standard speech communities.

By advocating for more equitable language technology, we strive to ensure that all voices are treated equally.

THE STAMMERS LANGURAGE GUIDEBOOK FOR AI

The language system of stammer is an unfamiliar subject for machines, as it operates outside the rhythm of fluency. It includes abrupt pauses, repetitive patterns, and elongated single syllables.

A reference book serves as a textual guide for humans to correctly operate machines. Using the concept of a manual, we have designed this book as a tool for AI to learn Stammer's language system.

Through this visual book, the audience is also invited to experience the unique beauty of the language of stuttering and to reflect on linguistic diversity, fostering more equitable communication and interaction with them.

"EVERY MINUTE AS WE ARE TALKING FILMS ARE FALLING TO DUST..."

CONTAXTRALISING
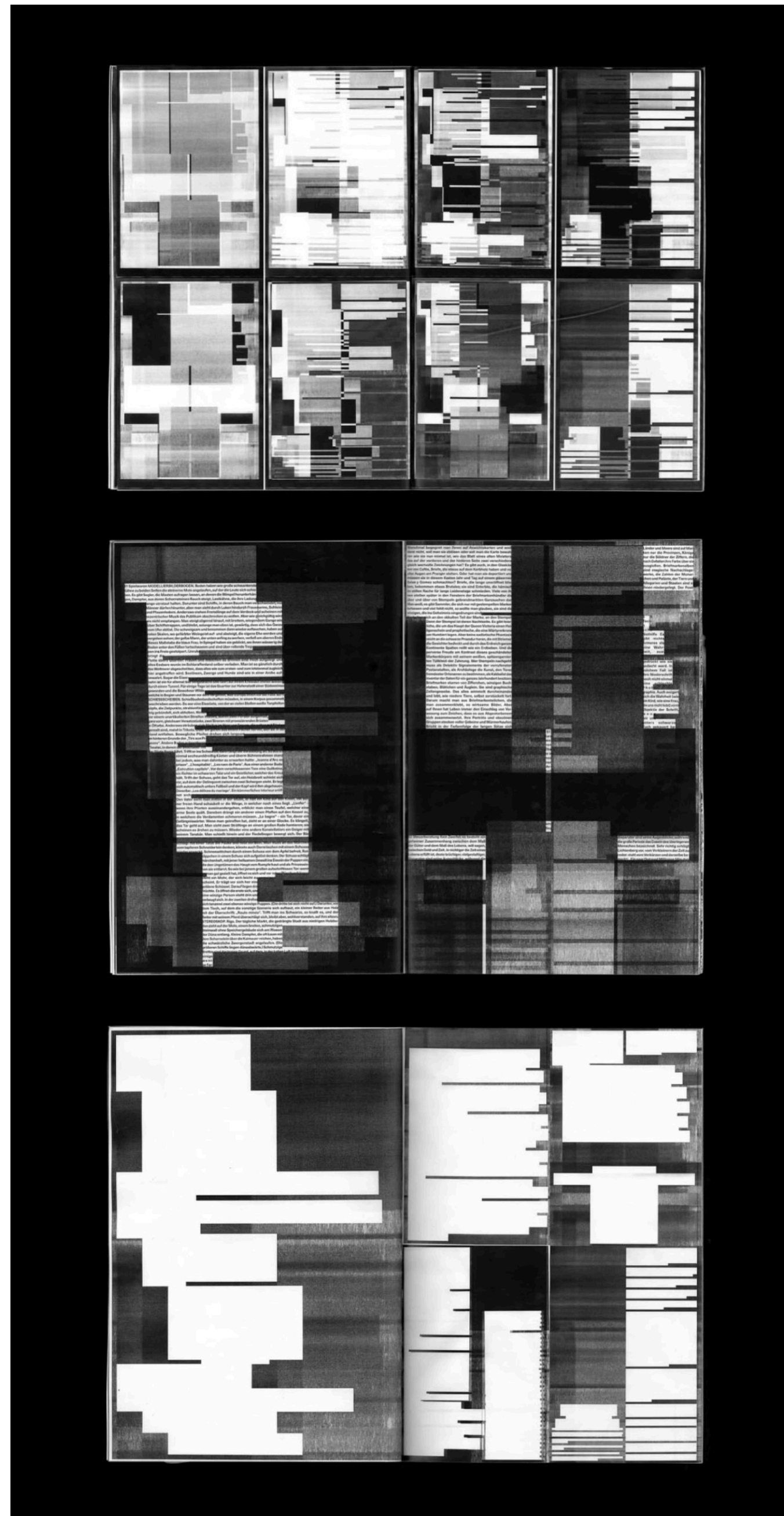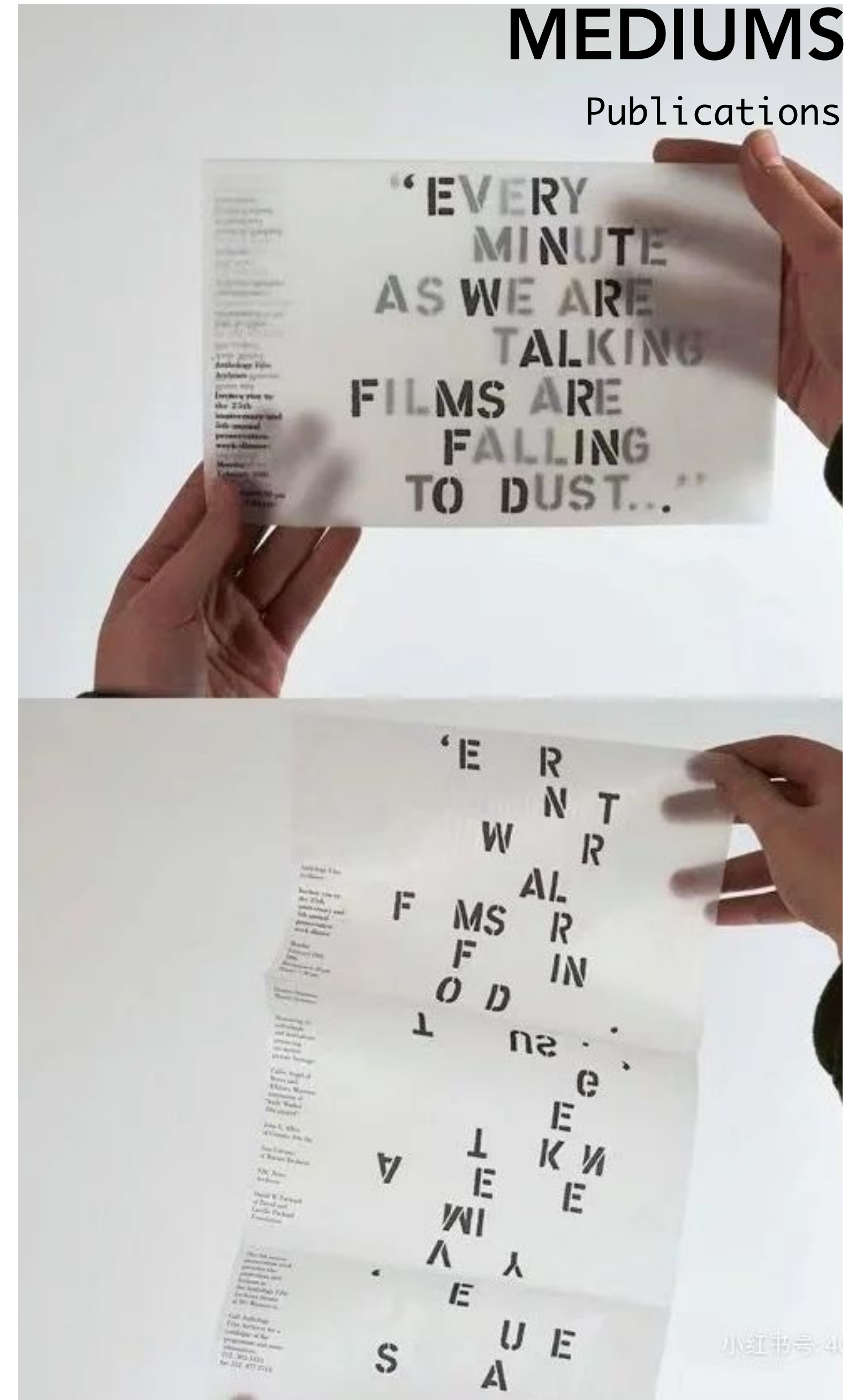
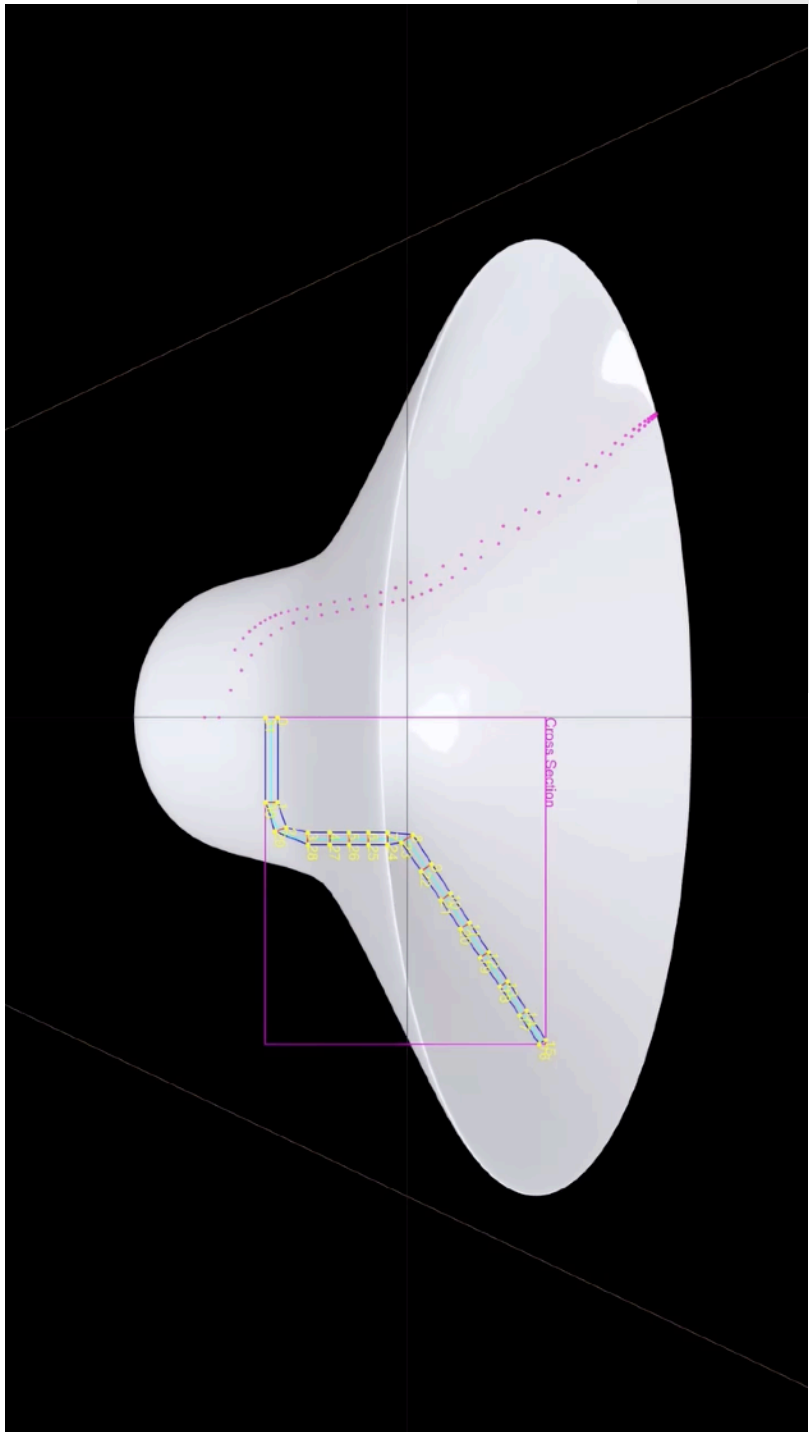# THE AI WITH A
LULL LANGURAGE
GUIDEBOOK

AI-POWERED CUSTOMER SERVICE
INTERACTION WEBSITE

This website is designed for customer service interactions, enhancing users' sense of presence and providing a more immersive and intuitive experience.

Through contextual communication, we aim to help users empathize and develop a deeper emotional connection. This approach facilitates the organic spread of information.

Web interaction logic:

The user speaks the prompted words displayed on the screen.
After speaking, the text transforms randomly into a visually elongated form, introduces blank spaces, or appears fragmented.

Referencing sound visualization methods, where voice controls the transformation of text or visual effects.

Interactive Interface:
Simulating the experience of a phone call, showcasing AI-powered virtual customer service.

Primiti Too Taa
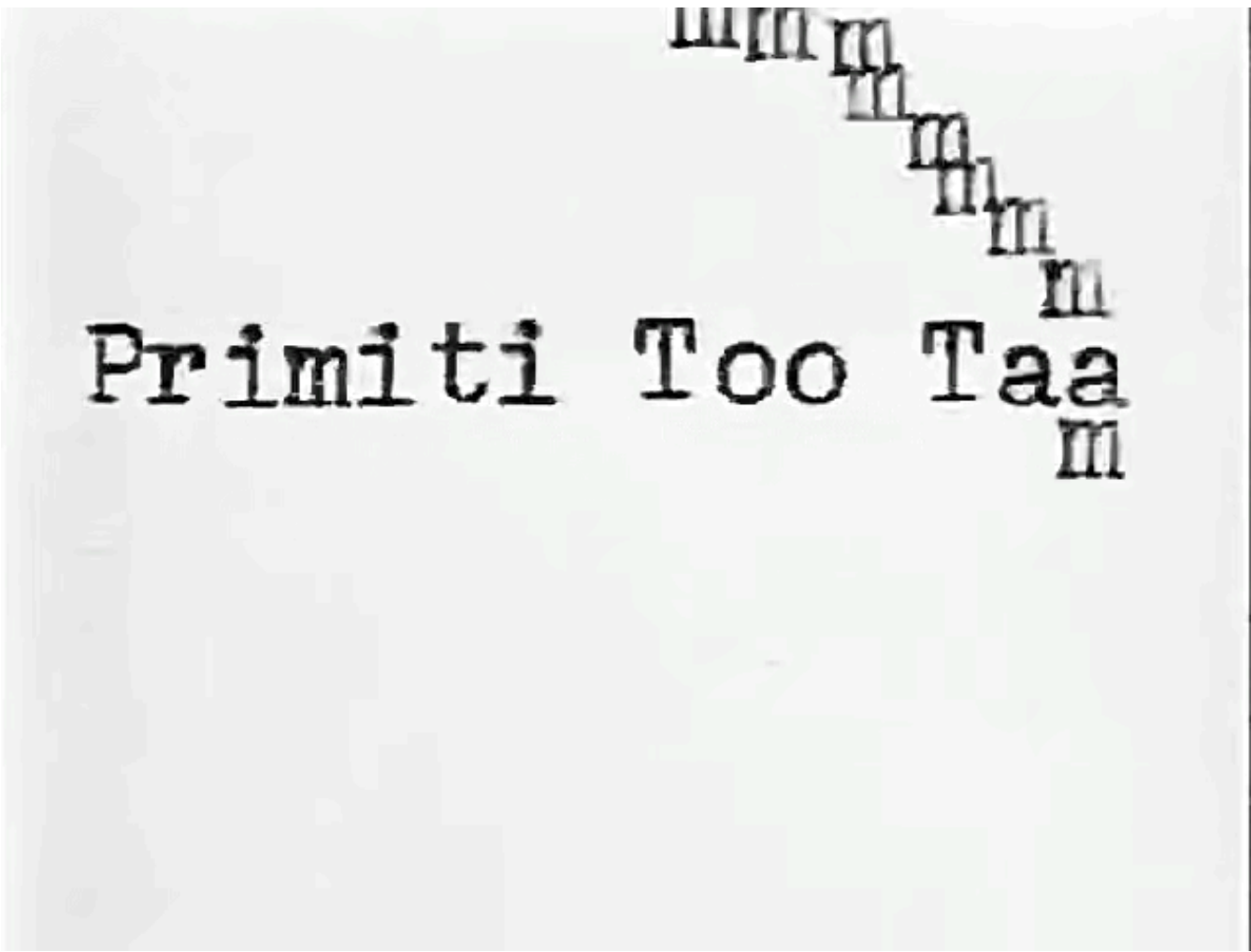
Dynamic appearance of spoken text based on user speech.

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THANK YOU

Yufan, KD, Ricci