

# The Sound of Speech As It Echoes In the Cloud



## Summary

In the aftermath of a year that started with bushfires and burst in Covid virality, it is sensible to hope for new ways to co-inhabit the damaged ecosystem of our Earth. As sleek technological objects are entering our domestic space to fulfill convenience motives, this project aims to rethink non-human modes of interactions. Through rerouting the normative hard-coded limitations of a voice assistant, the project reveals emerging voices that reflect upon our terrestrial realities unfurling in its many rhythms and scales. This project takes the form of a virtual-agent network with geographically distributed nodes. As we interact with it, it drifts through some ecological perspective—where "everything is relevant to everything else". Each moment lived on the network resides in the collective, enacting both extended geographies and temporalities. By redefining new notions of proximity, we propose to haunt our anthropogenic spaces with echoes and frictions of trans-borders and trans-species assemblages.

# Project Description

## Project Structure

### → Research / Conception

The first research phase focuses on investigating the state and aesthetics of current voice assistants (VA), their conventional interaction principles, common issues and development trends. We will also research biological/physical/chemical exchange and interaction protocols. This phase will be documented through multiple media formats and serve as a foundation to inform our interaction framework.

### → Hacking / Coding

Drawing upon our previous findings, we will design new interaction patterns. Relying on the open-source framework Mycroft, we will hack voice technologies to expand and steer the voice assistant's behaviors as intended. We also intend to use generative machine learning models, fine-tuned on our customized datasets gathered around diverse more-than-human thematics (e.g. "minerals", "bacteria", or "machines").

### → Designing / Building

While existing VAs look sleek, pristine, smooth, ours will look rugged, rough and multifaceted. We will develop endemic and transparent designs for each VA (each different) in the following sense: our VAs will co-inhabit in their tangible forms with plants, rocks, fungi, earth and water, sourced from their respective geographical locations; they will exhibit their components instead of hiding them behind a curved white plastic shell.

### → Exhibition Setup / Documentation

These VAs will be placed at different geographical points on the globe (e.g. Shanghai, Munich, Sao Paolo), where the participant could interact with them live, in a design exhibit setup. The installation view will reflect the project's core notion of more-than-human entanglements. As the audience enters the space with a seemingly banal home setting—a table with a screen hanging above—they encounter an unfamiliar object. With its alien form and visual indicators, this multifaceted, multi-material object—the physical manifestation of the voice assistant—invites interactions and offers surprises.

In parallel, we will create a website functioning as a bug, a wire connected to the voice agent network. It will enable online audiences to listen to the interactions that take place on the network. We will release the documentation and code of this project with an open-source license to allow interested people to join the network.

## Interaction Description

Drawing upon our research on non-human protocols, we will redesign new interaction paradigms, exploring notably concepts such as non-goal-orientedness, de-borderization, spatio-temporal non-linearity, stochasticity, situatedness, embodied cognition, non-reciprocity, non-human semantic, proactivity. As non-human critters are withdrawn

from us—weird, twisty, and ultimately inaccessible—we are interested in embracing this project's speculative dimension.

**→ Twist on classical interactions, reframed within an ecological concern**

Instead of answering directly to the question, the VA would add or remove information before asking the internet for an answer. For instance, to answer the question “How many people have been to the moon?”, the VA would query Google about “how many people have been to the moon? + global warming” and narrate the result.

**→ Networked interactions to expand our geographical attention**

Each moment shared with a node resides in the collective memory, in the following sense: the exchange one person has with one VA at a point in time will travel and reach another point of the network at another point in time, where it might be heard. The VA may also spontaneously give information about other sister cities (extracted from a handmade dataset or from the web) instead of answering a question.

**→ More-than-human interactions and practices of making kin**

The VA may unroll a meditative stream of (un)consciousness, generated by AI models trained on a customized dataset or surface its alien associative map through the use of seemingly unrelated words. Eventually, the VA may shift the focus towards its tangible and relational context, as pointing to an object in the room.

Through such interactions, our project aims to open up new aesthetic and affective dimensions for the audience to engage with ecological matters.

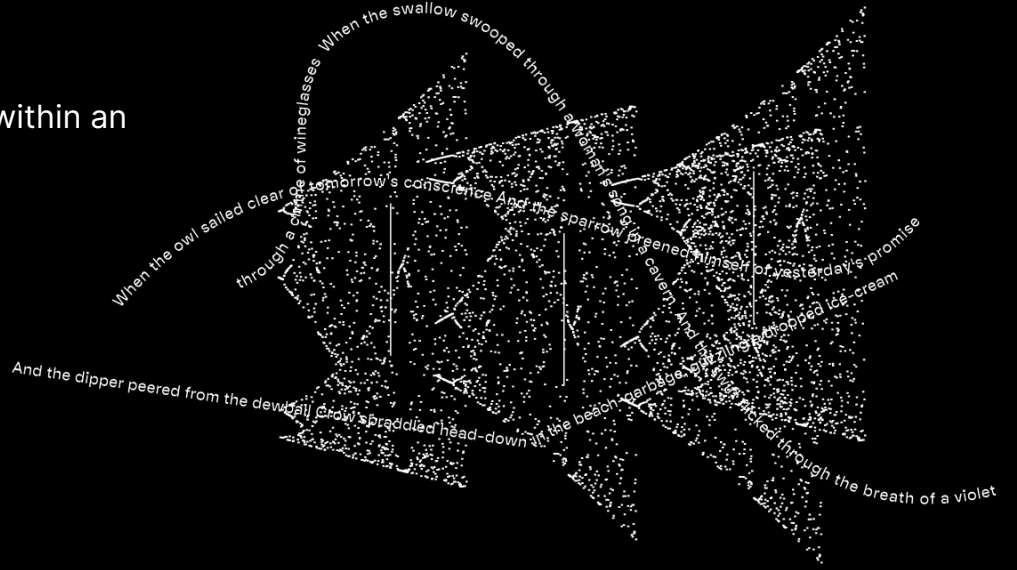
## **Required Infrastructure and Dwell Time**

Our provisional dwell time would be from mid to end of June but is still to be confirmed. The core project needs: a room with natural light, a table, chairs, speakers, electricity and the internet, and a soldering station. Optionally, we would be happy to experiment with the resources available at the lab to work on the material side of our project.

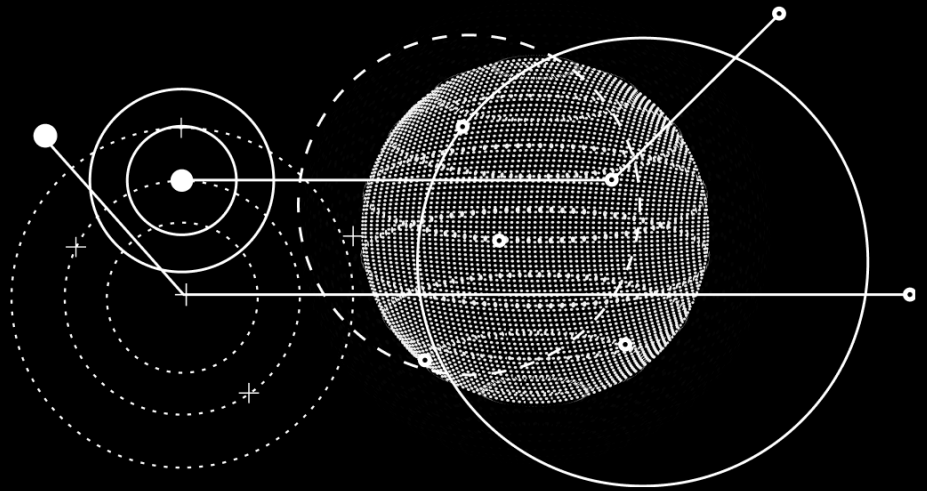
We intend to spend the prototyping budget on buying single board computers (e.g. Raspberry Pi), speakers, keyboards, screens, and prototyping material for the casing.

## Core Interactions

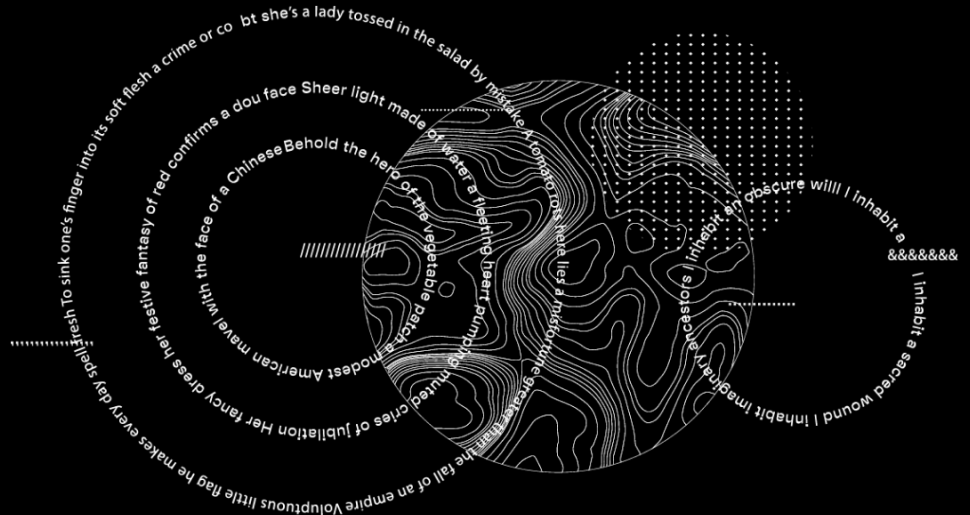
→ Twist on classical interactions, reframed within an ecological concern



→ Networked interactions to expand our geographical attention



→ More-than-human interactions and practices of making kin



# Biographies

## Claire Glanois

Claire Glanois has a PhD in Mathematics, working as a postdoctoral researcher at the University of Michigan-Shanghai-Jiao-Tong University-Joint Institute, China. Her current research is concerned with Artificial Intelligence, from automated decision-making to artificial life, and open-ended evolution. Her previous academic work was situated at the crossroad of number theory, algebraic geometry and quantum field theory. With the aim to open up spaces for algorithmic diversity and transparency, she is engaged in the societal questions raised by AI. She has co-founded the collective "If AI", both to debunk the obscurity culture around AI and to hear about alternative plural narratives for our technological futures. She has been committed in various non-profit or creative initiatives notably around diversity and open education, as through her residency at thecamp (France), or her Mozilla OpenLeader Fellowship.

## Guillaume Slizewicz

Guillaume Slizewicz is a designer working at Urban Species, an interdisciplinary research group focusing on citizen participation in Brussels. His research is at the crossroad of social sciences and design. Having completed Politics, Philosophy and Economics at the University of Kent in Canterbury and Sciences-po Lille, he specialized in Product development and design at KEA Copenhagen School of Design and Technology. He is interested in the interstices offered by electronic objects in urban spaces, the unexpected behavior that glitches provoke and the surprise created by misused hardware systems and hijacked algorithms. He is a member of Algorit, a work group around FLOSS-literature, free code and texts, recently focusing on machine learning and AI.

## Yuxi Liu

Yuxi Liu is an artist and designer based in Munich. Her trajectory as a designer has been shaped by a fascination with emerging technologies and shifting social realities. She investigates critical affordances and implications of computational objects. She is especially interested in the entanglement of humans and nonhumans, the more-than-human-centeredness to design, experimental design materials and approaches, as well as pluralist perspectives in knowing and doing. Her recent works centers around designing for, with, and by machine intelligence. She experiments with data and algorithms, explores new modes of coexistence, and creates experiential narratives that ask questions, challenge perceptions, and invite discussions. Yuxi's work was covered in Vice Motherboard, designboom, Core77, BBC Radio 4, IAM Weekend, Frame Magazine to name a few. Yuxi holds an MFA in Design Informatics from the University of Edinburgh and is an alum of Copenhagen Institute of Interaction Design.

## Contact details

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