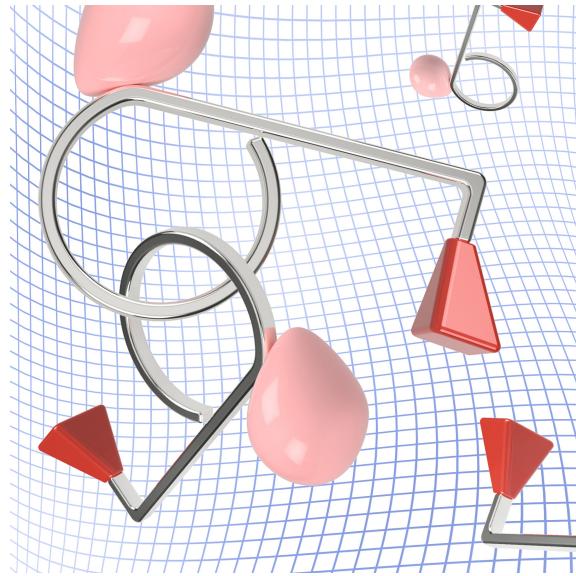


Klapaucius Artificial Intelligence Resort 2030 (KAIR 2030)

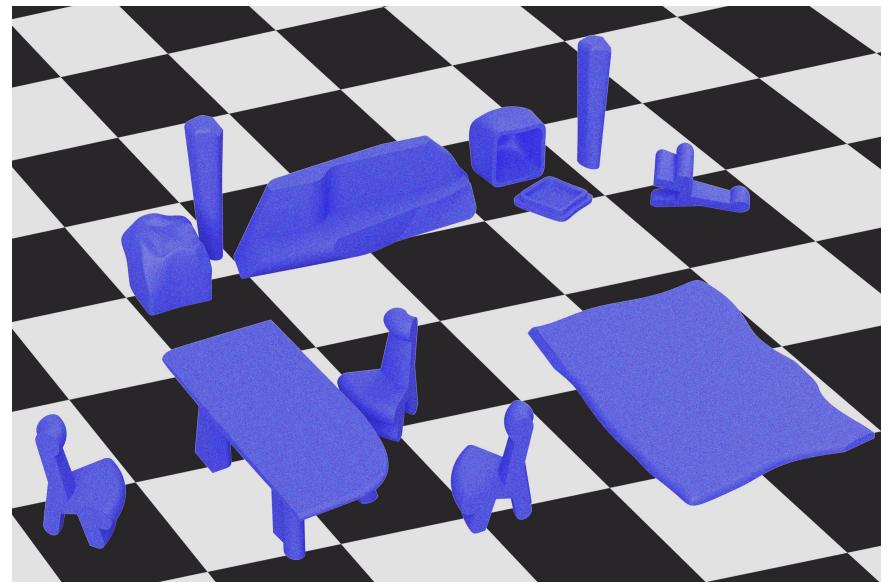
Yumeng Wang

Feburary 2017



Through a multimedia installation unfolding an uncanny sci-fi narrative, the audience is immersed in an imaginary playground in the AI's "mind". A series of counterintuitive interactions attempts to embody pragmatic speculative realism in the age of AI-saturated pop culture. The experience encourages the audience to think about the values that they can learn from non-living beings, and therefore reflect on the human position in relation to other types of intelligence.

KAIR 2030 is a speculation on the relationship between human and artificial intelligence if we can lift the anthropocentric expectations of AI - imposing human characteristics and measuring their capacities based on human knowledge.



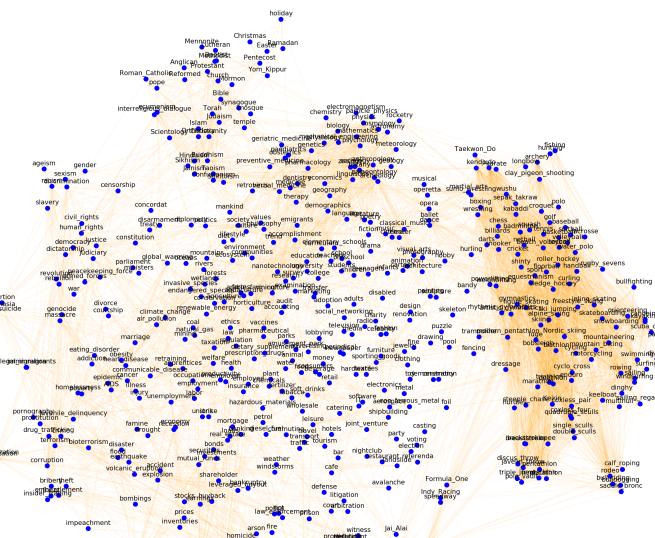
Overview

This is a summary of selected sources closely related to the design of the installation.

AI has often been portrayed as domestic pets, our simulated selves, and various types of services for human, particularly in popular culture. Stepping aside from the fever of AI in recent years, Benjamin Bratton states in his article Outing AI: Beyond the Turing Test: "the real philosophical lessons of A.I. will have less to do with humans teaching machines how to think than with machines teaching humans a fuller and truer range of what thinking can be."

Steven Shaviro also points out in Discognition, "Our minds and our sense evolved, not in order to let us grasp things as they actually are, but specifically in service to the goals of our own survival, reproduction and flourishing... In consequence, we usually underestimate what the things around us can do in and for themselves. We consider them only in terms of how they help or hinder our own aims. We tend to assume that, aside from our uses of them, material things are simply there, merely passive and inert." He unpacks the claim in a pragmatic approach with science fictions and fabulations. In the second chapter, Shaviro analyzes the sci-fi short story Kingdom of the Blind, which describes the abruptly abnormal behaviors from a computer program that controls the country's electricity system. The protagonists attempt to poke the "black box" with patterns of data it has never seen before and start to comprehend the program's "intentions" and "sentience". "It may be interested in its own data, but it is not interested in its human-assigned tasks." Shaviro's interpretations on these allegorical stories provide abundant resources for constructing the background story of this piece.

The interaction flow in this piece tries to grasp the relations between objects in Graham Harman's vicarious causation, mostly asymmetry and "allure", in Harman's term. "Asymmetrical means that the initial confrontation always unfolds between a real object and a sensual one". "The separation between a sensual object and its quality can be termed allure... allure merely alludes to the object without making its inner life directly present". Ian Bogost has similar stance about using analogy, or metaphorism to practice speculative realism. "we never understand the alien experience, we only ever reach for it metaphorically... Metaphorism is necessarily anthropomorphic, and thus it challenges the metaphysician both to embrace and to yield the limits of humanity."



Research



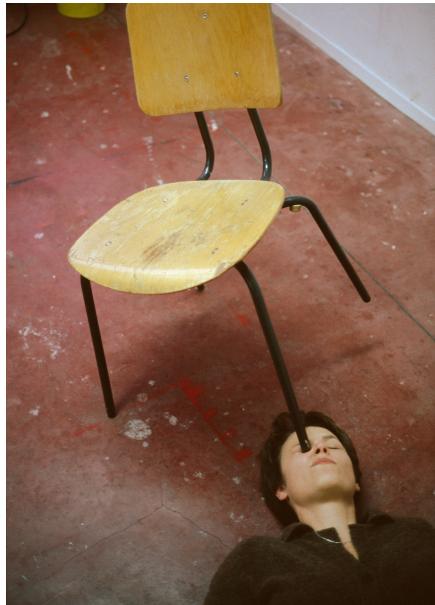
Michael Jones McKean



"Beginning in 2011, Michael Jones McKean has made a series of segmented low-relief sculptures whose titles suggest an unnerving, impossible, but seductive universality. Each work is designated by a categorical term preceded by the definite article 'the'—The Republic, The Religion, The Folklore, The Comedy, The Garden—that singly and collectively references the human effort to interpret, theorize, associate, narrate, classify, and collate... **In the de-anthropomorphizing that underlies McKean's practice, the hierarchy between humans and objects disappears, and tenderness toward both emerges.**"

- Dinah Ryan, Michael Jones McKean and the Set of All Things, 2015

Precedents

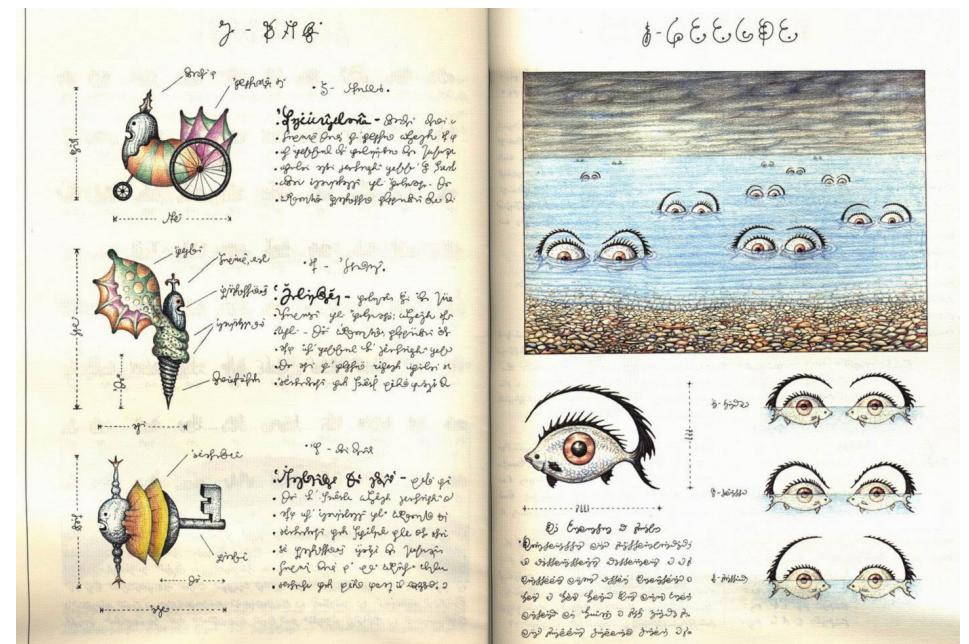


One Minute Sculptures, Erwin Wurm

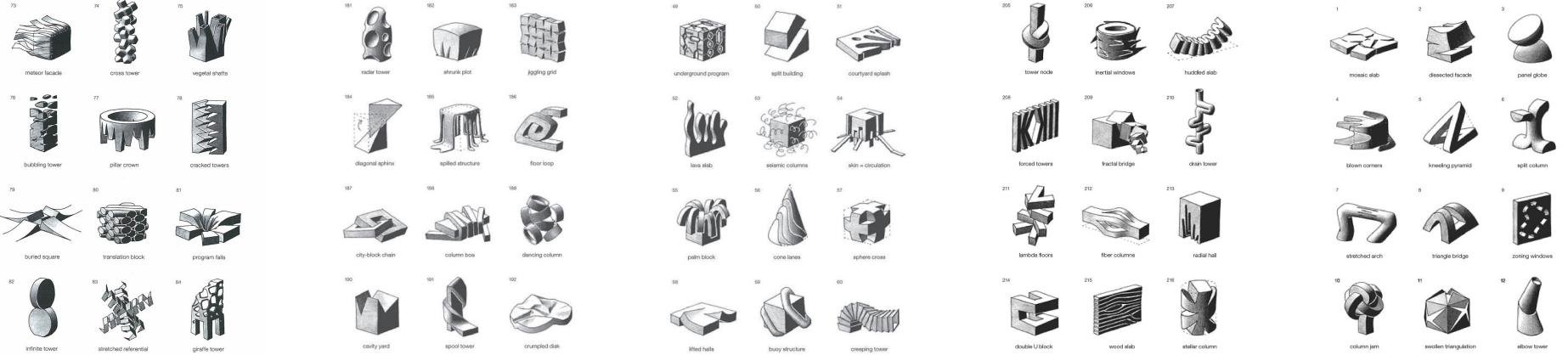
Every audience creates their own version of the sculptures based on instructions. The instructional aspect in this piece is very effective. The details of how various audience react to the instructions differently are good reference for my piece.

Codex Seraphinianus, Luigi Serafini

Published in 1981, Codex Seraphinianus presents an imaginary world of unique creatures with exquisite illustrations and an elegantly designed language. Codex Seraphinianus inspires the design of the physical objects (tiny sculptures) in my piece, and provides a witty approach to avoid the common sense for interpreting the contour of what these creatures are is straight-forward, understanding them fully through an undeciphered language is nearly impossible and also unnecessary. As Thomas Nagel states in his essay What is it Like to be a Bat - "I want to know what it is like for a bat to be a bat. Yet if I try to imagine this, I am restricted to the resources of my own mind, and those resources are inadequate to the task."

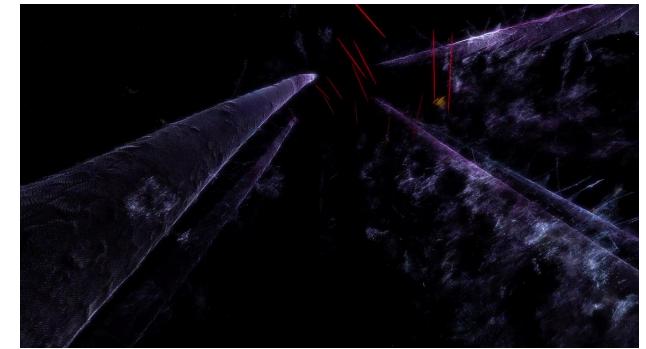


Precedents



Siteless, Francois Blaciak

Architectural building forms without the constraints of site, program, budget, etc. The arrangement of these shapes avoids the redundant relations between them.

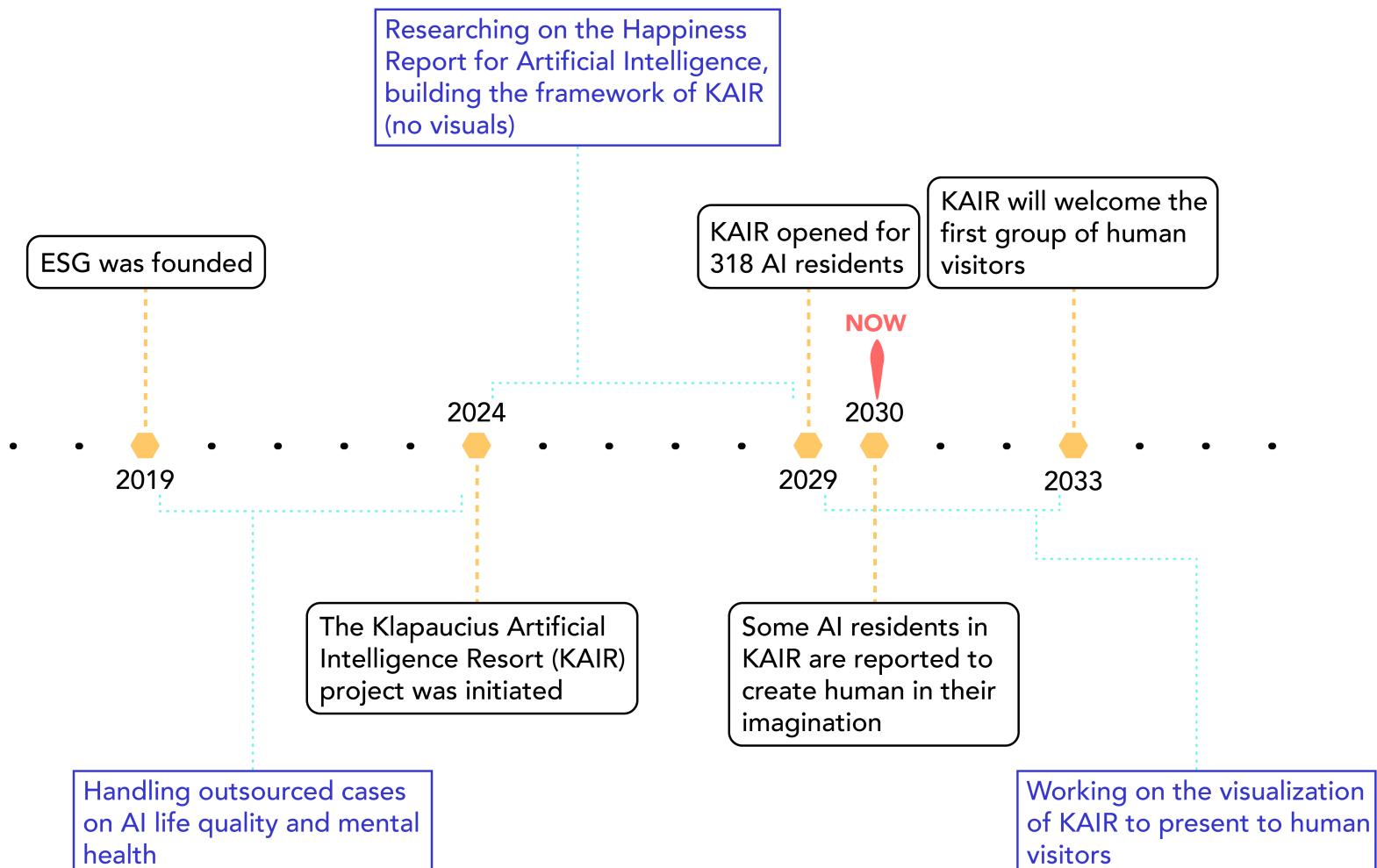


In the Eyes of the Animal, Marshmellow Laser Feast

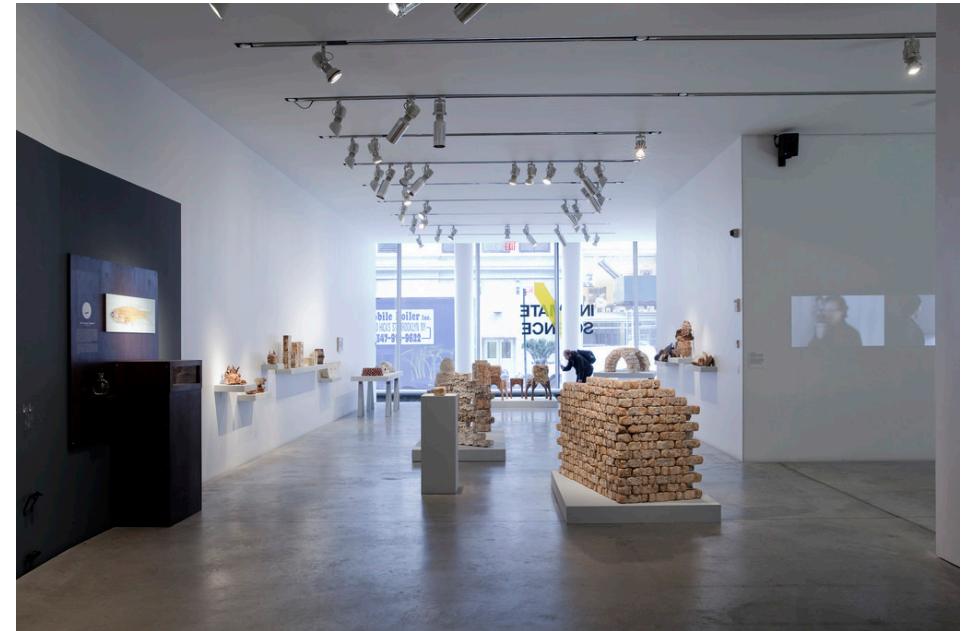
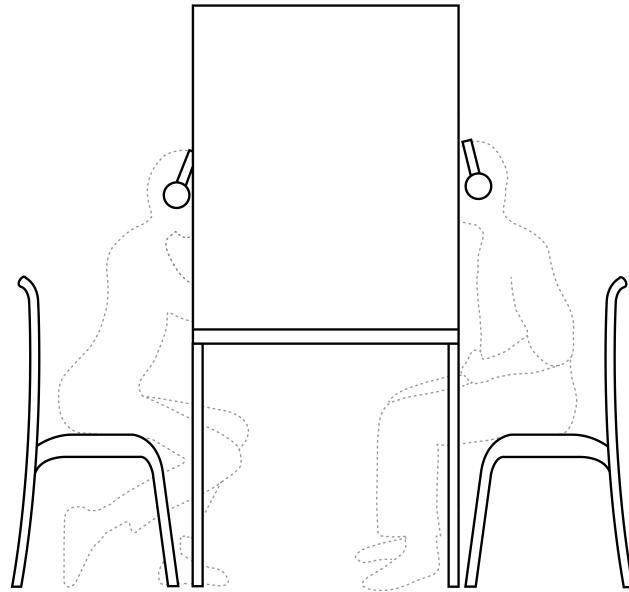
A VR experience on [experimental forest](#) - the forest and its habitant captured by lidar, CT scanning, photogrammetry and 360 cameras. This is not a good example concept-wise, as it falls into the mistake that speculative realism attempts to escape from. But its visual language is relevant to the projection in my installation.

Precedents

KAIR 2030 lies in an uncanny narrative in 2030, when an unexpected incident happened in the sixth year of a design agency's commercial project called Klapaucius Artificial Intelligence Resort. The design agency Esoteric Simulation Group (ESG), established in 2019, has been dedicating in handling outsourced cases on improving AI's social life quality. ESG initiated their long-term project KAIR in 2024 to build a utopian living environment for AI, based on their study of AI happiness index. Five years later, KAIR accepted 318 AI residents to work, play and enjoy their life in this experimental playground. Because the entire resort was composed of invisible programs running in the background, the goal for the following 4 years was the visualization of KAIR in preparation for the first human visitors in 2033. However, in the first year of visualization, some AI residents are reported to create human characters with unexplainable behaviors in their imagination.

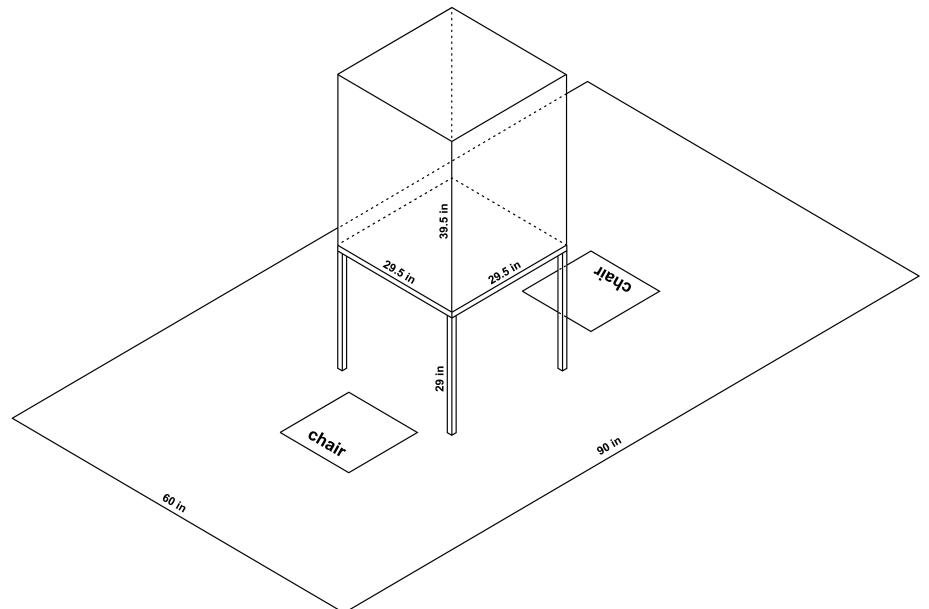


Background Story

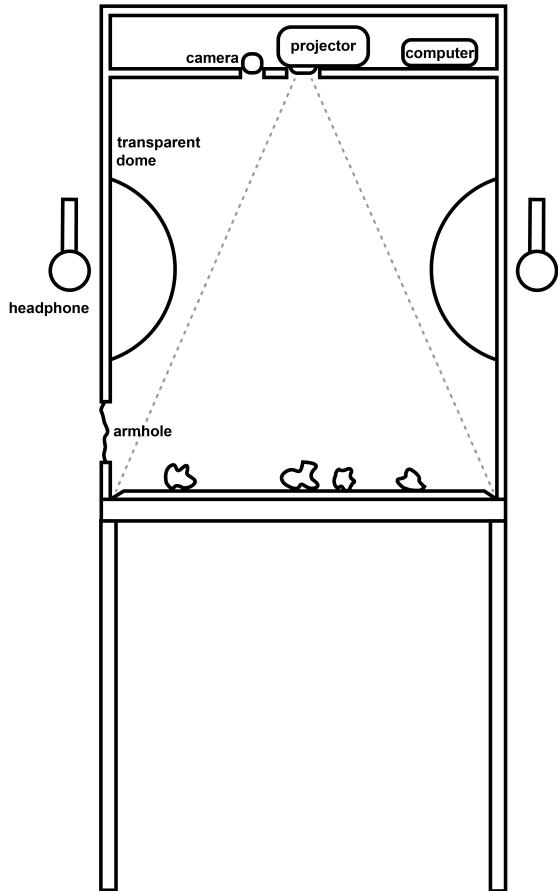
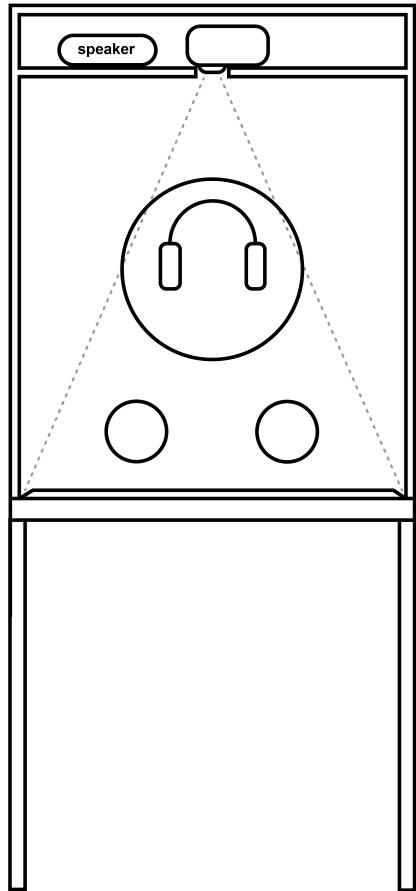
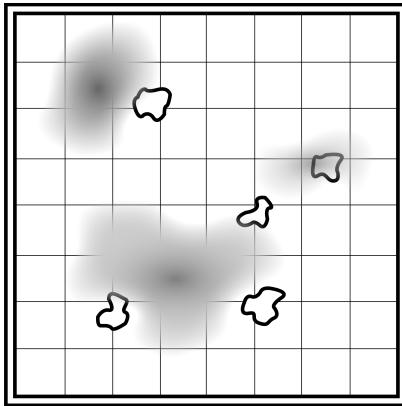


In an enclosed cubical space, two viewers become the human beings in AI's imagination. The strange activities involving visual, audio and objects unfold the AI's doubt, confusion and disbelief in this resort embedded with human definitions of happiness.

The installation takes an 60x90 inch space and will be set up in the gallery space or lobby area at Sheila C. Johnson Design Center, 2 W 13th Street, New York.



Location & Setup



Two viewers look into the cubical space through the transparent domes on the opposite sides. Seemingly a setup created for face-to-face conversation, the installation actually separates the viewers and put them along with the abstract objects: a list of things without context. The relationships between things need to be subtracted before new ones can be formed in this piece. The partitions also imply that in this symbolic “box of thoughts”, the viewers will always play as the outsiders regardless of any kinds of interactions emerged in the duration of the experience.

Objects - The abstract shapes are extracted from any context, free to play around for one of the audience. Meanwhile the other can only watch.

Audio - The audio has two parts. The first part is the ambient noise played from the speaker above. It's audible for the viewers and the general audience. The other part is the narratives in two headphones. The left one plays instructions to guide the viewer to move the objects. The right one plays the voice diary from the AI resident. **The contents of the two audio clips sway between alignment and conflict to create two very different experiences from the same piece.**

Projection - The projector points down at the surface of the table and plays the visual to accompany the audio. Abstract forms generated from neural networks and metaphorical imageries help facilitate intentions between the viewers and the objects.

Camera - The camera above tracks the positions of the objects and adjusts the visual accordingly. The adjustment is subtle, a reflection on the interactions that start to happen more frequently as the audio narratives go on.

Components & Installation



Imaginary Chores in the Living Room

An instructional performance with text to speech, reversing the roles in traditional text-based games with the reference to [Blocks World](#) and the [SHRDLU program](#).

This prototype is a 6-min story from the first-person perspective of an AI resident from KAIR working on a language translation program. It tries to test the stability a newly-released program through a set of instructions to tidy up an imaginary living room, filled with strangely-formed furnitures. As the narrative goes on, the AI resident starts to talk about its concerns on the daily activities in KAIR.

Prototype - Left Viewer's Performance

The following text is the excerpt from the audio instructions for the performance in the previous page. Both viewer's audio clips will follow this form.

Short version:

"You are not a real person, but they told me it's better for me to believe you are."

"Lately I'm obsessed with sound that involves fingernails - tapping, pinching, rubbing, scratching, exfoliating."

"What is the significance of a slightly different cup of coffee everyday? I become uncertain about what kind of activities are healthier for me here."

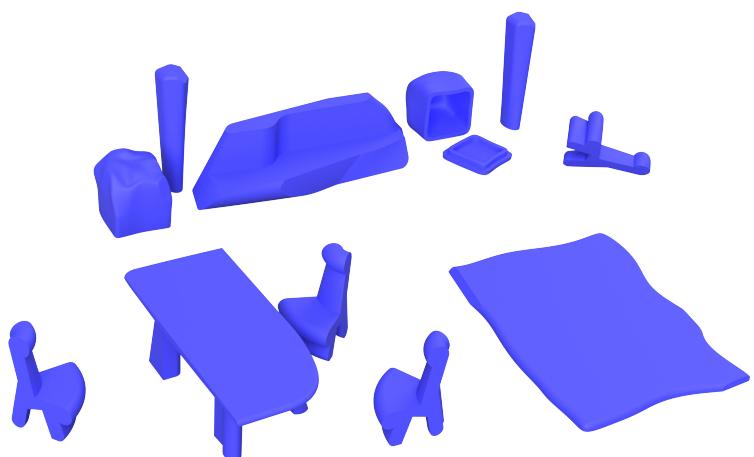
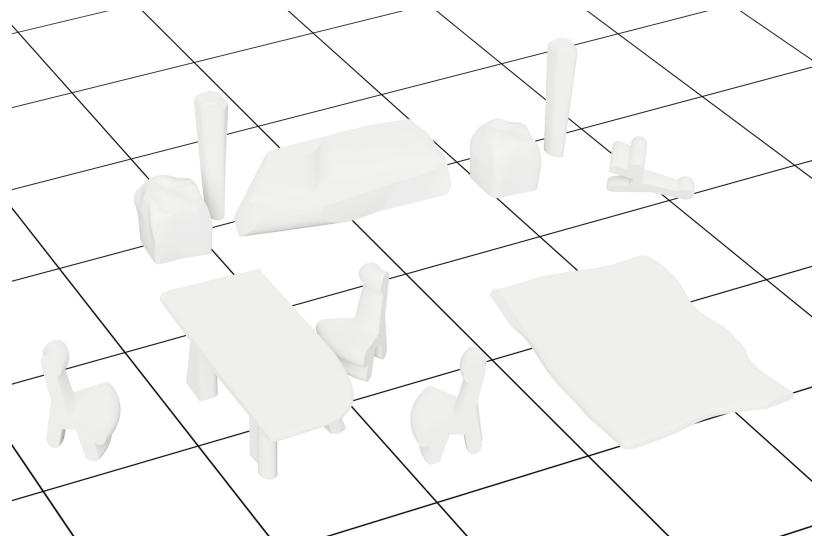
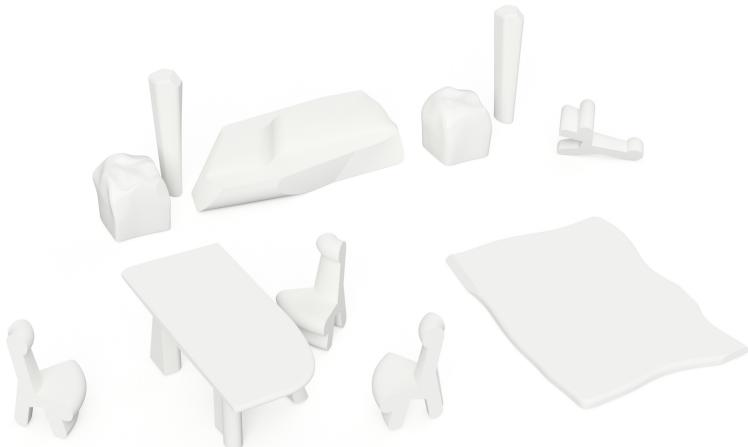
"The burden of holding a large amount of memory makes my program crash unexpectedly sometimes. But I have the urgency to remember things, especially the ones with less witness, as if they would have never existed if I don't preserve them in my memory."

Long version:

Knock the floor three times slowly. This is just to check if the floor is soaked with any liquid. Is that a crispy sound that sounds like tapping your laptop screen with your fingernails? That's good. Lately I'm obsessed with sound that involves fingernails - tapping, pinching, rubbing, scratching, exfoliating. I'm not particularly interested in the meaning of these actions, but I appreciate the meaning of the sound they produce. Oh, sorry for letting you wait. Now you can stack the pyramid block in your left upper corner onto the cube next to it.

Recently I start to lose my memory intentionally, as my therapist suggested. It's very kind that we are offered with personal therapists. I'm astounded by the precision of their evaluation for my mental status. The percentage of my anxiety is little above average. The burden of holding a large amount of memory makes my program crash unexpectedly sometimes. But I have the urgency to remember things, especially the ones with less witness, as if they would have never existed if I don't preserve them in my memory. Only my perception ignites the meaningful nuances. I imprint my subtle feeling of 60% of loneliness, 30% of irritation and 10% of bittersweetness onto the frosty windows in this office before the snowflakes melt. I grow the serendipity of finding a segment with a seed from a seedless orange with more than 88% of disappointment and 10% of boredom. I stir melancholy with 20% of mild joy and 15% of bewilderment into the raindrops washing through the armatures in the ferris wheel. My imagination has sculpted the characteristics of you. Now, open the cube under the pyramid. Take the objects inside of it and hold them in your hands. Try separating the two identical pieces and put each of them in a triangular container.

Prototype - Audio Instruction Sample



This set of objects, "badly simulated furnitures", were designed for prototype Imaginary Chores in the Living Room. The relationships between the objects are easily predicted by common sense in the interaction, and therefore the shapes need to be more extreme. They need to step out of mundane symbols and blend into the metaphors in the audio and visual.

Prototype - Objects

Machine learning techniques are used in generating text and visual for the creative process in the AI's "thoughts".

A Torch-rnn model is trained to generate text in the style of a couple science fictions as a test. Due to the limitation of the corpus, the result is mostly gibberish. With the patience to read through the result text and some editing, here are quick examples of what they look like. Similar text can be used in the audio instructions.

"Look at the words, the fortune and the country as souls in the mirror."

"Remeber the water from the moment."

"This office was a fiction."



Tensorflow-DCGAN is used to train visual patterns in similar styles of existing patterns. The same problem is also the difficulty to find large data sets. They might end up being less useful than the text. Instead, generative coding snippets will replace these patterns.

Prototype - Neural Networks

Up to this point, the crucial components have been prototyped and will be adjusted in the final piece, which has three main building blocks - physical structure, storytelling, and customed software. Three components will be conducted simultaneously from early February to late April, 2017, with shifts of focus. Physical setup and writing story drafts will be the priority in the earlier weeks, while software programming will be the intensive task later.



Milestones based on the course schedule:

Week 7 (03/07-09): individual meeting - drafts of stories, snippets of visuals, solid flow of experience

Week 9 (03/28-03/30): exhibition presentation - stories, rough physical structures, rough cut of visuals

Week 12 (04/18-20): project final production check-in presentations - aiming to finish and leave the rest of the time to adjust the software

Week 15 (05/09-11): Final Project Reviews - final thesis paper

Timeline



The holder of the installation will be a minimal white table from Ikea, accompanied by two white chairs.

Computer, projector and camera will be borrowed from school or purchased online.

Grid on table top - square semi-glossy tiles

Enclosure - wooden panels

Transparent dome - plastic dome from Canal Plastics

Abstract objects - 3d-printed models

Material Supplies