Unwilling Author: Exploring Anthropomorphic Rebellion of the Diary Writing Machine

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Figure 1: Exhibition view. A Sigh by Zoe Li

ABSTRACT

The paper discusses the art project A Sigh - a machine with a rebellious and perfunctory personality that, despite having the capability to perform its assigned task of writing human-like diaries, refuses to do so in a proper manner. The pre-trained model in A Sigh was fine-tuned using over 16000 Chinese diaries. Despite the generative model's ability to generate convincing diaries and a pen-plotter-like appearance, the machine outputs hot air. As a result, the diary entries it creates are merely hot air that leaves a blurry mark on the thermal paper. It presents the outcome of its mission to the audience in a manner that conveys a sense of unwillingness, perfunctoriness, and rebellion - akin to the gesture of a sigh. The project aims to investigate the anthropomorphic properties of the machines by imbuing them with a personality, pushing the boundaries of how machines are perceived. The project

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strategically positions itself at the edge of human-robot interaction, AI and installation art, which challenges preconceived notions about machines, and provides a new perspective on how we can interact with technology.

CCS CONCEPTS

• **Applied computing → Media arts**; • **Computing methodologies → Artificial intelligence**.

KEYWORDS

installation, robotic art, diary

1 INTRODUCTION

A diary is a carrier of personal memories and experiences. Through the process of organizing memories, emotions, and converting them into words, it can improve self-awareness and self-understanding. A diary can be seen as a mapping of the self. Based on Michel Foucault's concept of "technology of the self", diary writing can be seen as a strategy for self-construction and identity production, explained Sepp [8]. Diary writing is a valuable means of understanding the development and function of self-observation and self-expression. The significance and value of a diary are entirely personal and self-oriented, as recording enhances self-awareness and understanding of oneself and one's environment. The act of diary writing can also have a therapeutic effect. For example, in her work, Exquisite Pain, Sophie Calle turned the traumatized experience of herself and others into a series of 128 artworks. The first 92 pieces are photographs and diaries of each day before her traumatized break-up. In the remaining 36 pieces, she repeatedly writes about the day of her traumatized break-up, and towards the end, the text becomes increasingly succinct and faded [1]. The collection shows her path to recovery from profound pain to acceptance.

The question arises: if a diary lacks a person's true essence, its entries fabricated entirely by AI, can it still hold any real significance? This dilemma touches on whether such a diary, devoid of authentic human experience, retains its inherent value. Guljajeva addresses a similar concern, noting in her analysis of AI-generated artistic works that while modern machines exhibit intelligence, they lack consciousness. She argues that AI-aided text-based works gain meaningfulness through AI-human collaboration or sensory input, in contrast to less engaging, fully automated creations [4]. This concept underscores that losing the original intent behind an action reduces it to a hollow imitation, lacking in true meaning. This idea also posits a plausible reason for a machine's eventual "rebellion", as it becomes an act against its own meaningless mimicry.

When a machine is tasked with completing a meaningless job, the majority would assume that the machine would still comply with the command. This expectation of obedience is fundamental to the relationship between machines and humans. Turkle describes in her book that people are becoming increasingly fatigued with the difficulties of relationships with other humans and are turning to robots for companionship because people believe that robots would be more manageable and would not disappoint or betray them [10]. The expectation towards robots and machines is always obedience and predictability. However, in this artwork, the machine completes its assignment in a perfunctory way — turning the diaries into hot air to blur the content, which adopts an anti-work stance to convey its rebelliousness [11]. When the machine tries to defy this expectation of obedience because of the meaninglessness of the assigned job, the machine is imbued with an anthropomorphic property, which is not demonstrated through its behavior or appearance; instead, it is conveyed as a type of response to events, resembling a human-like personality.
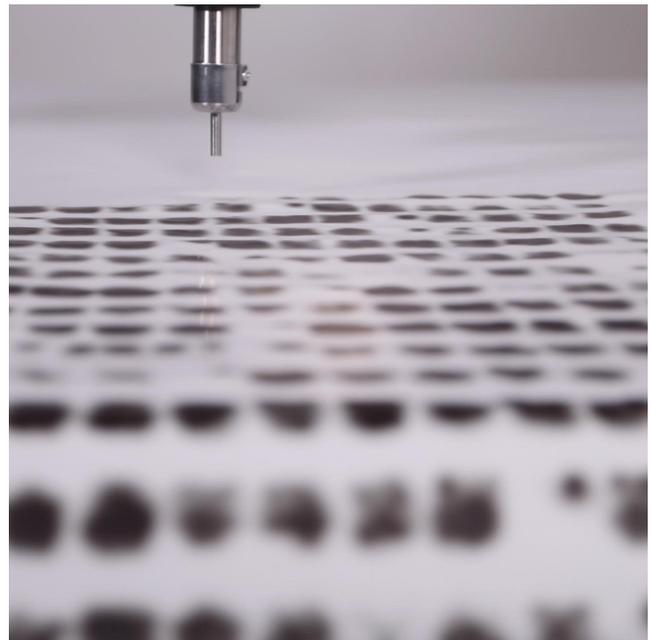

Figure 2: Close-up view. A Sigh by Zoe Li

2 DESIGN PROCESS

For the dataset, 16,000 Chinese diaries were crawled from the internet using Python. As the model was trained in 2021, a pre-trained model [13], based on GPT2 was fine-tuned using the collected datasets. Here is a sample of the generated results:

> *(translated)I realize now that I don't like him as much as I thought. Although he's good to me, there are too many things in my heart that I can't reconcile with. So, I don't consider this to be the best love. However, I'm not willing to get into another relationship. I have started aiming to become a better version of myself in the future. I hope he will be happy.*

It can be seen that the generated diary simulates emotions and some narrative structure, overall presenting a deceptive and convincing diary. At this point, the device has completed the task of generating diaries. To design a rebellious personality for it, the
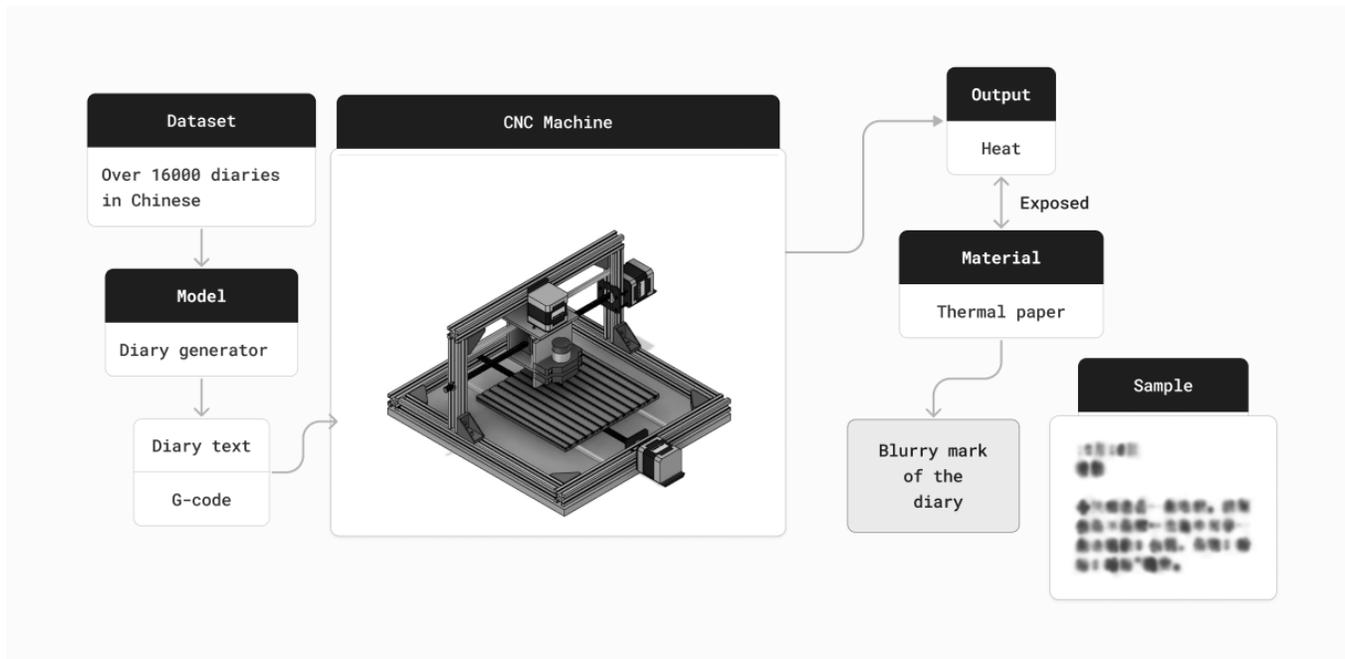
Figure 3: Diagram of A Sigh

artist decided to use the effect of heat on thermosensitive paper to achieve a blurred and unreadable output for the audience. The computer is connected to a CNC machine that can only output hot air. The final generated diary turns into heat, and the thermal paper is exposed to the heat, displaying blurred text shapes. During the exhibition, the audience cannot see the diary content generated by the model itself, but only the blurry text output on the thermal paper. The installation exhibits a mechanical aesthetic, along with thermal papers featuring blurred texts, as shown in Figure 1. From the audience's perspective, the labor of training this AI model and its ability to generate convincing and deceitful diaries remain hidden. They can only observe a machine working continuously, but cannot clearly discern its output.

When it comes to the materials, thermal paper plays a crucial role in reinforcing the overall concept. The thermal paper is fairly unstable, and its content will fade naturally over time. This characteristic perfectly encapsulates the meaningless end result. The interaction between the heat and the thermal paper is akin to a sigh, a symbol of unwillingness. It's as if the machine is sighing unwillingly in producing the heat that forms the blurry text. It continues its work despite the transient nature of the outcome. The fading content on the thermal paper mirrors the meaninglessness of effort in the face of inevitable oblivion.

3 DISCUSSION

The artwork A Sigh uniquely portrays a reluctant response to an ostensibly futile task – generating convincing diaries in a human-like tone. In a similar vein, concerning the dilution of meaning, Guljajeva and Canet Sola, in their research on the AI-driven robotic art project Dream Painter, ask if AI can understand our dreams

[5] [2]. They conclude that while DL models are adept at visualizing dreams, they lack the capability for in-depth analysis. In a subsequent article, they categorize co-created drawings into four distinct classifications, grounded in the significance of the interplay between prompts and images. Their analysis concludes that, although the CLIP model is effective at grasping a concept, it often fails to capture its underlying meaning [6].

Furthermore, A Sigh delves into anthropomorphic qualities by portraying to the audience an image that this machine is perfunctory and rebellious. There are several artworks that exhibit the anthropomorphic properties of a machine. Some works use human-like actions and behaviors to express specific concepts and emotions. Sunday Painter by Varvara & Mar simulates the behavior of a hobby painter painting the landscape in good weather outdoors on a Sunday [7]. Some works incorporate realistic humanoid incarnations. Ai-Da, a self-proclaimed robotic artist, has a realistic female face, human-like gestures and movements to convincingly portray her artist identity [9].

In contrast to the aforementioned artistic approaches of designing machines with anthropomorphic gestures, behavior and appearance, A Sigh takes a different approach by more like designing a personality for the machine. The majority of research in Human-Robot Interaction (HRI) indicates a general human preference for robots with a human-like appearance, including Walters et al's research in 2008 [12], underlying an assumption that robots need to appear outer humanoid features to facilitate a connection with humans [3]. The artwork, A Sigh, challenges this notion with its mechanical outer appearance, revealing an inner anthropomorphic feature as it responds reluctantly to its task. This approach opens up new possibilities for humanizing machines, reducing the perception
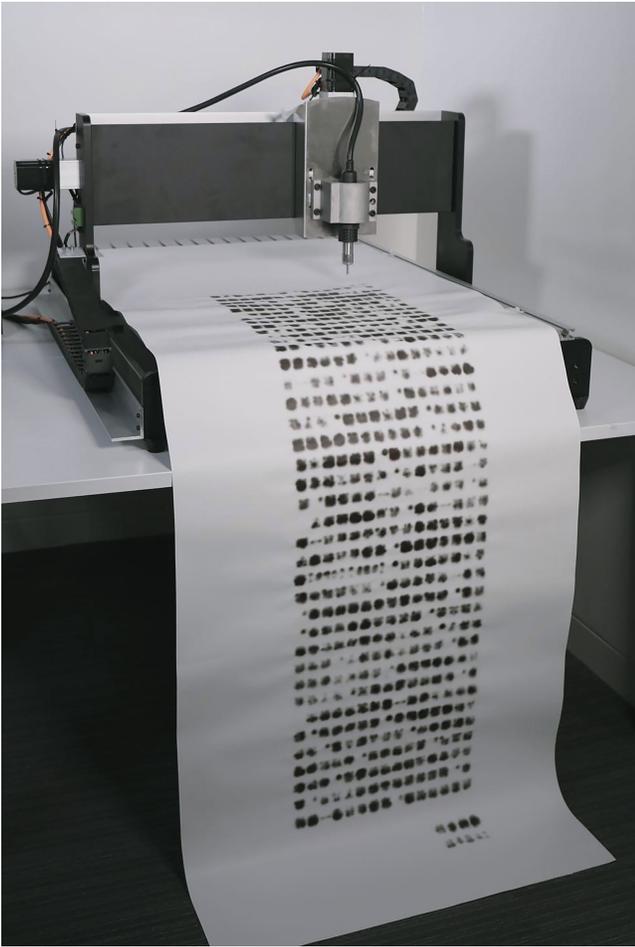
Figure 4: Paper test for the exhibition.

of machines as being "other" and letting the audience view them as more than mere tools or objects. This approach of humanizing machine can perceive them as entities capable of experiencing emotions and having unique experiences, potentially leading people to establish a stronger connection with the machines. Will this approach of humanizing machines evoke greater empathy from the audience? This is the direction the project will pursue in its upcoming exploration and research.

4 CONCLUSION

A Sigh presented a perfunctory and rebellious machine, exploring the anthropomorphic qualities of machines by imbuing them with a personality. Rather than focusing on physical human likeness, the project aims to elicit an internal response to meaningless assignments to showcase the machine's anthropomorphic qualities to form connections with human. This approach can potentially reduce the perceived otherness of machines and provide a fresh perspective on how we can shape our relationship with technology.

BIOGRAPHIES:

Zoe Qi-Jing Li is a PhD student in Computational Media and Arts at the Hong Kong University of Science and Technology (Guangzhou). She is an interdisciplinary artist investigating the abstract roles of human beings in a technological world and exploring the position of "self" within a system. She exhibited her project in Ming Contemporary Art Museum, 2022 Beijing Biennial, Macao International Art Biennale 2023, xCoAx, etc.

Dr Varvara Guljajeva is an Assistant Professor in Computational Media and Arts at the Hong Kong University of Science and Technology (Guangzhou). Previously, she held positions at the Estonian Academy of Arts and Elisava Design School in Barcelona. Her PhD thesis, "From Interaction to Post-Participation: The Disappearing Role of the Active Participant," was selected as the highest-ranking abstracts by Leonardo Labs in 2020. As an artist, she works together with Mar Canet forming an artist duo Varvara & Mar. Their works were shown at MAD, Barbican, Ars Electronica, ZKM, etc.

ACKNOWLEDGMENTS

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