
Exploring Unstable AIs for Creative Expansion

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Abstract

This workshop proposal explores a concept for engaging AI in a non-deterministic manner in order to collaboratively produce physical artworks with a digital system. It draws from a lineage of “games” played by artists, from Surrealists to Situationists, that were targeted towards automatism and creative exploration as opposed to the expression of a preconceived idea.

Author Keywords

Creative practice, non-determinism, AI, human-computer collaboration

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous;

Introduction

Descriptions of creative practices offered by designers, artists, and crafts people alike often highlight the non-linear and non-deterministic elements of a creative practice. For instance, ideas often come from chance encounters in the everyday world or stem from accidents. In order to expand their space of ideas and sensitivities, many artists turn away from a pre-existing goal or vision and instead, look for ways to work with his or her materials (be they digital or physical) in open-ended, exploratory ways that may give rise to

unexpected or serendipitous outcomes or “happy accidents.” In such practices, technology does not necessarily need to be enrolled as an assistant or instrument of productivity. Instead, I have argued that digital systems for creative practice can be thought of as “translations” [5] —tools that allows creative practitioners to experience their idea through a new symbolic and technical frame, for instance, exploring how a 3D printing can map 3D models to sonic profiles, or how a machine learning algorithm might see an image [6]. In the role of translator, a computational system needn’t only “assist” the creative practitioner or advance them closer to some predetermined goal state, but can actively resist the maker, push back, or “break” their ideas in ways that may reveal new creative potentials. As such, engaging the concept of translation in design leads to tools that are *unstable* in the sense that they preserve risk and unpredictability. These unstable tools are to be used for inspiration, providing the maker with a new way of seeing or understanding their particular object of inquiry that they can take up and fold into their practice in whatever way they choose [3,4].

While I have studied AI and computer science formally, I have yet to engage advanced algorithmic techniques in the unstable prototypes that I have created to date. I used to see these advanced algorithms as mechanisms that reduced engagement in the physical world, or eliminated the “risk” that I and others find so valuable in a creative practice. I would like to attend this workshop to explore alternative engagements of AI and machine learning in what I have been calling “unstable tools,” thus, unstable AI’s. At a broad level, this project joins wider calls for exploring where technology can participate within non-linear and chance-based creative

practices. On a more specific level, it seeks a mode of engagement with AI that can give rise to surprising and beautiful results.

Unstable & Collective AIs

At the workshop, I would like to present a concept for a future MICI or unstable tool that is informed by “games” historically played by artists called AI Reverb.

Artists Games

Artists games are unstable by design and typically bring multiple creative actors together to produce objects unique to the situation of production, a form of extreme collaboration where “players” correspond in an open field of creative possibility. For instance, Surrealist artists created several games for generating artwork automatically and in a stream of consciousness fashion, “Solitary and collective automatic techniques, and the exploitation of *chance* are central to many surrealist games...automatic techniques may be used as a beginning of a creative activity, to stimulate and encourage spontaneity of utterance or image-making” [1]. The most famous of these games is “exquisite corpse,” a procedural game in which one artist draws a head, hides what he or she draws, and invites another to fill in the remaining body and legs. The result is an outcome that neither artist could plan or anticipate. It is an artistic product born from a collective, creative intelligence.

Led by the writings of Guy Debord, The Situationist International extended surrealist games into the realm of everyday life, developing tactics for engaging the everyday that could denature the habitual and lead to experiences to allow someone to see beyond spectacle [2]. As such, these games turned away from a concrete

artistic product and into a mode of sensitizing the player. Furthermore, they fused games with life, suggesting ludic engagements in everyday space. Such themes resonate through related art movements, like the chance inspired “event scores” of Fluxus artists Yoko Ono [7] and La Monte Young [8] which prompt aesthetic engagements in the more mundane happenings of the everyday. For instance, one of Ono’s event scores, entitled *Tunafish Sandwich Piece*, requires its viewers/actors to:

*Imagine one thousand suns in the sky at the same time.
Let them shine for one hour.
Then, let them gradually melt into the sky.
Make one tunafish sandwich and eat. [7]*

Ono’s event score fuses poetry with practice, creating a prompt for a sensory engagement in sun and sandwiches alike. The goal of the work is less oriented around a “thing” produced, and more focused on how the execution of the instructions shaped the person who executed them.

While each example is targeted towards different outcomes and audiences, whether it be an automatically generating thing, a critique of spectacle, or an attempt at anti-art, they share in common a vision of making where control extends beyond an individual maker or audience. They position the artist as one of many numbers of forces capable of producing creative work, not necessarily the individual who stands above controlling what is produced. As such, these games tend to be oriented towards sensitization and

understanding as opposed to a particular creative “object” outcome.

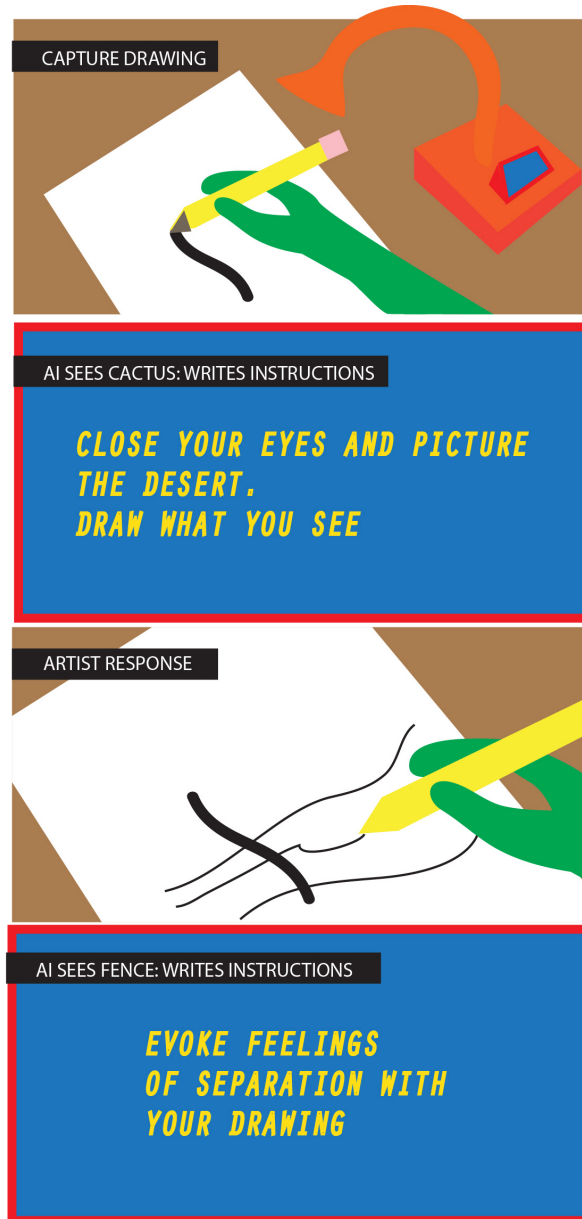
AI Reverb: Fusing AI and Artists’ Games

Drawing from this lineage of artists’ games or event scores, I imagine a system called *AI Reverb* that prompts an artist to take action in response to directives supplied by an artificial intelligence agent. In keeping with my interest in engaging with the everyday and materials, I imagine a system composed of a camera and text output screen. The camera captures the present scene, say, the maker sketching on a piece of paper. That scene (i.e. the paper) is processed as input to an AI that classifies what the object that the maker is drawing (much like Google’s Quick Draw application ¹.) Based on how the AI identifies the object (for instance, if it thinks the artist is drawing a cat), it can supply instructions for the maker to perform on the drawing (e.g. draw multiple tails on cat, throw away drawing of cat and draw a dog instead, etc.). As the artist performs the command, the drawing changes, the classification of the drawing changes and a new set of commands is born ad infinitum. The outcome of such a system represents a reverberation between an artist and a machine, a surrealist drawing born out of a collective human-machine intelligence.

In *AI Reverb* accuracy and the correctness no longer function as meaningful bounds for the design space of interaction. Like a game of telephone, the pleasure emerges from the moments in which the AI makes an incorrect prediction or works in an imperfect manner. And while I have illustrated the concept within the relatively simplistic realm of drawing, one could

¹ <https://quickdraw.withgoogle.com/>

Figure 1: A concept sketch for AI Reverb demonstrating feedback between human doing sketching, AI interpreting sketches in progress and offering instructions for human to interpret.



embraced everyday life. For instance, an AI agent that feeds back on signage in shop windows and billboards in order to direct artists to take different actions within public space.

The tension with a project AI Reverb this is differentiating between a system that “breaks” well and a system that is just plain broken. At the present concept stage, I cannot predict exactly where those lines will be drawn. I see the sketch provided here as a benchmark for a new way of thinking about AI more than a set of plans for a system that I plan to enact. One of my goals for the workshop, then, is to refine this direction, learn more about the tools and techniques available, and hopefully gather feedback from artists in the group about how such a system might adapt into exploratory phases of their own practice.

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