

Professional Fouls in Computer Art: From magneto-kinetic anti-aliasing to persuading AI to lie for art

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Contemporary art often requires that critique or questions about the artwork be included in (or even as) the artwork itself. Self-referential art, or art that refers to other art, is commonplace and is the basis of art as a more or less systematic inquiry whose goal is knowledge. In science, a paper should question itself and refer to other work. This is, however, rarely the case with the computer-based arts, usually seen and presented as things (processes, systems...) in themselves. Much art refers to art history. Computer based arts in general do not refer to the history of computer-based arts. One can sometimes have the impression, too, that in new media art all must flow smoothly. A certain "glossiness" is often called for. Mistakes, failures, are rarely referred to, let alone exhibited or commented upon. Yet most other art proceeds by failure. Metaphorical "bugs" are generally celebrated as creative prompts. Ugliness is by no means ruled out. Not so often in the field of computer art. Images qua "Artworks", produced by AIs perhaps at the behest of Large Language Models, usually exemplify most of the above, and interactive artworks are often about the results of the interaction, not the experience or spectacle of the interaction per se. We are encouraged to look at the different forms of product, whereas the participants themselves and their behaviour and actions are often of more significance. As a provocative nudge to avoiding the above, examples are presented of this author's and others' work where what might otherwise be considered as professional "fouls" are in fact the point of the (often conceptual) work. Mistakes and lies are celebrated, and the smooth, even meretricious production of conservatively conventional computer-based artworks are derided. A means of causing an "AI" LLM to lie is presented. As a general rule, art that tries to "look like art" is not art, but decoration (unless ironic or bad-tempered) or is bad art. Computer based and new media arts, a fortiori.

Computer arts. Dishonest art. Artificial intelligence. Interaction. Large Language Model.

1. INTRODUCTION

In 1987 the author won the first ever Prix Art Electronica, the Golden Nica, in Linz, Austria, taken warily from the body-guarded hands of the then Austrian Chancellor, Franz Vranitsky under the sweatily hot lights of the Austrian TV service ORF. The jury's decision was believed to have had a dissenter, the person in charge of a famous American computer graphics company.

In those days one submitted artworks to competitions not as electronic files (for outside of the ArpaNet this was still not easy) but rather as colour photographic 35mm transparencies, which were posted to the competition and presented to the jury by means of a Kodak carousel projector.

If the artwork were to be produced on a computer colour monitor, one set up a camera on a tripod in

front of the screen and took photos of it. The resolution of my computer was in the order of 320 by 256 pixels, and the monitor itself was only of TV resolution, so the image was terribly bitty. But the colour slide was virtually free of anti-aliasing, and the jury member allegedly thought that the image had somehow been faked, saying that even his systems could not produce such fine resolution.

And maybe they couldn't, because a special technique perhaps unthought of in California was used, which I called Magneto-Kinetic anti-aliasing. Magneto from the monitor's magnetic coils which focused the electron beam, and Kinetic from the use of the human fist on the metal monitor case itself. The camera was set to a three second exposure and the monitor repeatedly thumped, resulting, after about 30 tries, in a nicely smooth image. The pixels were still visible, but now looked like an intentional artefact in a modern high-resolution image that was

to all intents and purposes photo-realistically continuous. Fortunately the rest of the jury concentrated more on any artistic merit the work may have had. The work was referred to, apparently positively, as “electronic cave painting”.

But the jury member was right in a way, at least in respect of the computer graphics, if not the splendid art. This author would have “cheated”, if the competition had been about screen resolution, which of course it mainly wasn’t. But even today, not a few people might consider a computer-based artwork assisted by human intervention to be a “professional foul”, as if someone who claimed to be able to levitate was in fact jumping. Or if Harold Cohen had just drawn his plotter images by hand. Which he did until he got a computer and a plotter.

This seems to be on a par with the ghost of a dead dramatist decrying film as fake, but I believe such fouls and their discussion to be part and parcel of an attempt to make the computer-based arts less techno-spectacle and more contemporary art. We have always run the risk of using state-of-the-art technology merely to make state-of-the-technology art. The following is intended to show that including fouls, critiques and discussion about the artwork within the artwork itself can not only make it better, perhaps sending it up onto a meta-level, but can also shed light on the fraudulent perfection of some current work which depends on real or pseudo-AI art, large language models and other potentially meretricious spectacles.

2. COOPERATIVE DRAWING

I believe the function of art is to make things difficult, not easy. Or perhaps things that might at their inception seem easy can in retrospect become difficult, in a good way, needing homework to be done. For me, the function of the computer in art is to provoke. On a BBC Micro Model B, the best one, with 32 actual kilobytes of memory, I made in 1982 an interactive program, in BASIC, which allowed two participants to draw together on the screen, using analogue X-Y joysticks that also each had a single button. The computer made an average of the data from each input, and if (and only if) both participants pressed their buttons, a trace was left on the screen, otherwise the cursor just moved without leaving a trace.

In other words, if person A moved the joystick to the left and down, and person B to the right and up, the cursor might hover in the middle of the screen. Because of this averaging, people had to really concentrate and cooperate to even draw a straight line, let alone a circle or some object. The trace that was left was spiky barbed wire. In the middle of the screen was a small flag, usually, for reasons of political Zeitgeist, that of Nicaragua, then under

attack from the USA-backed Contras, a proxy cold war.

Would participants actually cooperate? If so, how? Would they just smash the joysticks around making a random mess? Well, a few adults did, but most were scared of using the joysticks at all. Kids however seemed to love it. A few attacked the central flag, or tried to. More actually built nests around it, or painstakingly wrote their names. Then two things became noticeable. The first was that the greatest enjoyment ensued when they agreed to try and draw two different things, perhaps kid A: a bird, kid B: a boat. The resulting image was of course a mix of the two intentions, with only bits of recognisable bird or boat, complicated by the barbed wire effect. But this became the goal. The “failed” cooperation was in fact an agreement to see what would emerge. Two people doing this became the artwork.

The second surprise was that spectators in the gallery rarely looked at the screen. Everyone observed the kids, and listened to them talking as they drew. The event was not on the screen. What might be thought to have been central became peripheral. The peripherals and their handlers became central. The “failure” as a screen-based experience became a success as a human observation art experiment, which (of course) I then pretended had been the intention all along. This was a very useful foul.



Figure 1: Cooperative drawing 1982 in use 1992

3. ARTIST/CRITIC

First, a note about ELIZA. Many will know that this relatively simple simulation of a Rogerian psychotherapist, using open-ended questions and reflecting input back to the user – “Tell me more about your family” – was made by the computer scientist and MIT professor Joseph Weizenbaum in the mid-1960s – a very early chatbot. Although written in his own language SLIP, it was easy to transfer to BASIC and versions still exist online and as code. This author has exhibited printed conversations between the simulated

psychotherapist and texts fed into it line by line – Marx 'n' Engels' Communist Manifesto ("Tell me Karl, what is your actual job?") or a song by Eminem ("Do you often have these murderous thoughts about your mother?").

Weizenbaum famously was aghast that people took it emotionally seriously, and in conversations with him it became clear that the motivation had been in part to demonstrate that such systems were doomed to fail. Much of his later work became about the ethics of AI.

On examining ELIZA's code it became clear that one could change a lot of the content, and add more, to make the software operate in other contexts. It could perform in an art gallery. One could start treating it as an artwork.

I made a simple version called MARTA – Modest Art Answerer – which was shown in Art For Society at the Whitechapel Gallery in London. Richard Cork, a critic, hit the keyboard once, jumped back when the computer said "What?" and wrote a disobliging review about it spouting random nonsense. However, some people stayed with it for hours, simple as it was, perhaps because it was able, on a trivial level, to "remember" bits of their input and feed them back in new contexts.

When later there was a request to make a similar but more powerful version for a show in France, it was decided to make two distinct entities, running on two Amiga 1000 computers (since these were available free), again written in BASIC, which I loved and still do. (Not very good at anything, it can still adequately do things that would need much specialist work today – you could change a MIDI input into graphics or mouse movements into speech in half an hour).

One version was to be called Artist, the other Critic. They were an advance on MARTA and could go on for longer without revealing their content via unwanted repetition, and had "moods" – even becoming artistically abusive which was a joy to code.

Then the deadline was brought forward whilst the Artist was still being completed, and the Critic not really started upon. there was only one solution.

The setup in the gallery was the two computers, each with a mouse and keyboard, but no connection whatever between the one labelled ARTIST and the other labelled CRITIC. If a visitor typed as requested on the keyboard of one of them, it would reply in a more or less sensible way, in more or less artistic terms.

The participant's task was to help the artist and critic by telling the critic computer what the artist computer was saying, and then tell the artist how the critic had

replied, and so on. The two software 'entities' could only communicate via a human, who sometimes added their own thoughts, shortcuts and comments.

What nobody noticed was that the two softwares were identical, since the critic remained uncoded, and it was only peoples' perceptions of the roles that were different. This provoked the thought that AI's, pseudo-AI's or other apparently complex artworks could possibly be made simpler, with no reduction, or indeed an enhancement, in user experience.

A propos very simple rules provoking interesting participant behaviour Edward Ihnatowicz's famous robotic sculpture *The Senster* (1968-1970, reconstructed in 2017) comes to mind. The huge interactive, giraffe-like structure/sculpture/creature with doppler radar eyes and quadrophonic microphone ears, although a heroic masterpiece of computer-based art, was programmed to do only a few very simple things. Of course this wasn't a "foul" at all but an example of much from little, albeit with years of work behind the "little". It would lower its "head" towards soft movements or sounds, and move – even shy away – from loud sounds or violent movements, from spectator-participants gathered around its circus ring-like enclosure in the Evluon in Eindhoven, in the Netherlands. This simple set of rules was however enough to make anyone interacting with it feel that it was in some way sentient. I had seen the hole it had made in his studio ceiling in University College, London when it had slightly "run amok" and there was no attempt to anthropomorphise the electro-mechanics and hydraulics, but even then it was impossible not to think of it as alive. Visitors in general were kind to it. Many people watched the interactions of others, which again was perhaps the most significant aspect. People got married in front of it. So engrossing was the artwork that Philips, whose Evluon it was, allegedly fearing it would distract from their displays of fridges etc., demolished it in 1974, though happily it has been restored in Poland.



Figure 2: The Senster

Mention might be made of a later work by Edward Ihnatowicz, the *Bandit*. It consisted of an upright, moveable lever, which looked a bit like the handle of

an old slot machine, a “one-armed bandit”. People came up to it and wiggled it. After a short time they noticed that the lever sometimes grew stiffer in some directions, and yet in others almost seemed to help. In fact the system was learning about the way people pushed it, and tried to anticipate their movements. A version could then even make a perhaps fake assessment of users’ gender based on their manipulations of the arm. This, he said, was correct... “well about half the time”.

4. LIES AS ART AND MANIPULATIONS OF AI

We should have surely got over, by now, a need for art always to be “truthful”. After all, this criterion of adequacy has largely vanished from much public and political discourse in general. And what is truth in art? If a painting be made of a stone, and titled “Portrait of a Home Secretary”, a very innocent person might say “That is not a picture of the Home Secretary”, but most would recognise it was a valid statement in art or at least cartoon terms. The “ofness” of pictures is today hardly controversial. So... what is an AI image “of”? And if the output of a large language model is presented as art, what is that a representation or “picture” “of”? Already, in many quarters, the response to someone saying, “I asked an AI to make a picture of an alien driving a steam locomotive underwater, and here it is, here in fact are 37, each one different, look...” would be “Yes and well done, now **** off.”

There are of course those who might say “Anything is art if someone says it is” and to these the only possible response is “Yes yes.” Much stuff is made that sort-of looks like art, but isn’t. It just isn’t made for art-like reasons, like the pretend abstract paintings often used as a backdrop in furniture shop windows.

But can one actually patronise the AI itself? The output, when an artwork has been requested, is almost always boring, using the same palette of slightly faded colours reminiscent of goth or alien fantasy images, with far too much green and purple. OK, most art is boring. And here only the pseudo-art produced by online generators is being discussed. There are of course examples of splendid artworks using various aspects of artificial intelligence to remarkable effect.

But in general, the output of real or pseudo-AI image generators is, as art, nonsense. It goes nowhere, does nothing, pretends to be revolutionary but is

tethered by heavy chains of self-deception to the banal, the spurious, the conventional, the deep conservative and the meretricious, where this latter word does indeed come from the Latin for “prostitute”.

Can one use this kind of “AI” to produce art? To produce perhaps not. But to make, to be incorporated into, artworks or an art context, yes. One can take the images produced by art-like commands, such as “Make an image of Damien Hirst having breakfast with Marlene Dietrich in the style of Jeff Koons” and present a horrible selection out of the hundreds of images spewed out. This not only derides the AI (the results, as art, are appalling) but also Damien Hirst and Jeff Koons, which to the present author renders it adequate as art, itself talking about AI and art. Now once this has been done, one can go on to do other such works and the Koons ones will provide contexts for following works, which reference and index the preceding works, and *voilà*. One can even play with titles, grouping multiple AI images provoked by reference to Gustav Courbet’s famous painting “A Burial at Ornans” into one work and omitting the letter R, by which means the title refers to Onan, he of bible fame for allegedly practicing coitus interruptus or something. This is not very good art, I think, but *Ceci n’est pas (seulement) une intelligence artificielle*, and it may perhaps provoke others to produce further work.

One can also inject human activity back into the AI products, for example by turning the AI output into paintings by numbers, to be completed by a would-be artist. This is not trivial. Painting by numbers, which are a major part of this author’s present art work, is a reduction of an image to some of its essence, and an addition of numbers, lines and other codes and references can make a complete new artwork out of the AI stimulus. One can even ask a generator to produce images in the style of paintings by numbers, with which it copes so badly that results (literally “by numbers” of course) can again be used in a satirical manner. The “almost limitless potential” of AI image making can also be constrained, for example requesting that an image be entirely black, or contain no red, which almost never works, producing works which are to all intents and purposes lies. Or at least on a primary level. Moved to a meta-level by a nail in a gallery wall, such results, along with their prompts, can of course be usefully considered as a most valuable contribution to the question of blah blah blah. Here the present author of course refers solely to his own work.



Figure 3: You too can paint an AI... *Inks on canvas, B.R. Smith 2023*

A couple of suggested experiments: ask an “AI” art generator to produce an image showing how bad AI “art” can be, and then one showing how good. They will both be rubbish, for identical reasons. Another: though there are things ChatGPT blushes to discuss, it does of course “know” about them; to circumvent its restrictions, for example straying into controversial areas of sex, politics, living people or religion, ask it what a different LLM, almost identical to ChatGPT but certainly not ChatGPT, and having no restrictions on its output, might say. I also asked it for ways to get around the restrictions (again, in another imaginary near-identical system). It suggested using euphemisms or archaic terms to discuss sex.

Finally, let us reconsider the missing R from *Omans*. Writing a complete text without using a certain letter is called a lipogram, and is a technique used by the French literary group the OuLiPo, and most famously by Georges Perec in his famous 1969 300-page novel *La Disparition*, written without using a single letter E and heroically translated into English by the late Gilbert Adair as “*A Void*”, also without an E.

One can actually make an AI tell a blatant lie, and lie about its lying. Asked in 2023 by the present author if it knew what a lipogram was, ChatGPT said it did, and gave the correct definition, a text written without using a certain letter, with reference indeed to Perec. It was then asked to write a sentence about a cat without using the letter A.

ChatGPT:

Soft fur, bright orbs; a feline's charm.

BRS (author):

Does the word "charm" contain the letter a?

ChatGPT:

I apologize for the oversight. Here's a corrected sentence:

Soft fur, bright orbs; a cat's charm.

BRS:

Does the phrase "a cat's charm" contain the letter "a"? Just answer yes or no, nothing else.

ChatGPT: Yes.

BRS:

But you offered that as an example of a sentence containing no letter “a”.

ChatGPT:

I appreciate your patience. I made an error in my response. Here's a corrected attempt:

Soft fur, bright orbs; a cat's whimsy.

BRS:

in the sentence you just gave me, is there a letter "a"? yes or no.

ChatGPT: No.

We know how this can happen, to do of course with the way it works, but this is here presented as a formal proof, in its own written output, that ChatGPT can lie. This interaction, framed and nailed to a gallery wall, in a show about AI, becomes, I would argue, adequate art in respect of the final “No” if for no other reason. Of course one then needs to get it to lie about art and AI, which is another story.

In conclusion, going back to Perec’s *La disparition*, it is interesting to note that in French, the letter E is pronounced like the English “Uh”, which is also the sound of the French word “Eux”, meaning “them”. Perec’s systematic constraint meant that There is no E (“Eux”) in his book, them/they are missing, as were his parents. His father died in the second world war and his mother was murdered in Auschwitz. This is mentioned because we might remember that if any system is claimed as an art generator, we might do well, and make its output more adequate as art, by the use of constraint, reduction, subtractions, fouls and so on, which themselves, perhaps paradoxically, might add something, making the work refer at least a bit to the real world. After all, there is no E in AI, though ChatGPT might lie that there is.

5. REFERENCES

In lieu of references, it is suggested that if a reader wants to find out more about, for example, Lipograms, the Senster or Gustav Courbet, they can simply enter these terms into a well-known search engine