Art as Technology (v1.1.0.1)

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Abstract

This paper argues for the conceptualisation of art as a technology, exploring its implications through the lens of complexity. It challenges the traditional partitioning of art and technology, proposing that art is a codifying system that dislocates objects and materials from their original functions and meanings, and encodes them with new affective potential. In other words, it is a kind of technology that programs our capacity to attribute affective potential to objects. The analysis suggests that rethinking art as a form of technology has the potential to expand the creative possibilities for artists working with emerging technologies and offers a pathway to reconsidering our relationship with our technologies. The conclusion invites artists who work with emerging technologies to explore an ethical mode of crafting that foregrounds interdependence and complexity.

Keywords

Art, technology, complexity, aesthetics, affect, information, craft, systems, emergence, meaning, constraints, coarse–graining

Introduction

This paper explores an idea occasionally [22, pp.74–75] [10] and fleetingly [26, p.202] articulated – that art is a technology. It is an idea that grounds art as a material practice, unique and special as a technology, not different from technology. As a bonus, the same move makes technology make a different kind of sense as a field of practice that includes artmaking, reopening, among other things probably, an ethical dimension to technology that is otherwise too easily ignored.

A Definition of Technology

According to Brian Arthur a technical object is always "a phenomenon captured and put to use." [1, p.53]. To put it another way, technology is "programming [...] phenomena for [...] purpose." [1, p.53]. This distillation holds for all technologies, contemporary and historical. "Phenomena" don't have to be physical, like fire or electricity. They may be "behavioural or organisational effects [1, p.55], or "truism[s] of nature" [1, p.45].

Example: Money

For example, Money is a technology.

> The monetary system makes use of the "phenomenon" that we trust a medium has value as long as we believe that others trust it has value and we believe this trust will continue in the future. [1, p.55]

A Definition of Art

Jacques Rancière has called contemporary Western art the *aesthetic regime*. It is not a single coherent paradigm, but a plurality of "frequently different, and sometimes contradictory, ways of thinking" [20, p.8] organised around the idea of aesthetic experience. It emerged at the end of the eighteenth century and is strongly identified with Emanuel Kant's *Critique of Judgement* [21, pp.23–24].

Within this regime, all distinctions and differences operate in relation with the idea of aesthetic experience. Styles like Modern and Post–Modern, for example, are simply different strategies for taking meaningful action within the aesthetic regime [27, p213]. Art which is anti–aesthetic is operating within the aesthetic regime by being self–consciously critical of it[1]. Conceptual art is art that invites us to consider the aesthetic potential of ideas[2].

Art is a complex codifying system that dislocates objects from their original functions and meanings and gives them new functions and meanings. The "dissensual operation" of creating an artwork, for example by working a material into a form, or by setting the state of pixels on a screen, or by appropriating a ready–made object, literally "transforms a given form or body into a new one." [19, p.54].

Affect

The concept of *affect*, which comes from Deleuze and Guattari via Brian Massumi [16], is a way of thinking about how things affect other things in the complex interconnected systems of material reality. Affect is a kind of intensive, interactive event. It is human and inhuman, organic and inorganic.

Affect is when emergence happens. It is a quantum shift "fed forward" across progressively higher levels of reality [17, p.37] until it may register on human perception as apparent cause and effect. This apparent causality echoes back as "downward causation" [7, p.?] that constrains and influences the behaviour of system components at all levels.

[1] Reference.
[2] Reference.

Humans are particularly good at attributing affective regularity to objects [8] [4]. We notice patterns. The regular cycles of seasons and plants, the behaviours of animals. The organisation of sounds into music and language.

Art, the aesthetic regime, is system of codes that exploits our capacity for noticing affective regularity. It is a hack on our capacity for attributing affective power to objects. Through a process of becoming art, an object is packed with affect, like a battery holding a charge.

The affective charge of an art object can consist of any combination of qualities – strong, weak, sensorial, semantic, abstract, pleasant and unpleasant et cetera. It can be a sense of the beautiful, or it can involve concepts and feelings that are more difficult to pin down. It can, like a Patricia Piccinini sculpture, strobe between incompatible affective states, such as the cute and the grotesque. Like a readymade, it can call attention to the codifying power of art itself.

The relatively recent move to equate aesthetic experience with affect is a shift away from the idea that some normative experiences are better than others and that an artwork is a moral lesson, and towards the messy reality of material processes. It contextualises aesthetic experience in a complex ecology of affect. As Ben Highmore put it, referencing Guattari, art is now about "complex affective and intensive exchanges, situated in the broader ecology of the world." [13, p.155]

Purpose

According to Felix Guattari, art "confers a function of sense and alterity to a subset of the perceived world." [11, p.131]. An artwork is a special kind of object that is *about* something.

Arthur Danto said that artworks are "embodied meaning" [3, p.125], and meaning is a useful way to think about the affective purpose of art objects as long it is remembered that an art object's meaning is always contextual[3]. Massumi has said, "meaning is [...] a network of enveloped material processes" and, quoting Deleuze and Guattari, "'A thing has as many meanings as there are forces capable of seizing it.'" [18, p.10].

However, the question of purpose is not easily left at that because it has traditionally been used to differentiate artmaking from other crafts. For Kant, art objects, which for him meant beautiful objects, were necessarily "purposive without a purpose" [15, p.57]. The very essence of an artwork was its lack of functional purpose (as if being art was not a functional purpose).

This is a weirdly circular and weirdly enduring idea, and it has been the bases for other weird ideas such as the idea that art objects are "autonomous"[4]. It only makes sense if one is already looking for a reason why art is different to other kinds of making and doing, which of course Kant was.

It also depends on an assumption that objects are fixed, independent things, and therefore so are their purposes. Over the last eighty year or so, an awareness of the ubiquity of complexity has emerged in Western sciences and philosophies, and it is now possible to see that all objects, along with their purposes and meanings, are entirely dependant on context.

For example, as well has having a embodied meaning, which might be termed their 'art purpose', art objects always also have other, 'non–art' purposes. While the art purpose of a painting may simply be to evoke an experience of beauty, at the same time it may confer status, be an investment, or start a revolution. If art objects have as many meanings as there are forces capable of capturing them [6, p.4], then the same thing can be said of their non–art purposes.

The affective charge of an art object may derive, to some extent, from a non–art purpose, but is never reducible to it. There is always "contextual excess or remainder" [17, p.252].

When art purpose and non–art purpose become confused in an artwork, it is the art purpose that suffers. This is particularly relevant for artists who work with emerging technologies because the non–art purposes of emerging technologies are exciting and not fully understood. The meaning of an art object that incorporates emerging technology is likely to be ambiguous because it is entangled with the non–art purposes.

In the early 2000s, practitioners of locative art were criticised for their uncritical use of mapping and networked, location-aware, mobile technologies, as well as for their collaborations with industry. It was alleged that they lacked a structure of accountability and ethics, were ushering in a 'society of control', and were turning the media-art conference circuit into a 'shopping-driven [...] spectacle' [25, p.358]. Locative art was described as a "technocentric fantasy" that "downplays [...] history" [9, para. 2].

Clearly the art purpose of locative art was being interfered with by the artists' failure to account for the non–art purposes and potential inherent in applications of these technologies. Today, as we grapple with the conjunction of rampant technology-fuelled capitalism and mass surveillance, the criticisms seem to have been validated.

Incorporating non–art purpose into the meaning of an art object is a risky strategy, which is what makes it interesting. In socially connected art, participatory art, and art that is made to be used (craft and design), for example, non–art purpose and art purpose are may be productively and delightfully entangled.

However, should the meaning of an art object become reducible, for the viewer, to a non–art purpose, it would have ceased to be an art object, as the next example, drawn from my own experience, shows clearly.

Example: *FlowAttractor* In *FlowAttractor* (Figure 1), the flow of the blocks represents the otherwise invisible flow of work items through the software production system of a large organisation. The piece is an experiment to find out what can happen if an art–like object is integrated into a business context. Its non-art purpose within the organisational context is to catalyse an awareness of the effects of making small decisions designed to improve the flow of work through the

[3] Manuel DeLanda has pointed out that the words "meaning" in the expressions "this word has a meaning" and "this life has a meaning" are two entirely different words" [5, pp.40–41]. Suggesting, as for example Noël Carroll has, that Danto's idea of embodied meaning is too narrow, is to assume the first sense of the word meaning, which is the simple signifier/signified sense.

[4] Reference: Greenberg

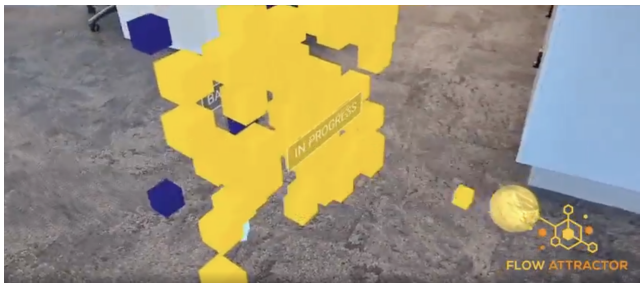

Figure 1: *FlowAttractor* models complex workflows as flying cubes. ©Respect Copyright.

system. It works surprisingly well in this way because augmented reality models enable good reasoning with respect to complicated workflows. However, because its purpose is, in that context, ultimately reducible to its non–art purpose, it is effectively not art.

An contemporary patch on Kant's ideas of art and purposelessness proposes that it is the very contextual, contingent nature of an art object's purpose that defines art as a unique practice. For example, Kant's formulation is reinterpreted by Jason Hoelscher to mean "not that art lacks purpose, but that art's purpose is contextually complex and indeterminate, and so remains open to transformation, [...] many layered, and multidimensional." [14, p.25].

This allows for the complex reality of art objects but denies the same complexity to technical objects. For this indeterminacy of purpose to be the factor that defines art as something different to technology, technical objects would have to have limited and defined purposes, and of course they don't. Viagra is an angina treatment.

A Fold in the Distribution of the Sensible

According to science, a phenomenon called "coarse graining" occurs when a subsystem with apparently emergent properties is treated as a single entity by components of a complex system for predictive purposes. Coarse graining works by ignoring the details. When it works, it is an efficient, "lossy but true" [7, p.4] strategy.

Sometimes, however, it is just lossy [7, p.8]. People are hard–wired to look for pattern and it has been evolutionarily advantageous for us to see patterns, to the extent that we tend to imagine them [8].

It seems likely that this has been the case with the perceived pattern of difference that separates art and technology. The split between the art and other kinds of making is, I suggest, a dodgy piece of coarse graining that has been with us for about six hundred years. This is possible because the aesthetic regime is overlaid upon an older regime that laid the foundation for this split between art and technology.

The Regime of Representation The idea of there being a qualitative difference between the practices we now call 'the arts' and other ways of doing and making began taking shape during the Renaissance [24, p.136]. By the 17th century the classification of various practices as *the arts* had become firmly established. Rancière has called this *partitioning of the sensible* the "regime of representation"[5].

Although the various *arts* existed – understood as forms of knowledge and their applications – they were not recognised as part of a singular, overarching category of human experience called "art". The arts – music, literature, sculpture, painting, et cetera – were disparate practices serving different social functions, and were situated within a stratified system that categorised both activities and the individuals engaged in producing them. The job of the arts was to represent the world as a unity of sensible order. A place for everything and everything in its place, including people.

The aesthetic regime – art as we know it today – is a tactic that cuts across the regime of representation, but we still observe the fold of difference that separates the arts from other technical practices. For example, we organise our our university faculties and school curriculums along it: science, technology, engineering and maths on one side, the arts and humanities on the other.

It is this fold in the "distribution of the sensible" [21, p.42] that the idea of art as a technology smooths out. What would it be like, one wonders, for this fold not to exist? A look at the situation that proceeded the emergence of regime of representation reveals a regime in which the fold does not exist.

The Ethical Regime of Images

Heidegger, in his essay "The question concerning technology", pointed out that "techne" was the ancient Greeks' word for skill, craft, and technique. The term covered what we might now call 'the arts' as well as science, and technical domains like sword-making and shipbuilding [12, p34].

Rancière has called the mode of thought that prevailed at this time the *ethical regime of images*, the word "image" referring to the idea that all made things in the world are instances of ideal, universal forms.

At this time, ethical concerns were primary. The "end or purpose" of crafted objects mattered a great deal: the uses they were put to, the effects they resulted in – in general the way their modes of being affected the "ethos", "the mode of being of individuals and communities" [21, pp.20–21].

Plato thought in terms of *true arts*, which are forms of knowledge based on the imitation of a model with precise ends, and *lesser arts* that simply imitate appearances [21, p.20]. These ideas, which now seem quaint, were nonetheless an ethical framework informed by a concern for the connection between actions and their potential effects.

Like the regime of representation, the ethical regime of images still operates as a kind of substrate. We care about who produces what and for what purpose, especially when it comes to art.

In Australia in 2021, an art festival in Hobart planned to include a piece by Santiago Sierra, which involved a call for donations of blood from descendants of First Nations peoples who survived the genocidal effects Tasmanian colonisation. First nations people around Australia argued that the piece would emphasise the bloody aspects of colonization for

[5]Reference.

no positive effect. Rappers Tasman Keith and Briggs commented on Instagram that they "already gave enough blood" [2]. The festival organisers apologised and cancelled the piece.

Somewhere along the line technological crafting became decoupled, in a way that artmaking didn't, from the kind of exquisite sensitivity to affect which is ethics. Technology evolves, it seems, regardless of how we feel about it. For example, while many people fear the potential effects of AI generated content, while we might fear losing our jobs or our signature styles to the proliferation of technological systems that can do what we do at a different economic scale, our feelings on these matters will be ignored.

Conclusion: Thinking across the fold

To think of art as a technology is to think across the fold that separates art from technology, and to begin a process of smoothing out the fold. It challenges us to wonder what it would be like for this difference to not exist, potentially changing the way we think about both artmaking and technological development.

If the difference between art and technology that causes it to be unthinkable to think of art as a technology can be rethought, then perhaps it is a job for artists who work with emerging technologies.

As artists working at the edges of technological evolution, we are invited to return to an idea of crafting, governed by ethics and informed by an appreciation of the complex, interconnected nature of all things. Perhaps we will open a space in which humans can begin to learn how to craft our technologies differently at the very moment in history when our technologies are learning to relate differently with us.

To paraphrase Gilbert Simondon, we may perhaps begin to think of ourselves as

> inventors of technical and living objects. We coordinate and organise their mutual relation at the level of machines, between machines. [...] We construct the signification of the exchanges of information between machines. Our rapport with the technical object is a coupling between the living and the non–living. [23, p.xvi]

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