

The Medium is the Data Set: Art and AI

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ABSTRACT

A review of the exhibition, *The Imitation Game: Visual Culture in the Age of Artificial Intelligence*, at the Vancouver Art Gallery, Vancouver, British Columbia.

The extreme case is literature [or art] that undialectically confuses itself with science and vainly tries to fuse with cybernetics. Extremes meet: what cuts the last thread of communication becomes the prey of communication theory. No firm criterion can draw the line between a determinate negation of meaning and a bad positivism of meaninglessness as an assiduous soldiering on just for the sake of it.

Adorno, *Commitment*¹

The Imitation Game at the Vancouver Art Gallery offers a broad spectrum of the ways in which machine learning, otherwise known as artificial intelligence (AI), operates across numerous disciplinary formations, theoretical and applied, to change the everyday lives of many in both appreciable and seemingly imperceptible ways. The exhibit derives its title from the paradigmatic 1950 paper by Alan Turing entitled “Computing Machinery and Intelligence.”² There, the British mathematician and computer scientist who is credited with formalizing computation to generate the algorithm and who is also widely regarded as the progenitor of artificial intelligence, posed the problem of whether machines were capable of thought. “Can machines think?” His provisional answers took the form of a series of games devised to test the capacity of machines to reason logically. Turing referred to these as “imitation games.” While working for the British government during the Second World War, Turing’s intellectual pursuits contributed to defeating the Nazis after a breakthrough in decrypting their encoded communications, with the help of his experimental machines. Despite this colossal contribution to his nation and its people, Turing was nonetheless persecuted for his sexuality. Convicted of indecency, he was forced to undergo chemical castration.

The biographical, social, and political conditions under which the inventor of artificial intelligence suffered cast their shadow over the exhibit, insofar as it aims to make the case that machine learning will not only be beneficial to human thriving but will also do so ethically. To that end, it includes any number of nods to concerns about social justice. For instance, MIT Media Lab computer scientist and digital activist Joy Buolamwini’s inquiry into the by-now established fact that facial recognition technology fails to register faces of color (the topic of the 2021 documentary *Coded Bias*, which streamed on Netflix) is given some exhibition space, alongside other examples of concerned critical awareness of the social dimension of machine dominance. Needless to say,

neither the documentary nor the exhibit asks if and why humans would wish to have their faces recognized by machines, whether they are persons of color or not. That is beside the point, although sidestepping the question is more of an issue in the exhibit than in the documentary, which, in the end, is totally affirmative of machine logic, irrespective of its significance to human thriving. The very necessary question of racialization serves to elide numerous other questions about the presumptive relationship between traditional and machine learning in a future to come.

That said, the remarks to follow will not waste the reader's time on a consideration of the blatantly obvious: that machines, even if sentient and capable of thought or what passes for it, may not be especially empathic—beyond the most positivist forms of imitation—to the needs of their makers; that sentience and sensitivity (material and emotional) are not identical, nor do mimicry and consciousness operate in remotely similar ways; that at a moment of global austerity, the operating budgets for forms of alternative sentience might well be directed instead to address human suffering and that finally, the ethics and politics of machine learning have yet to be addressed, thanks to the din of fetishistic and affirmative wonder at man-made things. It is as though the sheer astonishment of human capacity to generate innovative instruments and tools effectively obviated the next step in thinking about them or about how they are to be deployed after the first flush of curiosity at advanced commodities. In short, we are stuck in the infantile state of narcissistic marveling at our own products rather than pushing forward to a new horizon of research. All of that is painfully self-evident. A luddite's position is absurdist in the third decade of 21st century. We are all, as Donna Haraway noted in the 1980s, cyborgs; our technologically assisted subjectivities are hybrid. We must now stay with the trouble. But staying with the trouble might demand that we ask difficult questions about what makes AI interesting, other than the proof of itself offered by any arbitrary data set. Instead, the following is preoccupied with the way in which dead labor, sentient or otherwise, has yet to prove itself anything other than dull or capable of performing beyond the parameters of a data set, even and especially when it can solve logical problems or help with engineering or design.

The exhibition's catholic embrace offers examples of the use of AI in and across many industries and disciplines, including architecture, design, graphic design, fashion, entertainment, video games, and biopolitical techniques (surveillance), in the display-form of wall texts and didactic displays occupying the entire second floor of the institution. At the heart of the show, which takes place, after all, in an art museum rather than a science museum—and these discursive spaces continue to determine that which is posited in and by them—are three aesthetic projects in which AI is taken to be the art/ist: by Amber Frid-Jimenez, Sougwen Chung, and Scott Eaton. That these ventures constitute the kernel of the exhibit is to some extent articulated curatorially by the separate and spacious rooms afforded them—with the exception of Frid-Jimenez's, which is the most critical among them. Ultimately, what emerges from this exhibit is the degree to which the data set is the actual medium in art reliant on AI. AI art's transparency to the data set at once isolates the novelty of the way in which machine intelligence mediates information and begs the question of whether that mediation is either intelligent, or creative, or what it might offer. In the end, the show ratifies the notion that AI might be quite useful across any number of practices, but that its aesthetic contribution falls disappointingly flat, failing to posit any real alterity or pose questions in the way that art can and does. To the extent that art is art because it internalizes the dominant structures of its time, only to generate a margin of difference by performing the aesthetic operations that are irreducible to rationalization, AI art to date fails. But this does not mean it has no future.

Soungwen Chung's ongoing *Drawing Operations Unit*, begun in 2015, is a collaboration with a robotic arm or any number of robotic arms. A computer-controlled appendage is programmed to observe and imitate Chung's own gestures as she draws and pulls blue pigment over a surface. She and her companion apparatus deliver quite beautiful results from a traditional aestheticist perspective. In the wall text in the gallery, the artist refers to the co-constituted work assisted by the machine appendages and its collaborations, and understands that collaboration as a form of mysticism. Materially and at the level of the medium, the mark-making technique Chung mobilizes draws from traditional East Asian techniques using bamboo brushes that evoke calligraphic grace but result in lyrical expressionist gestures. One is reminded of Frederic Jameson's claim that too often in cultural genres purporting to precipitate an imminent future, such as the genre of science fiction, a fervid return to tradition roils under the thin scrim of novelty.³ Perhaps we have to regress to move forward. As technologically advanced as the results may seem to be, they demand of us that we rewind the clock by at least seventy-five years. The emphasis on the abstract gesture, or the deposit of pigment on a surface, had at mid-century been understood to be the ultimate vehicle of artistic agency, autonomy, and interiority. Not unlike at the height of modernism, the gestural mark emerges here as the singular space where the artwork before us is asked to open onto the truth of the subject, or the promise of a subject capable of self-determination within representation: an author.

It was the site of exemplary and exceptional agency par excellence, the special provenance of the genius artist with which postmodernism broke, charging it with mythological hubris. And yet just that hubris is summoned by *Drawing Operations* to guarantee proof of what the artist calls "empathy," attributed now to the machinic colleague and taken to be the seat of its progressive capacity. The subject whose expression was discursively reified by the painterly mark has long since been decentered in any number of ways, by cultural Marxists like Stuart Hall to feminists, queer theorists, and theories of the racialized subject from Fanon to Darby English. So why is the machine understood to be an intersubjective companion collaborator to a model of the subject dissolved at least fifty years ago? This reminds us that Jameson saw the technological fetishism of postmodernism to inform a genre like science fiction by appearing outwardly futuristic while structurally falling back to outmoded presuppositions over which technology becomes the thinnest veneer.

On her website, Chung explicitly summons the abstract gestural marks of Gutai artists such as Kazuo Shiraga.⁴ These artists were in thrall to Jackson Pollock and, more broadly, to the New York School, otherwise known as Abstract Expressionism. A problem here is that these gestures were taken to be the last recess of resistance to the mimetic vacuity informing instrumental reason. At the same time, the next fifty years of advanced art-making from any number of positions on an ideological spectrum, from Robert Rauschenberg to Jeff Koons to Lumbung, the curatorial concept of Documenta 15, set out to explode this site of privilege. Rauschenberg's *Tire Print* entails dipping the wheel of a car in ink and driving over a scroll of paper. This piece is a spoof of the way in which Pollock set the production of the work into the horizontal register, placing the canvas on the ground and moving over it while flinging paint in what came to be known as the famous Pollock dance, also parodied by Andy Warhol's *Dance Diagrams* of 1962, which attribute to Pollock's practice a kind of canned mechanical quality. The latter belies the way in which Pollock's process had come to be understood as almost mystical, or dissociatively accessing a zone of pure creation outside the superficial instrumentality of daily life.

Both Rauschenberg and Warhol imagine Pollock himself to be a production-machine, like a car. Both see past the cliché of gifted man, and past that of anthropocentrism itself, to say that the work is made of an almost mechanical alienation. That it should be mustered now in 2022 to guarantee a notion of empathy suggestive of superior awareness feels defensive, a reversal of the dispersed and decentered subject's actual knowledge of the truth of the situation in order to better ward off having to come to terms with those facts. At the very least, it misrecognizes the stakes of the very forms it tries to rally. The machine is said to have finally arrived at the level of a humanity just at the very moment when humanity has become machinic; if Warhol's work were to be taken at its word, contemporary mass consciousness having become a kind of placeholder of traumatic withdrawal of presence. The irony cannot possibly be lost on all viewers. Against herself, against the stated intentions of the project, of so-called empathy, Chung evokes typical critiques made of machine learning. In *The Cybernetic Hypothesis*, the collective Tiquun note that:

For in fact the cybernetic hypothesis calls for a radically new structuring of the individual or collective subject, in the direction of a *hollowing out*. It dismisses interiority as a myth and along with it the entire psychology of the 19th century, including psychoanalysis. It's no longer a matter of separating the subject from their traditional external ties as the liberal hypothesis had demanded, but of reconstructing the social bond by stripping the subject of any substance. Everyone must become *an envelope without flesh and blood*, the best possible conductor of social communication, the locus of an endless recursive loop that *rids itself of kinks*.⁵

Omnia per Omnia, the title of Chung's 2018 film of her machine companion at work, ratifies these remarks. Far from establishing the empathic capacity of the machine, it adds a thin layer of affirmative veneer to the greatest hits of postmodernism that would call out the notion of the individual as capable of psychological and emotional interiority. The machine can do what the artist can do insofar as, at the level of the aesthetic expressive gesture, the subject was already shown to be devoid of the autonomous transcendental substance that Chung's gesture tries so hard to revivify through recourse to the grapheme or mark as proof of a mystical if not advanced consciousness presented by the machine. The robot arm delivers the "endless recursive loop that rids itself of kinks" and instead dispenses decorative abstraction the way a vending machine dispenses ready-to-hand snacks.

Needless to say, Chung's point is that her engineered apparatus engages in a form of imitation with a difference: it begins to generate its own interesting form. But again, what intrinsic difference might this make now that the once honored gesture has been thoroughly evacuated? The proof feels already outmoded, already antiquated at the level of its conceptualization under the veneer of technological novelty. This quality of technological orientalism is ratcheted in the pendant piece, *Omnia Omnia* (2018), where surveillance cameras installed throughout New York City, mounted mostly on traffic lights and connected to a mark-making apparatus like the robot arm, generate painterly form superimposed on moving bodies in streets. For instance, pedestrians are shown onscreen trailing colorful trajectories of lines, mapping their movement across urban space. The violence of a state apparatus that uses surveillance technology to manage its population is magically transformed into wistful aesthetics. It begs the question, and doubles back to projects such as Buolamwini's which, against the researcher's own intention, might be taken to suggest that

surveillance is some kind of privilege from which BIPOC persons should not be left out. This strange juncture might partially explain the emergent discourse of invisibility studies.

Next, Scott Eaton's series of *Bodies*, like Chung's work, is given its own separate gallery space away from the central axes of the show. A large side gallery is devoted to a practice in which traditional academically correct mimetic representation is rendered as a data set to a machine that then generates forms of complex volumes and voids that appear at once hyperreal and highly artificial. A data set composed of the artist's drawings is fed to the machine's neural network. Eaton has also built a database of images of the human body, as well as his own drawings of the body. Here, Eaton's training in anatomy and figure drawing is self-evident. This body of work, too, becomes integrated into the data set the machines are given to then generate the output on which Eaton's final compositions are largely based. The machines can only "see" the human form insofar as they can produce only those forms on which their neural networks are trained, suggesting that the traditional form of the human body is somehow "seen" anew and without the interest of consciousness. However, the opposite might be argued, that the data set is comprised of traditional and reified vision such that the results will be equally conventional. For instance, Eaton's bodies, while indeed crossing a spectrum, are mostly white. The data set has "seen" neither the variety of chromatic pigmentations of bodies across the world nor the fact that they outnumber white ones from a purely statistical global point of view. But what is the data set if not a dangerously delimited and selective collection of information that reifies the producers and her or his consumer's expectations?⁶

Amber Frid-Jimenez's work in particular isolates this peculiar feature, namely that the data set operates as the organizing and mediating framework, indeed the very medium, of art made by machine learning. Here, she takes a canonized modernist work understood as technologically advanced at the moment of its inception and initial reception, the film *Ballet Mécanique* (1924) by Fernand Léger. There, in an aesthetic experiment, musical instruments seem to take on magical agency and come to life. The question of the location of consciousness was already in place: they move in sync with percussive sound, very much summoning Italian futurist notions of machines come to life and enjoying forms of agency no longer accessible to humans. But Frid-Jimenez seems to answer this question critically, precisely by having machines answer it. Feeding the 1924 film as the data set to a programmed neural network, the artist received surprising results. The film is returned from the neural network's understanding of it as blurred, de-differentiated. The moments in the sequence of the film, however "posthuman" at the level of representation, still refer to human viewers by suturing the film together as a reading order reticulated to human consciousness. Not so the version reiterated by AI. Spacing itself, it turns out, is a peculiarly human operation as of yet unpenetrated by AI.⁷ Frid-Jimenez's critical and elegant work is not the first, however, to address the 1924 film through the problem set of machine learning. In 2005, The National Gallery of Art in Washington, DC programmed a computer network to rehearse the film's musical score. LEMUR, the League of Electronic Musical Urban Robots under the directorship of human Eric Singer, was commissioned by the National Gallery to replay the sound. Frid-Jimenez removes a layer of mediation present in both that iteration and in Scott Eaton's work by refusing to select or intervene into the data set offered to the AI. Her data set is a well-known cultural product and does not extend its net to any purported objectively broad data set extracted from the empirical world. As such, in its self-reflexive limitation to art, it avows that consciousness is at stake in thinking AI, now that we know it is operative, if operative on the basis of mimesis alone.

One question might be: what does it mean to posit the machine as an imitative agent engaged in rounds of mimicry when art has long since shed the burden of mimesis? And why assume that mimicry is indeed the operative logic when it is clear, as Amber Frid-Jimenez’s work evidences, that when left to its own devices, having been programmed with a particular data set, the machine’s independent tendency is to generate a copy of its data set, in a circular logic that replaces reflexivity with recursion?

It is as though consciousness were too onerous, a heavy burden better outsourced to machine intelligence. A bad positivism soldiers on that tries its best to subsume that which refused rational reduction—art and forms of consciousness that acknowledged the limits to logic as its very foundation.

ENDNOTES

¹ Theodor Adorno. “Commitment,” in *Aesthetics and Politics: The Key Texts of The Classic Debate within German Marxism* (London: Verso, 1992), 191.

² A.M. Turing, “Computing Machinery and Intelligence,” *Mind: A Quarterly Review of Psychology and Philosophy* 59, no. 236 (October 1950): 433–60.

³ Fredric Jameson, *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions* (London: Verso, 2005).

⁴ <https://sougwen.com/>

⁵ Tiquun (Collective), *The Cybernetic Hypothesis* (Cambridge, MA: The MIT Press, 2020), 52–53.

⁶ Steven Brand, *Media Lab: Inventing the Future at MIT* (New York: Penguin Books, 1988), 4. Carina Albrecht, Wendy Hui Kyong Chun, and Laura Kurgan, “Living In/difference, or, How to Imagine Ambivalent Networks,” *Qui Parle* 30, no. 1 (June 2021): 87–118. The authors note the tautological nature of the data set that informs both algorithms and networks based on dangerously selective data presented as objective. The authors note the predominance and preponderance of “social network representations which were created by an algorithmic simulation using responses to the questionnaire,” “Living In/difference,” 115n49.

⁷ On “spacing” see Rosalind Krauss, “The Photographic Condition of Surrealism,” in *The Originality of the Avant-garde and Other Modernist Myths* (Cambridge, MA: The MIT Press, 1986), 87–118. The relevance of this essay to the present condition of AI and its understanding of a film about machines from 1924 is not simply the question of surrealism or the surrealist artwork at the heart of Frid-Jimenez’s work, but the questions of doubling and of agency, which predate AI. Nevertheless, the questions posed by AI certainly prove the continued relevance of surrealism.

AUTHOR BIO

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Her current primary project, titled *Universal Prostitution: A Counter History of Abstraction Crossing Modernism, 1888–2008*, is under contract with Duke University Press. It traces the historical and structural entwinement of aesthetic and real (or concrete) abstraction—defined as the extraction of labor power valorized by transactional exchange on the market—over 20th-century art to offer a comprehensive account of the political and economic forces that motivated modernist abstraction, including its entwinement with technology, and the advent of post-humanism.