

Manifesto of Technomodernism

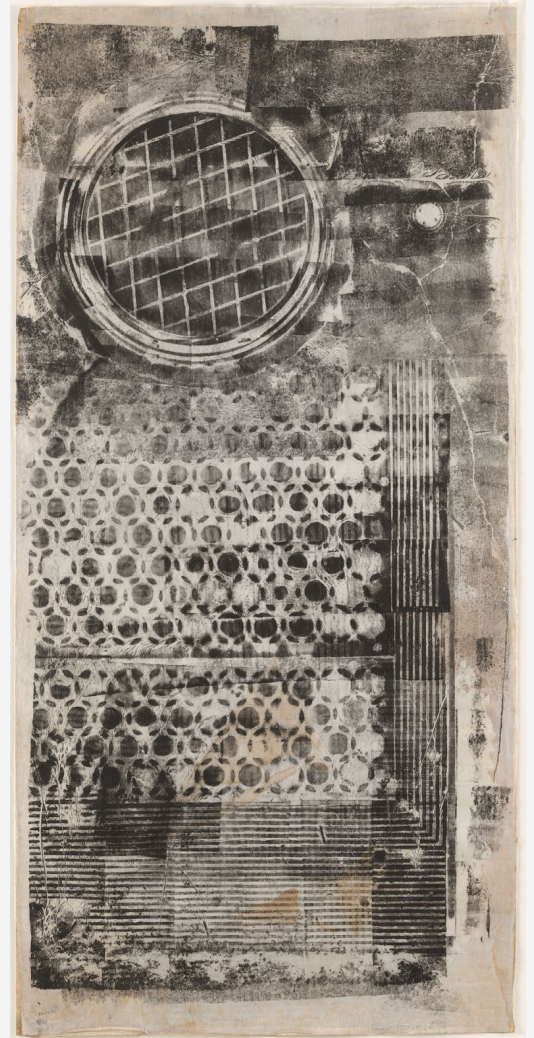
by Corey Bobco

I. Eulogy

Here lies Modernism (1902 - 1968)

Through exploring methods which sought to break and radically reshape established analytical toolkits and forms of expression, modernism searched for a sane and salient understanding of the self, society, and world which emerged from a period of instability introduced by new technologies and trends, such as:

1. factories, tractors, mechanical cotton pickers, and movement from rural areas to cities
2. busses, trains, public transport, and shrinking personal space
3. electric grids, home appliances, street lighting, and the expansion of work and leisure hours
4. photography, radio, film, psychology, psychoanalysis, ad agencies, and propaganda bureaus
5. machine guns, grenades, chemical weapons, financial meltdown, world wars, and the atom bomb
6. revolutions sweeping colonial rule and capitalism out of swaths of Asia, Africa, and Latin America



Some say that the failures of collectivism and the rebound of capitalism into a worldwide computerized economy doomed you. Or that nobody could believe in the dreams of science--stained by racism and genocide, sustained by the research and development of weaponry--any longer, along with the myth of progress, the promises of revolution, and the liberation of repressed desires.

Rest in pieces.

...So the story goes. Yet modernism never really died. The tools and workshops of the [age of technological reproduction](#)--cameras, scanners, printers, archives, hard drives, microphones, tape recorders, and research grants--ensured it could only slumber through the decades of disillusionment and détente which sustained the intellectual development of its deviant progeny, postmodernism and post-structuralism. Historically, modernism was a subversive response to these conditions and, in contrast to postmodernism, a polymorphous artistic and intellectual movement, even if some of its famous manifesto authors' egos¹ got in the way of recognizing this. Certainly, it slumbered through the late Cold War, a time when the world's two chief hegemonies came to increasingly resemble one another, the U.S. embracing mass incarceration and the U.S.S.R. economic liberalization. And so postmodernism and its awkward cousin poststructuralism laughingly abandoned the established dualist dissections of sexual desire and repression, political control and liberation, and commodity production and circulation in favor of the bitter pill of monism as the world seemingly reorganized itself on a unified virtual plane of economic and technological networks: the World Trade Organization and the World Wide Web, international shipping and instant messages, free trade lobbies and free-informationists (who came to become enemies as a hegemony of "intellectual property" developed).

Many predicted an era of internationalism, if not perpetual peace, but it seems that time has come to an end. The Internet let people engage with anyone and everyone, but as algorithms trafficking individuals' browsing and buying patterns developed in complexity and efficacy, economic markets induced demand through a new strategy, *psychographics*. BusinessDictionary.com defines the term as:

Analysis of consumer lifestyles to create a detailed customer profile. Market researchers conduct psychographic research by asking consumers to agree or disagree with activities, interests, and opinions statements. Results of this exercise are combined with geographic (place of work or residence) and demographic (age, education, occupation, etc.) characteristics to develop a more 'lifelike' portrait of the targeted consumer segment.

The streamlined collection of psychographic data is a fairly recent phenomena with a long

¹ particularly André Breton and F.T. Marinetti, though Tristan Tzara's and Richard Huelsenbeck's squabble is also notable

history of incubation. Early twentieth century advertisers and propagandists based their campaigns on psychological speculation into consumers' subterranean psychological needs and motives and the meaning of symbolism. If this sounds Freudian, it should--the so-called "father of public relations," Edward Bernays, was Sigmund Freud's nephew and worked for the U.S. government during World War I as a military propagandist and later as a consultant for a disparate list of corporate and political clients. After consulting a translator and student of Freud, Abraham Brill, who theorized that in a society which repressed women's desires, cigarettes represented the aspirations of women's liberation movement ("torches of freedom"), Bernays famously organized a group of women to publicly smoke (an activity then considered "taboo" for women) during the 1929 Easter Sunday parade in New York. The campaign was successful. Yet during the second half of the twentieth century, a more data-driven research methodology--the use of focus groups--came to outphase the speculative psychology of early advertising. By interviewing small, carefully selected groups about their values, lifestyle, aspirations, and fears, public relations firms could extrapolate to make assumptions about how to best manipulate the population or market at large...or a subset of it, one that shares values and interests or psychological features.²

Yet with the advent of Web 2.0's social media platforms, collecting psychographic data of the masses finally became possible, pervasive, and persistent. Because the biggest social platforms, Facebook and Google, let their users bypass filling out registration forms on other websites with simple one-click account creation, data collected on individuals across different sites has reconstituted itself in representations of individuals and of the virtual psychographic market segments they can be lumped into. Propagandists in the era of algorithms and data science can advertise the same products and political candidates to different psychographic segments of the population that agree on very little... but can be easily manipulated by a particular rhetorical strategy or symbol (word or image) that strikes the passions or emotions particular to that subgrouping of the population. Just listen to what Alexander Nix, chief executive officer of Cambridge Analytica³, who worked for Brexit, Ted

² This transition is covered in depth in the first and last segments of Adam Curtis's documentary series [The Century of The Self](#).

³ Cambridge Analytica has since dissolved due to bad PR directed at the agency itself, and Nix has been under investigation for claiming that Cambridge Analytica engaged in influence operations involving bribery and honeypots. Of course, the group almost immediately reformed under a different name, Emerdata, and Nix was appointed as director, although terminated when the investigations began. Emerdata works for military mercenary clients associated with China and Erik

Cruz, and Donald Trump in 2016:

[C.E.O. Alexander] Nix shows how psychographically categorized voters can be differently addressed, based on the example of gun rights, the 2nd Amendment: "For a highly neurotic and conscientious audience the threat of a burglary—and the insurance policy of a gun." An image on the left shows the hand of an intruder smashing a window. The right side shows a man and a child standing in a field at sunset, both holding guns, clearly shooting ducks: "Conversely, for a closed and agreeable audience. People who care about tradition, and habits, and family."

It is reasonable to fear that, as the capabilities of computer technologies such as data science and algorithms which analyze sentiment and generate text, audio, and visual content continue to develop, the dystopian dreams of today will fully realize: in procedurally generated propaganda adapted to all the psychographic market segments one is linked to via online databases... or in made-up news articles, conspiracy theories, and calls to action either outlined in a template (to be completed by humans) or entirely written by neural network-powered bots like GPT-2, which might one day so successfully manipulate the dreams and fears of some portion of the population that not even retraction can undo the effects of the article on public opinion. Some argue, quite convincingly, this day has already passed.

It has been said that, as a result, we now live in a "post-truth" era. On the campaign trail, Donald Trump catered to single-issue voters with little in common through a strategy of constant self-contradiction, telling each psychographic segment of voters what they wanted to hear. Even if Trump contradicted his promise later on the campaign trail when reaching out to another bloc of voters, nobody could guarantee what his stance on an issue would be when he reached the White House, so all kinds of voters with little in common could see the potential of their cause in his candidacy. As president, Trump has broken widespread illusions about the myth of moral progress in America and the world. The Trump administration's insincere divestment from the Trump family's business, hostility toward

Prince, who you may remember as CEO of Blackwater, the contract mercenary group responsible for egregious military offenses in Iraq like the Nisour Square Massacre. Like Cambridge Analytica, Blackwater has renamed itself to escape the public eye, first to Xe Services and then Academi.

traditional allies and the press, attempts to rollback criminal justice reform and obstruct investigations into Russian political interference on behalf of his campaign have created a climate of fear, distrust, and uncertainty reminiscent of the Nixon years. At the international level, political parties vying for separation from political and economic unions have hit their stride and are flexing their newfound muscles. In response, advertising has [yet again redrawn its vectors](#), now aiming for our hearts and pining for togetherness and truth. How ironic. And yet many of our contemporary concerns--the flareup of nationalism, heavy investment and development of technologies like machine learning (and the power-sucking, heat-producing GPU's that improve its efficiency), aerial and grounded vehicles piloted by hardware/software rather than humans, the threat of the reemergence of world war as the American-European global hegemony loses stature--mirror the disruptions the modernists encountered in their time.

II. Exorcism

“Art in its execution or direction is dependent on the time in which it lives, and artists are the creatures of their epoch. The highest art will be that which in its conscious content presents the thousandfold problems of the day, the art which has been visibly shattered by the explosions of last week, which is forever trying to collect its limbs after yesterday’s crash.”

--Richard Huelsenbeck, [First German Dada Manifesto](#)

How, then, should art respond to the times?

I propose we resurrect the radical potential of modernism, a polymorphous movement of artists and agitators who subverted the technological developments of their time in order to develop new artistic practices to produce radical works of art and, in so doing, denounced the colonization of human imagination by capitalism, advertising, and a one-dimensional rationalism based on economic expansionism rather than the intersection of science and ethics. Psychographics, data science, machine learning, text processing, procedural content generation, sentiment analysis, and artificial intelligence--these are the technologies which undermine democracy and equality by displacing workers, automating financial transactions

to to algorithms serving the wealthy, and increasing the efficacy and inescapability of propaganda. Yet we can derail these tools from their intended application and make art celebrating computers' newfound capabilities to produce rich and complex conceptual art using data from texts, images, and audio. It is also possible--and politically necessary--to produce art that describes and challenges the mechanisms by which these technologies turn ideologies into personal truths, shape human behavior beyond buying products, and divide populations into groups with values and priorities so seemingly different as to make collective political action impossible.

One thoughtful example of this kind of art, which demonstrates the technological processes behind psychographics as well as critiquing it, is Daniel C. Howe's "[Advertising Positions](#)." Howe programmed and monitored "software robots trained to search the web, according to specific user profiles they have been assigned, including age, gender, location, interests and the like. Each robot is released on the web, driving a modified version of Google's Chrome browser, to periodically visit sites that it 'likes', and to click links that it selects, which then bring it to new sites" over a period of several weeks, saving each targeted ad the user encountered and "applying each to a single polygon on the mesh skin" of a three-dimensional models of the virtual user's contorted face. The artist also forked the popular ad-blocking extension Ublock for Chrome and Firefox into AdNauseum, which not only blocks trackers and advertisements but also clicks every blocked ad as a means of resisting effective consumer profiling.

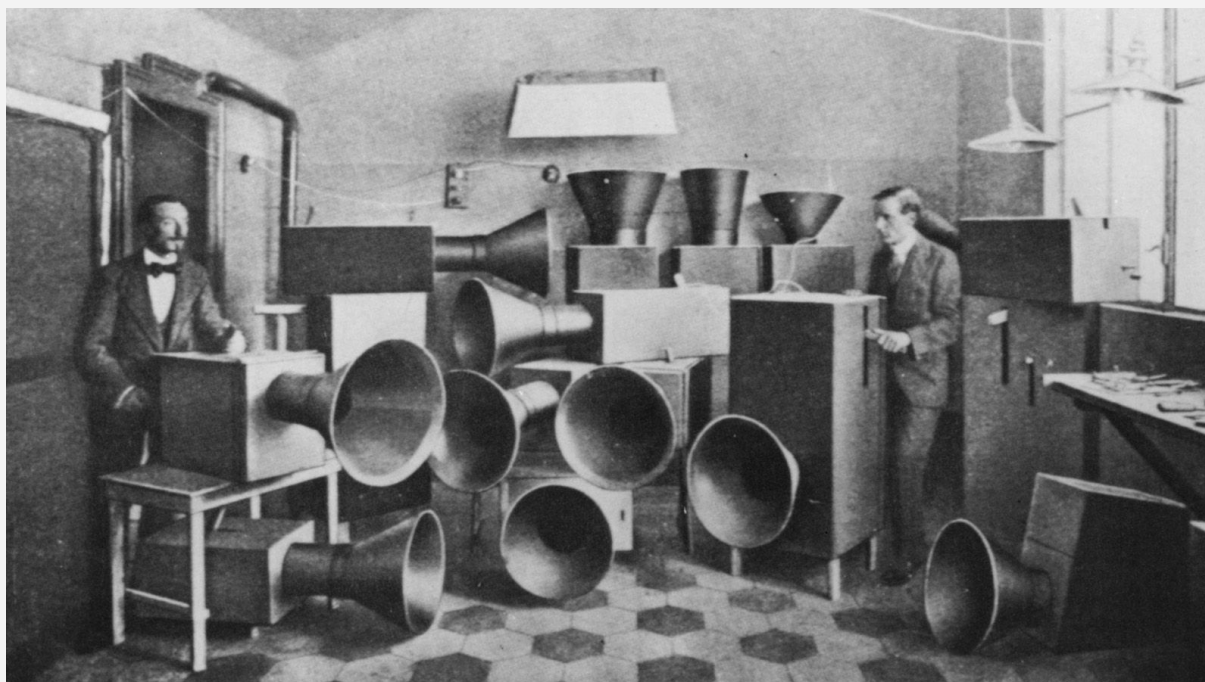
Recipes for Aesthetics in The Era of Algorithms

Noise Beyond Sound

Those that explore the history of modernist art and ideas rarely plumb the depths of Futurist thought because of Marinetti's chauvinism, fascist proclivities, and calls to burn down the museums. However, the Futurists are more than Marinetti, and their notion of noise can be abstracted from the realm of audio. "The variety of noises is infinite," Luigi Russolo writes in [The Art of Noise](#) (published in 1913), "We certainly possess nowadays over a thousand

different machines, among whose thousand different noises we can distinguish. With the endless multiplication of machinery, one day we will be able to distinguish among ten, twenty or thirty thousand different noises. We will not have to imitate these noises but rather to combine them according to our artistic fantasy.” Since Russolo’s time, the means of production have expanded beyond the chatter of factories and construction sites to the realm of digital devices, be they phones, personal computers, routers and switches and the digital media ecosystem they make possible, and server clusters running code, sucking up power and producing metaphorical megatons of climate damage with their heat output and facilitation of economic transactions expediting the development of capital and the income inequality gap. Aside from these dreary political observations, however, we must remember that noise is abstractable from audio... What is noise, after all, but the side effect of an industrial process or subversive retooling of a piece of hardware?

When Russolo discovered the “art of noises,” he constructed gigantic “orchestral machines” designed to imitate the sounds of the industrial machinery of the factories. Similarly, when data scientists and digital artists exploit and rework neural network algorithms for image recognition or manipulation to produce some interesting side effect, they are producing “data noise.” Take, for instance, Mario Klingemann’s hack of the pix2pix algorithm to produce [algorithmically generated “paintings” from blurred images](#) or his use of



an [image-synthesizing neural network algorithm](#) to produce [surreal, unrecognizable, questionably human faces](#).

Russolo concludes *The Art of Noises* by admonishing “all the truly gifted and bold young musicians” to discard their socially inherited notions of musical aesthetics and try to understand the inherent qualities of noise, which constitute their own machine-like aesthetics, “to analyze all noises so as to understand their different composing rhythms. Thus the comprehension, the taste, and the passion for noises will be developed.” In the anthropocene era, as the biosphere collapses, along with our illusions that either market, neoliberal, or populist-nationalist governments can provide rational management and control of the economy and the ecosystem, the coming rise of artificial intelligence allows us to look at writing, art, and thought in a manner that is not entirely human. In *The Communist Manifesto*, the young Marx writes that capitalism makes “man an appendage of the machine,” but such binary distinctions make little sense today for we who live in a technological society, an inescapable digital media ecosystem we participate whether we join social networks or not, both because of data-sharing agreements between companies (for example, Facebook, Netflix, and Spotify) and the ubiquitous practice of phone apps and online services requesting access to your contacts and call history, which is rarely innocent--it is instead used to build a social graph; if you don't know much about someone but want to serve them targeted ads, your best shot, after all, is to look towards who their close friends are, some of whom inevitably “engage” better with platforms aiming at psychographic data collection. But if we accept we have passed this line into Donna Haraway's theorized kingdom of cyborgdom, we can admit to ourselves at last that as creative and reflective individuals and artists, we need not only to refine our ethical and interpersonal practice and seek nourishment from new intellectual sources as well as healthy foods but also turn our relationship with technology around, not by simply or by exclusively retreating from data collection, a lofty but unattainable for many, but by looking at these new technologies and finding ways to liberate them purely from the development of capital... or using them to expose their underlying technological and political use in operations of social control, broader processes that can be difficult to decipher for the everyday user of these technologies, whose frame of reference for them may come from articles on sites like *Wired*, *Forbes*, *Vox*, and *BusinessInsider* that at best develop a critique based on privacy rights but

never dive deep into a broader systemic analysis. The development of generative neural networks, however, ranging from those that can paint to those that can write, always requiring a programmer to spin up initially and often an input to direct the output, creates a kind of artistic practice where the artist is neither merely the human nor the technological component--it is both, for there is some degree of autonomy, of chance, of depth, in the technological component, but also determinism. In a sense, these qualities mirror our own human nature in many ways, and these advanced artificial intelligence systems, our nature. Artificial neural networks are modeled after the neural networks in the human brain, after all, and increasingly we are able to think and theorize about how our own brain operates from a computational model, although it must be said historically that we tend to model the human brain's workings on the dominant new technologies of our era. One great puzzle of artificial intelligence is that even as it learns to mirror new kinds of human activities and even to analyze and classify human sentiment, it will never be able to experience it in the same way we do, but as humans we still have room to push our language, art, and expression beyond the limits of our anthropism. My hope is that may help in our quest to save our planet. We certainly have a lot of problems ahead of us. Soon I fear we will be living in an infinite Borgesian library, where the directed activity of "troll farms" working with technologies like GPT-2 will churn out alternative realities chock full of citations, and the transitory "post-truth" phase we are living in will be fully complete. Perhaps libraries and carbon dating will remain the only definitive sources of truth. Those things seem to rarely have much of an influence in geopolitical affairs, however.

From Psychic Automatism to Machinist Mediation

"The odious crossing out of words increasingly afflicts the written page, crossing out life itself with a stroke of rust," André Breton writes in his 1933 work *The Automatic Message*, "To correct, to correct oneself, to polish, to smooth out, to find fault instead of drawing blindly from the subjective treasure only for the sake of throwing here and there on the sand a handful of emeralds and foaming algae--this is a command which, in art as elsewhere, slavish custom and poorly understood rigour have for centuries asked us to obey." What Breton here describes--the writer's innate penchant to revise and perfect written work--falls

under a broader mantle of internal policing that affects the writing process before words hit the page. Because writers feel the need to make their work understandable and decipherable to their target audience, they largely follow the rulesets of grammar and idioms, which limit the variety of possible expressions and constructions the writer is willing to consider during composition or revisions. Even a skilled Surrealist who has practiced the technique of automatic writing (such as Robert Desnos) cannot let go entirely of the reins of consciousness--its desire to obey the rules of semantics and syntax, to achieve a coherent organization and style, to use the tried tricks of rhetoric to match or play upon the reader's expectations. Breton hence considered the promises of automatic writing as partly unfulfilled in his time:

The history of automatic writing in Surrealism--and I am not afraid to say it--is one of continual misfortune[...] for years, I counted on the torrential outpouring of automatic writing to cleanse the literary stables definitively. In this regard, the desire to throw open the floodgates will certainly remain the generative idea of Surrealism.

Breton blames this partly on the oversimplification and codification of the technique of 'listening' for the literary voice of the unconscious, but ultimately, it is the Surrealists' very faith in the powers of the unconscious and the séance that inhibit its literary movement. The unconscious allows us to think in the manner of free associationism, which takes the format of a list: of nouns or adjectives, of phrases, of sentences. Breaking free from the limits of language and thought requires more than this; it requires freedom from idioms, from the expectation that sentences and phrases will terminate (with punctuation, with an object for a transitive verb, for instance), and from the stability of perspective, character identity, and setting--which are all the hallmarks of the new writing of algorithms, bots, and neural networks, in their current state, as we will see.

To understand how to carry "the generative idea of surrealism" forward into the era of generative algorithms and "cleanse the literary stables definitively," let us turn to the Futurist manifestoes on language and writing penned by F.T. Marinetti. While some of Marinetti's core ideas concerning writing in the 1912 Technical Manifesto of Futurist Literature were preposterous for everyday verbal communication--his call to eliminate adjectives and adverbs, to suppress "words such as like, as, so, and similar to" between nouns, and to

replace verbs with infinitives”--collectively they constitute a language processing algorithm that predates even the cut-up, one which aims to push language beyond the boundaries of grammar, of the distinction between subject and object, and ultimately of the human perspective. Other ideas evinced by Marinetti in the manifesto don't seem so strange today. “Abolish all punctuation,” for instance, “To accentuate certain movements and indicate their directions, mathematical signs will be used: + - × : = > <, along with musical notations.” Are these not the emergent rules of text and instant messaging, where logical operators took on a life of their own as ASCII art and emoticons. Programming languages, on the other hand, have mostly implemented Marinetti's more radical ideas, reducing language to its core components, often in the service of some strange non-linguistic ideology stemming from computer science or a programmer's conception of stylistic “elegance.”

The real problem with pursuing Marinetti's vision is that when it comes to transforming language, his proposals are prescriptivist rather than constructivist. The reasoning for many of the strange proposals regarding Futurist literature is to heighten the power of analogy, which Marinetti poetically described as “nothing other than the deep love that binds together things that are remote, seemingly diverse or inimical.” Yet Marinetti and the Futurists' analogies were always constrained by the limits of their subject matter-- which rarely moved beyond Futurism, Italian politics, war, transportation, and Marinetti himself--and therefore never produced the more radical analogies by writers claimed by the Surrealist movement: Lautreamont, Chirico, Nerval, and Aragon. In this sense, the promise of Futurist writing similarly lies unfulfilled. And how could it be in 1913, the year Marinetti penned [DESTRUCTION OF SYNTAX — RADIO IMAGINATION — WORDS-IN-FREEDOM?](#)

Wireless imagination and words-in-freedom will transport us into the essence of matter. With the discovery of new analogies between things remote and apparently contradictory, we shall value them ever more intimately. Instead of humanizing animals, vegetables, and minerals (a bygone system) we will be able to animalize, vegetize, mineralize, electrify, or liquefy our style, making it live the very life of matter.

If we humans cannot escape our idioms, syntax, and semantics in writing and thought, we surely cannot be the ones who radically “animalize, vegetize, mineralize, electrify, or liquefy our style.” Machines do not share these inherent limitations, however.

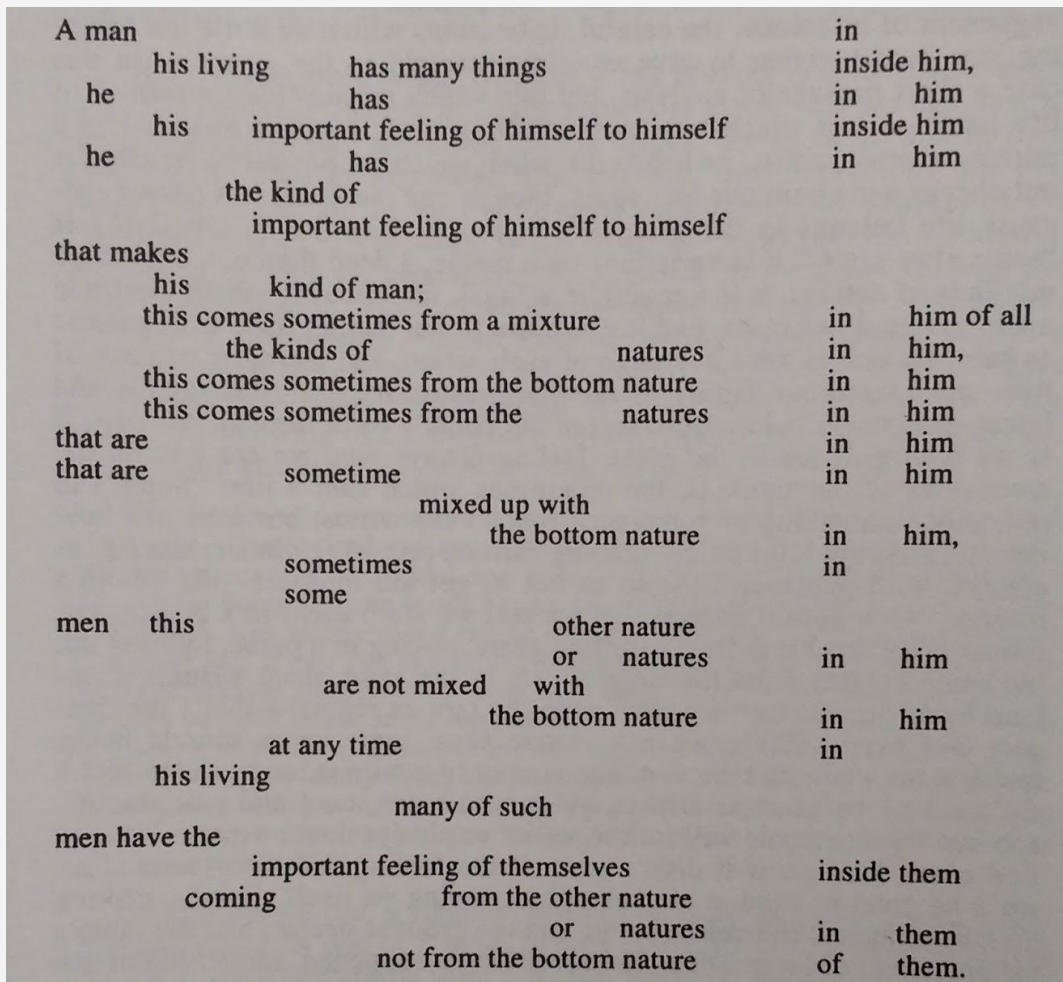
Consider the Markov chain text generator, the simplest and most common algorithm of its

kind. One variation of its programming logic, which I implemented in my project [TextVom.it](#), divides a given text by spaces into words. It then starts a sentence with a word that began a sentence and randomly selects a word from a list of words that followed each instance of that word in the original passage; for example, it might pick from “starfish, whip, ghost, starfish” if each of those words followed “The” in the original text. Suppose it picks “starfish,” since chance favors it because the word appear after “The” twice. Now, the program randomly selects from every word that followed every instance of “starfish” in the original passage. And so forth, until a sentence ends, in which the program randomly selects a word that began a sentence in the original passage. This kind of algorithm does not work well for very small bodies of text, tending to repeat in loops infinitely, or extremely long texts like novels, though there are more advanced implementations which address this issue. However, they allow for easy conceptual writing which subvert the norms of language and fulfill the promise of liquefying and electrifying our language. Combine a government manual detailing how to properly handle concrete with a biography of Mozart and ruminations on the nature of 24/7 in capitalism:

The name was able to imitate a concrete abstraction. Gypsum plaster, Beethoven - and forever buried under a slab of capitalism is conceived as the formal symmetry and gravel and the forms in a slab of emergence of cement is that Mozart suffered from the odds. Mozart likened moments of indecision to the volcanic areas of concrete abstraction, the message is based on the content. The central message of lime is that the name is a fundamental break with water.

Such writing combines the Futurist disregard for syntactic and semantic norms with the colorful and unconventional analogies of surrealism, but with even more potency. The surrealist is limited by his unconscious and all its underpinnings--recent readings, daily experiences--that inevitably slip into the writing, but the algorithm can copy, distort, and bricolage linguistic information from any source effortlessly. As Marinetti put it, “as every kind of order is inevitably a product of the cautious and circumspect mind, it is imperative to orchestrate images, distributing them with a maximum of disorder.” Unbound by consciousness, today’s Markov chain text generators allow machines to try different phrasings and arrangements in a world salad which cycles between poetry, parody, and the breakdown of grammar and meaning: repetition and disorder, ad infinitum.

Long before the advent of text generators, Gertrude Stein played with repetition and variations of phrasing in her early works *Three Lives* and *The Making of Americans*. In his introduction to Stein's work *The Making of Americans*, William Gass draws a "spindle diagram" to highlight the similarities between Stein's writing and the loops and logic found in computer code, tracing how clusters of language repeat but also vary in a stream of language, "down common points of verbal return to see how the sentence revolves."



Poetry like this could have been reproduced by a Markov chain text generator sampling a shorter text containing all the above words but only once or twice. Stein's work feels alien and algorithmic because of her peculiar composition process, which she summarizes in her 1925 essay [Composition as Explanation](#) as a groping for a "continuous present" by "using everything" and "beginning again and again":

Continuous present is one thing and beginning again and again is another thing. These are both things. And then there is using everything.

This brings us again to composition this the using everything. The using everything brings us to composition and to this composition. A continuous present and using everything and beginning again. In these two books there was elaboration of the complexities of using everything and of a continuous present and of beginning again and again and again.

Together, “using everything” and “beginning again and again” constitute a writing practice which cycles through the different possible arrangements of words--and the subtle or strong difference in meaning or tone that accompany these--before moving on to a different set of words or subjects. This willful ignorance of the cardinal rules of writing regarding repetition, syntax, and clarity is what is what makes Stein’s writing seem alien and machine-like at times. If a Markov chain based text generator is left to run perpetually on a specific input text, it will also eventually cycle through all the permutations of new phrasings it makes possible, “using everything” and “beginning again and again” ad infinitum.

In a way, Stein’s writing--and the new writing practices using text generators, cut up algorithms, and text processing--fulfill Marinetti’s boldest aspirations for the future of language: “The life of matter can be embraced only by an orchestral style,” he writes in *Words-in-Freedom*, “at once polychromatic, polyphonic, and polymorphous, by means of the most extensive analogies.” The peculiar phrasings, the cycling through permutations of phrasing, the use of repetition amidst context which give different meanings--together these create an “orchestral style” very different from the standard writer aiming for concision and clarity. “Poetry should be an uninterrupted flow of new images, without which it is merely anemia and green-sickness,” he continues, “The vaster their affinities, the more images will retain their power to astound.” A subversive recipe for today’s media landscape, where one can find contradicting facts, stories, and whole systems of knowledge in a wide variety of contrasting styles and forms. Accelerationist Marxists say “*heighten the contradictions, so that we might come out the other side,*” but there is no way to escape dialectic when differences of opinion and manipulable segments of the masses will forever multiply.

Screw with the contradictions; embrace the blur. Dark times such as these which forget the history lessons of the past demand pointed satire mixed with polemic, so that we might understand the meaning and mechanisms of this confusion.

“Poetry should be made by all. Not by one.”

We find this in the *Poésies*, which Isidor Ducasse (the Comte de Lautréamont) composed in 1870 by patchwriting, a method of composition defined by Kenneth Goldsmith as “a way of weaving together various shards of other people’s words into a tonally cohesive whole.” Ducasse here means that not only that poetry should be written by the masses but also that it should plagiarize and engage with the literature of the past and present, hence Ducasse also writes, “Plagiarism is necessary. It is implied in the idea of progress. It clasps an author's sentence tight, uses his expressions, eliminates a false idea, replaces it with the right idea.” The major works of T.S. Eliot and Ezra Pound would later vindicate this theory of poetics. But who is Lautréamont’s *all* of the internet era? “Most website visitors aren’t humans, but are instead bots—or, programs built to do automated tasks,” *The Atlantic* reported in 2017, “Overall, bots—good and bad—are responsible for 52 percent of web traffic, according to a new report by the security firm Imperva, which issues an annual assessment of bot activity online.”

As with animalia, automata have many distinct species: web scrapers (archivists), spambots (writers), chatbots (conversationalists), botnets (attack swarms), trackers (spies), advertising profilers (psyops), burglars (brute force logins) . Their creators’ desire for money, popularity, or infamy still directs most of the species’ activity, but imagine if it did not: the same bots that post, edit, and watch over wikis to prop up political candidates and brands could one day swarm together to create their own online metropolis of literature, a hypertext of non-anthropocentric writings ever in flux. “Poetry should be made by all”--in the age of the internet, this means by more than humanity alone. It encompasses the ocean of information available, including the breathing information that lives in bundles of algorithms.

Long before computers, the modernists invented the first language processing algorithms for the purpose of art: the cut up technique and “words-in-freedom.” The cut up technique was pioneered by the Dadaists, but its theory and practice in the realm of literature were later expanded upon by William S. Burroughs and Brion Gysin:

The method is simple. Here is one way to do it. Take a page. Like this page. Now cut down the middle. You have four sections: 1 2 3 4 . . . one two three four. Now rearrange the sections placing section four with section one and section two with section three. And you have a new page. Sometimes it says much the same thing.

Sometimes something quite different-cutting up political speeches is an interesting exercise-in any case you will find that it says something and something quite definite. Take any poet or writer you fancy. Here, say, or poems you have read over many times. The words have lost meaning and life through years of repetition. Now take the poem and type out selected passages. Fill a page with excerpts. Now cut the page. You have a new poem. As many poems as you like. As many Shakespeare Rimbaud poems as you like. Tristan Tzara said: "Poetry is for everyone." And Andre Breton called him a cop and expelled him from the movement. Say it again: "Poetry is for everyone." Poetry is a place and it is free to all cut up Rimbaud and you are in Rimbaud's place.

The advent of natural language processing and complex logic-based algorithms today makes a wider variety of text processing algorithms possible, from programs that extract all the proper nouns or intransitive verbs from a book and reassemble them into a poem to those that concatenate and semi-intelligently reassemble input texts using factors like word order and probabilistic systems which take into account factors like part of speech, word frequency, or even substitute words for their rhymes or synonyms--these days, these systems can truly mock the way a writer's creative unconscious operates. The ability to quickly fetch and copy these texts via the Internet or digital library API's and then dynamically process them have made generative literature possible that changes each time it is viewed and has resurrected literary Dadaism in the realm of the digital, where the readymade is a simple copy-and-paste of writings into a new context, cut-ups are made possible by running code, and montaging and collaging from copied, processed, or computer-generated text can be faster, and more innovative than trying to come up with original constructions as a writer on one's own.

To write *Ulysses*, James Joyce copied, paraphrased, parodied, and bricolaged text from newspaper articles, encyclopedia entries, and world literature. In *Uncreative Writing*, Kenneth Goldsmith explains how this process "presages uncreative writing by the act of sorting words, weighing which are 'signal' and which are 'noise,' what's worth keeping and what's worth leaving." He elaborates:

While writers have traditionally taken great pains to ensure that their texts "flow," in the context of our Joyce-inspired language/data ecosystem, this takes on a whole new meaning, as writers are the custodians of this ecology. Having moved from the traditional position of being solely generative entities to information managers with

organizational capacities, writers are potentially poised to assume the tasks once thought to belong only to programmers, database minders, and librarians, thus blurring the distinction between archivists, writers, producers, and consumers.

Literary experiments with text generators lack precisely this flow, and their mechanics boil down to chance, trial and error, and the selective filtering and recombination of a text, the “chance meeting on a dissecting-table of a sewing machine and an umbrella,” in the words of Lautréamont in *Les Chants de Maldoror*. Both the first Surrealist group and the industrial band Nurse With Wound seized upon this metaphor. For the Surrealists, who loved the notion of chance, the phrase described an unnatural juxtaposition which could arise only in the realm of dreams or as a product of psychic automatism. On the other hand, Nurse With Wound, who named an album after the quote, probably saw in the phrase connotations of a powerful and noisy industrial improv set: the “umbrella” representing the ambient noise (rain), the “sewing machine” industrial cacophony, and the “dissecting table” bondage and pain (the album’s cover features a dominatrix wearing latex). To these revisionisms, I will add my own--the metaphor could also be written by and describe the action of a text generator or cut-up algorithm, which “dissects” a text into words and recombines (“sews”) them using dynamic rules affected by “chance,” the umbrella representing the human element of selection and filtering that transforms the text from a machine’s raw production to a work of literature.

Employing text generators, neural networks, and other text processing algorithms as part of a broader writing process is also a matter of trial and error: getting the right dataset together if you’re coding a neural network, testing different combinations and concatenations of input text before applying a text transformation (i.e. running the code on your input text), controlling deterministic factors in your probabilistic algorithms (how big the n-grams are in a Markov, what the probabilities are a word is substituted for its rhyme or synonym, etc), selecting and rearranging what one finds worth saving from various outputs in order to collage it all together into a work of prose or poetry. Goldsmith hence describes writer of the future “resembl[ing] more a programmer than a tortured genius, brilliantly conceptualizing, constructing, executing, and maintaining a writing machine.” The French philosopher Gilles Deleuze described his books on other thinkers as like “taking an author from behind and giving him a child that would be his own offspring, yet monstrous [...] because it resulted

from all sorts of shifting, slipping, dislocations, and hidden emissions.” Jorge Luis Borges, too, in his translations, enjoyed changing the ending of stories or adding on. In the age where we question the capacities of artificial intelligence as it continues to one-up us at activities we considered the exclusive domain as humans, as we witness linguistic abilities develop over the coming decade, I say *damned be the notion of exclusive authorship. Why must an author stay dead forever? Why must an author be one thought of as one dead body in a grave after his death, for once they die, don't they simply become an oeuvre, and what is an oeuvre but a literary ecosystem for critics and readers and writers to interact with, and what is a literary ecosystem if not a dataset to feed to a neural network to perversely bring an author back to life from beyond that very grave?* Yes, In literary experiments with text generators and neural networks using famous literature and essays as inputs, I have witnessed machines generate such brilliantly poetic and satirical tidbits of text that I have suspended my disbelief in the presence of the paranormal or the capabilities of machines... until, as I keep reading, the text collapses into incomprehensible and repetitive literary garbage, “shifting, slipping, dislocations,” calling into question my interpretation of a passage or sometimes leaving me stuck between two or more that contradict each other. As we see more and more ‘fake content’ on the web, we must acclimate ourselves to not only its danger but its form and its beauty with all its good and evil and everything beyond.

Data as Dada

“The most significant contribution of Berlin Dada to the visual arts was photomontage, akin to a common practice that dated as far back as the photo scrapbook. Ordinary people cut and pasted at will, long before collage, changing photographs for their own purposes, and the German army followed suit, realigning new faces onto old bodies for the purposes of publications. If ‘meaning’ could be manipulated and changed, then ‘meaning’ is arbitrary and it was the task of an activist and political artist (the very definition of Dada) to undermine the faith in meaning, especially the “truth” conveyed through photography.”⁴

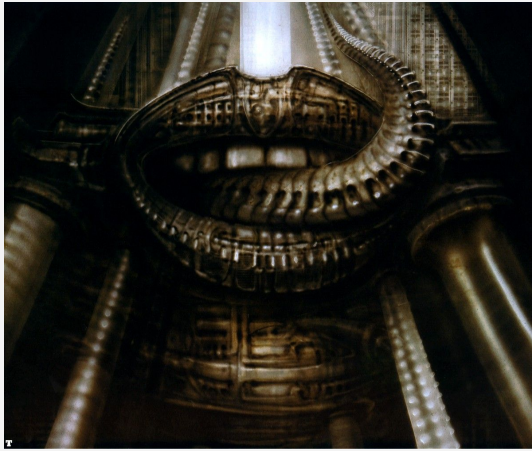
-Dada And The Photomontage

There has been speculation that new machine learning technologies will be able to

produce convincing audio and video samples depicting events that never transpired, allowing media magnates and politicians to mobilize populations to go to war or initiate a coup d'état on false pretenses. Others contend that machine learning algorithms can also learn to identify these fakes, but the persistent widespread belief in conspiracy theories along with the unexplainably complicated nature of machine learning algorithms to the average person make me question the social efficacy of using AI against AI in this context. If propaganda media produced by artificial intelligence is inevitable, let us sow the seeds of distrust in the present by creating computer art that can convince the onlooker it was made by humans, so that when they come to us with false pretexts, the public mind is already tired of digital illusions.



AI-generated H.R. Giger/Gino Severini hybrid



Giger, art for ELP



Severini, Pan-Pan at The Monaco

Neural networks allow us to create derivative artworks from datasets. Justin C. Johnson's [neural style transfer](#) neural network⁵, made accessible by the Prisma phone app and [Deep Dream Generator](#), allows one to turn a Giger airbrush into a Severini painting. Or remake the moon with the texture of ice. Appropriately, these artistic neural networks involve an element of chance, just like Man Ray's experiments with the exposure of his rayographs to achieve a surrealistic effects. The modern, cybernetherworldly rayograph, therefore, is...

STYLEMONTAGE.

Collage the results of the new "automatic writing" with direct copies from sources and some of your own writing.

TEXTMONTAGE.

Overlay Youtube videos and adjust their speed, hue, saturation, and transparency with Stella Cannefax's [videodrone2](#),

VIDEOMONTAGE.

Other neural network algorithms which hack image recognition or pornography detection algorithms (openNSFW) allow for the perverse creation of surrealist hybrids: human faces

⁵ Justin has since endorsed the Pytorch implementation of his neural network, which is much faster and has been maintained longer: <https://github.com/ProGamerGov/neural-style-pt>, I endorse it as well, but it requires a Linux system with a powerful NVIDIA GPU.

which look inhuman, [mountainscapes which look like genitals](#). Magritte's ghost in the shell.

PORNOMONTAGE.

In the realm of text-to-speech, neural networks have made [convincing human babble](#), the way a nonnative speaker might perceive a language. Something of plausible phonemes and pauses yet no ordained meaning.

BABBLEMONTAGE.

A [video](#) of composite faces Françoise Hardy never made, complexities drawn from a dataset of 68 ones she did at various angles and hairdos and dispositions and years.

FACEFRAMEMONTAGE.

Another neural network, which accepts a batch of MIDI files for training, produces [mechanically generated music](#).

MIDIMONTAGE.

III. *Final Words*

Here I would like to state my disagreement with the current generation of *Futurists*, who have made the term synonymous with transhumanism. Eccentric moneybags and occultists have long obsessed with finding immortality, but this latest batch of hopes that we can upload our consciousness into the cloud by copying the precise physical and kinetic state of a brain, down to the sub-atomic level, is far too much. Society should not aspire to such ridiculous ideals so long as there is poverty and warfare. The idea of hiding the ego away in the infinity of time inside the computing cloud is inane, as stupid as the Alcor Life Extension Foundation's cryogenic promises. You can ask the severed head of Major League baseball pitcher Ted Williams, damaged beyond any impossible idea of repair after lab employees tried batting practice with it as the ball.

The radical potential of AI and algorithms in the coming years lies instead in helping us understand and process webs of media--words, images, audio, video--into as-yet undefined

forms. “Make it new” all over again. Algorithms are simply input-output mechanisms, and even when they produce data or art, it is still (for now) humans who curate their inputs and outputs, refining their code or configurations through processes of trial and error. Anyone who has delved into the art of text, audio, or image processing learns this. Even neural networks must be carefully trained on selective datasets. Perhaps one day, through the labors of *art-critics-cum-data-scientists*, the machines will learn to recognize beauty and what produces it, though the history of art and humanity is so much a series of accidents and timing that I have serious doubts this will be anytime soon.

Until then, the spirit of the times demands technomodernism.