

Baudrillard's Importance for the Future

The Controversy Around Baudrillard

Baudrillard is highly controversial as a thinker. Over the course of time, his work has had as many detractors as it has had defenders and enthusiasts.²¹⁶ Some of Baudrillard's critics absurdly even accused him of celebrating the postmodern media-cultural condition of simulacra and semiotic signs becoming increasingly autonomous and detached from the "referents" of which they were supposed to be the representations.²¹⁷ The popularized misreading of Baudrillard is that he diagnoses techno-culture as an Empire of Signs which has forfeited its connection to the real and has spun itself off aimlessly into a never-never land of meaningless funhouse simulations. Having thus been caricatured, Baudrillard is condemned as the pope of the takeover of reality by semiotic signs, or the solipsistic denier of the existence of an externally objective real. Baudrillard would be the David Bowie of philosophy, the king of the carnivalesque, the avant-garde prophet of cultural pessimism.²¹⁸

The single most overriding reason that explains the animosity towards Baudrillard's work is that he very often made statements along the lines of: *Everything is virtual. Everything is simulation.* Reality has disappeared (albeit through too much reality or as the culmination of the Western cultural and scientific concept of "reality" intensified into hyperreality). There is no distinction anymore between reality and its representation, and the vanishing of the gap between them is the state of simulation. These kinds of statements by Baudrillard infuriated many of his commentators.²¹⁹

His detractors say: It cannot be that everything is simulation! Look at this table – it is real! If Baudrillard crosses the street without looking, he is going to get hit by a truck! The same as you and me!

Indulging for a moment in wrongheaded wishful thinking, one can entertain the thought that maybe it would have been better for his reputation if Baudrillard had said something like: There is a definite tendency for things to become more and more virtual. There is a strong trend for the percentage of what is real to decrease and the portion of what is virtual to increase. These would have been "respectable" and accurate empirical statements and good "predictions."

As someone who believes in the importance of Baudrillard's work, one is tempted by the thought: if only he had expressed his key concepts more empirically and in a less absolutist way, then he would not have been so harshly and often attacked! There would have been more appreciation for the value of his insights!

But wait – this is not correct at all! To wish for that would amount to making Baudrillard into an idiot. He was not an idiot, and it is in fact very valuable to think instead about WHY did he say that “everything is simulation”? Why does he say this? What is the significance of him saying that everything is virtual? Rather than shy away from what appears to be an extreme and even ridiculous claim, I embrace the declaration and explain why it is important.

Baudrillard continuously said that “everything is simulation (or virtual)” rather than saying that “there is more and more simulation (or virtuality)” because the diagnosis of simulation, simulacra, virtuality, and hyperreality in contemporary culture is not the main concern of his work. The main concern of his work is to open a new knowledge field of reflection on and investigation into the possibilities of the challenge to the simulacrum.

He is primarily interested in how the condition of hyperreality can be contested and changed. Baudrillard thought that the “epistemological” statement that “everything is simulation” is a prerequisite to getting to the vitally important questions of conceptualizing where exactly there could be challenges to the system of virtuality in its mainstream manifestations. Baudrillard believes that it is only by acknowledging the simulacrum, facing it head on, that one can then begin to theorize about social change. Those who insist upon defending the good old-fashioned “natural reality” (or what is left of reality) against the virtual or the posthuman circumstances cannot get to this point of challenging the system. They cannot reach the plateau from where they can see the new vistas of resistance.

The overwhelmingly dominant position of leftist intellectuals (for example: Marxists, humanists, and even some celebrated Deleuzian “post-humanists” like Rosi Braidotti) is that the challenge to virtuality comes from the identity or growing consciousness of certain identified groups of human subjects who are oppressed by what is conceived of as the latest phase in the cognitive mapping of the stages of capitalism.²²⁰

Yes – Everything is Simulation!

Looked at in one way, Baudrillard's claim about the whole world being/becoming a simulation is obviously false. Looked at in another way, the hypothesis makes sense and is valid. From the standpoint of empirical sociology or a scientific methodology that evaluates statements measured against how things “really are” in the world, such pronouncements are incorrect. The human body still exists. There are still trees. A certain fact took place. The neo-Marxist or Frankfurt School “critical theory of society” believes that its object of inquiry – for example, ideology or “enlightenment as mass deception” – is mendacious or counterfeit.²²¹ Those who have been duped by false consciousness or media manipulation or some set of cult beliefs are still susceptible to being brought back to “the real” or to “the truth.” Critical theory is suspicious of the principle of the simu-

lacrum, whose assertion would seem to imply that the participants are hopelessly lost in the chimerical flourishes and imaginary phantasmagoria of perceptual appearances and discursive effects.²²²

But evaluated in another way, as *science fiction theory*, Baudrillard is working with an “ideal type” (a term of Max Weber) of a scenario of a future society in whose direction we have been headed for a long time, and towards which we are surely headed even more.²²³

I will further argue that, after having asserted the prerequisite or first principle that “everything is simulation” (an alternative to the first principle of natural science that the mission of the scientist is to investigate “the true nature of reality”), Baudrillard went on to name and conceptualize a whole series of new locations and possibilities for challenges to the simulacrum. I seek to enumerate those sites of contestation. In the absence of lending oneself to acceptance of that first principle, it would not be possible to see beyond the horizon of received ideas to this new field of research and exploration. I will additionally argue that many visual and textual science fiction narratives bring into visibility and into focus these arenas of challenge to the simulacrum. In the genre of science fiction stories, of course, it is allowed to posit a “fictional” scenario in which “everything is simulation.” Both empirical social science and the Marxist view that what we are living in can be named as “capitalism” of course do not allow this.

My argument is that certain ideas can be elicited from Baudrillard that contribute to a “science fiction theory” which identifies what we are living in not as “capitalism” but rather as a *science fiction world*. Then it will be a question of how that “science fiction world” can be contested, reversed, or transformed. I call this object of inquiry the trapdoor, escape hatch, or secret way out of simulation and hyperreality.

If only Baudrillard would just call what he is doing fiction and practice it as fiction! Why must he insist on bringing science fiction into cultural theory? He has the audacity to try something new and which was different? N. Katherine Hayles (in what she wrote about Baudrillard in the prestigious academic journal *Science Fiction Studies* in an essay entitled “The Borders of Madness.”²²⁴) would like Baudrillard to openly acknowledge that his texts are fictional. SF should be a warning and is not a serious mode of thinking. Baudrillard, according to Hayles, fails to describe empirically the implosion into simulation but rather enacts that event himself. Hayles regards this as dangerous. She compares it to a powerful drug. Baudrillard represents, for her, apocalyptic madness. What she does not see is that his theory is opening the “doors of perception” to the ways to resist and change the simulacrum.²²⁵

Early Baudrillard: The Consumer Society and For a Critique of the Political Economy of the Sign

The postmodern recombinant culture of cyber-commodities is a system of simulated differences or differences-in-sameness.²²⁶ The sign-object takes on its meaning in a system of marginal or minimal differences from other sign-objects, according to a code of hierarchical significations (Coke and Pepsi, McDonalds and Burger King, the subset of formula-generated episodes of a TV series or pop-cult movie franchise which are mediocre).²²⁷ The sign-object acquires sense from its differential relationship to

other signs. As Marshall McLuhan points out, the media is the message.²²⁸ In this case, the media of equivalence and universal exchangeability makes “the code” become the primary quality of all sign-objects. This insight is an extension of what Marx had recognized in his analysis of the universal exchangeability system that is called money and the system of equivalence of *exchange-value* which, according to Marx, diminishes the *use-value* of everything made under capitalism.²²⁹

What occurred in the mid-to-late twentieth century was that America was no longer physically locatable in the specific geographical space situated between New England or New York and the nation's westernmost frontier (which shifted from the Virginia-Kentucky border to the Mississippi River, then eventually California and then Hawaii). At a certain indeterminate point in its history, America exploded from physicality to virtuality and “became the world.” Or the other way around – the whole world imploded into virtuality and became Americanized: the same big color TV screens everywhere; the same shopping malls; the same Coca-Cola, all-American hamburger, and “French fries”; your identity, logo, or “personal” message printed on a T-shirt; the images of horseback-riding cowboys and Superman comics; the glories and tragedies of Elvis Presley and Marilyn Monroe; eventually McDonalds, Starbucks, Nike sneakers, and Apple computers everywhere on the planet.

Jean Baudrillard's entire *oeuvre* is a study of America, of that virtual America, of that post-World War II model of “social” existence which, in his 1986 book entitled *America*, he called “utopia realized.”²³⁰ He regarded the term “social” as obsolete since henceforth “the social” was merely simulated by electronic networks and opinion polls. Baudrillard did indeed travel to physical America (he was a visiting professor three times in the 1970s-1980s at public universities in California), but this was not strictly necessary. He could have meditated on virtual America and its mythologies of economic abundance and personalized liberty by turning on the nearest TV set, frequenting the regional superstore (a buying place combining supermarket and department store), or grabbing takeout from the corner fast food outlet.

The Parisian metropolitan area versions of Americanization were plentiful and painful: the Westfield Parly-2 shopping mall near a major highway exit 45 minutes west of downtown Paris with 150 retail stores opened in 1969; the Centre Pompidou high-tech building complex dedicated to culture (symbolizing the spectacular-commodified marriage of art and technology) located in the 4th arrondissement of Paris opened in 1977 and has since had more than 180 million visitors; and Disneyland Paris (whose name speaks for itself), located 45 minutes east of the center of Paris, opened in 1992.

For Baudrillard, mass identity architecture is “deterritorialization” or the disappearance of the “terrain” of space. Gilles Deleuze and Félix Guattari also write about deterritorialization in *A Thousand Plateaus: Capitalism and Schizophrenia* (1980).²³¹ The concept brings Baudrillard close to the French social scientist Marc Augé, who argues in *Non-Places: Introduction to an Anthropology of Supermodernity* that typical spaces such as international airports and hotel rooms are designed to look exactly like all other airports and hotel rooms, to be effectively *nowhere*, to erase history, identity, and tangible spatial experience.²³²

In *The Consumer Society*, Baudrillard writes about the ambience of department stores, shopping centers, supermarkets, hypermarkets, *le drugstore*, and shopping malls – those

cities in miniature which surround the visitor with every kind of culinary and cultural experience and amenity – cafés, restaurants, food courts, cinemas, bookstores, travel agencies, art galleries, fashion shows, music and dancing, waterfalls, greenery – a veritable cornucopia and “culturalization” and even “naturalization” of selling and buying.²³³

The hypermarket, for Baudrillard, is at the center of the architecture and layout of the sprawling metropolitan area, alongside the “integrated circuit” networks of highways, multistory parking lots, and telecommunications topologies and computer terminals. These circulatory hallmarks of the built environment of the metro area are direct applications of first-order cybernetics, an interdisciplinary knowledge field originated by MIT mathematician Norbert Wiener. In his 1948 book *Cybernetics: Or Control and Communication in the Animal and the Machine*, Wiener outlines the scientific study of regulatory systems in human, natural, and artificial worlds, and the formalization of the concept of feedback.²³⁴

The hypermarket integrates humans into information and communication networks as systems of disciplinary socialization via technology. In an inversion of the trend since the nineteenth century of increased urbanization, the migration to the suburbs renders cities as satellites of the hypermarkets and accompanying commercial and residential developments which surround them. Baudrillard's analysis is reminiscent of the novels of the great science fiction writer J.G. Ballard, about whom Baudrillard writes in *Simulacra and Simulation*.²³⁵

In *The Consumer Society*, Baudrillard considers the fate of the over-socialized body in the consumer realm. The body must be managed, routinized, enhanced – it is a supreme signifier of status and cultural citizenship. Beneath the aura of “personal care” and “sexual liberation” is the body as a work of investment. We visit beauty and skin care salons; get a face lift, an abdominal tightening, or a chin reproffiling, have our eyelids “corrected.” We go to a tanning center, a cosmetic surgery center, undergo a computerized body composition test. Consumer society sells us alcohol, cigarettes, and fast cars but “use them at your own risk.”

The body has substituted itself for the soul as the “object of salvation.”²³⁶ “Bodily pleasure” serves a similar moral and ideological function to the salvation of the soul in Christian theology. In Christianity, salvation is attained through conversion, purification, faith in Christ as the savior, and the resolution of earthly conflict in a happy afterlife. Consumer culture, filling in the gap of the disappeared “social,” promotes a similar belief that salvation is a private affair, to be pursued via the micro-codes of wellness and self-adornment. The narcissistic possessive individualism of consumer citizenship confers on us our “rights” – the right to health and fitness, the right to be sexy, the right to narrative “answers,” the right to declare one's own fandom of a team, a celebrity, a vacation destination, or a pedigree of dog.

In the essay “Requiem for the Media” in *Political Economy of the Sign*, Baudrillard writes about “speech without response.”²³⁷ In classical groundbreaking texts of Western civilization such as Plato's *The Sophist* in ancient Greece and John Stuart Mill's *On Liberty* in the nineteenth century, great thinkers made the practice of alternating questioning and answering essential to the notion of arriving at truths in democracy, science, and human affairs.²³⁸ In the media culture, the continuous exchange of questions and answers revered by those philosophers has been deformed into the format of the yes-or-no ref-

erendum or speech without response. For Plato and Mill, truth was not about facts but rather about the process of inquiry. Truth was to be separated from falsehood in a dialogical engagement. Today anything resembling the Socratic method is short-circuited. The question insists with an authoritarian tone on hearing a specific anticipated answer, or the answer is pre-given in the question. The participation of the citizen is limited to a yes or no. This goes a long way towards explaining the contemporary “post-truth” deterioration of democracy into polarization and hardened antagonistic positions.

Symbolic Exchange and the Gift Economy

To *use-value* (the mythical justification or alibi of capitalist or “bourgeois” economics which even Marx naively subscribed to), *exchange-value* (Marx), and *sign-value* (Saussure), Baudrillard opposes what he calls “symbolic exchange,” of which the circulation of gifts and counter-gifts in the non-Western societies studied by ethnologists is the closest illustration or allegory.²³⁹ The non-exchangeability or non-comparability of the gift is “other” to the market exchanges founded on supply and demand and to cybernetic capitalism. Like the simulacrum, “the symbolic” (also known in his system as “seduction” or “taking the side of objects”), can disappear and reappear in many venues and guises, as I shall later explore.

Knowing neither “scarcity” nor “needs” (two essential concepts of capitalist economic theory), the members of certain so-called “primitive” societies who hunted and gathered “at leisure” lived in veritable abundance. Baudrillard references the studies by Marcel Mauss (*The Gift: Forms and Functions of Exchange in Archaic Societies*), Georges Bataille (*The Accursed Share: An Essay on General Economy*), and Marshall Sahlins (*Stone Age Economics*) as scholarly and philosophical inspirations for a general theorization of “the symbolic” to understand human societies.²⁴⁰ According to the noted anthropologist Sahlins, the modern capitalist society of permanent economic growth is the opposite of a “veritable society of abundance.” Sahlins begins his essay “The Original Affluent Society”:

Hunter-gatherers consume less energy per capita per year than any other group of human beings. Yet when you come to examine it, the original affluent society was none other than the hunter's – in which all the people's material wants were easily satisfied. To accept that hunters are affluent is therefore to recognize that the present human condition of man slaving to bridge the gap between his unlimited wants and his insufficient means is a tragedy of modern times.²⁴¹

The hunter-gatherers are so confident that their activities of providing for themselves in proximity to nature will yield continuous sustenance that they practice prodigality – they often consume all at once everything which they have amassed. This is the collective ritual that Marcel Mauss in *The Gift* called the *potlatch*, the gift-giving feast, the primary exchange system, the system of “total prestations.”²⁴² The hunter-gatherers work in the production and preparation of food only about four hours a day. They have little sense of property or material possessions. They are nomadic – requiring constant physi-

cal movement to maintain their trust in the abundance of nature's resources.²⁴³ They have a surprisingly varied food diet and are adept at making usable products from plentiful materials which are conveniently at hand: wood, stone, grass, fibers, animal skins, and bones. The hunter-gather of the "veritable society of abundance" works intermittently or only when necessary. As Sahlins writes, their combination of "mobility and moderation put hunters' ends within range of their technical means. An undeveloped mode of production is rendered highly effective."²⁴⁴

In our own times, the rationalist critique of the ecological destructiveness of the economy of limitless growth does not persuade the citizenry to become critics of capitalism. The discourse of the media does not mention capitalism as the root cause of the global warming and climate change crisis.

The typology of kinds of *value* in capitalism and in positive visions of post-capitalism, posthumanism, and the post-scarcity economy is a major contribution to cultural theory. Baudrillard identifies four categories of value-making processes: *use-value*, *exchange-value*, *sign-value*, and *symbolic exchange (symbolic-value)*.

There is the functional or utilitarian logic of *use-value*.

There is the economic or money-equivalency logic of *exchange-value* (all objects lose their singularity and are rendered interchangeable in and by the universal cash nexus).

There is the semiotic or differential logic of *sign-value*.

All three of these *orders of value* exist simultaneously in capitalism. The appearance of one of them does not render the previous ones obsolete.

Then there is the directly relational *symbolic value* of ambivalence. "In consumerism generally," writes Baudrillard, "economic exchange-value (money) is converted into sign-exchange-value (prestige, etc.); but this operation is still sustained by the alibi of use-value [the instrumental purpose of an object]."²⁴⁵

In simulation culture, there takes place a reduction or simplification of *symbolic-value* into *sign-value*, a transfiguration or cooptation of something deeply humanly meaningful into a mere aesthetic performance. Writing in his science fiction theory mode, Baudrillard implies that social relations of symbolic exchange, which extend beyond the dialectics of the other three ideal types of value, will emerge in a post-capitalist future (see the works of Paul Mason, Yanis Varoufakis, Murray Bookchin, and André Gorz).²⁴⁶

What are the historical or genealogical phases of the simulacrum that Baudrillard describes, and which have heuristic value for him? His main attempts to elaborate a succession of phases or "orders" of simulacra are in the 1981 essay "The Precession of Simulacra" and in the section of *Symbolic Exchange and Death* (1976) called "The Three Orders of Simulacra."²⁴⁷ In the sections that follow, I base my explanations of the first three orders of simulacra on a synthesis reading of both texts.

The First Order of Simulacra: The Student of Prague

Baudrillard ends his 1970 book *The Consumer Society* with his consideration of the 1913 German expressionist film – which can be regarded as a science fiction film – *The Student of Prague*.²⁴⁸ Baudrillard interprets *The Student of Prague* as a parable of the loss of the salu-

tary self who previously was mediated in a healthy way by others, and its replacement by an endlessly self-referential narcissistic self, in the simulation-consumer society. The other-less “postmodern” individual is left standing face-to-face with only himself.

The Student of Prague tells the story of a poor but ambitious student named Balduin who is impatient for a more prosperous life. The student sells his mirror-image to the devil (the sorcerer Scapinelli) in exchange for worldly success (one hundred thousand pieces of gold). The student signs a contract authorizing the devil to take anything that he wants from the student’s room as payment for the coins and banknotes. Balduin signs because he assumes that he possesses nothing of value. The demon then removes the student’s reflecting image from the full-length mirror. When he loses his shadow-self in the pact with the devil, the protagonist takes the first step towards losing his life. His mirror-image takes revenge on him for having sold him. Everywhere the student goes, the now-incarnate double has been there before and has wreaked havoc in the interactions of the life of his “original.” Attempting to put an end to the double’s mischief, Balduin finally shoots him then dies himself.

The genre of the story of the double in classical nineteenth-century European literature (in Dostoevsky, for example) reveals something about what Baudrillard means by the first order of simulacra. It relates to the double, the mirror-image, the shadow, the theatre, and games of masks and appearances. Contemplating the historical sweep from the Renaissance to the First Industrial Revolution, Baudrillard establishes the genealogical ideal type of what he calls “the natural law of value” and the principle of equivalence of *use-value*. He connects this with Plato’s idea of the simulacrum, where the image is taken as a closely knit coupled reflection and betrayal of an allegedly profound reality. In the first order of simulacra, there is still something like a “real.” Postmodern simulation or the third order of simulacra, however, is not a “break” with or “loss” of some previous “reality,” as many commentators who mischaracterize Baudrillard (and many contemporary cultural critics in their own assessments of cyber-culture) would have it.²⁴⁹ For Baudrillard, postmodern simulation is a consequence of, and a continuity with, what was always the concept of “reality” in Western philosophy, science, and culture. So-called “reality” was always a simulation model.

In describing the first order of simulacra, Baudrillard refers to the architecture and art of *stucco*, the *baroque*, and *trompe-l’oeil*.

He mentions prominently the architectural and interior decoration material *stucco*. *Stucco* means plaster in Italian. It is understood by Baudrillard as being a substance which symbolizes the first transformation of nature into a universal or “general equivalent” synthetic material. Signs are exchanged through the medium of a universal element. *Stucco* is an example of the *baroque*, which was a highly detailed and extravagant style that spread to many different arts in seventeenth-century Europe. *Stucco* imitates nature via form and mirroring. The *trompe-l’oeil* or perspectival space was a technique in that created the optical illusion of a three-dimensional object or scene. The appeal of both *stucco* and *trompe-l’oeil* resides in their resemblance to yet difference from “the real” or the world which they aestheticize. Baudrillard calls the first order of simulacra the mode of the counterfeiting of the world: along with the advancement of the concept of “nature,” the false is born.²⁵⁰



The Student of Prague, Stellan Rye director, Paul Wegener producer, Deutsche Bioscop, 1913

The Second Order of Simulacra: The First Industrial Revolution

The second order of simulacra is associated by Baudrillard with the First Industrial Revolution of the late eighteenth and early nineteenth centuries. The second order also includes the mid-twentieth-century technological-economic developments of the invention of the factory assembly line known as Fordism, and the theory and practice of “scientific management” – or fragmentation and control of all work processes under capitalism – known as Taylorism. The second order of simulacra is the genealogical ideal type of “the market law of value” and the principle of interchangeability of exchange-value. The dominant scheme of the First Industrial Revolution is production. The creation of originals is abolished in favor of the production of the infinite series of effectively identical objects and cultural artefacts.

Baudrillard connects the second order with Marx’s idea of the “fetishism of commodities” – the image masks and denatures a profound reality.²⁵¹ As Walter Benjamin asserted in his famous 1935 essay “The Work of Art in the Age of Its Technological Reproducibility,” the aura of the artwork (associated with a specific time and place) disappears in favor of the mechanically reproduced copy and the system of equivalence, implemented with the media technologies of photography, film, and sound recording.²⁵² Objects are not so much reproduced as are conceived and made with their reproducibility in mind. Compared with the first order, there is a loss of the difference between original and copy, or between the sign and that which the sign represents. Seriality yields arrays of duplicate objects without originals.

The Third Order of Simulacra: Simulation and Hyperreality

The third order of simulacra in Baudrillard's genealogy is also known as simulation: the system of objects, the consumer society, the system of models and series, simulated differences generated by "the code," the "structural law of value," the post-World War II era of media, shopping mall architectures, and the American way of life.²⁵³ The third order – somewhat harkening back to the first order – speaks again of "the real," now become hyperreal, more real than real, the simulated real. Baudrillard here speaks with Nietzsche – the image masks the absence of a profound reality. Baudrillard sees the genetic code and the digital code as being the most accomplished manifestations of the third order of simulacra. In the pre-digital consumer society, cultural citizens were locked into a system of the smallest discrete identities and differences that resembles the later logic of informatic programming. Digitalization is a universal media of equivalence that extends previous similar media such as money. Not only does so-called reality disappear behind the signs of reality, but the entire system of simulation dedicates itself to the generation of "reality effects" or the minute reduplication of the real.

Baudrillard came from a Marxist background and worked through the discourses of political economy and critical social theory.²⁵⁴ Although his idea has not succeeded in persuading Marxists to pay attention to it, Baudrillard's argument is that contemporary society or postmodern capitalism should be understood not as a supervening "mode of production" but rather as a total cultural system of coded signs that refer to other coded signs, a world of virtuality where all experiences are possible (virtual in both meanings of that word) due to the universal combinatorics of software code. Anything that can potentially happen can be programmed into being. Codes, models, cybernetic feedback loops, statistical prediction, and algorithms now organize everything of what was previously called social life or existence.

The best book that has been published on Baudrillard is the relatively brief *Jean Baudrillard: The Defense of the Real* by Rex Butler.²⁵⁵ The question that Butler makes central to his book – and which he sees as being Baudrillard's essential problematic or query – is how can the commentator who wants to speak of simulation or challenge simulation establish an "outside" position with respect to simulation when everything is indeed simulation, including the discourse of the analyst himself? The study by the Australian art historian treats Baudrillard's thinking systematically and delineates the hidden entanglement between seduction (the challenge to the simulacra or the possibility of reversal of the system, the possibility of the emergence of "a new real") and simulation.

Seduction is the difference between the original and the copy which simulation seeks to suppress in its attempt to represent or institute reality-becoming-hyperreality. In the hyperreality of the media culture of images, there is an overflow of images, a universal visibility or generalized pornography where nothing is left hidden. There is no longer any imaginary dimension separate from "the real." With the unlimited production of images, the world becomes an image. The definition of "the real" in the era of third-order simulacra is that of which it is possible to give an equivalent reproduction. There is a haunting resemblance of the real to itself. How can one speak of "the real" when all is simulation? How can one speak of simulation when there is nothing outside it, no exempted location

from which one may observe it, only an “outside” which initially exists on simulation’s own terms?²⁵⁶

At the beginning of “The Precession of Simulacra” in *Simulacra and Simulation*, Baudrillard refers to the fable “On Exactitude in Science” by the Argentinian writer Jorge Louis Borges which speaks of the cartographers of the Empire who “draw up a map so detailed that it ends up covering the territory exactly.”²⁵⁷ There is an inter-textual relationship between these lines and the title and narrative of the 2010 novel *La Carte et le Territoire* by the French novelist Michel Houellebecq.²⁵⁸ The Borges allegory of simulation resonates today only with the discrete charm of second-order simulacra. When the map covers the whole territory, the reality principle vanishes. In the third order of simulacra, the map precedes and engenders the territory. Only vestiges of “the real” persist here and there. Baudrillard writes: “Simulation is no longer that of a territory, a referential being, or a substance. It is the generation by models of a real without origin or reality: a hyper-real.”²⁵⁹ The model precedes the territory. The map precedes the real.

The assumption that the widespread creation of models of “reality” is going to leave physical reality as it is – is naïve. Models are not only tools for assisting “the real”; they act upon “the real,” they transform “the real,” they become themselves a major part of “the real.” *Welcome to the desert of the real* as Baudrillard phrases it, a line which the Wachowski siblings had Morpheus (Laurence Fishburne) repeat to Neo (Keanu Reeves) in *The Matrix*, explaining to him what happened to the world at the end of the twentieth century.

Baudrillard’s most famous example of hyperreality and simulation presented in *Simulacra and Simulation* is what he writes about Disneyland:

Disneyland exists to hide that it is the “real” country, all “real” America that is Disneyland (a bit like prisons exist to hide that it is the social in its entirety, in its banal omnipresence, that is carceral). Disneyland is presented as imaginary to make up believe that the rest is real, whereas all of Los Angeles and the America that surrounds it are no longer real, but belong to the hyperreal order and to the order of simulation... The imaginary of Disneyland is neither true nor false, it is a deterrence machine set up to rejuvenate the fiction of the real.²⁶⁰

Disney exists to save the “reality principle” or the myth of an “authentic real.”

First-Wave Digitalization as Interactive Performance

In the 1987 book *The Ecstasy of Communication*, Baudrillard characterizes the era of digital media and online technologies as an interactive performance where the individual stationed at his computer becomes a self-managing and self-surveilling node of a relay switching network, micro-administering his own little world of operations and desires. “Today one’s private living space is conceived of as a receiving and operating area, as a monitoring screen endowed with telematic power, that is to say, with the capacity to regulate everything by remote control.”²⁶¹ There is a disappearance of both private and public space. “The most intimate operation of your life becomes the potential grazing ground of the media.”²⁶² We live with the categorical imperative of communication, the intercon-

nection of all information where the human user becomes himself a screen and a network terminal.

There is no private anymore. There is no public anymore. I sit at my computer in my apartment and skype and facebook and instagram tell me when everyone I know comes online or goes offline. These other people are sitting at my computer with me. When I listen in the train to someone else's personal or business conversation that they are conducting on their cell phone, I am effectively sitting in their bedroom or living room or office. It can no longer be explained by private and public. We need new cultural theory terms to grasp this new situation. There is no public space anymore – although architects, urban designers, and street artists continue to speak of it. We should speak about the simulacra of public space.

The Fourth Order of Simulacra: Value Radiates in All Directions

The fourth order of simulacra, which is fractal and metonymic and where value “radiates in all directions...like a cancerous metastasis,” is described in the essay “After the Orgy” in the 1990 book *The Transparency of Evil: Essays on Extreme Phenomena*.²⁶³ Baudrillard writes of the “epidemic of simulation,” a networked mode of viral dispersal.²⁶⁴ In this fourth order of simulacra, the image has no relation to any reality whatsoever. There is an infinite array of possibilities generated by models. There is no longer any “relationship between cause and effect, merely viral relationships between one effect and another.”²⁶⁵ All spheres of society pass into their free-floating, excessive, and ecstatic form. This analysis then forms the basis of Baudrillard’s critique, at this point in his intellectual career, of everything that he calls “trans”: trans-aesthetics, trans-economics, trans-politics, and trans-sexuality. Each sphere of trans-modern society loses its singularity and is reabsorbed by all the other spheres. There is a promiscuity of sexuality without sex, politics without stakes, communication without meaning, and information without truth. There is universal commutability of all terms. All processes operate in a void and proliferate for their own sake. The infinitely small repeats itself through propagation, contiguity, and chain reaction. Everything, even the most banal, is subject to aestheticization, made into a semiotic sign, or launched into the circulation of images.

Yet there is a reversibility at play in “trans” for Baudrillard. The spreading “contamination” of signs in what he calls their “transparency” becomes an epistemological inflection point which he (in the essay “Prophylaxis and Virulence”) calls “immediate contagion” or “a marvelous alternative for the imagination.”²⁶⁶ He praises the absence of mediation in seduction, metamorphosis, and poetry. In poetry, one passes “from one sign to another without passing via the referent.”²⁶⁷ Although warning of the loss of the meaningful singularities of academic mono-disciplines in “trans,” he asserts that the literary trope of metaphor can mobilize transgressive movements of imagination from one discipline to another.

From Descartes to Baudrillard: The “Evil Demon” of Images

There is a diabolical seduction of images. According to Baudrillard, images seduce the participants of image culture away from so-called “reality,” but they do so paradoxically through their claimed fidelity to “reality” or their high-resolution realistic copying of it. Unlike René Descartes, Baudrillard does not regard his “evil demon” (of images) with fear and trepidation. The superficial reading of Baudrillard is that he finds digital and virtual images to be a betrayal of “reality.” But a closer reading reveals that it is, in his view, their self-proclaimed function of the reduplication of “reality” which makes images dubious. They are not an evil demon of betrayal of what they allegedly stand in for but are rather an evil demon of conformity. The danger of the mainstream culture of images is not due to images being the enemy of “the real.” It is, on the contrary, the idea of what is “the real” widespread in media-digital culture that is the root of the problem. The view that the role and purpose of images is to closely resemble and conform to what image culture takes to be “reality” is what is diabolical. Yet this evil is not the enemy – as it was for Descartes in his rationalist thought experiment – because its ethics can be transfigured through a paradigm shift.

In the thought experiment of the first of his *Meditations on First Philosophy*, published in Latin in 1641 and in French in 1647, René Descartes – considered to be one of the principal founders of modern philosophy – conjures up the imaginary possibility of the existence of an “evil demon” who might be deceiving me (or Descartes) into believing that “reality” exists, that there is a reality. It is possible that there is no reality as I have until now assumed it to be.²⁶⁸ The world and reality might not exist, and I (Descartes) might not exist. This might all be a dream. The contemplation of the evil demon is one of several methods practiced by Descartes in what is known as Cartesian systematic doubt. The evil demon has possibly cooked up a total illusion of a world external to my mind. Descartes writes:

[With] utmost power and cunning [he] has employed all his energies to deceive me... I shall think that the sky, the air, the earth, colors, shapes, sounds and all external things are merely the delusions of dreams which he has devised to ensnare my judgment. I shall consider myself as not having hands or eyes, or flesh, or blood or senses, but as falsely believing that I have all these things.²⁶⁹

Descartes battles against the evil demon with rationalism and humanism (with a logical-scientific philosophy). He apparently wins the battle. He establishes his strength of mind and his thinking identity, founding his first principles of certainty against the cunning of the evil demon: “*Dubito ergo cogito. Cogito ergo sum.*” “Because I doubt, I think. I think, therefore I am.”²⁷⁰ I think, and animals and the world do not think. I exist. What I call reality exists. Reality is objective. Scientific rationality wins out against its other – the other of superstition, uncertainty, hallucination, confusion, deception, evil, irrationality, and the world.

Baudrillard gave a lecture in Sydney, Australia in 1984 entitled “The Evil Demon of Images” (available in *The Evil Demon of Images*)²⁷¹ During an interview conducted by three Australian scholars after this lecture, Baudrillard explained his deconstruction

of Descartes. For Baudrillard, Descartes and his evil demon belong to one system. It is Descartes himself who produces the dual structure of rationality versus demon. Positing the evil demon is, from the beginning, an effect of Descartes' rationalism. He sets about solving a problem which was only a problem in the first place due to his own stance. He treats "reality" as his toy project. Descartes believes himself to be the human subject of knowledge and discourse. His doubt and his rationality are two sides of the same coin. Descartes has a specific, and possibly mistaken, understanding of what "reality" is. He operates with a binary opposition of "reality" and doubt. For Baudrillard, the world is not like that. The world is a "radical illusion." It is a fundamental antagonism. The world is an evil demon. This "vital illusion" of the world is "a play upon reality or a *mise en jeu* of the real... the issuing of a challenge to the real."²⁷² We must dwell in this uncertainty and indeterminacy, and not seek to suppress or overcome it artificially with the positing of the scientific knowing subject who insists upon the rationality (and – later, in the twenty-first century – literal numeric coding) of "the real."

As the insightful Australian commentator on Baudrillard Rex Butler points out:

The absolute doubt that simulation plunges the analyst into is like that of the evil demon for Descartes, where any reflection upon the problem might be reflection of the problem... where any naming of the evil demon might only be a product of the evil demon itself.²⁷³

No wonder that proponents of neo-Marxist critical theory sociology and other "anti-capitalist" orientations on the philosophical-political left who assume that they stand on a secure epistemological grounding from which they can speak "outside" of "the system" feel so threatened by the assertions of Baudrillard! It is the major achievement of Baudrillard that he stared directly into the eyes of the paradoxical Medusa of simulation and indeed theorized how to challenge the simulacra in new and multiple ways.

Arthur C. Clarke, "The Nine Billion Names of God"

An SF story that Baudrillard cites many times throughout his work is "The Nine Billion Names of God" by Arthur C. Clarke.²⁷⁴ Clarke was, of course, the author of the script of Stanley Kubrick's *2001: A Space Odyssey*, arguably the greatest science fiction film of all time. In "The Nine Billion Names of God," a group of reclusive Tibetan monks who live high in the mountains are engaged in the endless task called for by their Buddhist spiritual beliefs of inscribing in writing the alleged nine billion names of God. According to their prophecy, the completion of this monumental effort will be followed by the extinguishing of the world. The monks grow weary of their arduous work and decide to hire a group of IBM technicians to computerize the process. After working in the mountain village for a few months and completing the job, the IBM consultants make haste to decamp quickly, not wanting to be around when, according to their view, the monks will experience the disappointment of the non-fulfillment of their prophecy of the end of the world. The technicians descend the slope back to civilization, only to witness in the night sky above the stars going out one by one.

Baudrillard interprets the story as that the technicians have...

...launched the code of the world's disappearance by exhausting all its possibilities... There is not enough room in the universe for God and for the names of God... no place for both the world and its double... When the virtual operation of the world is finished, when all the names of God have been spelled out – which is the same basic fantasy as the declination of the human genome or the worldwide declination of all data and information [the Internet] – then we too shall see the stars fading away.²⁷⁵

In his discussions of poetic language and of Saussure's anagrams in the last part of *Symbolic Exchange and Death*, Baudrillard presents an idea about language, and potentially about software code, which is the opposite of code as understood by the IBM technicians.²⁷⁶



The Nine Billion Names of God, Dominique Filhol director, Extermitten Production, 2018

The important point about "The Nine Billion Names of God" is not that the spiritual worldview of the Buddhist monks wins out over the scientific worldview of the IBM technicians, as many Baudrillard commentators have repeated.²⁷⁷ The crucial point is that the practice and goal of informatics code as understood by mainstream computer science is the exact opposite of the poetic, anagrammatic, and deconstructionist understanding of language that Baudrillard elaborates in the chapter "The Extermination of the Name of God" in *Symbolic Exchange and Death*.²⁷⁸ Writing and poetry "aim at a total resolution," he writes, "that resolution indeed of the rigorous dispersal of the name of God."²⁷⁹ Perhaps software code is the writing of the twenty-first century, and our task would be to anagrammatize it in the sense of Baudrillard (or to "grammatologize" it in the sense of Jacques Derrida).²⁸⁰ This would be the insurrection of poetic code against its own laws of value. Like Derrida's *differance* (with an a)²⁸¹, which means both to differ and to defer, the anagram is a dispersal and a postponement, a radical *détournement* (the Situationist practice) of the digital-informatic mode of signification. Baudrillard writes: "The theme-word is diffracted throughout the text... Enjoyment, in every case, is proportionate to the detour, the delay, the loss of the statement, to the *time lost* in rediscovering

it.”²⁸² The notion of *jouissance* in the poetic anagram is close to the discovery of the pleasure and bliss of the text in Roland Barthes’ *Le Plaisir du texte*.²⁸³

The Trapdoor Escape Hatch Way Out of Hyperreality

In his later works, Baudrillard says that VR is beyond all simulacra.²⁸⁴ He speaks of the new elusive stakes for humanity in what may possibly appear after the virtual. This is the trapdoor escape hatch way out of hyperreality. A trapdoor is a small sliding or hinged door that, in stories, often leads to a secret passageway or tunnel, allowing the protagonist a dynamic movement or change in location that affords a sudden improvement in outlook. The escape hatch evokes a means to break free in an emergency, a ready way out from a difficult situation. Physical escape hatches exist in submarines and aircraft. Radical uncertainty (in quantum physics, for example) is the “event horizon” of our times where Baudrillard sees hope. In “The Question Concerning Technology,” Martin Heidegger saw modern technology as culminating in metaphysics (or Western metaphysics culminating in technology).²⁸⁵ In *The Perfect Crime* (1995), Baudrillard writes that one must come to a deeper understanding of the essence of technology than that of Heidegger. One must consider science and technology ironically, beyond the laws of physics and metaphysics, deploying the *pataphysical* science of imaginary solutions.²⁸⁶ “If it were possible, one would transform technology from within.”²⁸⁷

Baudrillard was not active enough in learning about informatics to flesh out the poetic and anagrammatic software code that might match this hope. Yet his theory of poetic language as laid out in *Symbolic Exchange and Death* can be connected to the project of a deconstructionist or transformative software poetics within the Creative Coding movement.²⁸⁸ In his 2005 interview with *Chronic'art*, Baudrillard says:

Perhaps there are some who can penetrate the cracks in this cybernetic universe?... I do not know the internal rules of the game for this world, and I do not have the means to play it. This is not a philosophical or moral disavowal or prejudice on my part... I am situated somewhere else, and I cannot do otherwise... maybe a new space-time domain for thought is now opening.²⁸⁹

Baudrillard likes how hyper-modern technology has put an end to the old humanist values of the cultural establishment. Perhaps technology will become so advanced that it will liberate us from technology (as in the film *Star Trek: Insurrection*). In the essay “Beyond Artificial Intelligence: Radically of Thought” in the 1999 book *Impossible Exchange*, he discusses a benign potential within the Fourth Industrial Revolution technologies of Virtual Reality and Artificial Intelligence, one that hints at a new freedom. He writes: “We must revise our judgement of this ‘alienating’ technology which our critical philosophy spends its whole time denouncing.”²⁹⁰ He defines the conditions for an alternative philosophical informatics which goes beyond the notion of intelligence to that of thinking. Thought is enabled by the existence of “the other.” Thought is a “seducing” rhetoric of forms, illusions, appearances, and paradoxes.

High Life: The Black Hole of Humanity's Extinction and New Hope

With a cinematic mood reminiscent of Andrei Tarkovsky's 1972 filming of Stanislaw Lem's groundbreaking science fiction novel *Solaris*, and something of the feel of Cold War Russia, the 2018 film *High Life* by French filmmaker Claire Denis expresses many of the ideas of the last phase of Baudrillard's work – that social existence is essentially carceral, that humanity is embroiled in an endless techno-scientific experimentation on itself, that sexuality and reproduction are in a crisis, that the Virtual Reality of the Fourth Industrial Revolution is the project of creating a second cloned world and is *beyond all simulacra*, that we are hurtling towards our possible extinction as a species, that Artificial Intelligence entities may not be able to experience pleasure, and that the metaphorical *black hole* – site of the extreme phenomena of the end of all physical laws – may yet provide the way out for humanity – the trapdoor escape hatch way out of hyperreality and the simulacrum.

The retroactive extinction of humanity, as opposed to apocalyptic warnings of its future occurrence, was a narrative theme in science fiction films like *Jurassic Park* and *Planet of the Apes*, the latter being an adaptation of the novel by French author Pierre Boulle.²⁹¹ Baudrillard had invoked the image of the black hole in his 1978 text *In the Shadow of the Silent Majorities... or the End of the Social*. The black hole was a metaphor for the hypothesis of the end of (or the death of) the social, that singularity zone where the statistical, empirical, and humanist laws of scientific-academic sociology cease to operate. The masses, according to Baudrillard, are "a black hole which engulfs 'the social'."²⁹² "The social" gets destroyed by the media and information which produce or simulate it. "The social" is simulated by telecommunications, automobile circulation, and cybernetics. In their hyper-conformity-as-resistance, these silent majorities, as they have been termed by American Presidents from Nixon to Trump, "oppose their refusal of meaning and their will to spectacle to the ultimatum of meaning."²⁹³ In the language of astrophysics, the spacetime or gravitational singularity of the black hole is a point of infinite density and absolute uncertainty where physical laws collapse. Baudrillard articulates "the reverse of a sociological understanding" because the "hypothesis of the death of the social is also that of its own [sociology's] death."²⁹⁴

The passengers in the spaceship of *High Life* are hardened prisoners who have life sentences or have been condemned to death. Their execution will serve a useful techno-scientific purpose for saving humanity from its imminent extinction as a species, as the increasing proximity of the ship to the black hole in Deep Space will be monitored for its effect on revivifying reproductive potency and fertility. The prisoners are to be recycled to serve science. They are also given the task to impossibly harvest the energy of the black hole and transport it back to Earth, even though their flight is a one-way trip. Dr. Dibs – played by Juliette Binoche – is herself a crazed murderer who nonetheless has a certain authority over the other prisoners. She carries out scientific experiments on them, including efforts at creating a child through artificial insemination. The ship is also equipped with *The Box*: a Wilhelm Reich orgone-energy type device that Dibs and the prisoners use to experience intense solitary erotic pleasure and prime themselves for their reproductive duties. Monte – played by Robert Pattinson – and his friend Tcherny – played by Andre Benjamin – spend much of their time in the spaceship's overgrown

green garden, an area reminiscent of Biosphere 2, the artificial simulation of nature in the Arizona desert about which Baudrillard wrote in *The Vital Illusion*.²⁹⁵

Years pass and many tragedies occur on board the ship. Following the deaths of all the other crew members, Monte raises his daughter Willow – played by Jessie Ross – over a timespan of about fifteen years, on his own and in total isolation. He is *le dernier homme* and perhaps *le premier homme*.²⁹⁶ Having arrived at their Deep Space destination of the spacetime singularity, Boyse – played by Mia Goth – who is a rape victim of another convict – takes a shuttlecraft and travels through a molecular cloud inside the black hole. She dies from the extreme tidal forces of the near-infinitely dense gravitational field. The metaphor of the exotic physical energy from a black hole as an escape hatch way out for humanity from its catastrophic course is an appropriate image of Baudrillard's positive anticipation of a better future or enigmatic new hope which he hints at in his last works.

Poetic Resolution in Baudrillard's Thought

In our civilization which is on its way to destroying the world, there are no limits to production, consumption, and signification. These economic-semiotic “total social facts” (Emile Durkheim) are endless processes of so-called “growth.”²⁹⁷ People want to produce, consume, and signify more. To challenge these principles, what becomes crucial for Baudrillard are the phenomena of ambivalence and resolution in poetic language. “In the logic of ambivalence,” he writes in the crucial chapter “The Poetic as the Extermination of Value” of *Symbolic Exchange and Death*, “there is a process of the *resolution* of the sign.”²⁹⁸

Baudrillard writes: “A good poem is one where nothing is left over, where all the phonemic material in use is consumed.” The poem puts into play “a strictly limited and distributed *corpus*” and “undertakes to reach the end of it.”²⁹⁹ Poetic language is the enjoyment or intensity that deconstructs the semiotic regime of the endless blah-blah generation of value from language, and the endless image-pornographic generation of value from pictures, in the rhetorical media culture of postmodern capitalism.³⁰⁰ The recombinant order of things puts into play a discursive corpus with no end in sight and no concern for resolution or settlement.

The mode of production analyzed by Karl Marx in nineteenth-century industrial capitalism expands to the mode of signification and information and the categorical imperative of communication. Language gets mobilized for the interminable fabrication of meaning. Language has become “an all-purpose medium of an inexhaustible nature.”³⁰¹ Values associated with language get endlessly produced, accumulated, and distributed.

But “the poetic is the insurrection of language against its own laws.”³⁰² As opposed to the endless signifying process, the logic of the poem is a rigorous unfolding of its own immanent possibilities, leading to a resolution or an endgame where nothing remains. Baudrillard writes:

In poetry, a vowel, a consonant, or a syllable cannot be uttered without being doubled – that is to say, somehow exorcised, without fulfilling itself in the repetition that cancels it.³⁰³

The ambiguity, music-like resonance, sound symbolism, alliteration, metonymy, and rhyme of poetic diction all suggest the differential play of words in their multi-layered subtleties. These rhythmic qualities, aesthetic forms, and stylistic elements evoke emotions and lead to the

... cyclical resolution of the material... The poet sets the phonemic material provided by the theme-word to work. One (or several) verse(s) contain(s) anagrams of a single word by being constrained to reproduce itself, especially in a vocal rendition.³⁰⁴

Poetry is symbolic exchange at the micro level of detail of the anti-code. "The poetic is the restitution of *symbolic exchange* in the very heart of words," writes Baudrillard.³⁰⁵ Poetry is an anarchist or autonomist articulation: the authority of meaning is smashed. The symbolic exchange of the constituents of the poem responding to each other in superficial and playful interaction is set free. Baudrillard summons poetics as the deconstruction of the three laws of value laid out in *The Political Economy of the Sign: use-value, exchange-value, and sign-value* in cybernetic capitalism. As opposed to our signifying systems, with their logic of equivalence and simulated differences which go on and on *ad infinitum* with their material and cultural productions, Baudrillard seeks a poetic expression which arrives at resolution.

Daniel Boorstin, *The Image*: Hyperreality Overtakes America

Daniel J. Boorstin was a prominent mid- twentieth century American historian. He was a staunch conservative and defender of so-called "American exceptionalism." In his 1953 book *The Genius of American Politics*, Boorstin argued that pragmatism in American political affairs is a marvelous alternative to the political theories, ideologies, and propaganda which plague and paralyze other societies.³⁰⁶ It is ironic that a scholar who was a strong advocate of "American greatness" would then write one of the founding texts of hyperreality and simulacrum theory: his 1962 book *The Image: A Guide to Pseudo-Events in America*.³⁰⁷ Boorstin's intention in *The Image* was paradoxically to warn his American readers that they should not pay much attention to the "pseudo-events" which have become such a prominent feature of American culture. He wanted citizens to wake up from the somnambulism of media and television images. Like the founder of media theory Marshall McLuhan, Boorstin connected the rise of the image to the decline of the written word and of critical thinking. The irony is that Boorstin inadvertently produced an accurate description of how the hyperreal image was disastrously overtaking America. "What ails us most," writes Boorstin, "is not what we have done with America, but what we have substituted for America."³⁰⁸

From advertising to public relations to political rhetoric to the tourist industry, "the making of the illusions which flood our experience has become the business of America."³⁰⁹ The media-driven pseudo-event is the press release by a politician or the televisual *mise-en-scène* of a spectacular celebratory moment. The news media itself makes the news in the social-psychological pattern of a self-fulfilling prophecy. An early historical example of this for Boorstin was the TV-orchestrated event of "MacArthur Day" in Chicago in

1951, after General Douglas MacArthur was relieved of his post as head of United Nations Command by President Truman during the Korean War. Most attendees on the ground in Chicago were bored and listless, but TV made it look like a great triumphant hero's welcome with panoramic camera views of three million engaged and wildly enthusiastic participants. "We should have stayed home and watched it on TV," one in-person attendee told an interviewer.³¹⁰

The "graphic revolution" of the mid-twentieth century, as Boorstin calls it, has produced new categories of experience which reconfigure the very concept of truth and "are no longer simply classifiable by the old common-sense tests of true or false."³¹¹ We are in a new world "where the image, more interesting than its original, has itself become the original."³¹² Boorstin also analyzes what in the 1960s was called the "star system" – the celebrity culture of the entertainment industry. By 1920, he notes, the star system was already well established in Hollywood. Celebrities are above all famous for being famous. This tautology overshadows any other qualities which they may have. Celebrity is a pseudo-event which spawns other pseudo-events like fan culture.

Boorstin was a major influence on Baudrillard's concept of hyperreality. Boorstin's book is a milestone demonstration that the perception of hyperreality in twentieth-century American culture was also prominent among conservative historians and intellectuals.

Umberto Eco, *Travels in Hyperreality*

The Italian semiotician Umberto Eco travels to America looking for the hyperreality of the Absolute Fake.³¹³ Eco searches out cities that imitate a city. Disneyland is both totally realistic and totally fantastical. Eco's view is that America is hyperreal because its culture believes that to make a copy of something is the ultimate certification of originality. Everywhere in America there are enhanced architectural replications and ambient simulacra. The simulation process transforms so-called "reality" into an inferior version of the imitation – hyperreality henceforth rules. In an inversion, the copy becomes the model to which the original must answer. The latter pales in its "graphic resolution" by comparison to the former. Copying becomes paradoxically essential to capture the authenticity of the original.

Nature disappoints compared to technology. The alligators on the banks of the real Mississippi river must be coaxed to come out and be photographed. They do not always make an appearance. Their Disneyland animatronic alligator counterparts always cooperate in the performance. For Umberto Eco, Disneyland California's "precision and coherence are to some extent disturbed by the ambitions of Disney World in Florida."³¹⁴ Disney World is 150 times larger than Disneyland. It is a vacation and leisure time center of golf courses, sprawling hotels, interactive designer experiences, exotic simulated multicultural villages, shopping, water parks, and SF futurism. It is the Animal Kingdom and Hollywood Studios – the elaborate copy of what is already a copy of life and the merger of life with that copy.

With the Walt Disney World Resort that is southwest of Orlando, Florida – which clones many aspects of the original Disneyland in Anaheim, California – Disney, accord-

ing to Baudrillard, has become a “vast ‘reality show’ where reality itself becomes a spectacle, where the real becomes a theme park.”³¹⁵ The “Pirates of the Caribbean” attraction opened at Disneyland in 1967. It features animatronic characters created by the Disney robotics team. “Pirates of the Caribbean” at the Magic Kingdom in Florida opened in 1973. As an entrance building, the fort-like “Caribbean Plaza” substitutes for the Disneyland version’s New Orleans mansion. “Pirates of the Caribbean” at Tokyo Disneyland opened in 1983. It is an exact duplicate of the original. “Pirates of the Caribbean” at Disneyland Paris (25 kilometres east of Paris) opened in 1992. The sequence of scenes and the animatronic models is/are altered.

In the old American West around Utah and Arizona, one can drive many miles in the desert to nowhere and hope that one’s car does not break down from the extreme heat. One arrives at a nineteenth century town that was in fact an artificial stage setting for numerous Hollywood Western films. Umberto Eco visits towns built from nothing: the more intense the drive to imitation, the more allegedly “real” the simulated ambience becomes. Visit “the Old West at any dedicated theme park: horse and carriage, steam locomotive train, sheriffs and jail, telegraph agent, Bar-b-Q cookout, Indian raids, native American handicrafts on sale. Yet the average American wears jeans not very different from those of the cowboys.”³¹⁶

Roland Barthes, *Mythologies*

Perhaps the most widespread popular idea that we have about language is that it is a process of naming and categorizing the world. We believe that everything can be known and measured, similarly to how we measure physical length or weight. The word would be the *name-thing* or the *name of the thing*. Taking for granted the rationality of the established world, speech proceeds along the well-trodden pathways of functional discourse, social classifications, and shared myths. We participate in the codes and cultural references of speech while believing – in the moment of utterance – that we are expressing individuality. There is a tacit agreement that reality is objective, knowable, and mastered through language.

European semiotics or structural linguistics begins with Ferdinand de Saussure’s insight that language is a social institution. One of the discoveries of the *Course in General Linguistics* (1916) was that words do not obtain their significance from any clearly demarcated coupling with objects they would denote, but rather from their relationality with other words.³¹⁷ Language is a differentiated system of signs. Each sign is composed of a *sound-image* (the *signifier*) and the concept or meaning (the *signified*) associated with the specific *sound-image*. Words are only intelligible as signifiers of meaning to a member of a given linguistic community because she hears them in the context of her comprehensive knowledge of that language. Although each speaker pronounces a given word slightly differently, we understand the references because we have a systemic capacity to discern and differentiate signifiers. The identity of each *sound-image* issues from its difference from all other signifiers in the system.

Saussure, however, assumed too much synchronic stability of the implied meanings. He limited himself to recognizing the arbitrary character of the sign (the sound *tree* is

fortuitously related to the physical object *tree*) and the cognizance that there is no natural or inevitable bond. This posited stability was predicated on a *social contract* of shared *signifieds* holding the system together. He writes: “An auditory image becomes associated with a concept... It exists only by virtue of a sort of contract signed by the members of a community.”³¹⁸ To assert that the unity of *sound-images* and meanings is an arbitrary convention is both to go beyond the view of language as *naming the world* (the position of Aristotle and Noah’s Arc) and to institute a fixed opposition of terms and what they signify that lacks the possibility of play and subversion.

In his celebrated essay “Myth Today,” published in 1957 (in the book *Mythologies*), Roland Barthes adds a second dimension to the semiotic analysis of Ferdinand de Saussure, to the insight of the Swiss linguist that language is a social institution.³¹⁹ Barthes adds a social theory of culture to the social theory of language. In confronting the situation of consumer and media culture, Barthes notes the existence of a *signifier* and a *signified* in the sphere of *myth* or *ideology* in addition to the sphere of language. The media consumer is victimized by myth because she perceives cultural phenomena as belonging to a factual system, not a socially constructed semiological one. Barthes says that even an object as simple as a bouquet of roses is far from innocent: it is a *signifier* of passion or a *sign* which is “passionified roses.”

A *sign* on the linguistic level becomes a *signifier* on the cultural level. The *signifier* inside of cultural *mythologies* is fundamentally duplicitous. It is both *meaning* (replete with significance as language) and *form* (empty and preparing to receive its *signifieds*). The *form* impoverishes the meaning without completely suppressing it. What is disturbing to Barthes is that the *signifiers* have become subservient to the *signifieds*. In the operation of *myth-creation*, so-called *real language* and *real objects* get distorted. Meaning is a “tamed richness which is called and dismissed in rapid alternation.”³²⁰ Form must be able to hide in meaning. It is the constant game of hide-and-seek between the meaning and the form which defines myth.

Barthes presents the oft-cited example of the cover photo of a copy of *Paris-Match* magazine, showing a young black man in a French military uniform, with eyes uplifted, presumably saluting the French flag. The image of the black man is the *signifier*; ideologies of nationalism and patriotism are the *signifieds* (France is a great empire, there is no racial discrimination, young black men are proud to serve those whom others call their oppressors). The presence of the man in uniform is de-emphasized in favor of the concept of benign French colonialism. The cultural artefact closes off discourse and discourages *mythological* analysis on the part of the ordinary magazine reader. Myths are connotative *second-order signs* that go beyond denoted meanings. They persuade us of the inevitability of the established social order.

By 1971, Barthes changed his position. In “Change the Object Itself: Mythology Today,” he writes:

It is no longer the myths which need to be unmasked... It is the sign itself which must be shaken; the problem is not to reveal the (latent) meaning of an utterance, of a trait, of a narrative, but to fissure the very representation of meaning.³²¹

In his later work, particularly in the book *S/Z*, Barthes develops a more nuanced theory of connotation, and elaborates a framework of an open-ended interplay of *signifiers*, *textuality*, and cultural codes.³²²

For Baudrillard, one limitation of Marx's system of thinking is that it was not yet in a historical position to recognize the prevalence of *sign-value*. A second limitation of Marx is that he raised the banner of the principle of *use-value* as a strategy to oppose capitalist *exchange-value*. For Baudrillard, *use-value* is a *humanist* and *anthropocentric* ideology of capitalism (or a deeper industrial productivism underlying both capitalism and socialism). *Use-value* as political program remains stuck within the metaphysical legend of needs and their satisfaction (or scarcity and production), an abstract story told by economists to explain an ahistorical and allegedly universal human (economic) condition.

Taking the Side of Objects

What is Baudrillard's theory of singular objects? There is the design-oriented semiotic analysis of Baudrillard's first book (his doctoral dissertation) *The System of Objects*.³²³ There is the book-length discussion with prominent architect Jean Nouvel about *The Singular Objects of Architecture* (2000).³²⁴ There are explanations of the theory of objects in *Impossible Exchange* (1999) and *Passwords* (2000).³²⁵ There is an affinity with the uncertainty and complementarity principles of quantum physics. Such conundrums are exemplified by Schrödinger's Cat and by quantum entanglement. The cat exists in two "realities" at one time. There are at least two possible paths for a single event, the cat both alive and dead. Twin particles in a state of quantum entanglement no longer have anything to do with classical Newtonian physical spatial separation.

There is a resemblance between "impossible exchange" and the emphasis in Zen Buddhism on uncertainty, paradox, and the absurdity of "exchanging the world" against any truth or "reality." There is a kinship between the perspective of "taking the side of objects" and "software objects" in object-oriented (OO) software design and computer programming.

OO has the limitation that it has continued to be a technical practice, stuck in the dualism between technique and culture. Yet in many important books on OO, it becomes evident that the design patterns formalized as technical patterns also describe cultural patterns.

In extant object-orientation, the characteristics conferred on the software object at its inception include the instance's attributes, operations, memory state, inter-object messaging or event protocols, and associative and aggregational relationships with other objects. Software instantiation institutes a temporary relationship between an ordered ranking of software classes and the created object, which is a parameter- and data-specified instance of those determining classes. But the software instance wants to be creative, not just productive.

We need a technique that augments the inheritance mechanism of object-orientation. There should be analogies or resemblance between the software instance and the "blueprint" software classes which furnish the possibilities of what the instance can do. The highest-order analogy is the idea of the instance having a choice, having existentialist

freedom, rather than being determined by template attributes and data. Choice is inaugurated by incompleteness, and vice versa. Incompleteness should be at the foundation of the architecture.

Create two types of incompleteness: the gap and the jump. These are two potentials. The gap and the jump generate two collapsed waveforms. The energies of the potentials relate to the energy of the event. Energy is required to keep the two events of the gap and the jump separate when they cross over into Euclidean space-time. In a quantum potential field, a semantic horizon is drawn to resolve into a Turing-compliant Boolean binary.

Currently existing software is based on a logic of discrete identities and differences. The instantiated software object remains essentially static. The properties of the object are given to it at inception or “construction.” Its “blueprint” is a predetermined finite number of states – as represented, for example, in the graphical artefact of the state machine diagram. It has identity and properties. There is effectively no dimension of time. Time is the mere playing out of its permutations. The software object stays what it is throughout its lifetime, until the programmer deletes it, or the system shuts it or itself down.

In existing systems, the object is considered as a thing – it is the “dead” object of manipulation of an industrial process. There takes place an industrial “handling” of the object.

The later Baudrillard develops the idea that the only authentic communicative exchange that is possible today in the context of over-saturation with, of, and by media simulacra pseudo-exchanges is an “impossible exchange.” In a first phase called simulation, the substantial physical object becomes a semiotic sign. In a later phase, the sign becomes an object again, but this time outside of all representation: pure and unexchangeable. But technology, as Baudrillard explains in his essays on photography, takes us a step beyond resemblance to the heart of simulation which is its seduction or reversibility.³²⁶

The photograph is the purest and most artificial image. In his practice of photography, Baudrillard seeks to make the technical apparatus into the site of illusion and the play of forms and appearances. Technology and the object collaborate to “take the side of objects.” The image has a subversive function as the underminer of aesthetics and meaning, making us aware – via its gesture of silence and phenomenology of absence – of the disappearance of “reality” into fragments. The photo is an image caught in its singularity, no longer entrapped in the endless flow of, and reference to, other images. It is the vanishing point of the seized object. The photographic lens protects the object from aesthetic transfiguration. It engages in the “writing of light.” The human sees nothing; it is rather the lens which sees.

Not all photography is like this. Few images escape this forced signification. They are made to signify, to convey an idea, to transmit information, to bear witness, to document, to provoke compassion, as in war photography. Rather than lament the loss of an alleged “reality” surrendered to the superficiality of the image, Baudrillard asserts that we should lament the loss of the singular image surrendered to the hyper-real. It is only by freeing the image from “the real” that we can restore its force. It is only by restoring to the image its specificity that a “new real” can recover its genuine image. The photo-

graphic act is a duel –that is to say, it is a challenge to the object and the object's defiance of this challenge.

Baudrillard's photography is a "radical technological practice" or an "anti-Platonist" transformative simulacrum in Deleuze's sense that can serve as an example for a "radical technological practice" of challenging the hegemonic simulacrum with Creative Coding.

Plato and the Simulacrum

Gilles Deleuze emphasized in his 1969 essay "Plato and the Simulacrum" (a chapter of his book *The Logic of Sense*) that the simulacrum was introduced as a fecund notion by the ancient Athenian founder of Western philosophy.³²⁷ For Plato, the simulacrum is an imitation that has wandered too far, that has lost contact with that of which it is an imitation. The simulacrum over-emphasizes appearance to the detriment of the essence of the original. The difference between Plato and Baudrillard is: For Plato, the simulacrum practices deception in relation to the original or to "the real." For Baudrillard, the simulacrum goes beyond being fraudulently disloyal to "the real." It becomes the force of a "neo-reality" that substitutes for the real. This "neo-real" has more influence than what is normally understood as "the real" on the determination of existence. The simulacrum has an epistemological status beyond the conventional epistemology of true and false or what we call reality and illusion.

Together with his teacher Socrates and his student Aristotle, the Athenian ancient Greek Plato of the fourth century B.C. is widely considered to be a key founder of Western philosophy. Plato made three separate contributions to thinking about the relation between the image and so-called "reality" which are seminal to the formation of contemporary academic knowledge fields like art theory, media theory, and the sociology of culture. There is Plato's origination in *The Sophist* of the concept of what Gilles Deleuze calls the simulacrum.³²⁸ There is the "allegory of the cave" in *The Republic*.³²⁹ There is the discussion of the Platonic Forms or Realm of Ideas in further sections of *The Republic*.

In his dialogue *The Sophist*, Plato writes about two kinds of image-making. He distinguishes between the art of making likenesses and the art of making appearances: the difference between the *eikastic* and the *phantastic* arts. Plato introduces into Western intellectual history the idea of a "copy without an original." For Plato, the *phantastic* or second kind of image-making is an intentional perversion or betrayal of "the real" that it allegedly represents, in an act of persuasion or manipulation of the viewers or those who perceive appearances. For Deleuze, the difference between copy and simulacrum possesses a potential for overturning Platonism. It implies great creativity and multiplicity.

Plato's allegory of the cave – presented in *The Republic* during a dialogue between Socrates and Plato's brother Glaucon – has given rise to various interpretations as a commentary on politics, education, epistemology (how should we seek knowledge), ideology, and/or the ignorance of the majority in a democracy and the attaining of philosophical enlightenment. The allegory tells of a group of prisoners who live their entire lives chained inside a cave, permanently facing a wall, unable to move their legs or turn their necks. They can never see the people, places, and things of the real world which are behind their backs. The prisoners can only see the shadows on the wall, projections of the

light from the fire which burns behind them. Socrates explains that the situation of the philosopher is like that of a prisoner who gets freed from the cave and comes to realize that there exists something more genuine that is beyond the audio-visual sense-perceptions of the prisoners.

The circumstance of the prisoners having an illusory perception of a “false reality” has a decisive damaging effect on the fate of the “real reality.” Ideology does not leave the so-called “reality” or “the truth” intact even among those who are not directly under the spell of false consciousness. Our sense of what “reality” is does not endure as straightforwardly self-evident. Escaping from the cave does not make access to a “real reality” of truth easily available. In the allegory, the released prisoner-philosopher is unsuccessful in persuading his former comrades that things are not as they appear to be. There is an unbridgeable gap between their false sensory data and his awareness. They have no desire to leave their prison. The story of the freed prisoner ends in tragedy – his attempt to communicate with those who are still chained in the cave leaves him blinded by the darkness, just as he was blinded by the sunlight when he first left the cave. The news of his misfortune discourages the prisoners from venturing out to the “real world.”

Plato as Software Designer

In the section of *The Republic* entitled “How Representation in Art is Related to Truth,” Plato describes the Realm of Forms and further elaborates his critique of copies which do not partake of the Idea of the original. Socrates says:

Let us take any common instance; there are beds and tables in the world – plenty of them. But there are only two ideas or forms of them: one is the idea of a bed, the other of a table. And the maker of either of them makes a bed or he makes a table for our use, in accordance with the idea.³³⁰

Primary “reality,” for Plato, is not to be sought in the empirical world of everyday things (the ordinary instances of beds or tables), but rather in the general, abstract Forms (the divine idea of the bed or table) from which “concrete” things are derived or fashioned. Socrates says that there are three philosophical categories of beds (for example): the idea of the bed (made by God), the instance of the bed (made by a carpenter), and the imitation of the bed (made by a painter). Regarding how near or far each of the three categories of beds is to/from the Ideal Forms of Beauty, Truth, and Excellence, the idea of the bed (for Socrates) is the closest to these exalted virtues, the instance of the bed comes in as a respectable second closest, and the imitation of the bed runs a pitiful last – far removed from anything valued as noble or good.

The Socratic dialogue in *The Republic* (*Politeia*) about *mimesis* is a critique and dismissal of imitative poetry and painting, which only allegedly reproduce technical copies and are said to be “thrice removed from the truth.”³³¹ Painting, for Socrates-Plato, is a degraded art form of the semblance or mirror image, an aesthetic activity which demands of the painter “no knowledge worth mentioning,” and no comprehension of “true existence.”³³² Although it “may deceive children or simple persons,” imitative painting comes up way

short in trying to fool the citizens of the polity into being placated by its second-rate images.³³³

Plato's "metaphysics of reality" proclaims a tripartite structure, poised on the equilibrium between (for example) the divine idea of the table and the real physical table molded by the carpenter, to the double exclusion of the image created by the painter. Yet there is something promising in the idea of the Realm of Forms for what I call transdisciplinary informatics today. Plato offers a way of thinking about the institution of "the real" without a binary opposition between physical and virtual, and which is like a software designer-slash-programmer who moves freely between conception and realization.

Plato was not only a thinker of the image. He was also a theorist of rhetoric and its relation to truth. The dialogical exchanges in *The Sophist* demonstrate how the alternation of questions and answers leads the seeker of veracity to cognitive clarity beyond illusions. This is what connects Plato the media theorist and Plato the founder of rhetoric studies. Illusions or *phantasia* are both perceptual appearances in the realm of images and discursive effects in the realm of language. In the "post-truth" situation of today, there is a homology between the hyperreality of images and the catastrophe of verbal deception in political discourse – and they strongly reciprocally affect each other.

Brian Gogan on Plato, Baudrillard, and Rhetoric

In his book *Jean Baudrillard: The Rhetoric of Symbolic Exchange* (2017), Brian Gogan interestingly declares Baudrillard to be not a sociologist, philosopher, or media theorist, but rather a *rhetor* (a bold and novel practitioner of rhetoric, "an individual who uses language for effect in context") and a rhetorical theorist.³³⁴ Gogan claims and details one of the most important influences on Baudrillard's theory of hyperreality, simulacra, and simulation as being the Platonic dialogue *The Sophist* where Plato makes a major contribution to founding the study of rhetoric as *phantasia*, which are "perceptual appearances." Heidegger reads Plato's *The Sophist* as defining *phantasia* as "an opinion or view based on sense perception."³³⁵ Pierre Klossowski – another important influence on Baudrillard – significantly used *phantasia* and *simulacra* interchangeably.³³⁶ Deleuze refers often to "simulacra-phantasms."³³⁷

As Gogan rigorously demonstrates, simulacra are defined by Baudrillard in decidedly rhetorical terms and in relation to rhetoric studies. For Baudrillard, simulacra are perceptual appearances which issue from processes of simulation or the "art of appearance." Simulacra are judgments made by the populace based on perceptual appearances as effects of both discourse and visual perception. Simulacra are obstacles to meaningful communication, respectful democratic debate, genuine empathy, and recognition of the "radical other." Simulacra stand in the way of the "communicative rationality" which is one of the main emphases of Jürgen Habermas' work. German social theory chose for decades to focus on the "bright side" rather than the "dark side" of the Enlightenment. Simulacra are obstacles to the dialogical search for truth and knowledge even more radically than was conceptualized by Plato in his focus on *mimesis* and imitation. For Baudrillard, "simulation supersedes representation" means that the logic of substitution has succeeded the logic of deceptive imitation.

Simulacra are appearances which have reached the stage of being thoroughly rhetorical. On the first pages of *Simulacra and Simulation*, Baudrillard specifies that his object of inquiry is the processes “substituting the signs of the real for the real.”³³⁸ In *The Intelligence of Evil*, he writes: “The simulacrum is not that which hides the truth, but that which hides the absence of truth.”³³⁹ Composed of both discursive effects and perceptual visual appearances, rhetoric operates as general systems of circulation, almost entirely autonomous from human agency. But just as judgments are made by the citizenry as affected by simulation processes and simulacra artefacts, those judgments can be challenged by creative rhetorical intervention.

Brian Gogan’s book is a major contribution towards rethinking Baudrillard’s system of thinking as a theory of rhetoric, and towards connecting Baudrillard with Plato’s *The Sophist*. Gogan’s book is a valuable inspirational source for the present study.

Deleuze on “Plato and the Simulacrum”

Apparently opposite to Baudrillard, but perhaps parallel to the ultimate implications of Baudrillard’s system of thinking, Deleuze takes the side of the simulacra as potentially creative and subversive artefacts in his project of overturning Plato’s denigration of simulacra. According to Deleuze, Plato’s simulacrum is not simply a false copy. It is rather something which calls into question the very notion of the copy. Plato wants to differentiate essence from appearance, the Idea from the image, original from copy, and good model from bad simulacrum. There are good copies and false copies. Good copies are legitimated by resemblance. Simulacra are perverse or corrupt turnings away from the original. Deleuze attributes to Plato the intention of the good copies or icons triumphing over the temptation of the simulacra.

The legitimacy of some copies is established by their closeness to the essential Platonic Idea of the thing of which they are a copy. It is their intrinsic relation to the model or ground that substantiates their imitative or exemplary similitude. The simulacrum, on the other hand, is, for Plato, an image without genuine resemblance to the original. The legitimate icon comes into being when identity is the starting point, when two things with a previously shared identity become differentiated, when that which is alike differs. The simulacra appears when differences are the starting point, and when it is believed that difference will lead to similarity or identity. The world as formed by simulacra is the world itself as phantasm.

To overthrow Platonism, for Deleuze, means to overturn the equation and take the side of the simulacra, to raise up the simulacra, to assert their rights over icons or copies. He writes:

The simulacrum is not a degraded copy, rather it contains a positive power which negates both original and copy, both model and reproduction... In the overthrow of Platonism, it is resemblance that speaks of interiorized difference, and identity, of Difference as a primary power.³⁴⁰

It is the Nietzschean Dionysian (*The Birth of Tragedy*) force – creative, positive, joyous – that Deleuze links with his vision of the emancipatory simulacra.³⁴¹ Dionysus is the ancient Greek god of dance, passion, emotions, ecstasy, and intuition. Deleuze also links his creative vision of the simulacra with Nietzsche's Eternal Return and the will to power, the power of “affirming divergence and decentering.”³⁴²

Modernity in art is defined, for Deleuze, by the power of the simulacrum, the philosophical-aesthetic project of extricating from modernity what Nietzsche calls the untimely. The event in the history of art called Pop Art marks the moment when the copy of the copy is “pushed to the point where it changes its nature and turns into a simulacrum.”³⁴³ This instant is the happy destruction of models and copies unleashing a “creative chaos.”³⁴⁴

Although the perspectives on simulacra of Baudrillard and Deleuze appear to be nearly diametrically opposite, I believe that they can be reconciled. Deleuze wants to overturn Plato's disparaging of simulacra and instead support the emancipatory potential of simulacra understood as transformative creative projects, including radical technological creativity. Baudrillard (or Baudrillard-inspired thinking) ultimately has the same goal, but he (or it) maintains that sustained engagement with the simulation-hyperreality simulacra of capitalist-semiotic culture is the essential prerequisite to arriving at the vantage point from which one can see where precisely simulacra as radical creativity can be defined and encouraged.

It depends on whether one places emphasis on the order of value or of signification in semiotics. Much of post-structuralist thinking engages in critical reflection on the impossibility of the semiotic sign's self-referential unity or full presence to itself.³⁴⁵ The horizontal relationship of value, which relies for its structuration on the sign's two internal components (signifier and signified) and the bar between them gets critiqued. The vertical relationship of signification – the bar between the sign as a unified entity and what the sign excludes – then gets critiqued in a second step. Signification, which depends for its existence on the “institution” of a positive plenitude of the sign, is prematurely subsumed under value. The edifice of signification is subordinated to the foundation of value. Once the foundation fails, the building is – too quickly – believed to collapse along with it. The rapid stress applied to the bar of value denies to signification the preconditions for its full scrutiny. The quick pressure underestimates the intractability of the self-correcting and continually morphing positive sign. The strategy short-circuits the encounter with the hydra of signification of the simulacrum.

Unlike Baudrillard, Deleuze is not concerned with thinking about the ubiquitous simulacra of virtualizing images proliferated by contemporary media-capitalist culture. His project is rather to be an advocate of radical creative simulacra which challenge Plato's downgrading of simulacra. While reading Deleuze, one comes to a certain awareness that Baudrillard tends to conflate simulation and the simulacra. They should be kept more separate as process and artefacts. My position, somewhat against Baudrillard and Deleuze, is that it is fruitful to think about hegemonic simulacra and transformative simulacra together.

Upgrading Hyperreality and the Simulacrum for Digitalization

How has the power of rhetoric to shape culture, politics, everyday life, and technological existence accelerated in the context of digitalization? How is hyperreality, in digitalization, now implemented on a micro level of detail by algorithms and software code? How does the challenge to hyperreality take place in theories and practices of software code?

I have argued that the challenge to the simulacrum is more important than the diagnosis of the simulacrum. Critiques of the concept of the simulacrum which have been made in the past mainly asserted that claims along the lines of “everything is virtual” are “empirically false.” What such critiques do not confront is that the primary gain of the theorem of the simulacrum is that it enables one to see, conceptualize, and actively practice new challenges to the hegemonic capitalist and signifying system which are otherwise not visible. To deny research and thinking about the implications of virtuality based on the view that such a center of attention undermines traditional claims about the resistance to capitalism or oppression is ironically to stand in the way of new experimental thinking about social change. The traditional claims stress fighting for identities and the authenticity and dis-alienation of the supposedly sovereign human subject. I propose that we theorize and act upon new radical and ironic reversals of the system.

First example of hyperreality and digital transformation: The digitalization of the news media has contributed markedly to the decline of rational and informed deliberation about current events on the part of most of the news-consuming public. The technology of algorithms has become the primary engine driving the “social media” and aggregator platforms where “fake news,” disinformation, echo chambers, baseless alternate realities, conspiracy theories, racism, misogyny, xenophobia, homophobia, transphobia, hate speech, and far-right neo-fascist subcultures run rampant. Content editors and knowledgeable human curators of news distribution have all but disappeared, roadkill of the cost-saving, data-accumulating, “personalized advertising,” and surveillance business models of news website corporations.

Second example of hyperreality and digital transformation: One major aspect of consumer and mass media culture during the pre-digital era was the cult of celebrities and fame. Yet the scope of celebrities was limited to the “star system” of Hollywood and those who had made substantial achievements like Einstein being famous for relativity theory (although his substantial achievement was already substituted by the simulacrum of the formula $E=mc^2$). Andy Warhol was prophetic when he allegedly said that “in the future, everyone will be world-famous for fifteen minutes” (although he probably did not say that – the saying first appeared in a 1968 catalogue for an exhibition of Warhol’s work). The obsessive thirst for celebrity and fame is so deeply ingrained in the narcissistic psyche of Americans that it has become our “birthright.” The combination of Reality TV and digital transformation has exponentially accelerated the underlying simulacrum principle of “being famous for being famous.” The charismatic power of the pure signifier of celebrity steamrolls over the content of any possible “achievement” for which one might have famous. The banality of what happens on Reality TV shows like *Survivor*, *American Idol*, *Big Brother*, or *Keeping Up with The Kardashians* is consistent with an almost conscious “flipping of the bird” in the face of achievement.

In his book *Convergence Culture* (2006), Henry Jenkins pointed to the emerging phenomenon of transmedia or multiplatform “storytelling”: a media product-experience is distributed multiply and interactively for consumers across several formats deploying advanced digital technologies.³⁴⁶ TV production companies make smartphone apps available to viewers to comment in real-time on the shows they are watching to fellow members of their fan community. Platforms like youtube and TikTok provide endless recycling of tidbits, gossip, and wisecracks about every homegrown and culture-industry celebrity deploying every possible looping, zooming, morphing, and deep-faking digital video feature. The “influencers” of today are famous for their expertise in facial cosmetics, miracle health cures, and get-rich-quick schemes. The Reality TV show *The Apprentice* legitimized the simulacrum of Trump’s supposed “billionaire wealth” and the whitewashing of his corrupt money laundering practices, even though those signifiers had no real referents. Trump then brought the public humiliations, malignant narcissism, cruelty, and banality of Reality TV to the “highest office in the land.”

Personalized Advertising

Consistent with the modernist concept of democracy, the media politics of the European Union is rightly concerned with the freedom and pluralism of media content, both of which are essential components of an open and fair society. This way of thinking about the media is crucial for human rights and freedom of information, and for democratic debate and rational consensus. Yet in the era of digitalization, the public sphere experiences grave damage and must be protected in new ways. The democratic space suffers degradation from the monopoly consolidation of the control of social media platforms and e-commerce in the hands of a few large corporations and their business models. They harvest your personal data and sell it to advertising agencies. The shift from mass advertising to personalized advertising provides key insights into the paradigm shift in the media generally from the pre-digital to the digital phase. Prior to digitalization, advertising was a non-personal marketing message not directed at any individual. The mass media as public sphere was a buffer between the source and the target of the sales pitch. Goods and services were offered to the public through media announcements.

With social media, search engines, mobile and location technologies, facial recognition, artificial neural networks, Deep Learning AI, and algorithms, advertisers gain knowledge of identity through collecting the person’s data. Your browsing, viewing, and buying histories – and your emotions, preferences, and interactions – provide the data for personalized advertising and feed their systems. Companies seize the identity of the consumer, eliminating the public space where citizens previously cultivated their democratic individuality through choosing goods in the marketplace. Political discussion gets similarly damaged. The algorithmic logic of web searches and newsfeeds that shows you more of the news and opinion which you have already seen from your familiar viewpoint isolates you in your echo chamber and filter bubble. Personalized advertising destroys to a significant degree one of the principal arguments in favor of capitalism: the idea that the market is an analogue to the democratic space where you the sovereign individual

have the freedom of choice of what to buy. Now the sellers are directly welded to you through Data Science operating on Big Data producing the targeted ad.

Media should function as spaces of communication and mutually respectful dialogue. The European Union should actively support the building of new platforms where citizens can discuss their lives and futures with a spirit of solidarity and social awareness. There should be projects which develop the concept of moral algorithms, where the rules of ethics get coded with reduced discrimination, hate, bullying, racism, sexism, and fake news. We should design a dialogical relationship between human moral-driven institutions/actors and Artificial Intelligence – and redefine the meaning of the term algorithm to be more anti-automation. There should be game-like virtual worlds that show young people what a better world might look like.

Transdisciplinarity is Good for (Post-)Humanity

I find to be questionable the academic assumption that it is helpful for understanding the contemporary world to be an academic expert of a mono-discipline of knowledge – for example, being a scientific specialist of television, film, computing, or science fiction studies – without taking a transdisciplinary approach. I think that Baudrillard's idea that in "American" culture TV and daily life merge; cinema and ordinary life merge; and Virtual Reality and life merge – to be the start of a probing transdisciplinary insight. In my view, computing is everywhere, not only in computers. Science fiction is everywhere, not only in science fiction novels and films. Digitalization is everywhere, not just in the configuration of digital devices.

The question should be raised for serious and open discussion if academics in a field like science fiction studies should start to write less academically and instead be more creative in a playful and almost fictional sense. Should there be such a strict border between the scholarly practice of writing about science fiction and the forceful writing of science fiction narrative? I speak of science fiction theory and a science fiction epistemological mode.

Each existing knowledge discipline has its own private self-referential discourse or terminology that almost nobody outside of that field understands. The mono-disciplines tend to be conservative in defending their territories. When fields of knowledge come together in a transdisciplinary way, breakthroughs can occur. Transdisciplinarity is good for humanity.

In hyper-modernism, hyperreality is implemented with code and can be challenged with code. This entails both rewriting the codes and changing what code is: not code as it has been until now, but code infused with philosophical and aesthetic and political knowledge.

Virtual Reality, Augmented Reality, and the Metaverse

Digitalization represents the transition from the physical to the virtual and from the local to the global. In the 1960s, there were procedural and functional programming lan-

guages. There was the command line interface. People owned TVs that received a handful of channels. Then came the 1980s with PCs and Macs: the interactivity and “personal empowerment” of the mouse, drag-and-drop capability, and the desktop metaphor. There was the revolution of the computer transformed into a media machine and consumer appliance. There were object-based programming languages and cable TV and satellite reception with hundreds of channels. In the 1990s we were introduced to new opportunities in digital publication and communication thanks to the Internet. Computer technology advanced automation in the workplace and robotics accelerated industrial working processes. There was global connectivity, hypertext and hyperlinks, and utopian visions of cyber-culture.

In the twenty-first century, we have Internet, smartphones, and social media platforms. Online existence exploded into millions of channels and was initially pluralistic. It then paradoxically became a solidified force in the hands of a few monopolies. Now there are advances in machine learning or Deep Learning and neural networks. Data mining, massive computing power and Big Data have made AI a significant force that impacts our lives and society and the economy. A pragmatic definition of AI: software that learns from experience and moves beyond its original programming.

With social networks, computer/video games, and virtual worlds such as Second Life and World of Warcraft, existence and experiences have become more and more online and virtual. The conventional and known physical world is no longer our primary frame of reference. The phenomenology of everyday life shifts to virtual. During the COVID-19 pandemic and lockdowns, physical workspaces closed and there was a boom of remote working. Video teleconferencing and work collaboration applications became mainstream practices. Most doctor appointments are now online rather than physically present.

Virtual Reality achieved a milestone in 1992 with the presentation at the SIGGRAPH annual computer graphics conference by the University of Illinois' Electronic Visualization Laboratory of the CAVE Automatic Virtual Environment, a surround-images-and-sound VR system influenced by the design objective of Artificial Reality Telepresence envisioned by pioneering computer artist Myron Krueger in the 1970s. With no heavy-duty personal hardware required, CAVE was distinguished by its wall-projected graphics and the participant's bringing along of her own physical body into the virtual world (like the Holodeck Virtual Reality media technology system on *Star Trek: The Next Generation*).³⁴⁷ Nowadays, major steps towards the full sensory immersion VR of the future are being taken by commercially successful and highly promising systems such as HTC Vive, Oculus Rift, Sony PlayStation VR, and Samsung Gear VR. These are platforms for gaming, education, military training, art and design, narratives, role-playing, and pornographic experiences. They descend from the trailblazing system of the EyePhone head-mounted display, DataGlove, and DataSuit full-body sensor-equipped clothing brought to prominence by Jaron Lanier in 1985.

Since the cyberspace 1990s, VR has been a controversial prospect either celebrated or feared. For Bill Gates in *The Road Ahead*, cultural citizens will soon work, learn, make friends, shop, explore cultures, and be entertained from the privacy of their homes, and without leaving their armchairs.³⁴⁸ On the post-Web Internet, which Gates calls the in-

teractive network, they will enter total immersion cyber-environments via high-bandwidth connections.

For Sven Birkerts in *The Gutenberg Elegies*, VR is a betrayal of humanist ideals like reflective thinking, individual imagination, moral responsibility, and physical reality.³⁴⁹

With the VR headset or helmet, there has been an explosion of transformations in work, medical applications, virtual travel tours, virtual museum visits, communication, and architecture. The technology of the headset and its VR software constructs a simulated world. There is the generation of convincing computer simulations. Scenes and objects appear to be as “real” as those in the physical world. There is a sense of full immersion in one’s surroundings. Everything we see and hear is part of the artificially built environment.

VR is the Holy Grail of a seamless media technology, dispensing with borders and screens, beyond the dualistic dynamics of television or cinema, with no more separation between viewer and spectacle. Yet we need alternative creative visions of VR. Mainstream VR imperils the world’s equilibrium – on the analogy of an ecological threat – via its hyper-elaboration of an exorbitant hyperreality. It is the disappearance of the world into the codes of digital, genetic, subatomic, and holographic information. The dominant version of VR is at the same time the climax of Western society’s belief in an absolute technoscientific “reality” and the apex of simulation. It suppresses imitation or representation, eliminating the vital aesthetic open-ended illusion necessary to the preservation of “the real.”

There is Augmented Reality (AR): an overlay of supplemental information and three-dimensional virtual images onto the physical world. Our world is the framework within which objects, other persons, and images are placed. Aspects of the familiar here-and-now are extended by media input such as sounds or interactive touch contact. Whereas Virtual Reality enacts separate simulated experiences, Augmented Reality provides enhancements of one’s current nearby immediate perceptions. One of AR’s potentials, called Mixed Reality (MR), is to create hybrid real-and-virtual environments. Physical and digital artifacts co-exist or get merged in new mixed surroundings. AR is a subset of MR, since Mixed Reality might also include the reversed situation of Augmented Virtuality, where elements of the physical world are brought into the VR simulation to boost its value or intensify its sense of “being real.”

Smart glasses, which are a form of wearable computing, are a widely available device for AR applications. They add a layer of information and media to what their wearer sees. You see what you would see with your biological optical perception combined with visually displayed digital images and data. Google Glass is an optical head-mounted miniature computer that communicates with the wearer’s smartphone via Bluetooth wireless data exchange technology and the touchpad built into the glasses. Smart glasses can operate as standalone units or interact with the individual’s phone handset to run mobile applications.

The word Metaverse has come into common usage to describe the advent of a fully virtualized existence. Mark Zuckerberg, the founder of Facebook, renamed his company to Meta and announced that his enterprise would dedicate its efforts to building the Metaverse. The term originated in Neal Stephenson’s 1992 science fiction novel *Snow Crash*.³⁵⁰ The novel and film *Ready Player One* depict a Metaverse.³⁵¹ The Internet should become a

unified, universal, and immersive virtual world based on VR, AR, and Brain-Computer Interface (BCI) technologies. Work, massively multiplayer online gaming, education, social interaction, alternative currencies, e-commerce shopping, remote participation in collective events, and virtual real estate are some of the application areas at the forefront of the Metaverse vision.

