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A Simulated Future amid Collapse

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being practiced at society's margins (although implausible due to the contemporary construction of identity). At worst, it positions itself with what Bluhdorn refers to as "politics of delegation" – or aligns itself with "scientific experts, charismatic leaders, non-democratic regulatory bodies or market instruments."²⁷

In either case, while art may temporarily provide conditions allowing political and cultural intervention, such windows of opportunity may be undermined by their own "performance of seriousness" and ultimately recursive participation in our current system of symbolic politics, which Bluhdorn and others refer to as "simulated politics" (after Baudrillard).²⁸ If art cannot transcend its own redundant trajectories, it simply serves to perform the regeneration of legitimacy and reify forms of symbolic critique. The image and the ecological now share the same fundamental aspects of destabilization stemming from a daunting relationship to simulation.

In order to address the crisis of unsustainability and mitigate the threats of ecological, social and economic collapse, we would need a radical transformation. However, because of our current relationship to identity, simulation and the organization of power and governance, there is a paucity of viable alternatives and a lack of the political agency needed to deviate from our entrenched path. This is the result of the coalescing of divergent crises: Our societal structures keep us from resolving our unsustainable way of life, but require our immediate attention.

²⁷ Ibid.

²⁸ Ibid, p. 267.

notion that all forms of politics are substantiated by societal structures that are at odds with our physical transience. Our cultural interest in the politics of the image (in both historical and contemporary iterations) is representative of the turn to symbolic politics, whose function, like simulation, serves the performative regeneration of legitimacy for the purpose of the stabilization and reproduction of the political system itself. The image and the current ecological crisis allude to the same systemic problem that Ingolfur Bluhdorn addresses in his paper “Sustaining the Unsustainable: Symbolic Politics and the Politics of Simulation”, “What [Murry Edelman’s] model of symbolic politics cannot capture is a condition where citizens expect – in the sense of both *want* and *anticipate* – that the government does not seriously implement the demands which they, nevertheless, continue to articulate. This is a seemingly schizophrenic condition where citizens want politics to be no more than symbolic, but still complain about the democratic deficits and ‘merely symbolic’ politics. This form of political communication can be aptly described with Nullmeier’s expression ‘performance of seriousness’. It is a political game that is, arguably, characteristic of late-modern society, and that is motivated by the characteristic dilemma caused by the post-ecologist turn and the exhaustion of authentic politics.”²⁶

Bluhdorn’s paper continues by addressing the inherent emptiness of the contemporary critique of symbolic politics that too often continues to rely on a simplistic conceptualization of political action that in actuality mobilizes a spectrum of layered and nuanced relationships through its realization. To relate this idea to contemporary art: To merely critique a system of commercial branding or the moral deficits of using identity and youth culture in advertising only reflects this simplistic political view of an already empty symbolic politic, which would at best suggest that real, authentic politics are

²⁶ Ingolfur Bluhdorn, p. 264.

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There's a test that looks for self-consciousness in animals by placing a mirror in front of them and evaluating how they react to their reflection. If the animal is able to recognize itself, then it is said to be self-aware – according to a system of consciousness that mirrors the human system of cognition. Some animals, dolphins for instance, become obsessed with their reflection and can spend great lengths of time evaluating their physique in the mirror as well as that of others in their community. It's possible to understand the human obsession with the image as it corresponds to this method of assessing consciousness. The more one is able to identify with one's own image, the more conscious the creature in our society. In a practical sense, it's logical to look to reduce ideas and objects to images in the pursuit of their own kind of metaphysical essence. However, to conflate images and objects, or perhaps combine the two, necessarily sees the domination of the image by the object, perhaps a testament to the enduring physicality of life over its philosophical understanding.

In such a way, it may be possible to better understand the objectification of images in contemporary art. As the virtual image gained fidelity and expanded across the Internet, its image-mapping techniques reached our primary reality by expanding the image onto every surface, most likely in an attempt to rationalize differences between virtual and primary reality. Along with the sort of heuristic potential to realize images and objects simultaneously, the objectification of the image also embodied our destabilized systems of representation. This disintegration of representation is paralleled by the virtual image, which is perhaps epitomized by the fidelity of the simulated photograph.

The disintegration of the image by its object is perhaps a nice allusion to the ways in which the physical can problematize our recursive forms of representation. It also underscores the

tive. Marinetti envisions the failure of his own project – but he understands this failure as a failure of progress itself, which leaves behind only debris, ruins, and personal catastrophes.”²⁴

Following from this case, Groys assesses the purpose of the confluence of art and activism. He argues that the philosophical concept of metanoia – or ‘the reversal of the gaze’, which enables contemporary art to look at its current historical period from the perspective of its end – is intrinsic to contemporary art practice. In our post-metaphysical society, justification for this metanoia lies in the multifaceted crises of technology, physicality and political economy. Groys notes, “Art seems to accept reality as it is, to accept the status quo. But art accepts the status quo as dysfunctional, as already failed – that is, from the revolutionary, or even post-revolutionary, perspective. Contemporary art puts our contemporaneity into art museums because it does not believe in the stability of the present conditions of our existence – to such a degree that contemporary art does not even try to improve these conditions. By defunctionalizing the status quo, art prefigures its coming revolutionary overturn. Or a new global war. Or a new global catastrophe. In any case, an event that will make the entirety of contemporary culture, including all its aspirations and projections, obsolete – as the French Revolution made all the aspirations, intellectual projections, and utopias of the Old Regime obsolete.”²⁵

If art “defunctionalizes the status quo and prefigures its coming revolutionary overturn,” it implicitly creates conditions that may lead to political intervention. This intervention, however, must transcend art’s categorical boundaries or risk being problematized by a late-capitalist practice and critique of symbolic politics, a practice that has become symbolically empty.

²⁴ Brois Goys, “On Art Activism”, e-flux journal, No. 56, 2014.

²⁵ Ibid.

As the physical world degrades and so corrodes the credibility of institutions that enable consumption, the status quo in the global north goes virtual. Within a short time, we’ve witnessed a rapidly increasing capacity to design, simulate and conjure a virtual perception of reality with exactitude and definition. Our ability to simulate reality has come to match our ability to record it. We’re able to simulate and produce a photographic image of an object without any need for the object itself. The same goes for retouched images and the act of retouching. As a result, images no longer need to represent the limits of production, but are limited only by our programs of artifice. This calls for a renewed focus on political subjectivity, specifically a subjectivity that mediates and problematizes artistic production and experience now inescapably laden with nuanced political dimension. The simulated photograph exists and functions primarily within this socio-political landscape. So, it is critical to unpack its relation to post-industrial production and illustrate its primary functions as they relate to a larger and more complex network of processes and concepts, which have the potential to obscure or abstract the physical externalities of capitalist consumption through idealist virtual worlds. Relating directly to capitalism’s habit of systemic failure, these virtual constructs are designed for the purpose of continuing capitalist consumption in our modern era. More than a decade after the earliest speculations on the virtual, we can now look critically at the ways in which these virtualities have been developed to offer insight into idealist technologies, and the way they morph and transmute with their social adaptation.

1.

To orient oneself in relation to any subject matter using a method of consistent analysis usually requires a degree of his-

torical accounting. To address the aesthetic dimension of the simulated photograph is to look at the various ways in which it relates to our subjective experience and, therefore, implies a long and overarching history already shaped by political struggle, which codifies its formal structure. The content of form becomes the most relevant feature of any act of production, artistic or otherwise. In order to place the simulated photograph in this context (which is nevertheless far from comprehensive), it is necessary to locate our contemporary methods of formulating subjectivity by looking briefly at the systems and structures that contribute to our ideas of selfhood.

In their book *Manufacturing Consent* from 1988, Noam Chomsky and Edward S. Herman argued that the institutions of mass media in the United States “are effective and powerful ideological institutions that carry out a system-supportive propaganda function by reliance on market forces, internalized assumptions, and self-censorship, and without overt coercion.”¹ Today, Chomsky’s and Herman’s premise is well known and informs the way we look at media produced by corporations. But contemporary culture is absolutely inundated with media, not just from traditional sources, also from social media. One would expect this horizontal expansion of communication to lead to the dismantling of censorship by challenging the institutional power that Chomsky and Herman cite. However, these horizontal technologies are also structured as businesses and therefore hinge on corporate platforms and their own political ideologies. Contrary to what subscribers may think, most social media platforms are driven by consumerist values rather than egalitarian principles. Since the 1990s, some have contended that these ‘systems of virtualization’ always communicate each platform’s ideology as much as any individual user’s message by giving equal

¹ Noam Chomsky and Edward S. Herman, *Manufacturing Consent*, Pantheon Books, 1988, p. 306.

propaganda of progress ideology: “The damage of progress is the damage caused by propaganda. I have always said that I am not against new technologies; I am only against promoting them. How can we not be alarmed by the media storm that erupts with each new product released with an apple as its logo? The media provides free promotion and participates in the mass illuminism which is at a far remove from information. It explains how augmented reality is passed off as progress in itself. Whereas these new perceptions come at a cost: the loss of a part of the field of perception, since augmented reality is nothing more than accelerated reality.”²³

Affirmations of Futurism are commonly made in current conversations centered around technology and speculation. An art movement, Futurism originated in the circles around Filippo Marinetti in the early twentieth century. Despite being commonly understood as glorifying the age of speed and the machine, Futurism would seem to have rather contradictory conclusions. In a recent article entitled *On Art Activism*, for instance, Boris Groys suggests that the Futurists’ artistic intentions may have been misconstrued by historians. While Futurism often looked to technology and modernity as subject matter, its members’ interest in these aspects of culture served to show their inherent paradoxes and contradictions. Groys writes, “For Marinetti, to aestheticize technologically driven modernity does not mean to glorify it or try to improve it, to make it more efficient by means of better design. On the contrary, from the beginning of his artistic career Marinetti looked at modernity in retrospect, as if it had already collapsed, as if it had already become a thing of the past – imagining himself in the ditch of History, or at best sitting in the countryside under incessant post-apocalyptic rain. And in this retrospective view, technologically driven, progress-oriented modernity looks like a total catastrophe. It is hardly an optimistic perspec-

²³ Paul Virilio, p. 39.

side effects of afforestation, artificial ocean upwelling, ocean iron fertilization, ocean alkalization and solar radiation management during a high carbon dioxide-emission scenario. We find that even when applied continuously and at scales as large as currently deemed possible, all methods are, individually, either relatively ineffective with limited (<8%) warming reductions, or they have potentially severe side effects and cannot be stopped without causing rapid climate change. Our simulations suggest that the potential for these types of climate engineering to make up for failed mitigation may be very limited.”²²

As we have seen with other neoliberal political strategies relating to the economy as well as climate change, however, neither a scientific nor an academic consensus necessarily has a tremendous ability to affect political decision-making. The contemporary neoliberal manifestation of unrestricted capitalism and the ‘market knows best’ ideology will certainly make climate-engineering an enticing option as the mitigation of the climate crisis becomes a burgeoning market. As with the stock market, complex networks and technologies of speed will dictate an ecological intervention via technology in ways that could potentially discount the disastrous effects on human lives, as happened with rampant foreclosures and the implementation of the austerity state following the 2008 financial crash.

6.

While many have questioned the validity of progress, there’s nothing inherently wrong with the concept. Instead, problems arise in that the contemporary culture around progress (today realized by the prosthetic possibilities of technology) justifies behavior inconsistent with an egalitarian society. Here, too, Virilio makes a particularly interesting point in speaking to the

²² Ibid.

status to both. This reality has escaped many contemporary users while supporting the perception that there is freedom of will and choice on these platforms – and thus the potential for subversion or other philosophical strategies contrary to the platforms’ innate capitalist pursuits. By choice or mass effect, then, we participate in and in fact promulgate a neoliberal political ideology that uses principles of corporate branding to mold identities in ways that strengthen consumerist values and implant them deeply within our constructs of our selves.²

Writing about the development of the neoliberal identity in the era of social media, author Philip Mirowski notes, “[Social media] is the ultimate in reflexive apparatus: it is a wildly successful business that teaches its participants how to turn themselves into a flexible entrepreneurial identity [...] It incorporates subtle algorithms that force participants to regularly change and augment their profiles, thus continuously destabilizing their ‘identity’, as well as inducing real-time metrics to continuously monitor their accumulated ‘friends’ and numbers of ‘hits’ on their pages. It distills the persona down to a jumble of unexplained tastes and alliances, the *mélange* of which requires the constant care and management by an entity that bears some tenuous relationship to the persona uploaded, but must maintain an assured clear distance from it [...] As the consequences of multiple personas of indeterminate provenance proliferate, the solution for Facebook problems is always more tinkering on Facebook. If you don’t like the profile you made, you can attempt to erase it, but with only indifferent success.

² This is in line with the theory of neoliberalism stemming from Friedrich Hayek and the Mont Pelerin Society. To quote social theorist and political economist David Harvey: “Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices.” In: *A Brief History of Neoliberalism*, Oxford University Press, 2005, p. 2.

It is a scale model of the neoliberal self, and most instructively, it makes a profit.”³

As outlined by Mirowski, human capital is fundamental to neoliberalism. Through a more active, technological participation in the economy, the alienating aspects of the traditional capitalist conception of work become obscured and the human being becomes a value in itself. The concept of human capital combines the notions of consumer and producer in such a way that the oppositional elements that risk breaking down the individual under the standard conditions of capitalism are erased. In an elementary sense, the consumer becomes a producer and is tasked with producing his or her own satisfaction. Satisfaction is conveyed through our ability to convince others to endorse or privilege our nuanced experience of consumption through a highly personalized and accelerated media methodology. In this way, the consumer grows his or her human capital.

If a social media user replaces or supplements traditional mass media, the confluence of social media users itself becomes and perpetuates “a system-supportive propaganda function by reliance on market forces, internalized assumptions, and self-censorship, and without overt coercion” (Chomsky and Herman once again). As a virtualized society, we become our own keepers through ideological idealism and a narrative of technological progress and freedom. This has led to a positive identification with the neoliberal ‘opportunity’ society, which technologically creates the conditions for the full realization of the consumerist self. The neoliberal conception of identity “can be realised only within but not beyond the established system,” as Ingolfur Bluhdorn argues, as “potential experiences of exclusion and alienation can at best trigger demands for tighter inclusion into the system but not the desire to opt out of con-

³ Philip Mirowski, *Never Let a Serious Crisis Go to Waste*, W. W. Norton & Company, 2013, pp. 112–113.

Recent academic scholarship and several paneled conferences on climate engineering have suggested that there might be ways to concisely hack the climate to save ourselves from catastrophe.²⁰ Some believe that we will at some point develop inexpensive technologies that can alter the atmosphere – or materials that can be placed in the oceans or other remote areas of the world to absorb carbon emissions. But such strategies could have enormous repercussions, and many believe that, at best, they would offer a short-term fix to a systemic problem.²¹ Far from being reliable science, these thought experiments generally offer almost inconceivable solutions to systemic problems. And most of them are premised on the fact that we would have to experience catastrophe (as if we could agree on what that would be) before implementing them. To seed clouds in the sky with giant sprayers autonomously traversing the ocean at a scale that would produce results, for instance, would rely on systems of government with a level of consolidated power only witnessed under totalitarianism or states of exception during wartime.

While it seems logical to expect some future scientific intervention in the climate crisis, research has dispelled the efficacy of these propositions and refuted many of their claims. One such paper argues, “The realization that mitigation efforts to reduce carbon dioxide emissions have, until now, been relatively ineffective has led to an increasing interest in climate engineering as a possible means of preventing the potentially catastrophic consequences of climate change. While many studies have addressed the potential effectiveness of individual methods there have been few attempts to compare them. Here we use an Earth system model to compare the effectiveness and

²⁰ “Climate Engineering: In from the Cold”, *Harvard Gazette*, February 20, 2015. Online at: www.nature.com.

²¹ David P. Keller, Elias Y. Feng and Andreas Oschlies, “Potential climate engineering effectiveness and side effects during a high CO₂-emission scenario”, *Nature Communications*, Article No. 3304, 2014.

world.”¹⁵ According to the World Wildlife Foundation’s Living Planet 2014 report, in the last forty years – from 1970 to 2010 – the Earth has lost over half of its wildlife population.¹⁶ In March 2015, the entire globe broke 400 ppm in carbon dioxide levels.¹⁷ Even more disturbing is the notion that we have already reached the tipping point and are just now feeling the effects of old emissions. It will take decades for current emissions to take their full effect. Even if emissions stopped immediately, existing gases would contribute to global warming and rising sea levels for at least one thousand years, further destabilizing the ecological balance and triggering a chain of events that would be catastrophic, despite our best attempts at mitigation.¹⁸

A recent Stanford University study from the Virtual Human Interaction Lab revealed that when people interacted with a virtual version of themselves at an old age, and were then asked if they were more likely to save money for retirement, the majority answered yes.¹⁹ Although a rather casual method of experimentation, the idea that people are willing to change their behavior after even a brief encounter with simulated reality has significant implications. These simulated experiences in fact open the possibility for a shift in human psychology and reasoning. Ideal virtual worlds are not only an effective means of masking our primary reality, they also suggest to the human psyche that with the aid of technology, we have the capacity to preserve current conditions as well as a version of capitalism by geo-engineering the climate.

¹⁵ “Now the Pentagon tells Bush: climate change will destroy us”, The Guardian, February 22, 2004.

¹⁶ Available for download at: wwf.panda.org.

¹⁷ “Atmospheric carbon dioxide hits record high”, EarthSky, May 6, 2015.

¹⁸ “Climate Change 2007”, Intergovernmental Panel on Climate Change, p. 17.

¹⁹ Dorothy Pomerantz, “Rethinking Old Age”, Forbes, November 10, 2007.

sumer capitalism and for abandoning it wholesale. Indeed, as alternative political and economic systems, to the extent that they can at all be imagined, represent a threat to the realisation of the consumer identity, the uncompromising defence of the established system becomes a categorical imperative.”⁴

This simple premise has deep implications in that it alludes to a shift in the systemic control of society – toward rhizomatic structures that are inherent to the technologies on which our society is centered. This concept has been further developed by Alexander Galloway, whose thinking and research into the protological elements of the Internet suggests that the distributed network is the diagram for our current social formation and that the method of control in the distributed network is protocol, or the fundamental set of programming rules that outline specific technical standards. From *Protocol*: “In *The History of Sexuality, Volume 1*, Foucault contrasts the older power of the sovereign over life (one characterized by the metaphysical concern of either the absence or presence of life) to a new mode in which life is either created or destroyed: ‘One might say that the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death.’ He continues: ‘The old power of death that symbolized sovereign power was now carefully supplanted by the *administration of bodies* and the *calculated management of life*.’ Foucault’s treatment of biopower is entirely protocological. Protocol is to control societies as the panopticon is to disciplinary societies.”⁵

Both Bluhdorn’s and Galloway’s analyses suggest that our current social arrangement according to the distributed network is an emergent model of practical governance. They point to an extension of the reach of capitalism, whereby

⁴ Ingolfur Bluhdorn, “Sustaining the Unsustainable: Symbolic Politics and the Politics of Simulation”, *Environmental Politics*, Vol. 16, Issue 2, 2007, p. 261.

⁵ Alexander R. Galloway, *Protocol: How Control exists after Decentralization*, MIT Press, 2004, p. 13.

profit-oriented corporations have adopted the strategic administration of meaning through various modes of virtuality. Capitalism has gained an ability to progressively colonize social life beyond the arena of production proper, expanding into civil society in general, and the very foundations of selfhood through the destruction of society's historicity – that is, individuals' capacity for historical action. Photography has played a critical role in these developments, as it has become a means for producing quickly accessible and editable data. This has changed the relationship between a viewer and a photograph, from the traditional notion of looking at an image to a perceptual methodology closer to scanning. A photograph is no longer something to assess as historical record or aesthetic composition, but rather a quick and socially pliant summary of a personalized experience with a complex network of commodification. The photograph has ceased to be the end result of a process merely recording reality or freezing a moment in time. It has become the primary medium conducive to malleable social ideals, while still suggesting that it is true and accurate.

2.

In his book *Virtual Realism*, from 1998, author Michael Heim offers a number of perspectives on the virtual experience. In one passage, he suggests that the virtual will not look to emulate primary reality, but will instead be realized as nuanced worlds filled with the logic of artists – as opposed to programmers. Artificial worlds, he writes, should not be denounced “as distractions from the real world we inhabit,” an argument which he rejects as a Luddite extremist view of technological development.⁶ In many ways, our abstract, virtualized worlds have become as fundamental as our physical lives. One need

⁶ Michael Heim, *Virtual Realism*, Oxford University Press, 1998, p. 48.

ventriloquize the current industrial arrangement is, for this very reason, politically retrograde?”¹³

Galloway concludes that article, “The Poverty of Philosophy: Realism and Post-Fordism”, by making the important distinction between materialism and realism, pointing out that materialism must be historical and critical, whereas realism tends to be ahistorical. By historicizing object-oriented ontology, we are able to discern the links between the underlying computational capitalism and its theoretical and philosophical manifestations.

This is where the simulated photograph is located. In equal parts a relic of a now past industrial society and the basis of a new form of communication justifying a new era of post-industrial extraction, it points to the notion that informational societies are not a break from the past, but are indebted to historical forms of regulation and power.

5.

Our inevitable climate future is becoming increasingly obvious. Statistics documenting catastrophic climate change are now relatively common in the media. A parade with politicians and celebrities was organized in New York City to mark the topic's official induction into canonical liberal politics.¹⁴ In an official report from 2004, the Pentagon paints a saber-rattling image – as *The Guardian* described it: “Major European cities will be sunk beneath rising seas [...] nuclear conflict, megadroughts, famine and widespread rioting will erupt across the

¹³ Alexander Galloway, “The Poverty of Philosophy: Realism and Post-Fordism”, *Critical Inquiry*, Winter 2013.

¹⁴ “Largest Global Call for Climate Action in History, Nearly 400,000 march in NY, events in over 150 countries”, a press release from People's Climate March, published on September 21, 2014.

perhaps epitomized by Microsoft's newest slogan, "When you change the way you see the world, you can change the world you want to see" – a perversion of Gandhi's "be the change you want to see."

This shift in ideological perception is also reflected in the contemporary philosophy blogosphere, as many allude to the potentialities of philosophical systems described in speculative realism and object-oriented ontology. Interestingly, the very existence of these philosophies might be attributable (at least initially) to the virtual itself, as its development as a movement and its continuing propagation occurred largely through the Internet. This decentralized method of development has shaped the ontological dimension of these projects and presupposes that the Internet is a transparent channel for transmission, rather than a medium that endorses, shapes and creates certain ways of thinking and relating to things. In developing philosophical perspectives through software, blogs, tweets and the like, it is hardly coincidental that what may be the first Internet or born-digital philosophy has characteristics that suggest the underlying ideological principles of these platforms and corporations.

These observations present interesting political challenges to these philosophies, prompting Alexander Galloway to write, "(1) If recent realist philosophy mimics the infrastructure of contemporary capitalism, should we not show it the door based on this fact alone, the assumption being that any mere repackaging of contemporary ideology is, by definition, anti-scientific and therefore suspect on epistemological grounds? And (2) even if one overlooks the epistemological shortcomings, should we not critique it on purely political grounds, the argument being that any philosophical project that seeks to

only experience cyberbullying or consider the virtualization of the economy to understand the real-life implications of our digital experiences. Such experiences have also become less aesthetically abstract. In fact, simulation has often become so 'real' to us that it is hardly recognizable. Its presence in our lives can pass unnoticed. Images produced with simulated photography, for instance, appear as often as other forms of representation. In the cases of advertising and commercial cinema, we're likely to encounter the simulated image more frequently than the actual, be it in the form of a cascading wall of water or the image of a Nike shoe. The images are so real in appearance that viewers may not realize that the photographs they see, for example in an Ikea catalogue, are virtual representations of idealistic rooms whose images were produced outside the nagging constraints of the furniture's physical production.

Like the introduction of roll film in the 1880s and the inclusion of digital cameras on the smartphone, photography has historically been defined by praxis and accessibility. For that reason, we could reasonably expect the simulated photograph's relationship to an economy of speculation to be maintained as it becomes a more commonplace and accessible method of image production for everyday users. For instance, rendered images of CAD drawings have recently posed a problem on Kickstarter, prompting the company to ban photo-quality images that could be mistaken for the final product.

It's important to consider the differences between a photograph created with a computer program and one captured by a camera in order to give some context to the logical trajectory of these technologies. Despite all the algorithmic image processing that happens in contemporary cameras, the basic principle of a camera is that it records what's in front of it. The abnormalities of the physical world are still represented in the raw data acquired by the camera, and these imperfections must be removed, if desired, using software by a computer operator.

By extension, our ability to change these images is therefore mitigated by ethical judgements.

With the simulated photograph rendered via software, however, it's possible to create the perception of reality without imperfections. As with every simulation, the idea of the technical apparatus of photography is still present, and the act of capturing a specific moment still exists – implying a degree of photographic authenticity. This kind of aesthetic idealism is perhaps echoed most closely by the depiction of the human form in the classical Greek era, when figures were rendered as superhuman “representatives of power, the perfect beauty and goodness which can only exist in forms and ideas according to Plato.”⁷ For its part, the simulated photograph depicts an ideal reality with objects and environments imbued with power and perfect beauty in the same fashion as Greek idealism and lends to its author an unlimited combination of potential images.

According to these distinctions, the simulated photograph has and will continue to develop deep connections to the way in which we validate and reify our primary reality. It also suggests the ways in which we will inevitably look to lead more virtualized lives. These common examples of the uses of the simulated photograph are reminiscent of the imagery evoked by Jean Baudrillard in his seminal work *Simulacra and Simulation*, from 1981. The contemporary simulated photograph realizes the collective imagination that existed around the time Baudrillard wrote the fourth, late-capitalist phase of his philosophical treatise. It typifies the idea of simulacra depicting with fidelity a reality of its own. Baudrillard describes the nuanced differences between simulation and representation and the former's eventual paradoxical philosophical position, stating: “Representation starts from the principle that the sign and the real are equivalent (even

⁷ Percy Gardner, Idealism in Greek Art, in: *The Art World*, Vol. 1, No. 6 (March 1917), pp. 419–421.

in our daily lives than in those of its human operators, which has resulted in the realization of a hyper-capitalism between complex networks. This is at odds with an idealist/populist vision of our technological future once proposed by the Internet's own authors and advocates. The simulated photograph is situated within this theoretical landscape – a potentiality of the systematic camera (a method of creating images without physical constraints), and the reification of a techno-idealism. The simulated photograph reflects our society's desire to maintain institutions of power and influence regardless of their logical shortcomings and systemic failures.

Despite some changes in the relationship between an image and its physical form, photography has been unable to shed its fundamental industrial nature. As a whole, its output has shifted from printing to the use of devices that necessitate frequent technological upgrades. The evolution from paper coated in a rare earth material (silver is the foundational element for all photographic papers) to electronics thus extends photography's legacy of externalizing the toxicity of the image. The future of photography, like the future of all technology, is in confronting these externalities. How can we live in a society with an ever-increasing desire for every facet of life to be mediated by technology and yet expect to live in a world without the devastating environmental impact of the industrialism needed to sustain it?¹² This implicates the virtual in a dramatic way. If we can easily overlook injustice or other social ailments, then the continuation of status quo capitalism is no longer problematic. Living with a virtual world obscures our relationship to our subjective physicality and results in a precarious world view

¹² From a white paper issued by the Chinese cabinet: “Excessive rare earth mining has resulted in landslides, clogged rivers, environmental pollution emergencies and even major accidents and disasters, causing great damage to people's safety and health and the ecological environment.” Quoted in: “China, Citing Errors, Vows to Overhaul Rare Earth Industry”, *The New York Times*, June 20, 2012.

augmented consciousness – that just a bit further down the road we'll have the mental and physical capacity to deal with those problems of the here and now created by the limits of science as we know it.

4.

In a 1994 text titled *The Political Economy of Virtual Reality*, Arthur Kroker makes the argument that, “The state, under current conditions of pan-capitalism, functions to administer austerity to a population that has been conditioned in hi-tech consumer economies to desire a virtual paradise [...] Virtualized economy is an economy of disappearances: the disappearance of the main factors of capitalist production (labor and products most of all), and the disappearance of the key *relations* of production (the class system of classical capitalism). Not even an *economy* any longer, but the vanishing of the economic into a global virtual space of telematic transactions: a wired economy that quickly dissolves products into relational processes, labor into networks of cybernetic knowledge, and consumer ‘purchasing power’ into *political opportunities* for policing interventions by the austerity state through consumption taxes. In the age of virtuality only speed of circulation matters. A nomadic economy that is already post-economic: where capitalism is preserved as a *mise-en-scene* distracting the eye from the liquidation of the real material relations of production and the triumph of the virtualized commodity-form.”¹¹

After the systemic failure of the global banking system and its swift reinstitution, Kroker’s analysis seems more realistic than it might have at the dawn of our digital consciousness. The virtual world has in many ways become more important

¹¹ Arthur Kroker, *The Political Economy of Virtual Reality: Pan-Capitalism*, CTHEORY, 1994. Online at: <http://www.ctheory.net/articles.aspx?id=49>.

if this equivalence is Utopian, it is a fundamental axiom). Conversely, simulation starts from the Utopia of this principle of equivalence, *from the radical negation of the sign as value*, from the sign as reversion and death sentence of every reference. Whereas representation tries to absorb simulation by interpreting it as false representation, simulation envelops the whole edifice of representation as itself a simulacrum.”⁸ Baudrillard contends that in simulated reality, referents refer only to other referents and enter into a relationship that no longer purports to be representative of real experience. In this condition, real experience is portrayed as naive and lacking in a kind of self-reflexiveness. This derives from a state of ‘hyperreality’, where the sign conditionally becomes more real than whatever it represents. Within Baudrillard’s analysis, hyperreality manifests our contemporary condition, which obscures essential societal relationships between reality and simulacra in a way that enables its manipulation by media, multinational capitalism, urbanization and other modalities of power. Although Baudrillard’s analysis has become almost commonplace, its irresolvable logic is no less pertinent. As portrayed by Bluhdorn, to live with simulation or virtuality is to search for ways to stabilize our lives in systemic unsustainability. When our narratives or our referents collapse, we don’t necessarily disregard them, but seek meaning in them by their incongruent recombinations. In our attempts to preserve our sense of a status quo, we seek tighter societal inclusion, since any attempt to abandon it would represent an attack on our own self-realization.

⁸ Jean Baudrillard, *Selected Writings*, ed. by Mark Poster, Stanford University Press, 2002, p. 170.

3.

Michael Heim continues, in *Virtual Realism*, by describing the technical apparatus of the virtual as it was in 1998. In one poignant paragraph, he describes the head-mounted display (still our current setup for virtual reality technology) with overtones of a creepy dystopian vision, of a symbiosis between user and apparatus. “The head-mounted display (HMD) resembles the hood placed over a trained falcon’s head so it doesn’t fly away. The HMD allows the user no choice but to ignore the distractions of the surroundings. The HMD uses tiny light-weight stereo binoculars to display computer graphics just inches in front of the eyes. The earphones built into the helmet allow the user to hear only the computer-controlled sounds of the virtual environment. By shutting out the primary world, the HMD forces the user to take all sensory input from the virtual world. The HMD allows you a choice of where to look, but the choices are limited to the virtual world. As you move your head, eyes, and ears, the displays and earphones present the appropriate viewpoints – all instantly calculated and recalculated by the computer.”⁹

Overt associations with hoods have never been particularly good. A hood implies control over the wearer. It obscures identity and is a device used in kidnapping, humiliation, torture and execution. In recent years, the hood has become a symbol of CIA torture, as images of hooded captives held in political prisons have gained notice around the world. It’s hardly a surprise, then, that the military has a long history with simulation and virtual worlds and has designed some of the most complex and immersive environments for training or other military purposes. The flight simulator’s drone legacy is arguably the most effective branch of today’s military, executing the president’s ‘kill list’ from remote locations without any chance of

⁹ Michael Heim, p. 20.

harm to the operator. Paul Virilio’s *The Administration of Fear*, from 2012, offers a concise history of technology’s relationship to militarization: “Let’s remember that science started to become militarized in World War I with chemical warfare, but was only truly militarized with the H-bomb, which was on an entirely different level as an absolute weapon. We must see reality as it is. Since Hiroshima, Western democracies and the USSR, followed by Russia, and the rest of the world by means of diplomatic alliances and preferences, have lived with a military regime overshadowing political life. We can graciously recognize that this would be in democracy’s interest if it wanted to be preserved, but we must also admit that it created a politically uncomfortable situation. It is even politically incorrect because democracy, under this military-scientific regime, can only survive in an illusory and very partial manner.”¹⁰

Virilio’s “illusory and partial” democracy hardly needs a better illustration than our contemporary surveillance state. While it would have been hard for Heim to imagine the real-life perils of electronic surveillance in 1998, today, the well-documented ability to surveil and track entire populations is no mere fantasy from dystopian literature. The world has never seen a system of surveillance as complex and thorough as today’s National Security state. And yet, society’s chase after spectacle opens the floodgate to an ever-growing desire to surrender our fundamental perceptual abilities to technology, despite our knowledge that the technological capabilities to control, alter, surveil and track are already present in our lives. Why would we continue this globalized, technological assault on the very conditions that make our lives possible? The answer seems to lie between two notions: one concerning the human struggle to find meaningful relationships and the necessity to find stability inherent to all living systems; and the other complicated by the myth of progress, of an idealized,

¹⁰ Paul Virilio, *The Administration of Fear*, Semiotext(e), 2012, p. 22.