

# Contemporary Art and Digital Culture

Melissa Gronlund



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# Contemporary Art and Digital Culture

*Contemporary Art and Digital Culture* analyses the impact of the internet and digital technologies upon art today. Art over the last fifteen years has been deeply inflected by the rise of the internet as a mass cultural and socio-political medium, while also responding to urgent economic and political events, from the financial crisis of 2008 to the ongoing conflicts in the Middle East.

This book looks at how contemporary art addresses digitality, circulation, privacy, and globalisation, and suggests how feminism and gender binaries have been shifted by new mediations of identity. It situates current artistic practice both in canonical art history and in technological predecessors such as cybernetics and net.art, and takes stock of how the art-world infrastructure has reacted to the internet's promises of democratisation.

An invaluable resource for undergraduate and postgraduate students of contemporary art – especially those studying history of art and art practice and theory – as well as those working in film, media, curation, or art education.

**Melissa Gronlund** is a writer and lecturer on contemporary art, specialising in the moving image. From 2007–2015, she was co-editor of the journal *Afterall*, and her writing has appeared there and in *Artforum*, *e-flux journal*, *frieze*, the *New Yorker.com*, and many other places.



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# Introduction

## Beyond the visible image

Twice I've been wrong about the internet.

When I was in high school in New York in the early 1990s, my parents had a technologically savvy friend. He told us about a service he had signed up to, America Online. "If you log on to my computer", he said, "we can find out what the weather is like in Detroit". "Why would you want to know what the weather is in Detroit?" I thought. This thing's a bust.

When I graduated from college, I had only vague ideas of what I wanted to do and used my college career services department to apply for various jobs. One was an alum working out of his house in Westchester County, New York, who was starting an internet company that could put comments boxes on news stories on the web. "You could put a box on this *New York Times* story and feed back on what you think", he explained in my interview. "Why would the *New York Times* care what you think?" I thought. They're the *New York Times*. This thing's a bust.

It goes without saying I hope this isn't the third time I'm wrong about the internet.

This book addresses the profound changes that digital culture has had on contemporary art and sets out the history within which new experiments with digital culture should be seen. As with many movements that invoke the new, or which feel themselves to be part of a sea change, the artwork about the internet and digital technologies since the mid-2000s has sought to present itself as a break from the past. It portrays the world after the internet as so irrevocably changed that the work made within it is changed as well. This book will look seriously at what typifies the art of digital culture and show how it comes out of the tenets that ran throughout the twentieth century. It will also seek to understand the effects that digital culture has had on the infrastructure of the art world and on theorisations of the art object and, most importantly, to look closely at the works themselves and the themes they explore.

\*

Art made in response to the internet and digital technologies addresses the changes to identity, to political freedoms, to behaviour, and to codes of representation through the prism of the digital. It is work about the internet, but not

## 2 *Beyond the visible image*

necessarily on the internet, and tracks the internet's emergence into the mainstream, particularly as a platform for social media. Art concerned with digital culture tends to be discursive and representational, arguing for a story, setting out a case, or operating as a metaphor for a state of affect engendered by a digital reality. This notion of affect is key: a great number of post-internet works try to get across the new *feeling* of a life lived in the digital era, and the first-person narrator is a major navigator through this territory.

Medium loses its importance, as work appears in one medium only to migrate to another in a different exhibition context. Sculptural works, employing new items of technology in assemblages, become circulated images; videos appear in immersive installations that privilege spectatorship; performances are accumulative. Works are also made online, using and critiquing the new social media platforms of the Web 2.0, whose rise is coincident with that of expanded digital culture. Among these crossings of boundaries, one mode is crucial: that of performance, particularly the lecture-performance and a mode I call personation. These allow the individual to demonstrate his or her bodily self as against the technology that operates under a register of the omnipotent mind.

The years that this study focuses on, from roughly the mid-2000s to 2016, are those in which the internet and digital technologies move, like debris from an avalanche, into daily life: Facebook is founded in 2004, YouTube in 2005, Twitter in 2006, and the iPhone appears in 2007. The young artists whose work is commonly, though contentiously, referred to as "post-internet art" emerge alongside these developments, and at the same time, concerns related to the internet and digital technologies – patterns of circulation, information, and digital representation – inflect the work of already established critical artists. It is important to underline the feedback loop here, to use a cybernetic term. The internet and digitality become concerns for artists just as the internet and digitality become parts of everyday life.

Indeed, the intersection between daily life and digital culture is precisely the field investigated by art of digital culture.

The digital bleeds into all other categories of life and cultural production: its radical reorganisation of how we live is one reason for the multitude of artistic responses to it as well as to the enthusiasm with which these have been greeted. People are hungry for sense to be made of these widespread changes. In this way, art that responds to digital culture during this time period can be distinguished from technological predecessors. The internet that movements such as net.art treated was a very different internet, and other earlier technological movements were regarded as marginal to the mainstream, sequestered within a technological ghetto.

### **The move into the mainstream**

It might seem odd that it took until the mid-2000s for the mainstream of contemporary art to start addressing the internet. At the turn of the millennium, the internet and digital technologies were a relatively minor subject in this mainstream,

which can be understood as constituted by a Bermuda Triangle of institutions, biennials, and commercial galleries. In the 2000s, moving-image work in the art world was still deeply invested in analogue technologies of 16mm and 35mm celluloid film and its paraphernalia of projectors and the film strip. Tacita Dean's triumphant monument to celluloid film, her Tate Modern Turbine Hall commission *FILM*, was made as late as 2011: that is, it took till 2011 for contemporary art to say, "Analogue film is dead! Long live analogue film". In sculpture, craft-based projects were resurgent, and painting, influenced by mass-production processes, was (and is) still a dominant mode of working. This suggests a conservative rather than avant-garde impulse at the heart of art-making – an implication that artists now seek to show what has been left behind as much as pushing forward with the new. When networks and computers were entering office spaces in the 1960s, one might remember, Conceptual artists became interested in the typewriter, the index card, and other physical effects of administration.

The slowness of art to pick up on digital technologies was one of the factors in a divisive 2012 *Artforum* article by Claire Bishop, "The Digital Divide: Contemporary Art and New Media", which queried why contemporary art was "so reluctant to describe our experience of digitized life" (Bishop 2012).<sup>1</sup> The article caused a furore with the net.art community and that of other artists working in digital media and media arts, who, of course, had been working in the field of digitised life. But Bishop's article, though reflecting a historical inaccuracy of artistic progression, accurately demonstrated the purview of the art mainstream, and the major magazines, art journals, and art academe who track it. The art mainstream's elitism and fence-building is itself something that net.art and other technological movements were keen to challenge; Bishop's article was doubly a slap in the face for them, marginalising these art practices by the very criteria they disavowed.

As internet usage has become ubiquitous, its potential challenge to this gallery–institution–biennial triangle of power has been one of its most exciting prospects. As a circulatory mechanism, it has allowed young artists to bypass curator and gallerist to post work online themselves and to use the internet's capacity for self-organisation and networking to establish new hybrid institutions that fulfil the role of producer, critic, and commercial gallerist alike. The reorganisation of these roles has been one of the claims made for the "sea change" effected by work of this period, and in this study, we will look at these views in detail. The movement of the internet into daily life means potential infrastructural shifts are part and parcel of what is meant by "new technologies", and indeed thought of in this way, we can see how art-making practice was indeed inflected by the internet and new technologies much earlier than the mid-2000s, as well as throughout the 2000s and 2010s in ways that are not related to simply the presence or absence of a digital console in an exhibition setting. By this, I mean the attitude shifts that are consonant with, though not solely determined by, the internet and digital technologies.

For example, my incredulity that the *New York Times* editors might care what is written in a small comments box below an article shows a deference to

authority and a passive readership of news and opinion that couldn't be further from engagement with knowledge structures today. Activity on the web is one of participation rather than consumption: commenting, live-blogging, forwarding or posting links, adding to Reddit threads, participating in memes. Exhibitions, particularly biennial openings, engender enormous immediate response on Instagram and Twitter, and curators actively cultivate this mediation. The move towards participation can also be seen in art practice. Artworks that require the participation of the public for their completion are now established art-making modes, whether codified in Relational Aesthetics or as a general aspect of performance, and exhibitions regularly privilege the participation of their viewers. Hans Ulrich Obrist's exhibition "Do It" (1993), which now has now taken place in more than fifty locations and is still ongoing, entirely comprises instruction pieces to be activated by the viewer. Instruction pieces and participation have a long history in art practice (Duchamp's sugar-cube ready-made, which he instructed his sister to make in 1917; Yoko Ono's book of instructions, *Grapefruit* (1964); Fluxus more generally in the 1960s), but by the 1990s, one can say they became a normalised artistic mode. It is also significant that the year of the first "Do It" – 1993 – is when the first web browsers were introduced for the general public. "Do It", you might say, is an exhibition for the internet age.

The intersection between art world and wider cultural trends in this example shows the promise of this field of enquiry – how art has responded to the everyday effects of internet and digital technologies – as well as its limitations: how on earth to chart a methodologically sound and achievable path through this vast territory. This is corroborated and compounded by the work itself: the refusal of internet- and digital-related queries to remain within formal parameters is fundamental to the work we are considering. Even delimiting the digital ontologically falters. The digital, as Kerstin Stakemeier (2014) has argued, is a meta-medium, an imaginary, and a social field as much as a description of a binary process of communicating information. Part of my project here will be to typify this sign of "digitality". Work concerned with digital technology freely moves from formal investigations of the medium to socio-economic or affective implications, and back again. Its wide purview also means it directly addresses other societal, economic, and political shifts that have occurred over the same time period of its development – not just the Silicon Valley tech innovations, but the catastrophic political and economic events that bookend and punctuate it: the Iraq War begins in 2003, vastly amplifying Western military engagement in the Middle East; the financial crash of 2008 results in a further widening of the income and wealth gap in the West; the Arab Spring of 2011 puts paid to hopes for stability in the Middle East; and Edward Snowden's revelations about the National Security Agency's (NSA) internet surveillance program, in 2013, initiates a sentiment of deep scepticism and anxiety over the internet that profoundly contrasts with the feeling of optimism it engendered among artists in the 1990s. These events figure heavily in the work produced and will be guiding factors in our discussion of them.

Seeking to situate art responding to digital culture within an art history also poses challenges, as parameters for periodisation have been rendered murky by a lack of clarity over postmodernism, the last fully periodised cultural movement. Postmodernism, when it appeared in the 1980s, was very clear about itself, defined explicitly in reaction to modernism. But the received understandings of both modernism and postmodernism have since shifted. The return to modernism as a theoretical construct, in Roger M. Buergel's edition of *Documenta* (2007); the artistic (and market-encouraged) return to modernist geometrical forms and abstraction in painting and sculpture in the 2000s and 2010s; the widening of modernism geographically (the idea of many modernisms); and Latour's influential challenge to the very idea of Western modernity (*We Have Never Been Modern*, 1991; English translation, 1993), has undermined a stable identity for the period. The suggestion that postmodernism was merely the tail end of modernism rather than its own movement has also made its characterisations less secure – postmodernism becomes a hiccup rather than a sequential phase, shot through with questions of hyper-reality and appropriation but not one necessarily moving on from its predecessor in any sort of teleological or dialectic progression. The failure to identify what has followed postmodernism – posthumanism? – likewise contributes to the feeling of stasis or progression breaking down. Teleology itself was critiqued under the (chronologically constituted) sign of postmodernism and poststructuralism, and that critique has proved robust and pervasive. The end of “grand narratives” is part of the cultural theory imaginary, alongside the aura and the gaze. This problem of periodisation has led to proclaiming the end of art (David Joselit) or forgetting the art world (Pamela Lee). Peter Osborne, in *Anywhere or Not at All: Philosophy of Contemporary Art* (2013), conceives of contemporary art as a spatial phenomenon, connected to transnational globality as much as a temporal progression or index of time.

This is to suggest that the rather broadsheet-minded allegations of the irruption of the digital moment have their roots in greater anxieties around time and periodisation than just in the notion that life was so very different before we had iPhones. Post-internet art doesn't explicitly promote its connections to technological predecessors such as cybernetics and net.art, nor with other traditions that one might think it would have come out of. Most of the discourses that artists cite are themselves young disciplines: accelerationism, speculative realism, object-oriented ontology. Artworks make connections among music, design, advertising, and film – a dispersion of kinds of culture in the present moment rather than a chain of historical connections.

The notion of the immense, irrevocable, and universal paradigm shift that has been accomplished by the ubiquity of digital and communication technologies forms part of the controversy over “post-internet art”, which is seen as alleging radical novelty where there is in fact only artistic rehashing. This has been exacerbated by the parameters for the category of post-internet art being set as a function of age rather than intentionality or shared characteristics. One is forced to imagine an entire swathe of young people so interpellated by internet and digital technologies they are constitutionally different from anyone with

wrinkles, even incipient ones.<sup>2</sup> Shows like the New Museum's "Younger than Jesus" (2009), of artists under the age of 33, in New York, or the Serpentine's 89plus Marathon event (2013), in London, comprised of artists born after 1989, and its subsequent 89Plus project set the boundaries of the movement as generational. This is echoed within the rhetoric and reception of post-internet art. Speaking about the New Museum's triennial "Surround Audience" (2015), made up of post-internet artists, the show's co-curator, the artist Ryan Trecartin, framed art-making as a mode of behaviour and as one that deliberately denies historical focus: artists, Trecartin said,

aren't concerned with the somewhat parochial thinking about what an art practice can or should encompass right now. It's hard to meditate on potential futures when we are still transitioning out of a period that has been culturally obsessed with defining the past through acts of rejection or fetishisation. There are many artists today who are not only looking past older entrenched ways of thinking about art, they are actually *behaving* past it.

(quoted in Burns, *The Guardian*, 2015)

And Holland Carter, the *New York Times* critic, on the same show: "So, if you're expecting a 'digital' show, you won't get one, or not one that advertises itself as such. For most of the participants, the majority born in the 1980s, digital is nothing special, no big deal. It's a given. It's reality" (Carter 2015). It's reality. Reality itself has changed.

Throughout this book, I hope to complicate this rather large claim but also take it on board as a signifying illusion. For Trecartin is right: post-internet work does constantly try to unmoor itself from the past. The notion of its being out of time is part of the work's affective response to a bleak political and economic time. The time of post-internet is one of perennial catastrophe – a present that has turned its back on the elegiac ruins of analogue to find an information age whose promises of democratisation and political emancipation have soured. Historical progression, if it inheres, is in the morally ambiguous form of accelerationism, where crisis arrives as an "apocalyptic messenger" (Stakemeier 2014, 178). Elsewhere, the past appears, Stakemeier writes, "not oriented towards a future perspective, be it utopian or dystopian", but simply "drifting repetitions" (2014, 172). By following a rather straightforward historiography, I want to show how the complex of characteristics evoked by these "drifting repetitions" has been formed, as well as to understand their unique temporality today. Indeed, following Stakemeier, I want to sketch out a state of digitality as a mode of both critique and compromise.

## **Digitality**

The condition of digitality has three main facets: deterritorialisation, the reit-erability of information, and a visual basis in the image. These scale from the imaginary into reality: the notion of the internet as deterritorialised, for example,

is untrue in the sense of the physical incorporation of the tech companies that provide the platforms and the physicality of server farms and the consoles by which we access material. But an important (and consterning) facet of the internet is the way it takes on board its illusions as reality. The image of deterritorialisation draws from the experience given by the web of information flowing seamlessly from site to site, or from the larger context of increasing globalisation and post-Arab Spring mass migration that the internet is set within. Partially, this is because the real workings of the internet surpass general knowledge and partially because they are deliberately obscured by tech corporations in order to create “user friendliness”. The signifying power of illusions also occurs in theories of technology. In her seminal study *How We Became Posthuman* (1999), N. Katherine Hayles, for example, treats the emergence of the category of the posthuman by drawing on the history of cybernetics and science fiction alike.

Similarly, the online image is not infinitely reiterable but gives the impression of being so. This suggests the possibility of infinite semiotic substitution, something symbolised by the reigning post-internet motif of the green screen. Digitality thus reflects a weakening power of the image even as images become ubiquitous. In this way language, that poststructuralist arena of mutating meaning par excellence, becomes less fungible in online circulation than images. This can be seen in everyday experience – activists, for example, take pains to stage the linguistic reading of the image, designing their protest signs with media circulation in mind or by ambushing photo ops with their written messages. Language piggy-backs onto the circulation of the image, with captions inserted into the images themselves such that their reading cannot be re-determined.<sup>3</sup>

This weakening of the image is compounded by a critique of visibility as a political strategy. Where identity politics saw the emergence into visibility as a form of political empowerment, the positive valences of this visibility is countered by the fact that visibility on the internet makes one liable to surveillance and data mining. Responding to this, a number of contra-visibility critiques attempt to understand politics in visual culture when visuality itself is compromised. Hito Steyerl and David Joselit, in separate contexts, have put forward the idea of being “in between the cracks”, or in between discourses, where the route towards political emancipation lies in access rather than visibility. This reflects a move beyond the binary of public/private, or audience/individual, and towards the network-centric thinking of a number of networks existing side by side.

Similarly, a number of politically engaged works are invested not in visuality but in embodiment. Works by artists such as Lawrence Abu Hamdan and Bouchra Khalili look at oral speech as a means to connote political representation and belonging. Orality comes to signal embodiment but also, as public speech, entry into the demos and political engagement. These works suggest that the realm of governmentality continues to be associated with offline exertion. A triad of orality, embodiment, and physical indexicality emerges to counteract the weakening basis of visuality and the image as secure signifying forces.

It is worth noting two final points before leaving this argument (for now). First, “offline” is, again, to be taken both literally and metaphorically. One of

the ironies of the digital representation of embodied speech is that this representation of embodiment is accomplished on a video that is digitally projected in a gallery or which circulates on Vimeo. Indeed, the networked status of these works is crucial to their accruing influence and value. My rather inelegant use of “offline exertion” is also meant in a sense of being partly imaginary: what I mean by this is that state force is bounded by national borders, over which its jurisdiction is sovereign and that its mode of exercise is the regulation of bodies in space (not that lawmakers send missives with quill feathers on parchment, though I am sure some of them wish they did). This line of thinking owes deeply to Giorgio Agamben, whose analysis of the state of exception has grown more prescient as time goes by. The period 2001–2016 is one of a number of states of exception, from the tactics of Bush’s “War on Terror”, such as Guantánamo Bay and the practice of extraordinary rendition, to the crises following the Arab Spring in Bahrain, Yemen, Tunisia, Libya, Egypt, and Syria. The Palestinian and Kurdish people can be said to live in a permanent of exception, as do an increasing number of minority groups (Yazidis, the Druze) under the Islamic State (IS). So, too, do African and Middle Eastern migrants in a Europe that is inhospitable towards them or Latin American migrants and people of colour in states in the US whose laws do not safeguard them. These groups live “in between the cracks”, but they do not contain the access or self-determination that turns this situation into one of freedom. It is my contention that the state of exception is also part of the online and digital imaginary, where deterritorialisation and infinite substitution creates a similar situation of being beyond the protective reach of the law or without juridical recourse. As we shall see, legal frameworks are a subject often put into play by post-internet works. This is not to make an equivalence between the perceived insecurity of online existence and the real conditions of states of exception, but rather to set into historical context the privileged anxiety engendered by hyper-capitalism, the ascendancy of networks, the limited potential for political change, and the liminal role of embodiment and to understand how artworks dealing with digital culture navigate so fluidly among these topics.

### **A few words on nomenclature**

The only subject more heated than the genealogy (or lack thereof) between post-internet art and net.art is the term “post-internet art” itself, which is seen as rightly confusing. The term was coined by the artist and curator Marisa Olson in a 2008 interview to refer to work she made “after” surfing the internet, suggesting a field of personal exploration rather than abstract periodisation (Cornell et al. 2016).<sup>4</sup> It was almost immediately decried on the grounds of basic confusion – it suggests work made after the internet is over, when it denotes the very opposite: work made because the internet is so present. Other monikers were floated – internet-aware work, work “after the internet” (which simply inverts Olson’s formulation) – but post-internet seems to have stuck. As I intimated before, the body of work assembled under the moniker of “post-internet”

has also been a subject of controversy, greeted with equal parts enthusiasm and scepticism. In some ways, it suffers from the narrative arc of any movement that has the misfortune for enthusiasm to turn into hype. One could read the backlash against it as signalling the close of the moment and could tentatively periodise post-internet as ending in 2014/2015, though I suspect it might be too soon to lay down any dates.<sup>5</sup> Moreover, the usefulness of the label is itself questionable, given how it was resisted, as is frequent with labels, by so many of the artists themselves.

This book is not purely a study of post-internet art, which would provide too narrow a framework of artistic engagement with the internet and digital technologies. But it does address the work, and to do so without re-entering the discussions over the name and what it covers, I take “post-internet” as read and use it to refer to a more or less discrete group of practitioners who began working mostly in New York, London, and Berlin with an – again, more or less – unified aesthetic, from the mid- 2000s to the present. Post-internet work includes work accomplished online as well as facets borrowed from the internet, such as Tumblr image streams, blog posts, the use of green-screen technology, high production values, stock photography, and the imitation of corporate platforms. It entails image production and selection fuelled by algorithms and semi-automated processes and the intertwining of the posthuman and the commodity form. There is a keen interest in banality and the norm and in the accumulation and curation of information as material. It is frequently performative and unrolls through time rather than appearing in isolated instantiations. The internet and digitality are signalled as subjects and also used to inform its working methods of appropriation, curation, and digital manipulation.

In seeking to extend the purview beyond the artists whose work has been associated with the term, I have settled on the wider term “digital culture” as well as the sadly clunky but accurate phrase “art responding to the internet and digital technologies” and at times even “post-internet art and art responding to the internet and digital technologies”, when I want to signal that a certain concern is a hallmark of post-internet style. This expansion of nomenclature has allowed me to bring in artists who would not be considered “post-internet” – such as Rabih Mroué, Hito Steyerl, or Nsenga Knight – but whose work responds to the concerns that I argue have been ushered in by the internet and digital technologies.

Why both the internet and digital technologies? Or, rather, why lump them together? The internet is the world of memes; social media; the performance of identity; the need to be switched on all the time; the erosion of barriers between public and private; the terrain of copy-paste culture; and normalised, non-signifying appropriation. The impact of digital technologies includes the ability to doctor images or to create images with no referent: the endless substitution enabled by green-screen technology, 3D printing, and the interchange between an image on the web and material in one’s hand. Often these go hand-in-hand: the internet is a forum for circulating images produced by digital technologies, for example. But it would be too generalising, even in this generalising mode, to

say all artists concerned with new technologies in the mid-2000s–2016 moment are concerned with both. Ed Atkins, for example, is interested in digital technologies; Steyerl looks at the circulation of information on the internet.

And, of course, Atkins and Steyerl both survey much more than just these two facets: this book is an attempt to sketch out exactly what this “much more” is – to locate and analyse the concerns that pool among these artists. In broadening out the corpus of artists from post-internet to (here we go) artists responding to the internet and digital technologies, it will also attempt to widen the field geographically. In particular I focus on artists working in the Middle East, first because I simply found the most direct interest on their part with the relationship between digital and internet technologies and the everyday, more so than in Latin America (despite that region’s strong tradition in electronic art), Africa, and East Asia. The similarity of this type of work in the Middle East to work made in the US and Europe reflects the major political events that occur in that time frame and the internet’s role in them: again, the Iraq War, the Arab Spring, the Syrian Civil War, the “War on Terror”, and the NSA surveillance tactics. These events sadly bridge NATO countries and countries of the Middle East.

At the same time, I must admit that the work discussed here still betrays a focus on the art world’s epicentres. This is mostly reactive: the kind of work made in this vein is concentrated in London, New York, and Berlin. Art responding to things like Instagram is also work of a privileged variety, even if precarity and violence are two of its signal concerns. More systemically, I would argue that the art world is funnel-like in its grasp. I am looking at a particular type of art language in this study, and literacy only comes by moving through the art system. This migration of bodies, information, and education is part and parcel of the post-internet terrain and indeed is thematised and addressed within the work itself.<sup>6</sup>

One last note on this subject is the question of the market. By looking at the art world centres, this also suggests I am looking at work that is traded and sold within an ever-inflationary art market. Where all this money comes from is an exceedingly legitimate question. One reason the moniker “post-internet” fell out of favour was its imbrication with the market: it became a fashionable style churned out for eager collectors. Most of the artists I treat have gallery representation – in itself a clear point of difference with the net.art generation – which, while not disqualifying them from criticality, reflects their circulation within a system that is becoming ever more problematic. Museums, for example, collect and archive art for future generations and spread it from the cognoscenti to a wider public. I am a museum-believer – maybe one of the few remaining – and in Chapter Six, I defend their role in the information age. But they are factors of hyper-capitalism, and one can’t be naïve about the sources and functions of capital in the art world. Museums offer tax exemptions and cultural capital to those who have amassed large fortunes by potentially unethical means, giving a democratic face to their undemocratic accumulations. None of the artwork I treat is outside this world of art schools, biennials, galleries, and institutions. And a lot of the work frets about it. The art world as a luxury economy is a real problem,

and another hallmark of the work of this moment is its means of coping with this collusion: strategies of disavowal, self-commodification, homoeopathic doses of violence, demonstrations of complicity, and ironic appropriation of corporate or institutional discourses. This paragraph – this *mea culpa* – is no different.

## Organisation

One of the motivations for this study was to clearly show the artistic antecedents to post-internet art and art responding to the internet and digital technologies. This seemed particularly necessary because of the liminal position that technological work has occupied, in which it has been seen as a secondary current running alongside (or below) mainstream contemporary art. I wish to trouble this segregation of histories, looking both at the canonical version of twentieth-century art history and the more obviously technological precedents that inform work of the present moment.<sup>7</sup> The first three chapters of this book are devoted to such an art-historical framework; the second two, to a closer analysis of the work itself, focused on circulation and identity; and the last, to the larger economic, political, and technological context within which the work is found. I treat a range of artists and theorists, with some appearing throughout: Mark Leckey, Seth Price, and Hito Steyerl are artistic touchstones, as is the vigorous reappraisal of the category of the image accomplished by David Joselit.

In Chapter One, “Reproducibility and Appropriation in the Twentieth Century: Precursors to the Digital Age”, I set out the case for the “immaterial imaginary” or the belief that the internet and digital technologies are a realm of immaterial zeroes and ones – images that appear magically at the touch of a button. I chart out the increasing move towards the image that is spearheaded by technologies of image reproduction such as photography and film, which continues throughout the twentieth century to focus artistic and theoretical interest on the image itself and not on its material substrate. I show how this focus on the image is from the very beginning associated with capitalism, in that the equating of different images within advertising, photomontage, and collaged work mimics the workings of exchange value. I also illustrate how the key mode of working with images and material on the internet and for artists interested in the internet and digital technologies is appropriation, which itself forms part of the move away from a material substrate and towards “pure” image. Appropriation in the hands of contemporary artists, however, no longer carries the radical displacement that it did for Situationist or 1980s Appropriation artists; rather, appropriation now is a means of participation in the life of the image. How one apprehends an image – the mode of visibility – also emerges in this chapter and forms a leitmotif of the book. Rather than visibility being a means of political representation, artists’ work with the green screen signals its opposite: visibility as an expression of insecurity.

In Chapter Two, “Cybernetics and the Posthuman: The Emergence of Art Systems”, I focus on this narrative of immateriality from a more technological standpoint, looking at how cybernetics complicated Conceptualism’s celebrated

dematerialisation of the art object and at its prescient analysis of art as producing systems rather than art objects. Contra cybernetics, I also show how the 1960s artistic understanding of “technology” in terms of machine-based works ignores everyday items of technology and the social field, as was explored elsewhere in art of the time, particularly by Martha Rosler. Cybernetics’s contributions to information theory have proved more influential than its contributions to artistic practice, particularly the idea of information as something that communicates itself through patterns, rather than a stable entity in itself, and the figure of the posthuman, which forms the focus of the last part of the chapter. The posthuman appears most famously in Donna Haraway’s cyborg: the third way, non-gendered man/woman/machine that crystallises early optimism for technology. The cyborg heralds the undoing of gender binaries, as well as the techno-fetish, anti-abjection aesthetic that I show as characteristic of much post-internet work and art responding to digital technologies.

In Chapter Three, “Challenges to Immateriality: Posthumanist Thought and Digitality”, I work to debunk the notion of immateriality altogether, or rather, to show how just at the very moment when immateriality might think it has won the day – with historical forces ranged in its favour, relationships conducted via smartphones, and virtual reality a growing entertainment genre – a variety of challenges are mounted against it, from artists, theorists, and philosophers alike. These challenges to the doctrine of immateriality do so in the name of social and economic concerns such as feminism, immaterial labour, and workers’ rights; this is no accident but relates to the twinning of the discourse of the image and semiotic capitalism sketched out in Chapter One. At the same time, new philosophies call for a reconsideration of the agency of the object and the importance of networks and systems as a means of comprehending what was formerly structured as subject/object relations, and I argue that discourses such as that of actor-network theory and objected-oriented ontology follow on the discussion of systems delineated in cybernetics.

I also show here how digitality as a mode of exhibition takes on immateriality’s set of negative political, economic, and social associations and how it functions as a meta-sign for artistic production. Digitality provides one way towards understanding the vexed relationship between post-internet art and net.art, its most immediate and obvious predecessor, which investigated the potential for code as a medium and the internet as a forum of exhibition and community building in the 1990s and early 2000s. This is fraught terrain, as so many of the concerns within net.art – privacy, circulation, information, representation – are key concerns to post-internet art as well. The distinction is also not entirely clear-cut: a number of artists can be classified both within net.art and post-internet art, and post-internet work at times looks back with fondness to the 1990s as a pre-corporatised, more democratic moment for the internet. Though it is often closely associated with internet site specificity, I show how net.art travelled easily between online and offline publics. Art responding to contemporary digital culture, by contrast, resolves itself contentiously in an offline idiom that counters the way images accrue value – through circulation. This tension,

I argue, is a constituent part of digitality, the meta-sign that uneasily comprises flux and stasis, materiality and immateriality.

The following two chapters look more closely at the artwork itself. Chapter Four, “Violence and the Surveilled Internet”, addresses the fact of the image’s new capacity for circulation and reiteration through the affective and thematised responses of art to this development. A historical dualism between Jeffrey Deitch’s “Posthuman” (1992–1993) exhibition and Mike Kelley’s “The Uncanny” (1993) exhibition demonstrates a polarity between circulating image and the notion of the uncanny, while also suggesting a new valence to the latter: not the fear of what might be revealed, but the fear that nothing may remain hidden. Privacy emerges here as a mode of possibility that is under threat. Drawing on what I earlier characterised as a Gothic tendency, I also argue that one of the ways post-internet art counters the anonymity and lack of specificity of online circulation is to exhibit moving-image works with material viewing conditions that have a privileged relationship to the content of the film. The use of specifically Gothic tropes points to, I argue, a concern with changes to notions of privacy and domestic life, and indeed these are recurring sites in which conflicts emerge.

I also address a second facet of circulation: the fact that the internet imaginary obviates against a sense of place: where, for example, do Tweets exist? What is the physical location of a Facebook feed? Artists thematise this illusion of anywhere-ness (the answer is server farms) via indeterminate portrayals of affect that challenge the here/there binary that was constitutive of ethnographic film. Violence is brought allegorically against the maker of the work, suggesting a homoeopathic dose and further confusing the boundaries of here/there, inside/outside. I also look at the specific connections of the internet to violence: at the web of surveillance and rendition of the “War on Terror” that internet usage is contiguous with and at an internet awash with images of sexual violence against women.

The question of embodiment is picked up in the subsequent chapter, “Identity, Language, and the Body Online”. Identity is a major part of the internet imaginary, largely drawn from the conditions of engaging with the internet – the fact that one can appear online without visible character traits. This fluidity is reinforced by shifts in thinking of identity as both more socially produced, and more multiplicitous and fluid, than pre-twenty-first-century conceptions. To examine these claims, I focus on language as the key mode in which identity is expressed and also as a way that the apparently limitless potential for identity passing is in fact curtailed. I concentrate particularly on the rhetorical use of dialogue to show how artists figure the public as a factor inherent to the understanding of identity. I also look at the notion of ironically inhabiting a character, as on YouTube, Instagram, or other forms of social media, in a disquieting genre I call personation. This is a mode of fully inhabiting the role of the performer in a way that leaves no room for self-critique, and as a form of self-commodification, it is related to affirmative attitudes of digital culture towards the commodity.

I also turn to the other of written language, oral speech, to reprise the question of how artists figure politics in a digital idiom. The perceived deterritorialisation

of the internet is a key factor here. I show how speech is used to signal ethnic belonging and often appears as a tactic of the dispossessed – those who live in between the cracks of nation-state belonging or who are politically marginalised within hegemonic power structures. Here the voice appears as the metonym for the real body, demonstrating again how the body becomes so important as a bulwark against the many sources of precarity symbolised by digitality, such as finance capitalism, surveillance, non-territoriality, and mass migration, as well as the site these conflicts are pictured upon.

The final chapter of the book focuses on the context that the art object exists within, rounding out our (not exhaustive) grouping of ways to approach the art object. Chapter Six, “The Art World Infrastructure Post-Internet”, looks at how the internet has affected the art world, as well as specific changes to art discourse that have developed in response to the way artworks behave on the internet. The real workings of the art market have proved historically difficult to write about in any analytic manner, primarily because its transactions are shielded from public view and because the knowledge competencies required to unpack its workings – or even to know about them – often do not overlap with those of the art world’s chroniclers. However, because one of the major changes coincident with the period of post-internet art is the vast inflation of the art market, it seems important to treat it – though briefly – here. Moreover, in line with the increasing philosophical importance of systems and networks, I want to emphasise that the art market is an integral network that both constitutes and is constituted by the art image.

Lastly, I look at the internet’s changes to the structure of knowledge production, which has deep potential consequences for how art, whether produced on the internet or off, is thought about and historicised. Here we see a shift from a binary of private/public to questions of network and access – the same terms that recur throughout the study in various ways, particularly in object-oriented ontology (OOO) and actor-network theory discussed in Chapter Three. In the final chapter, we look specifically at the crucial theoretical changes to the artwork under the internet: the effect of circulation, the rise of the author figure, and the de-privileging of the unique artwork. I will show how the early analysis of dispersion has fallen away, almost as a marker of its success. As Seth Price and others note, notions of public and private – the categories through which dispersion was thought – no longer inhere, and the question of art’s public has transformed into an understanding of many publics, all with unique modes of engagement. In the absence of white cube parameters, I show how the author figure now ontologically determines a work of art’s status as art and show how thinking of transactions, systems, and networks will profoundly change the art world infrastructure.

### **A final note on context**

The 2010s are a moment of pessimism versus the optimism of the 1990s, not just around the internet but in general. The 1990s were a time of the Clintonian

and Blairite third ways (thought of, then, positively!), Cool Britannia, a booming economy, the internet as a demos. By the 2010s, the internet is surveilled, corporations provide its dominant pathways, the economy has collapsed due to invisible derivatives, austerity measures are in power, and racist politics are on the rise. As I intimated in the beginning of this chapter, much of the popular writing around post-internet art focuses on its very ontological challenge to the art object and to identity. These are incredible demands to ask of a mode of art-making, rather like giving a Nobel Peace Prize to a president in his first year in office. To appreciate why it might be so, we can turn to an historical example of new technologies from another context: that of the encounter between photographic technologies and Islam at the turn of the twentieth century. The Islamic art historian Finnbar Flood has analysed the entry of the relic of the Prophet Mohammed's sandal into the age of mechanical reproduction (Flood 2016). The Prophet's sandal is an important relic that provides protection and blessings (*baraka*), which are transferred to the pilgrim by means of direct contact with the sandal. Flood shows that, in the 1900s, a lithograph appeared in Beirut of the Prophet's sandal with a note as to the image's mechanical origins. The lithograph, issued by a senior, conservative sheikh, was concerned to legitimise photographic reproductions of the sandal as proper versions of the relic, based on what we would recognise as the technology's indexicality. Text surrounding the outline of the sandal reiterated the *baraka* it would provide, almost boxing it in: the image is at pains to communicate its legitimacy.

Flood shows the nervous motivation for proving the relic's standing was not simply due to the need to come to terms with mechanical reproduction from a standpoint of devotional objects. The desire to secure the status of such objects was a reaction to wider pressures on Islam and the Islamic world, which in the 1900s saw the waning of the Ottoman Empire, European colonialism in the Middle East, and increased secularisation from within. It was an anxious image for an anxious time. This is worth keeping in mind when we consider the state of the West (and that of the Middle East) one hundred years on, when slowing economies, bifurcating class systems, and ecological disasters are sources of widespread anxiety. The circulating questions of the current moment – what is digital reality, what is the image, what is the art object – reflect formal and technological novelties, as well as cultural unease.

## Notes

- 1 A follow-up text commissioned by Lauren Cornell and Ed Halter reflects on the controversy. See C. Bishop, "Sweeping, Dumb, and Aggressively Ignorant! Revisiting 'Digital Divide'", in L. Cornell and E. Halter (eds.), *Mass Effect: Art and the Internet in the Twenty-First Century*, Cambridge, MA: The MIT Press, 2015, pp. 353–55.
- 2 This is the idea of the digital native. Though if we want to pursue a sociological analysis, I would submit that internet receptability also has much to do with class. In contrast to the ease with which people now share personal information on social media, remember that women were told till only recently, in certain social circles, that their names should only appear in print twice – in their marriage announcement and in their obituary.

- 3 Bishop points out that the digital is a linguistic medium, something that will become relevant when we talk about the linguistic basis of performances of identity (Bishop 2012).
- 4 Olson specifies in the interview what she means by the term: “It’s the yield of my compulsive surfing and downloading. I create performances, songs, photos, texts, or installations directly derived from materials on the Internet or my activity there”.
- 5 See, for example, Brian Droitcour, “The Perils of Post-Internet Art”, *Art in America*, 30 October 2014, or his “Why I Hate Post-Internet Art”, from 31 March 2014, originally appearing on his blog *Culture Two*: <https://culturetwo.wordpress.com/2014/03/31/why-i-hate-post-internet-art/> (last accessed on 2 May 2016). Droitcour is a perceptive writer on and figure within post-internet art, making these articles more apostasy than external critique.
- 6 On a personal note, I also wrote this book while living in Abu Dhabi. Though much of my research was accomplished before, this experience has no doubt influenced what I have looked at.
- 7 Post-internet art’s historicisations have been few. At this point in writing the only comprehensive attempt has been the curator Omar Kholeif’s exhibition “Electronic Superhighway 2016–1966” at the Whitechapel Gallery in London, which focused largely on technological precursors. (Other projects on post-internet art, such as Ed Halter and Lauren Cornell’s edited volume *Mass Effect* [2015]; Melanie Bühler’s edited volume *No Internet, No Art* [2015]; and Kholeif’s own *Art after the Internet* [2014], look more narrowly at the moment itself.)

## Bibliography

- Bishop, C. (2012) “Digital Divide: Contemporary Art and New Media”. *Artforum*, 51 (2), 434–41.
- (2015) “Sweeping, Dumb, and Aggressively Ignorant! Revisiting ‘Digital Divide’”. In: Cornell, L. and Halter, E. ed. (2015) *Mass Effect: Art and the Internet in the Twenty-First Century*, Cambridge, MA: MIT Press, 353–55.
- Bühler, M. ed. (2015) *No Internet, No Art*, Eindhoven: Onomatopoe.
- Burns, C. (2015) “New Museum’s Generational Triennial: Wired for the Future”. *The Guardian*. 25 February, <https://www.theguardian.com/artanddesign/2015/feb/25/new-museum-generational-triennial-wired-future> (last accessed on 6 September 2016).
- Carter, H. (2015) “Review: New Museum Triennial Casts a Wary Eye on the Future”. *The New York Times*. 26 February, <http://www.nytimes.com/2015/02/27/arts/design/review-new-museum-triennial-casts-a-wary-eye-on-the-future.html> (last accessed on 6 September 2016).
- Cornell, L. Olson, M., Arcangel, C., Bell-Smith, M., Staehle, W., Connor, M. and Jones, C. (2006) “Net Results: Closing the Gap between Art and Life Online”. *Time Out New York*. 9 February, <https://www.timeout.com/newyork/art/net-results> (last accessed on 6 September 2016).
- Droitcour, B. (2014a) “The Perils of Post-Internet Art”. *Art in America*. 30 October, <http://www.artinamericamagazine.com/news-features/magazine/the-perils-of-post-internet-art/> (last accessed on 6 September 2016).
- (2014b) “Why I Hate Post-Internet Art”. Available from *Culture Two* [personal blog], <https://culturetwo.wordpress.com/2014/03/31/why-i-hate-post-internet-art/> (last accessed on 2 May 2016).
- Flood, F. (2016) “Circulating Baraka: Relics as Images across Eras of Mechanical Reproduction”. 19 January, NYU Abu Dhabi, Abu Dhabi.
- Osborne, P. (2013) *Anywhere or Not at All: Philosophy of Contemporary Art*, London: Verso.
- Stakemeier, K. (2014) “Prosthetic Productions: The Art of Digital Bodies on ‘Speculations on Anonymous Materials’ at Fridericianum, Kassel”. *Texte zur Kunst*, 93, 166–82.

# References

## Introduction: Beyond the visible image

Bishop, C. (2012) "Digital Divide: Contemporary Art and New Media". *Artforum* , 51 (2), 434-41.

— (2015) "Sweeping, Dumb, and Aggressively Ignorant! Revisiting 'Digital Divide'". In: Cornell, L. and Halter, E. ed. (2015) *Mass Effect: Art and the Internet in the Twenty-First Century* , Cambridge, MA: MIT Press, 353-55.

Bühler, M. ed. (2015) *No Internet, No Art* , Eindhoven: Onomatopée.

Burns, C. (2015) "New Museum's Generational Triennial: Wired for the Future". *The Guardian* . 25 February,

Carter, H. (2015) "Review: New Museum Triennial Casts a Wary Eye on the Future". *The New York Times* . 26 February, <http://www.nytimes.com/2015/02/27/arts/design/>

Cornell, L. Olson, M., Arcangel, C., Bell-Smith, M., Staehle, W., Connor, M. and Jones, C. (2006) "Net Results: Closing the Gap between Art and Life Online". *Time Out New York* . 9 February, <https://www.timeout.com/newyork/art/net-results> (last accessed on 6 September 2016).

Droitcour, B. (2014a) "The Perils of Post-Internet Art". *Art in America* . 30 October, <http://>

— (2014b) "Why I Hate Post-Internet Art". Available from *Culture Two* [personal blog],

Flood, F. (2016) "Circulating Baraka: Relics as Images across Eras of Mechanical Reproduction". 19 January, NYU Abu Dhabi, Abu Dhabi.

Osborne, P. (2013) *Anywhere or Not at All: Philosophy of Contemporary Art* , London: Verso.

Stakemeier, K. (2014) "Prosthetic Productions: The Art of Digital Bodies on 'Speculations on Anonymous Materials' at Fridericianum, Kassel". *Texte zur Kunst* , 93, 166-82.

# 1 Reproducibility and appropriation in the twentieth century: precursors to the digital age

— ed. (2016) *Electronic Superhighway: 2016-1966* . Exh. cat., London: Whitechapel Gallery.

Kinsey, C. (2013) "From Post-Media to Post-Medium: Re-Thinking Ontology in Art and Technology". In: Apprigh, C., Berry Slater, J., Iles, A. and Schultz, O. L. ed. *Provocative Alloys: A Post-Media Anthology* , Lüneberg and London: Post-Media Lab and Mute Books, <http://www.metamute.org/sites/www.metamute.org/fi>

Kracauer, S. (1927) "Photography". In: Levin, T. Y. ed. and trans. (1995) *The Mass Ornament: Weimar Essays* , Cambridge, MA: Harvard University Press, 47-63.

Krauss, R. (1996) "Welcome to the Cultural Revolution". *October* , 77, 83-96.

— (1999) "Reinventing the Medium". *Critical Inquiry* , 23 (2), 289-305.

— (2000) *A Voyage on the North Sea: Art in the Age of the Post-Medium Condition* , London: Thames & Hudson.

Leckey, M. (2008) "Cinema-in-the-Round". In: Sperlinger, M. and White, I. ed. *Kinomuseum: Towards an Artists' Cinema* , Cologne: Walther König, 59-70.

— (2016) Skype Conversation. 2 February.

Magagnoli, P. (2015) *Documents of Utopia: The Politics of Experimental Documentary* , London: Wallflower Press.

Malraux, A. (1965) *Museum without Walls* . Gilbert, S. and Price, F. trans. (1967) London: Martin Secker and Warburg.

Manovich, L. (1995) "The Paradoxes of Digital Photography". In: Wells, L. ed. (2003) *The Photography Reader* , London: Routledge, 218-40.

Marx, K. and Engels, F. (1848) *The Manifesto of the Communist Party*. Moore, S. trans. Marxists Internet Archive (2010). <https://www.marxists.org/archive/marx/works/download/pdf/Manifesto.pdf> (last accessed on 16 October 2016).

Masotta, O. (1969) "Después del Pop: nosotros

desmaterializamos". In: *Conciencia y estructura* , Buenos Aires: Editorial Jorge Álvarez, 177-92.

Mirzoeff, N. (1999) *An Introduction to Visual Culture* , London: Routledge, 2005.

— (2011) *The Right to Look: A Counterhistory of Visuality* , Durham, NC: Duke University Press.

— (2013) "For Critical Visuality Studies". In: Mirzoeff, N. ed. (2013) *The Visual Culture Reader Third Edition*, London: Routledge, xxix-xxxviii.

Mitchell, W.J.T. (1987) *Iconology: Image, Text, Ideology* , Chicago: University of Chicago Press.

— (1995) *Picture Theory: Essays on Visual and Verbal Representation* , Chicago: University of Chicago Press.

— (2006) *What Do Pictures Want? The Lives and Loves of Images* , Chicago: University of Chicago Press.

Price, S. (2008) *Dispersion* , New York: 38th Street Publishers (originally published in 2002).

Rancière, J. (2000) *The Politics of Aesthetics: The Distribution of the Sensible* . Rockhill, G. trans. and intro. (2006) New York: Continuum Books.

Sekula, A. (1983) "Reading an Archive: Photography between Labour and Capital". In: Wells, L. ed. (2003) *A Photography Reader* , London: Routledge, 443-52.

Shaviro, S. (2010) "Post-Cinematic Affect: On Grace Jones, Boarding Gate and Southland Tales ". *Film-Philosophy* , 14 (1), <http://www.thing.net/~rdom/ucsd/biopolitics/PostCinematicAffect.pdf> (last accessed on 4 September 2016).

Sobchack, V. (1994) "The Scene of the Screen: Envisioning Cinematic and Electronic 'Presence'". In: Gumbrecht, H. U. and Pfeiffer, K. L. ed. (1994) *Materialities of Communication* , Stanford: Stanford University Press, 83-106. Stallabrass, J. (2011) "Negative Dialectics in the Google Era: A Conversation with Trevor Paglen". *October* , 138, 3-14. Steyerl, H. (2009) "In Defence of the Poor Image". *e-fl ux journal [online journal]*, 10, [http:// www.e-flux.com/journal/in-defense-of-the-poor-image/](http://www.e-flux.com/journal/in-defense-of-the-poor-image/) (last accessed on 23 April 2016). Tomkins, C. (1996) *Duchamp: A*

Biography , London: Pimlico. Vierkant, A. (2010) "The Image Object Post-Internet". Jstchillin.org [website], [http://jstchillin.org/artie/pdf/The\\_Image\\_Object\\_Post-Internet\\_a4.pdf](http://jstchillin.org/artie/pdf/The_Image_Object_Post-Internet_a4.pdf) (last accessed on 23 April 2016). VVORK.com (2009) "The Real Thing". VVORK.com [website], [http://www.vvork.com/?page\\_id=13441](http://www.vvork.com/?page_id=13441) (last accessed on 23 April 2016). Wajcman, J. (2004) Technofeminism , Cambridge: Polity Press.

## 2 Cybernetics and the posthuman: the emergence of art systems

Alonso, R. (2005) "Art and Technology in Argentina: The Early Years". *Leonardo Electronic Almanac* , 13 (4), 16-23.

Ascott, R. (1966-1967) "Behaviouristic Art and the Cybernetic Vision". In: Packer, R. and Jordan, K. ed. (2001) *Multimedia: From Wagner to Virtual Reality* , New York: W.W. Norton, 95-103.

— (2003) *The Telematic Embrace: Visionary Theories of Art, Technology and Consciousness* Shanken, E. A. ed., Berkeley and Los Angeles: University of California Press.

Bishop, C. (2012) "Digital Divide: Contemporary Art and New Media". *Artforum* , 51 (2), 434-41.

Burnham, J. (1968a) *Beyond Modern Sculpture* , New York: George Braziller.

— (1968b) "Systems Esthetics". *Artforum* , 7 (1), 30-35.

— (1980) "Art and Technology: The Panacea That Failed". In: Woodward, K. ed. *The Myths of Information: Technology and Postindustrial Culture* , London: Routledge.

Clark, T. and Farkas, R. (2012) "Self-Compression: An Interview with Jesse Darling". *Mute* [online magazine]. 20 June.

Delap, L. (2011) *Knowing Their Place: Domestic Service in Twentieth Century Britain* , Oxford: Oxford University Press.

Dević, A. (2001) "Reception of Modernism within the Context of Croatian Art Since the 1950s". Paper given at the conference "Inside Out: Reassessing International Cultural Influence". Rio de Janeiro, 3-9 July. Organised by Apex Art, New York. <http://www.apexart.org/conference/devic.htm> (last accessed on 1 May 2016).

E.A.T. (1972) *Pavilion* , New York: EP Dutton.

Eco, U. (1962a) "Arte Programmata". In: *Arte Programmata* . Exh. cat., Milan: Galleria Vittorio Emanuele, 98-101. Reprinted in: Carrion-Murayari, G. and Gioni, M. ed. (2012) *Ghosts in the Machine* . Exh. cat., New York: New Museum and Skira Rizzoli, 239-42.

— (1962b) *The Open Work* . Cancogni, A. trans., Robey, D. intro. (1989) Cambridge, MA: Harvard University Press.

Fernández, M. (1999) "Postcolonial Media Theory". *Art Journal* , 58 (3), 58-73.

— (2006) "Historizing Process and Responsiveness in Digital Art". In: Jones, A. ed. *A Companion to Contemporary Art Since 1945* , Oxford: Blackwell Publishing, 557-81.

Galison, P. (1994) "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision". *Critical Inquiry* , 21 (1), 228-66.

Gleick, J. (2012) *The Information: A History, A Theory, A Flood* , New York: Vintage.

Glueck, G. (1966) "Disharmony at the Armory". *The New York Times* . 30 October, Section Arts & Leisure, Page D28.

Grosz, E. (1994) *Volatile Bodies: Toward a Corporeal Feminism* , Bloomington: Indiana University Press.

Haraway, D. J. (1985/1991) *Simians, Cyborgs, and Women: The Reinvention of Nature* , New York: Routledge.

Hayles, N. K. (1999) *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* , Chicago and London: University of Chicago Press.

Jobs, S. (2005) "Stanford Commencement Address". Stanford: Stanford University, 12 June. Excerpted as "Explore Whole Earth: Share Your Story". *Whole Earth Catalog* [website], <http://www.wholeearth.com/share-your-story.php> (last accessed on 1 May 2016).

Kinsey, C. (2012) *Skins \ Screens \ Circuits: How Technology Remade the Body* . Ph.D. thesis, London: University College London.

Kozloff, M. (1971) "The Multimillion Dollar Art Boondoggle". *Artforum* , 10 (2), 72-76. Laboria Cubonika. "Xenofeminism: A Politics for Alienation". *Laboria Cubonika* [website], <http://www.laboriacuboniks.net/qx8bq.txt> (last accessed on 1 May 2016).

Lippard, L. (1973/1997) *Six Years: The Dematerialization of the Art Object 1966-1972* , Berkeley: University of California Press.

Lovejoy, M. (2004) *Art in the Age of Digital Currents* , London: Routledge.

Moles, A. A. (1968) "Introduction à Colloque". In: Kelemen, B. and Putar, R. ed. *Bit International 3: International Colloquy Computers and Visual Arts Zagreb, August 3-4, 1968* , Zagreb: Galerije grada Zagreba, 5-10.

Rajchman, J. (2009) "Les Immatériaux, or How to Construct the History of

Exhibitions". Tate Papers [online journal], 12,

### 3 Challenges to immateriality: posthumanist thought and digitality

Atkins, E. (2014) Email. 24 June.

Blas, Z. (2014) "Contra-Internet Aesthetics". In: Kholeif, O. ed. *You Are Here: Art after the Internet*, London: Cornerhouse, 86-97.

Cole, A. (2015) "These Obscure Objects of Desire", *Artforum*, 53 (10), 319-23.

Conner, M. (2013) "What's Postinternet Got to Do with Net Art?" *Rhizome* [blog], 1 November, <http://rhizome.org/editorial/2013/nov/1/postinternet/> (last accessed on 23 April 2016).

Cornell, L. (2015) "Trevor Paglen in Conversation with Lauren Cornell". In: Cornell, L. and Halter, E. ed. (2015) *Mass Effect: Art and the Internet in the Twenty-First Century*, Cambridge, MA: MIT Press. 255-66.

Cornell, L. Olson, M., Arcangel, C., Bell-Smith, M., Staehle, W., Connor, M. and Jones, C. (2006) "Net Results: Closing the Gap between Art and Life Online". *Time Out New York*. 9 February, <https://www.timeout.com/newyork/art/net-results> (last accessed on 16 October 2016).

Daniels, J. (2009) "Rethinking Cyberfeminism(s): Race, Gender, and Embodiment". *Women's Studies Quarterly*, 37 (1/2), 101-24.

Fernández, M., Wilding, F. and Wright, M. M. ed. (2002) *Domain Errors! Cyberfeminist Practices*, New York: Autonomedia.

Franke, A. (2012) "Animism: Notes on an Exhibition". *e-flux journal* [online journal], 36, <http://www.e-flux.com/journal/animism-notes-on-an-exhibition/> (last accessed on 23 April 2016).

Greene, R. (2004) *Internet Art*, London: Thames & Hudson.

Harman, G. (2009) *Prince of Networks: Bruno Latour and Metaphysics*, Melbourne: Re.press.

— (2011) *The Quadruple Object*, London: Zero Books.

Hayles, N. K. (1999) *How We Became Posthuman: Virtual*

Bodies in Cybernetics, Literature and Informatics ,  
Chicago and London: University of Chicago Press. Ho, Y.  
(2012) "Shu Lea Cheang on Brandon ". Rhizome [blog], 10  
May, [http://rhizome.org/  
editorial/2012/may/10/shu-lea-cheang-on-brandon/](http://rhizome.org/editorial/2012/may/10/shu-lea-cheang-on-brandon/) (last  
accessed on 23 April 2016). Jones. C. (2015) "Aleskandra  
Domanović and Oliver Laric in Conversation with Caitlin  
Jones". In: Cornell, L. and Halter, E. ed. (2015) Mass  
Effect: Art and the Internet in the TwentyFirst Century ,  
Cambridge, MA: MIT Press, 107-22. Joselit, D. (2013)  
After Art , Princeton: Princeton University Press.  
Keenan, T. and Weizman, E. (2011) Mengele's Skull: The  
Advent of Forensic Aesthetics , Berlin: Sternberg Press.  
"King's Cross Phone-In" (2012) Art and Electronic Media  
[website], 23 February, [http://www.  
artelectronicmedia.com/artwork/kings-cross-phone-in](http://www.artelectronicmedia.com/artwork/kings-cross-phone-in) (last  
accessed on 23 April 2016). Latour, L. (1993) We Have  
Never Been Modern . Porter, C. trans. Cambridge, MA:  
Harvard University Press. — (2011) On the Modern Cult  
of the Factish Gods . MacLean, H. and Porter, C. trans.  
Durham, NC: Duke University Press. Leckey, M. (2009) "In  
the Long Tail". In: Cornell, L. and Halter, E. ed. (2015)  
Mass Effect: Art and the Internet in the Twenty-First  
Century , Cambridge, MA: MIT Press, 199-212. Parikka, J.  
and Tiainen, M. (2010) "New Materialism and Digital  
Culture". Angela Ruskin University, Cambridge, 21-22 June.  
Quoted from the transcription on Jussi Parikka [blog],  
<http://>

## 4 Violence and the surveilled internet

Cameron, D. (1992) "Before and After: Entering the World of Post Human". *Frieze* , 6, <https://frieze.com/article/and-after> (last accessed on 7 September 2016).

Connolly, M. (2013) "Televisual Objects: Props, Relics and Prosthetics". *Afterall* , 33, 67-80.

— (2014) *TV Museum: Contemporary Art and the Age of Television* , Bristol: Intellect Books.

Deitch, J. (1992) *Post-Human . Exh. cat.*, Lausanne: FAE Musée d'Art Contemporain.

Foster, H. (2003) "Dada Mime". *October* , 105, 166-76.

Franke, A. (2010) "Much Trouble in the Transportation of Souls, or: The Sudden Disorganization of Boundaries". In: Franke, A. ed. *Animism: Volume I* . Berlin: Sternberg Press, 11-53.

Freud, S. (1919/1959) "The Uncanny". In: Riviere, J. trans. (1959) *Collected Papers* , Vol. 4, New York: Basic Books, 368-407.

Gronlund, M. (2014) "Return of the Gothic: Digital Anxiety in the Domestic Sphere". *e-fl ux journal* [online journal], 51, <http://www.e-fl>

Gunning, T. (1995) "Phantom Images and Modern Manifestations: Spirit Photography, Magic Theater, Trick Films and Photography's Uncanny". In: Petro, P. ed. *Fugitive Images: From Photography to Video* , Bloomington: Indiana University Press, 42-71.

Hassan, R. (2008) *The Information Society* , Cambridge: Polity Press.

Hayles, N. K. (1999) *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* , Chicago and London: University of Chicago Press.

Iverson, M. (2005) "The Uncanny". *Papers of Surrealism* [online journal], 3, <http://www>.

Keller, A. and Ward, F. (2006) "Matthew Barney and the Paradox of the Neo-Avant-Garde Blockbuster". *Cinema Journal* , 45 (2), 3-16.

Kelley, M. (1993/2003) "Playing with Dead Things: On the Uncanny". In: Welchman, J. C. ed. (2003) *Foul Perfection: Essays and Criticism*, Cambridge, MA: MIT Press, 70-99.

Leckey, M. (2010) "Proposal for a Show". YouTube Video . 17 December, <https://www.youtube.com/watch?v=c8QWRlt2ePI> (last accessed on 2 May 2016).

Magagnoli, P. (2012) "The Pull of Violence: Paul Chan's Trilogy of War". *Afterall*, 31, 26-35.

— (2015) *Documents of Utopia: The Politics of Experimental Documentary*, London: Wallflower Press.

Marks, L. (2002) *The Skin of the Film: Intercultural Film, Embodiment, and the Senses*, Durham, NC: Duke University Press.

Obrist, H. O. (2012) "Ed Atkins: Interview by Hans Ulrich Obrist". *Kaleidoscope*, 13.

Paglen, T. (2012) *The Last Pictures*, Berkeley: University of California Press.

Poitras, L. (2014) *Citizenfour* [film]. HBO Films, Participant Media, Praxis Films.

Reichardt, J. (1978) *Robots: Fact, Fiction, and Prediction*, New York: Penguin Books.

Russell, C. (1999) *Experimental Ethnography: The Work of Film in the Age of Video*, Durham, NC: Duke University Press.

Smith, V. (2013) "Something I've Wanted to Do But Nobody Would Let Me: Mike Kelley's 'The Uncanny'". *Afterall*, 34, 17-28.

Steyerl, H. (2009) "In Defence of the Poor Image". *e-flux journal* [online journal], 10, <http://www.e-flux.com/journal/in-defense-of-the-poor-image/> (last accessed on 23 April 2016).

Trecartin, R. (2016) Email from the Trecartin studio. 12 May.

## 5 Identity, language, and the body online

Abu Hamdan, L. (2014) "Aural Contract: Forensic Listening and the Reorganization of the Speaking Subject". In: *Forensic Architecture* ed. Forensis: The Architecture of Public Truth , Berlin: Sternberg Press, 65-82.

Agamben, G. (1995) *Homo Sacer: Sovereign Power and Bare Life* . Heller-Roazen, D. trans. (1998) Stanford: Stanford University Press.

Bakhtin, M. (1975) *The Dialogic Imagination* . Holquist, M. ed., Emerson, C. trans. (1982) Austin: University of Texas Press.

Burke, S. (2016) "Crying on Camera: 'Fourth-Wave Feminism' and the Threat of Commodification". *Open Spaces* [online magazine], 17 May, <http://openspace.sfmoma.org/2016/05/>

Butler, J. (1990/2006) *Gender Trouble: Feminism and the Subversion of Identity* , London: Routledge.

Cornell, L. (2011) "Medium Living". In: *Ryan Trecartin: Any Ever* . McGarry, K. ed., Exh. cat., New York: New Museum and Skira Rizzoli, 55-57.

Frank, R. (2013) "When Form Starts Talking: On Lecture-Performances". *Afterall* , 33, 5-18.

Fraser, A. (2011) "Le 1%, C'est Moi". *Texte zur Kunst* , 83, 114-28.

Goffman, E. (1959) *The Presentation of Self in Everyday Life* , New York: Random House.

Gronlund, M. (2014) "From Narcissism to the Dialogic: Identity in Art after the Internet". *Afterall* , 27, 5-16.

Joselit, D. (2007) *Feedback: Television Against Democracy* , Cambridge, MA: MIT Press.

Kendall, L. (1998) "Meaning and Identity in 'Cyberspace': The Performance of Gender, Class and Race Online". *Symbolic Interaction* , 21 (2), 129-53.

K-HOLE (2013) "Youth Mode: A Report on Freedom". K-HOLE.net [website], <http://khole.net/issues/youth-mode/> (last accessed on 27 April 2016).

Kiaer, C. (2005) *Imagine No Possessions: The Socialist*

Objects of Russian Constructivism , Cambridge, MA: MIT Press.

Kinsey, C. and Ulman, A. (2013) Conversation Hosted by Arcadia Missa Gallery, London and Post Media Lab (Leuphana University of Lüneburg) at Limehouse Town Hall, London. 17 July 2013. <https://www.youtube.com/watch?v=ifbRYL6By4k> (last accessed on 2 May 2016).

Knight, N. (2016) Email. 8 April.

Krauss, R. (1976) "Video: The Aesthetics of Narcissism". October , 1, 50-64.

Kulendran Thomas, C. (2016) Email. 16 April.

Lazzarato, M. (2012) The Making of the Indebted Man: An Essay on the Neoliberal Condition . Jordan, J. D. trans. (2012) Los Angeles: Semiotext(e).

López Cuenca, A. (2012) "Artistic Labour, Enclosure and the New Economy". Afterall , 30, 5-16.

Massumi, B. (2002) Parables for the Virtual: Movement, Affect, Sensation , Durham, NC: Duke University Press.

McHugh, G. (2011) Post-Internet: Notes on the Internet and Art 12.29.09 > 09.05.10 , Brescia: Link Editions.

Norden, L. (2011) "When the Rainbow Is an Option". In: Ryan Trecartin: Any Ever . McGarry, K. ed., Exh. cat., New York: New Museum and Skira Rizolli, 11-15.

Poitras, L. (2014) Citizenfour [film]. HBO Films, Participant Media, Praxis Films.

Proust, M. (1913) Correspondence . Kolb, P. ed. (1984) Vol. 12, Paris: Plon Éditions.

Reupke, R. (2016) Email. 27 April. Ryan Trecartin: Any Ever . McGarry, K. ed. Exh. cat., New York: New Museum and Skira Rizolli, 2011. Saner, E. (2016) "Digital Artist Ann Hirsch on Why Her 'Singing Vagina' Empowers Women - and Terrifies Men". The Guardian . 21 March, <https://www.theguardian.com/>

## 6 The art world infrastructure post-internet

Anon. "When New Grows Old: Artists Working with Technology Struggle to Stay Current". *The Economist* . 6 February 2016,

Balibar, E. (2002) "'Possessive Individualism' Reversed: From Locke to Derrida". *Constellations* , 9 (3), 299-317.

Barthes, R. (1970) "The Third Meaning". In: Heath, S. trans. (1977) *Image - Music - Text* , London: Fontana Press, 52-68.

Burnham, J. (1968) "Systems Esthetics". *Artforum* , 7 (1), 30-35.

Fish, S. (1982) *Is There a Text in This Class?* Cambridge, MA: Harvard University Press.

Foucault, M. (1969) "What Is an Author?" In: Faubion, J. D. ed. and Hurley, R. trans. (1998) *The Essential Works of Foucault (1954-1984): Aesthetics, Method, and Epistemology* , Vol. 2, New York: The New Press, 205-22.

Fraser, A. (2005) *Museum Highlights: The Writings of Andrea Fraser* . Alberro, A. ed. Cambridge, MA: MIT Press.

Halter, E. (2010) "The Centaur and the Hummingbird". In: Cornell, L. and Halter, E. ed. (2015) *Mass Effect: Art and the Internet in the Twenty-First Century* , Cambridge, MA: MIT Press, 231-42.

— (2015) "Will You Be My Version?: James Richards". *Afterall* , 38, 41-50.

Horowitz, N. (2011) *The Art of the Deal: Contemporary Art in a Global Financial Market* , Princeton: Princeton University Press.

Joselit, D. (2013) *After Art* , Princeton: Princeton University Press. — (2015) *Dark Cloud: Shapes of Information: Lunch-Bytes* . Talk given at the Haus der Kulturen der Welt, Berlin, 20 March, as part of the Lunch-Bytes programme, organised by Melanie Bühler.  
Lepore, J. (2015) "The Cobweb: Can the Internet Be Archived?" *The New Yorker* . 26 January, <http://www.newyorker.com/magazine/2015/01/26/cobweb> (last accessed on 7 September 2016).  
Nora, S. and Minc, A. (1978) *The Computerization of Society*. Bell, D. intro.

(1981) Cambridge, MA: MIT Press. "One Terabyte of Kilobyte Age: Digging through the Geocities Torrent". Blog Geocities Institute [website], <http://blog.geocities.institute/> (last accessed on 29 April 2016). Price, S. (2002/2008) *Dispersion*, New York: 38th Street Publishers. Steyerl, H. (2009) "In Defence of the Poor Image". *e-fl ux journal* [online journal], 10, 2009, <http://www.e-fl ux.com/journal/in-defense-of-the-poor-image/> (last accessed on 23 April 2016). Tomkins, C. (2014) "Experimental People: The Exuberant World of a Video-Art Visionary". *The New Yorker*. 24 March, <http://www.newyorker.com/magazine/2014/03/24/experimental-people> (last accessed on 7 September 2016). Troemel, B. (2013) "Athletic Aesthetics". *The New Inquiry* [online magazine], 10 May, <http://thenewinquiry.com/essays/athletic-aesthetics/> (last accessed on 27 April 2016). — (2014) "Art after Social Media". In: Kholeif, O. ed. *You Are Here: Art after the Internet*, London: Cornerhouse, 36-43.