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IN TRANSITION

# THE DIGITAL IMAGE AND REALITY

## Affect, Metaphysics and Post-Cinema

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Amsterdam University Press

# The Digital Image and Reality

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# 1. Cinema's Foundational Frissons

*Dan Strutt*

**Abstract**
This introduction lays out the coordinates of the book's main philosophical contention – that the world is perceived and felt to be different under a general condition of digitality as a form of 'digi-thinking'. It establish a synergy between digital visual media and theoretical physics and suggest that current screen culture, rather than being only orientated to spectacle, actually equips us with new skills in perception for a world of experience which is increasingly virtualised. The chapter refers to a set of embodied effects specific to the digital image; of flying, floating, swarming, morphing, and glitching, within the context of recent cinematic content such as Interstellar (2014) to set the scene of a contemporary digital imaginary.

**Keywords:** Post-Cinema, Futurism, Cinema of Attractions, Deleuze, Heidegger, Ontology

> The transition from the diegesis of the film to the social realm of the multiplex, even the emergence from video or DVD viewing to the familial space of the living room, is not without a certain frisson. The border state too has its significance, especially in the diminution of intensity coupled with a heightened alertness to whatever quirky events might occur outside the theatre. An aura of wholeness persists, fading, as you make your way home. (Cubitt, 2005, p. 269)

## The Arrival of the Digital Image at the Station

As many accounts would have it, the first screening of the Lumière brothers' film L'arrivée d'un train en gare de La Ciotat in 1895 had quite the impact on the audience. Indeed, it has been called cinema's founding myth, that the audience, overwhelmed by the apparent reality of a full-size

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train rolling towards them, screamed and ran to the back of the room.[1] In many ways, one can easily imagine this naïve group of ordinary people, whose prior knowledge of reality could only be accounted for by natural perception, suddenly confronted by a large image which they simply could not appropriate into their understanding of the way the world works. This 'virtual' reality of cinema, apparently indiscernible from the real, thus induced shock, astonishment, and panic as they scrambled to get away from the massive moving object that would surely crush them. We can see that their reality, in this moment, was fundamentally challenged and changed. Leaving the screening that day, they had to live in a new world in which such images exist; in which both the nature of images, and the nature of reality, are transformed, such that new skills in cognition/perception must be adopted to discern the difference. In some small way, their consciousness had evolved.

Of course, as has been well established, the above story is apocryphal, the original mythology – perhaps marketing strategy – of the transcendent power of cinema (it is possible that this film was not even part of the Lumières's first screening, and was not in fact shown until 1896). Indeed, contrary to the image conjured of a train accelerating directly toward the audience as if about to enter the room, the train glides off to the left of the screen before calmly pulling to a halt (without anything like the direct audience confrontationalism of, for instance, James Williamson's The Big Swallow from 1901). However, whether true or not, this event's myth status does not mean that it does not resonate with a more fundamental truth about media. There is no doubt that some novel kind of conscious experience occurs when confronted by a new media form. However, this need not be the outright shock or astonishment of an earth-shattering, terror-inducing tectonic shift in cognisance, but something more like, as Sean Cubitt puts it in the opening quotation of this book, 'a certain frisson'. Even so, such moments make a difference. As intensity fades, and as we leave the screen space and return to the more familiar environment of the streets and our homes, we quietly and unconsciously adjust our realities to what we have experienced.

The train here becomes an apt metaphor for the challenge to consciousness that emergent media technologies present. First, the train is cinema

1 Both Tom Gunning (1990) and Stephen Bottomore (2000) examine various reports of audience reactions to early film in an attempt to document what Gunning calls a 'myth of origin', also known as the 'train effect', after the alleged shock reaction of viewers to the Lumières's film.

itself; later, it is cinematic sound; then, it is colour; and, even later, it is 3D. The train is then digital – literally in the opening scene of Martin Scorcese's HUGO (in Digital 3D), as both an homage to, and cinematic in-joke about, this myth of origin (see Elsaesser, 2013). As Timothy Scott Barker describes in *Time and the Digital* (2012), the arrival of the *actual* locomotive technology in industrial society (not yet as metaphor, nor as image) habitually altered notions of time and space. Not only did it collapse travel distance and duration, but also perceptually framed, through the train window, a new spatio-temporal understanding – a kind of incipient proto-cinema. For Barker, the train is a 'technological event' like the telephone, television, digital networks, and digital image production – a technology which fundamentally alters human experience by restructuring communication, and which 'not only makes the unseen seen, but adds another sensory object to our experience of the world, changing the way we think about our visual reality and also about movement and time' (ibid, p. 8).[2] These events do not distance us from reality, but rather reconfigure our metaphysical consciousness such that reality is 'mediated' differently.

This 'event' – the cinematic image of a train arriving at a station, albeit apocryphally, brought a new perceptual experience to the modern age, of an object moving through perspectival space, yet one that is not actually physically present. In the moments afterwards, the spectator must have become aware, not only of the primary non-presence of train, but also of the presence and functionality of the screen and projector which yielded this illusory effect. The cinematic apparatus here presented its own spatial and temporal reality which had to be immediately incorporated into habitual modes of perception and understanding. This may not have occurred as a traumatic shock to the system, but rather a kind of droll surprise – a sharp intake of breath, a raised eyebrow.

Sueng Hoon Jeong, in his *Cinematic Interfaces*, reflects on this event as the origin, not only of a virtual reality, but also of a fundamental tension of embodiment at the interface of the screen. He notes: 'Lumière's first train film suggests that cinema might have come into being through a kind of intercourse between the self-destructive and self-defensive power of the screen' (2013, p. 91). He suggests that the cinematic image is *originally* about this flickering tension between our embodied sense of the reality within the screen (a suturing effect), our awareness of the illusory apparatus (de-suturing), and, at the same time, the birth of a primal fantasy, or perverse

2 The *event* for Barker is understood via Badiou – defined as a cluster of circumstances resulting in a 'rupture in Being' and a subsequent re-centring of our subjective relation to truth (2012).

desire, for penetration 'into and through' this interface. This is an ontological tension – one that plays along the boundary of our consciousness of the different domains of reality which we experience. As with the other examples of this interface-breach that Jeong gives – of Sadako climbing through the TV screen in the horrific climax to Ringu (Hideo Nakata, 1998), or the slicing of the eyeball as a de-suturing slash through the screen/retina in Un Chien Andalou (Dali and Buñuel, 1929) – the *feeling* that the train might burst through the screen forms an original ontological sublime, both pleasurable and disturbing in equal measure, and which continues to this day to stimulate thought about objective and subjective metaphysical realities.

From the origins of cinema we then move to the object of this book – to the post-cinematic image (a complex of notions of contemporary images that are both continuous and discontinuous with 20th-century film theory) and to a set of images more specifically brought about by the digital – by digital processes, on digital screens, and with digital themes. These are images which institute new ontological tensions and pleasures, while perhaps leaving the original ones intact, or alternatively re-versioning or 're-launching' them (as we see in the conclusion to Chapter Two). In the films which I have explored in the writing of this book, such as Source Code (dir. Duncan Jones, 2011), Avatar (dir. James Cameron, 2009), and Interstellar (dir. Christopher Nolan, 2014), as well as in digital imagery beyond narrative film form and outside the media mainstream, we have 'events' that stand for the emergence of a different technological apparatus (and interface), and thus a new technological condition that, like the train arriving at the station, synthesises a distinct mode of 'being-in-the-world' (a Heideggerian holistic mode of thinking, seeing, and feeling ourselves within a tangible reality). This 'synthesis' does not necessarily occur in a moment of bodily violence, terror, or erotic arousal (potentially horrific for Žižek [1989]; potentially an ecstatic, masochistic 'passionate abandonment' to the machinic body/interface meld for Jeong [2013, p. 94]). Rather, it proceeds through an accumulation of seemingly disconnected images, of cinematic moments as fragments or *frissons,* of pleasurable or uncanny affects; images which indeed fade from consciousness as we make our way home from the multiplex (or even from the living room to the kitchen), but that also take root in our psyche. This book is thus to be read as a series of trains arriving at a station – a collection of metaphysical shifts arriving at the platforms of our collective consciousness.

## A Futurist Cinema of Attractions

Of course, any digital *frisson* can easily be dismissed as part of a commodity culture of 'technological' cinematic experience – a culture of Debordian spectacle which amounts to a degradation of culture, and to facile forms of cultural engagement. The oft-cited films that are emblematic of digital cinema (The Matrix, Avatar, Tron, etc.) are objects of a commercial entertainment market and, as such, for reasons including the mode of attention, the space of their consumption, the industrial mode of production, or the synthetic affections they afford us, they seem to have little value as objects of art. They are junk food, regularly consumed and enjoyed though we know that they are, cumulatively, bad for us. With these films taken as individual texts, you can't deny that this attitude may have a modicum of truth – they are often defined by their gimmicks, their smart intertextual references, their celebrity star-power. However, to look at them collectively, drawing links to other visual practices beyond the traditional cinematic form, they start to form a matrix which seems to express a distinctive shift in sensibility – resulting in a changed 'structure of feeling' (Shaviro, 2010)[3] or 'regime of the sensible' (Rancière, 2006). More simply put, *together* they seem to form a more permanent and generalised change in ways of thinking, seeing, and feeling that is no mere whimsy, and perhaps, I will suggest, even offers us a new philosophy.

Despite certain shifts away from past cultural elitisms, an attitude endures that a divide exists between the objects of popular culture and serious artistic practice in terms of their 'contribution' to society. It is fairly acknowledged that most digital innovation happens within an industrial entertainment (and industrial-military) context due to the cost of development, and so digital CGI and simulation are often perceived as the product of a cynical economic motive rather than an aesthetic or social one (Belton, 2002; Gurevitch, 2010).[4] A socioeconomic divide exists between the audiences of the multiplex and the 'arthouse' cinema, with the at-scale commodity

3 This phrase is used in Steven Shaviro's sense in his book *Post-Cinematic Affect* in which he states: 'I am therefore concerned, in what follows, with effects more than causes, and with evocations rather than explanations. That is to say, I am not looking at Foucauldian genealogies so much as at something like what Raymond Williams called "structures of feeling" (though I am not using this term quite in the manner that Williams intended). I am interested in the ways that recent film and video works are expressive: that is to say, in the ways that they give voice (or better, give sounds and images) to a kind of ambient, free-floating sensibility that permeates our society today, although it cannot be attributed to any subject in particular' (Shaviro, 2010, p. 2)

4 For reflection on the role of military technology in our contemporary entertainment culture, see Lenoir and Lowood's 'Theaters of War: The Military-Entertainment Complex' (2003).

film often seen by the latter as dragging culture down: 'digital Hollywood denegates culture' (Cubitt, 2005, p. 270). More ostentatiously social or philosophical content, however, seems to fulfil an idealised ethical role, challenging audiences towards contemplation and attending to the 'spiritual' growth of society (in a secular sense). However, throughout this project, in analyses of the ontological problematics and new spatio-temporal and metaphysical dynamics of new popular digital screen content, there is an attitude that these things do make a lasting and profound ethical difference no matter what taste cultures surround them.

In this way, I ask people to look again at the familiar 'low' culture and popular genre works within a digital culture – with their clichéd narratives, predictable crescendos, and overly neat closures – to see what else emerges 'passively' from these images. We are still, as a culture, accustomed to reading and critiquing popular media in a conventional, narrative way, such that we often brush aside the affective tonalities of the action set-pieces, shot-composition, and synergies of sound and movement as mere trinkets. The true 'meaning' of a film often seems so obviously based within the narrative and its characters. From this point of view, the film ceases to be seen as a fusion of many logical and affective elements as polysemous levels of meaning (rather like saying the meaning of a song is only in the lyrics rather than in the musical composition). Digital effects as 'superficial' elements feel like affective lures and illusion through distraction, which deludes weak minds into thinking that they've had a worthwhile experience. However, there is a developing academic critique that instead sees these digital effects as valuable non-narrative experiments in sensation/perception. In the concepts of theorists such as Scott Bukatman (the kaleidoscopic image, 2003), Scott Richmond (the proprioceptive aesthetic, 2016), Aylish Wood (the digital encounter, 2007), Kristin Whissel (digital effects emblems, 2014), and Angela Ndalianis (the digital neo-baroque, 2005), we have a focus on effects which are *supra*-narrative, and yet meaningful in alternative modes of sensory engagement.[5] Within this critique, I also see these 'free-floating intensities' not as tricks,[6] but as nodes within a rhizomatic structure of affects and

5 Also of interest are Stephen Prince's *Digital Visual Effects in Cinema: The Seduction of Reality* (2011), Michele Pierson's *Special Effects: Still in Search of Wonder* (2002), Lisa Purse's *Digital Imaging in Popular Cinema* (2013), Stephen Keane's *Disaster Movies: The Cinema of Catastrophe* (2006), Nicholas Rombes's *Cinema in the Digital Age* (2017), and Lisa Bode's *Making Believe: Screen Performance and Special Effects in Popular Cinema* (2017).

6 Here I reclaim Jameson's apparently damning description of the meaningless affections of 'the newer cultural experience' as 'a whole new type of emotional ground tone – what I will call intensities [...] free-floating and impersonal [...] dominated by a peculiar kind of euphoria',

effects which together, at a cultural level, form a new *grammatisation* of space, time, matter, force, and intention – as a new 'regime of the sensible'.[7]

Of course, in talking about a concentration of images of digital distortion and manipulation of time and space, we easily find ourselves in the territory of the science-fiction and science-fantasy film genres in which they seem to occur the most. For some critics, the digital technological film still conjures an image of past waves of schlock B-movies defined by gimmick and hype (an attitude Thomas Elsaesser documents in his essay 'The Return of 3D', 2013). However, even these have undergone an academic re-examination and re-valorisation in the digital era through Tom Gunning's notion of a 'cinema of attractions'; a theoretical filter through which contemporary digital effects are instead seen as an Eisensteinian 'montage of attractions'. This attitude rescues cinema from 'the hegemony of narrative film' to its *original* state involving an immediate and direct address to the spectator, revels in the exhibitionist possibilities of the technological apparatus, and celebrates the 'frisson' (Gunning, 2006).

Philosopher and feminist theorist Rosi Braidotti, in her article 'Post-human, All Too Human: Towards a New Process Ontology', makes the interesting observation that 'low culture genres' of fiction are 'mercifully free of grandiose pretensions – of the aesthetic or cognitive kind' and are thus a 'more accurate and honest depiction of contemporary culture than more self-consciously "representational" genres' that function according to a more realist aesthetic imperative (2006, p. 23). She states that 'minor, which is not to say marginal' genres such as science-fiction and cyberpunk celebrate hybridity and mutation (or at least do not make them abject) and thus are more likely to present us with speculative and dynamic images of evolving and transforming relationships in our post-human present. Sci-fi here becomes a *privileged* genre that is un-afflicted by the burden of realism, and that is free to explore new dimensions of (post-)human experience.

However, there is an alternative perspective to genre that I wish to pursue to frame my analysis, which is both broader than that of sci-fi or a cinema of attractions, and yet more pointedly political, philosophical, and ethical in nuance: a *futurist* cinema. This is, in the first instance, a cinema of futurism

and instead deploy it as a positive description of original and novel moments untethered to recognisable structures of thought. This is a sentiment also pursued by Pansy Duncan in her *The Emotional Life of Postmodern Film: Affect Theory's Other* (2015), who cites Shaviro in also 'earmarking Jameson approvingly as one of affect theory's unexpected allies' (p. 42).

7 Grammatisation, from Bernard Stiegler, is a major concept for this analysis and will be later explored in depth, but in brief can be described as the process of formalising symbolic fluxes and flows into discrete letters, words, and codes such that they can be reproduced and shared.

with a small f, simply meaning a cinema which, as Braidotti notes, revels in future possibilities for existence at the limits of humanism and of the *anthropocene* epoch. This can be framed through the work of legendary 'visual futurist' Syd Mead, who has addressed sociocultural realities through a prism of future vision in films such as Blade Runner, Aliens, Star Trek, Tron, and Elysium, oft quoted as saying: 'I call science fiction "reality ahead of schedule"' (Hollingham, 2017). Futurism here is a process of speculative world-building, often necessitating the mimesis of impossible things – flying cars, artificial intelligences, alternate galaxies, alternate dimensions. However, far from being so detached from reality as science-fantasy, this practice of projecting possible future worlds is now increasingly viewed as a pragmatic methodology and strategy for technological disruption in the real world. As *Slate* magazine documents, Spielberg's production designer for Minority Report (2002), Alex McDowell, now runs an academic programme at the University of Southern California called the *World Building Media Lab*, where narrative futurism is used as method to 'change the future'. He describes:

> We have control over the narrative here. We want a different outcome. So, let's create a narrative—a fictional world space with multiple narratives—that is moving in the direction *we* want it to go. Extrapolate that forward over the near horizon, then thread our discoveries back into the present and use that to change direction in our present and move towards a *new* future. (McDowell, in Bankston, *Slate,* 2017)

The stated purpose of McDowell's project is not just to devise new technologies to capitalise upon, but also to construct ethical future visions: 'solving real-world problems, ranging from creating future scenarios for Fortune 100 companies to envisioning possible solutions to the refugee crisis and environmental catastrophes' (worldbuilding.usc.edu).

This futurist methodology can take on a more directly political nuance in films such as Black Panther (2018), which, according to its director Ryan Coogler, offers a brand of technological *afro-futurism* to the cinematic mainstream (Loughrey, *The Independent*, 2018). Cultural critic Mark Dery first recognised and named this aesthetic of afro-futurism in 1994, in his article 'Black to the Future':

> Can a community whose past has been deliberately rubbed out, and whose energies have subsequently been consumed by the search for legible traces of its history, imagine possible futures? [...] Furthermore, isn't the unreal estate of the future already owned by the technocrats, futurologists,

> streamliners, and set designers – white to a man – who have engineered our collective fantasies? (Dery, in Loughrey, 2018)

The solutions offered here are alternate realities as utopian fantasies, but nonetheless, as aesthetic images, they represent an empowered resistance to hegemonic forces that represent Western superiority in no less of a fantastic (but racist) mode. This does not, perhaps, as the critical *Frieze* magazine recently pointed out, produce direct social and economic change, due to the fact that serialised diegetic fictions such as BLACK PANTHER always have to retreat and reset to a believable objective reality in each subsequent installation, forestalling their potential radicalism (Canavan, 2018). However, in the 'undeniable power of a utopian vision of transcendent Afrofuturism', imaginative images can disrupt historical narratives in rich metaphorical modes that enrich a present sense of future potential (ibid). An example of this is in the widely blogged metaphor 'vibranium is melanin', where the symbolism of BLACK PANTHER's fantasy metal that is both an incredibly hard material and limitless energy source carries a metaphorical resonance of the potency of black skin colour. Here, for many of these online commentators, a futurist image creates a real-world sense of empowerment for young black people, who can (metaphorically) intuit their blackness as a superpower. Cautiously, we can start to think that the futurist fantasy fiction that is observed in this analysis provides rich metaphorical activity which addresses actual political and philosophical problematics – a pragmatic methodology for working through real historically engineered limits to thought.

The second Futurism I address is with a big F. This is the avant-garde aesthetic and philosophical movement founded by Filippo Tommaso Marinetti in 1909. In his own words: 'the enthusiastic glorification of scientific discoveries and of the modern mechanism' (Marinetti, 1914, p. 150). This movement advocated the technological development of society towards extreme measures, celebrating the modern, the fast, and the machinic, and condemning the old and traditional through a violent and destructive aesthetic which was often powerfully anti-humanist. Cinematic form, for the Futurists, was in many ways a symbol of what the broader movement stood for – dynamic, energetic, and 'authentically modern' (Lista, 2017, p. 20). It was also profoundly post-human, or post-anthropocentric, looking towards a future in which objects and machines took aesthetic and ideological prominence. In the Futurist cinemas of both Italy and Russia, images of the urban landscape as a complex animated organism featured alongside ordinary objects rendered as aesthetic and animate – beautiful robots, or everyday objects come to life – a 'cinema of machines' (ibid, p. 24).

While pure Futurism requires perhaps a level of abstraction and avant-gardism that might seem unfamiliar in a contemporary digital post-cinema, there are thematic preoccupations that seem roughly continuous. First, there is the idealised cinematic form of the 'hypo-structural and irregular model of vaudeville' – a series of sketches and artistic performances un-constricted by rational narrative, and reproducing a rapid free-wordist approach which should multiply potential thought (ibid, p. 29). This type of structure of kinetic set-pieces loosely bound together by narrative resonates well with the concept of a contemporary digital 'cinema of attractions' which defies logic. However, secondly, the foremost thematic continuity is in the prioritisation of the formal possibilities of the technological apparatus towards a particular aesthetic end – the potential to stretch representation to a point of metaphysical distortion. This medium-specific creation of cinematic breaches in integrity and coherence was emphasised by Marinetti, with an explicit focus on spatio-temporal breaks and disruptions:

> For Marinetti, the only object of cinema is cinema itself because the de-realization of the image, neutralizing 'the laws of intelligence', means the liberation of time and space, that is to say, of the categories *a priori* that, according to Kant, determine human experience. In other words, only cinema can fully realize the eighth principle of *Manifesto di Fondazione del Futurismo*: ´Time and Space died yesterday. We are already living in the absolute, since we have already created eternal, omnipresent speed´. (ibid, p. 27)

There is a profound anti-phenomenalism, anti-rationalism, and post-humanism to be found in this Futurist manifesto within the fantasy of a machine-view which can 'throw the brains of spectators into unreality zones' (Ginna, in Lista, 2017, p. 28).[8] This chimes with the concept of a digital post-cinema which often aims to flip perception, distort representation, and interrogate metaphysical assumptions *despite* the apparent lack of a coherent ideological critique or meaningful philosophy. It aligns with what William Brown has called a contemporary 'Supercinema', which de-prioritises human perspective for a kind of non-anthropocentric or anti-humanist perception (2012, p. 53). This anti-humanist ambiguity of embodied perception, Brown identifies, is the character of digital cinema – with precursors in

8 As we will see, this is also profoundly Deleuzian, as through his 'logic of sense' and of nonsense there develops a futurist poetics which is described by Helen Palmer in her *Deleuze and Futurism: A Manifesto for Nonsense* (2014).

the Modernist avant-garde, but which 'crystallizes' with digital technology. However, as I later discuss, we cannot really move too far away from a (human) phenomenological view, as even this non-anthropocentric perception still always operates as a metaphor for human corporeal proprioception, even when it intends to be other. Instead, we indulge what Ian Bogost has called an 'alien phenomenology', operating self-reflexively from an alternate alien/other perspective, but always using anthropomorphic metaphors for the existence and processes of objects and things with a stated purpose of attempting to trouble the limits of the human capacity to know and understand *a priori* (2012). Thus, a digital supercinema may be better thought of qua Bogost as a futurist *alien cinema,* indulging speculative thought about unfathomable complexity, beyond human comprehension, in inaccessible realms, and yet still in recognisably human worlds.

But I then have to ask if I claim too much metaphysical prescience for commercial movies that are often perceived as 'dumb'? While some critics have praised Michael Bay's TRANSFORMERS series of films as experimental cinematic masterpieces comparable to the work of Douglas Sirk (Bennett, 2015) or Ridley Scott (Brody, *New Yorker*, 2017), we have to wonder if this is not with some kind of tongue-in-cheek irony. It is still true that much resistance to the idea of digital effects as socially and culturally meaningful comes from those who would still believe that art has to be an autonomous 'special' field of practice – a pure space of disciplined activity which exists outside of economic and political fields.[9] Thus, while Futurist cinema along with Dada and Surrealism was a profoundly Modern critique of traditional modes of representation, digital special effects and science-fiction cinema is not commonly seen as such. However, this concept of the autonomous artwork seems to be more and more anachronistic in a late-capitalist creative economy in which even the most avant-garde art object has the potential to be supremely commodified.

In resisting the dualism in which there is an ideological mainstream and a transgressive brand of artistic avant-garde, film philosopher John Mullarkey points out that both American cognitivist David Bordwell and continental metaphysicist Gilles Deleuze (traditionally diametrically opposed in terms of theory) fall into the same type of fixed essentialism in

9 The conception of a dialectical aesthetics as described in the aesthetic theory of Theodor Adorno, and decades later by Jean Francois Lyotard, holds that the artwork should be a force of pure negation. For Adorno, this quality of negation is called 'antinomy'; for Lyotard, it manifests within the notion of the sublime, though both tend to make the artwork something transcendent and thus insoluble into any common culture.

making distinctions between a classic Hollywood cinema as essentially normative, and an avant-garde art-cinema as essentially transgressive. Deleuze, in his opposition of the cinematic movement-image to the time-image, further deploys this dialectic in a mode that is historicised in such a way that the critical, pure image type of the time-image came into being only after World War Two due to a metaphysical crisis of faith.[10] Mullarkey instead proposes that these categories are not fixed or strictly historicised, but rather always processual, overlapping, and shifting: 'This becoming of film – its processual complexity – is its only essence (which is to say that it has no essence)' (2009, p. 10).[11]

We can perhaps now see an evolving field of contemporary culture in which Braidotti's opposed fields of low-culture genres and the 'grandiose pretensions' of high-culture realist aesthetics are actually very mutable, and that this is not only attributable to a capitalist imperative. I hasten to add that this position does not relinquish the idea of an autonomous, sublime art, nor of art as negation, but simply notes that now it is possible that aesthetic disruptions, or *lines-of flight*, occur not in another realm of liberated practice but rather exactly within the public mainstream or common culture domain. The task then is to recognise these events for what they are, or what they have the potential to be.

So what then are my true objects of study? They are digital, post-cinematic images which are futuristic, Futurist even, technologistic perhaps, but not simply, or only, science fiction. While this whole book attempts a more nuanced investigation into the question of what qualifies as a digital post-cinematic image, I propose here an abrupt (and possibly incomplete) definition. They are images which come into being through the new formal possibilities that are afforded by digital capture, editing, and post-production technologies. This is, in a way, a field of potential images, contingent upon the possible manipulations of code within both hardware and software assemblages. But these structural and formal

10 See, for instance, *Deleuze and World Cinemas* (Martin-Jones, 2011) which identifies various 'non-continuous' image types put forth in early cinema, including time-images and 'attraction-images', and further criticises the narrow European focus of Deleuze's study to focus on a more global context of multiple political crises and upheavals which affected other national cinemas.

11 This issue around Deleuze is also addressed by Damian Sutton in his *Photography Cinema Memory: The Crystal Image of Time* in which he states that the mainstream Hollywood and European avant-garde exist as a spiralling interdependence, like the genetic material or DNA of cinema (2009, p. 40), and by David Deamer in *Deleuze's Cinema Books: Three Introductions to the Taxonomy of Images* in which the two regimes of the cinematic image make up a 'heterogeneous complexity' (2016, p. 70).

aspects within the image are meaningless without a mind to engage with them, to actualise them, and a body to tense and release in the processes of affection and emotion, perception and cognition. I thus identify, in concordance with the work of other theorists, a set or taxonomy of visual *effects* which are fully articulated through a set of embodied *affects,* that are distinctive of the post-indexical, post-cinematic image, and which can be roughly summarised as: simulations of spatial information of depth and expanse; modulations of time in loops, phases, and parallels; maximalist complexities of form and movement at the limit of comprehension in, for example, swarm and machine effects; breaches of physical form such as morphing and glitching; and recognisably corporeal sensations of flying and floating in and through space. These are aspects of, no doubt, a spectacular cinema of attractions with all its associated thrills and frissons, but also of a cinema that is grounded in a mode of de-naturalising natural (human) perception. They are special effects, but contextualised by a specialness which offers a dynamic, holistic, and richly metaphorical vision of possible futures, and which can be ethical and political at the same time as being aesthetic.

## What is Post about Post-Cinema?

Steven Shaviro develops a strong sense of a post-cinema in his 2010 book of the same name. He hastens to add that this is not 'post-' in the sense of progress, or towards some teleological goal of a 'total cinema' (calling on Bazin's concept of the perfect mimesis of reality to disavow it), but rather that filmic cinema is now 'surpassed' in a new 'cultural-technological regime' into which he incorporates:

> [...] production, editing, distribution, sampling, and remixing of audiovisual material [...] in a wider range of contexts than ever before, in multiple locations and on screens ranging in size from the tiny (mobile phones) to the gigantic (IMAX) [...] within a complex of social, economic, and political developments: globalization, financialization, post-Fordist just-in-time production and ´flexible accumulation´ (as David Harvey calls it), the precarization of labor, and widespread micro-surveillance. (Shaviro, 2011)

While many of these aspects of the cultural and political economy of a post-cinematic regime are relevant to this field of research, it is not at the

heart of this project's work on the image itself – the 'audiovisual material', and the altered modes of engagement with that material. Instead, I aim for an aesthetic, ethical, and ontological mode of analysis, and, as we will see, this cannot help but end up also being political, albeit in perhaps a more abstract sense than that of Shaviro's political economy. Indeed, many would say, ever since the foundation of academic film theory, that you simply cannot consider screen content without a broader sociocultural or economic framework. While this enquiry does not neglect these concerns, it approaches them from the materiality of the image itself, rather than seeing the image as fixed within the amber of political superstructure.

The changes to consciousness and experience instigated by the digital shift can be seen negatively as the effect of powerful machiavellian forces working through media channels and technologies. This view can lead to a pessimistic attitude towards the affections specific to the digital, denigrating them as, at best, shallow and apolitical, and, at worst, a form of insidious brainwashing. By instead seeing the new technological forms of visual mediation as an emergent automatism driven by the material qualities of the hardware and software itself, we start to appreciate that, alongside processes of control, there are also some unpredictable outcomes. By following this direction of thought, we *could* surmise that technology itself was imposing its will upon us (a technological determinism), but this does not accurately reflect a field of non-human activity in which there is no clear intentionality. The technological forms of mediation function automatically and ambivalently as a filter or refractor for immanent thought, imagination and insight. It is still us, the human entity, that thinks, feels, and imagines, but now more than ever before through a prism of digital representation, casting new images of thought, and creating new systems of affective resonance.

Inevitably, some theorists and critics brush the change to one side and see it as an unbroken continuation with the cinematic, exhibiting a habitual continuity with the indexical processes of film such as focal depth, framing, and composition. Lev Manovich, for instance, defines digital cinema thus: 'We can finally answer the question "What is digital cinema?" Digital cinema is a particular case of animation that uses live-action footage as one of its many elements' (2016, p. 29). He here understands that cinema has come full circle in a history which began with animation and special effects, and he sees no decisive break with past photographic image forms. Others also dismiss the special effects and bodily affects of post-cinema as remediations of the same image types which have been there from the Lumières onwards, but this can often seem to be too simple a dismissal of

both quantitative and qualitative differences between analogue and digital forms. For example, film critic Roger Ebert famously called (digital) 3D 'a waste of perfectly good dimension' as, 'when you look at a 2D movie, it's already in 3D as far as your mind is concerned' (Ebert, 2010), and although this was said at an early moment in the current era of Digital 3D technology when it still seemed just a profitable gimmick, the position seems to deny outright any difference in representation between 2D and 3D formats. Since then, 'auteur' directors have moved into 3D filmmaking, and the uses of the technology have become more nuanced and expressive, such that few can deny the effective new grammar of 3D for both narrative and aesthetic uses. Digital 3D is but one exemplary event of a new emergent digital visual regime at first dismissed by critics as a cheap rehash of a previous phenomenon, but later embraced for the original narrative, affective, and aesthetic effects it affords, rather than for more cynical commercial reasons.

Christopher Nolan's time-bending space adventure INTERSTELLAR (2014) presents an interesting case study here. In many ways an elegy to the analogue, the film embraces select 'qualified' digital effects whilst simultaneously distancing itself from them. One of the biggest points of public discourse about the film was the 'real' science behind it, by which the digital cinematic effects were portrayed as proximate to actual 'natural' cosmic phenomena. The scientific consultant for the film, theoretical physicist Kip Thorne, apparently laid down two guidelines for Nolan: 'First, that nothing would violate established physical laws. Second, that all the wild speculations [...] would spring from science and not from the fertile mind of a screenwriter' (in interview with Clery, *Science*, 2014). The main achievement of this method was the creation of the film's black hole 'Gargantua', which features largely in the narrative, and was generated as a 3D simulation in ways that apparently constituted original scientific research. 'For me', Thorne says in his book *The Science of Interstellar*, 'these film clips are like experimental data' (2014).

> No one knew exactly what a black hole would look like until they actually built one. Light, temporarily trapped around the black hole, produced an unexpectedly complex fingerprint pattern near the black hole's shadow. And the glowing accretion disk appeared above the black hole, below the black hole, and in front of it [...] I never expected that [...] Eugénie just did the simulations and said, ´Hey, this is what I got.´ It was just amazing. (Kip Thorne, in interview with Rogers, *Wired*, 2014)

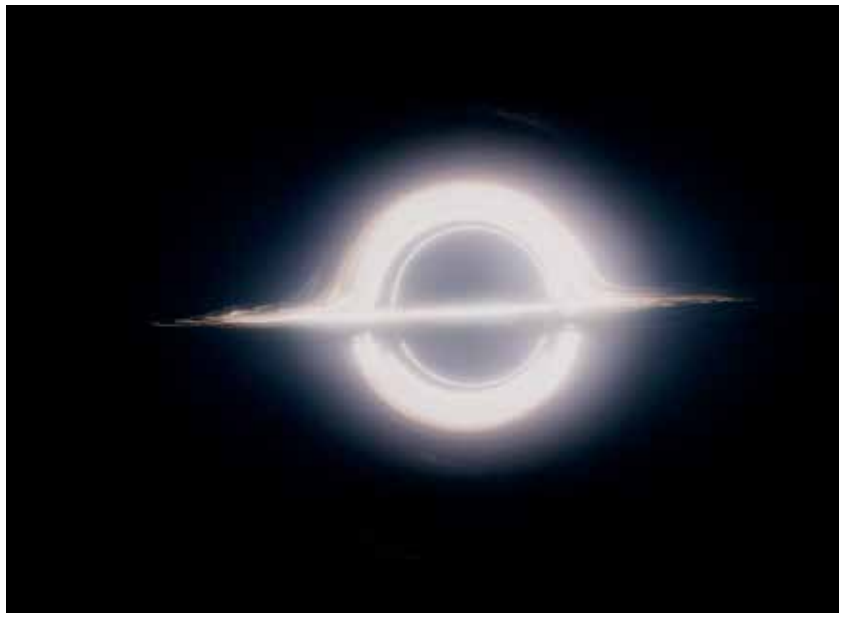

Figure 1. Black hole Gargantua in Nolan's Interstellar (Paramount/Warner Bros, 2014). Allstar Picture Library / Alamy Stock Photo.

These exciting and highly affective images of the black hole (Figure 1) thus represent a certain amount of technological advancement, in which, for the first time, graphic simulations were generated according to complex mathematical algorithms as a form of computational physics research. However, despite the simulation being created in a programme called Mathematica, it was then sent to visual effects studio Double Negative where it was coloured, enhanced, and rescaled in clearly creative digital processes. Thorne explains: 'The computer code was just the beginning. Oliver handed it over to an artistic team who added the accretion disk and created the background galaxy that Gargantua would lens' (2014). This kind of mixed methodology leads *Scientific American's* Lee Billings to critically note: 'not all of the science is treated equally in the film' although he permits that in Thorne's book '[He] is even-handed in his treatment of the film's science, admitting where artistic license was substantial and where it was used barely at all' (Billings, 2014).

There is thus both a complexity and an inconsistency in the ontological dynamic that Nolan establishes in Interstellar, of analogue authenticity and 'natural' science versus digital visual 'wild speculation'. He presents the viewer with a diegetic digital technological future rendered through the digital synthesis of aesthetic imagery, in which we literally leave the

material universe behind and launch into a virtual, theoretical dimension (the tesseract which exists with the brane fifth dimension), while simultaneously offering a narrative and thematic disavowal of digital effects as 'imaginary' flights of fancy and furthermore the *romanticisation* of its opposite (in the symbolic fetishism of paper books and analogue wristwatch that ultimately save humanity). A tension between the truth value of science and that of aesthetic expression or 'artistic licence' lies at the heart of this film, opening up a problematic discourse about the existential import of such images. However, as I will later explore, this dichotomy between science and aesthetics is perhaps a false one in the contemporary moment of media technology. The digital images of INTERSTELLAR reach a level of sophistication whereby abstract notions of metaphysics are no longer merely suggested or *evoked* through visual effects, rather they are simulated in ways that become more and more ontologically prescient.

Digital representations of the physical, material universe, even (or especially) when this is of theoretical phenomena as in INTERSTELLAR, often entail some level of destabilisation of recognisable physical forms and forces in imaginative and aestheticised modes. It seems a given that this will be experienced as different from a directly observable world represented as largely stable and predictable, such that we subsequently might view the world in a more probabilistic mode through the digital lens. This raises common-sense questions about how deep (if at all) these 'special' effects penetrate into actual everyday experience. That is to ask *if* and *how* we successfully police a conscious division between experience of the *actual*, and experience of a digitally mediated *virtual*? Is it negotiated cognitively and actively, or rather 'felt' in a more corporeal and intuitive way, or both, and is there a certain amount of cognitive dissonance between these two types of knowledge? I ask how these images resonate in an ontological sense with other abstracted, theoretical, or embodied knowledges of the physical universe, and if there is a (sub-)conscious synergy between our cultural imaginations and theoretical physics in the genesis of new ontological horizons? In this work, I thus aim to explore how these dynamics of actual versus virtual experience, abstract knowledge versus embodied experience, and scientific versus artistic expression – all considered as different classes of 'image' with regard to our consciousness of them – impact us through the nexus of our affective corporeality.

In elevating the digital image to a level of serious ethico-aesthetic analysis, I aim to establish an understanding of a form of digital rationality – a 'digi-thinking' that is a *post*-cinematic mode of thought, and which resonates with contemporary scientific knowledge, artistic expression, and with

wider social and cultural change. Within contemporary patterns and trends of representation, I will trace a regime of sensibility beyond Cartesian rationality, which creates a probabilistic space for original perception/affection/action, and which ultimately constitutes a digital ontology. This is to be an affective ontology of the digital, both an individual and communal non-conscious apperception of metaphysics within our contemporary technological epoch.[12]

## But is it Art?

In 1985, Andy Warhol somewhat surprisingly launched the Commodore Amiga's *Propaint* programme by live-digitising a video-camera image of Debbie Harry, and using the paint fill tool to create one of his iconic colour-blocked images (Figure 2). 'This is kind of pretty', Warhol said as he added the last touches to the image – 'I think I'll keep that' (Reimer, 2007). There is no doubt that this was a marketing stunt to give legitimacy and auratic power to the new home computing system, but this belies a genuine strong interest from Warhol in the aesthetic qualities of digital imagery. He continued to work with the software to produce several images which are now held at the in the archives of the Andy Warhol Museum in Pittsburgh (Stintson, 2014). But does this qualify the image he produced here as culturally and aesthetically significant, or was it just a moment of novelty, and a pale simulacrum of his screen-printed or photographic works?

The dominant perspective of the digital image as crass commercial spectacle and as tacky 'special effect' emerged in the 1980s, a natural extension of mass media critique initiated through the Frankfurt School of Adorno and Horkheimer, enhanced by Althusser's Marxism, and through which a first generation of academic media theorists found commercial media forms to be ideologically repressive and interpellative. The study of mass media and their social, cultural, technological, cognitive, and corporeal effects was initially defined by recourse to social hierarchy, ideology, and control. Postmodern cultural theorists of the late 20th century stayed within this rubric, and as such their analysis of new digital media forms and cultures which emerged in the 1980s (in which Deleuze himself can be included) fell easily into the same dynamics, with digital processes of bricolage and simulation, and the breakdown of linear media forms, fitting neatly into

12 Metaphysics as understood here no longer is the realm of gods and creation myths, but rather of physical forces, materiality, quantum states, dimensions, intentionality and causality.

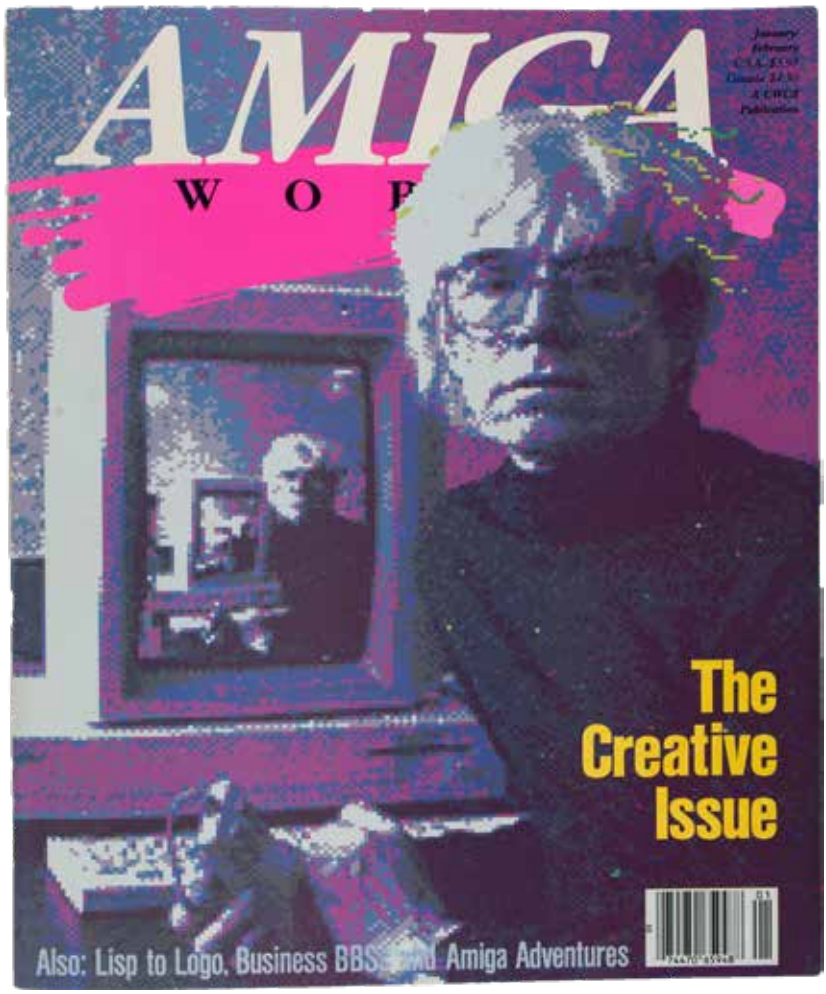


Figure 2. Andy Warhol's front cover of *Amiga World's* 'Creative Issue' from January 1986 (IDG Publishing) © 2019 The Andy Warhol Foundation for the Visual Arts, Inc. / Licensed by DACS, London

post-structural discourses of crises of faith in objective truth.[13] If cinema was the modernist medium of crafting meaningful (albeit ideological) narratives about time and existence, then digital media corresponded directly with

13 This critique is most aptly epitomised by that of Fredric Jameson in 'Postmodernism, or, The Cultural Logic of Late Capitalism' published in *New Left Review* in 1984, in which it was described how, under the conditions of postmodernity, all discourse has been merged into an undifferentiated whole, and difference itself has been commodified.

existential crises and a breakdown of meaningful connection. Intoxicating and violent, superficial, ubiquitous, and spiritually bankrupt, the images of the MTV generation were popularly and theoretically seen to be socially corrosive and existentially vacuous.[14]

However, as MTV producers became movie directors, and as 'avant-garde' artists became known for digital work, some cultural critics started to develop an eye for a digital potential for poetic expressivity beyond the clichéd post-modern – a specifically digital aesthetic.[15] Simultaneously, in film theory, there was a developing backlash against Althusserian, semiotic and psychoanalytic post-structural analysis, and a drift towards ideas of the body and haptic film theory through the works of Brian Massumi, Vivian Sobchack, Laura Marks, and Steven Shaviro. There was also a return to the richness of early cinema and early 20th-century film theory in the work of Tom Gunning, Miriam Hansen, Yuri Tsivian, and Scott Bukatman. Moreover, there was a new attention paid to Deleuze's metaphysical and philosophical film theory as laid out in his *Cinema* books.[16] These theoretical perspectives became interested in formal and structural elements of sensation and spectacle, with the emphasis shifted away from the politicised governing concepts of representation and identification towards more aesthetic and *affective* modes of analysis. Cinema is now better understood to possess a dynamic vitality which allows it to transcend the optical distance in which politicised theories of the 'gaze' were based, and, for the last 30 years, theorists have reconsidered engagement with screen images in a more affective, synaesthetic, and tactile mode.

Within this context, 'affect' emerged as a potent concept allowing a dynamic dialogue between various opposed and essentialist schools of thought on cinema and their respective methodologies: between the Anglo-American Cognitivist theoretical approach of David Bordwell and the European culturalism of Foucault and Deleuze;[17] between theories of

14 This view of the theorists of postmodernity filtered down into popular culture through iconic images provided by literature and films along the line of the character and milieu of Patrick Bateman in *American Psycho* by Bret Easton Ellis (1991).

15 Respected video artists from the 1980s such as Bill Viola, Tony Oursler, and Pippilotti Rist quickly moved into digital media. Digital fine art has been relatively slow to take off, though some artists such as London's Gilbert and George have now moved into a completely digital form (Bayliss, 2012).

16 *Cinema 1: The Movement Image* was first published in 1983 and was translated in 1986; *Cinema 2: The Time-image* followed in 1989. Amongst authors reflecting on these books were David Rodowick (1997) and Greg Flaxman et al. (2000).

17 Bordwell's firmly empirical approach seeks to measure cognitive responsivity to media texts to discern their psychological impact, and harbours a disdain for the larger social, cultural, and metaphysical analyses that largely interest European theorists (Plantinga 2002).

a popular mainstream cinema as in opposition to an esoteric avant-garde (more distinctly located within a fine-art discourse and methodology); and between a celebratory futurism revelling in post-human possibilities of new technologies, and the brand of bleak postmodernism which mourns the demise of meaning. Affect effectively bridges the gap as both a psycho-biological and cultural-philosophical phenomenon and concept, functioning in diverse ways across diverse genres and audiences, and as an important modality in a digital age which sees a proliferation and heightening of media immersivity and intensity. The shift in image discourse around affect engaged with an intuited sensation that the projected images are not simply and firmly indexically tethered to real objects that we already know (as a mode of representation) but can offer a novel experience of reality.

The theoretical and critical shifts of the mid to late 1990s came at the same time as a wave of CGI films that had an emphatic focus on novel sensation and awe-inducing effects. Spectacular and effect-laden films were certainly not new, with spates of biblical and mythological epics and short-lived and titillating diversions in the 3D horror and sex genres of the 1950s and 1980s.[18] However, in the 1990s, there seemed to be a new emphasis on epic scale and visceral drama in the multiplex cinema, in part fuelled by the continuing challenge posed to big-screen cinema by home-video and home-cinema formats.[19] The more spectacular of these films had sentimental themes, mythological narratives, and grandstanding effects, seemingly a form of disposable culture for the lowest common denominator – while auteur directors continued to make the thinking-man's films. But when game-changing films such as TITANIC (dir. James Cameron, 1997) and THE MATRIX (dirs. Lana and Lilly Wachowski, 1999) came about, theorists started to pay critical attention to a maturing digital ethos in the cinematic mainstream.

It is hard to deny the negative aspects of a digital commercial culture – the targeted manipulation of desire via the harvesting of personal data only one conspicuous example – but we need to give credit to the ethical potential of an accelerated culture in which 'virtual' diversity proliferates beyond forces of control. Through the prism of a Deleuzian concept of difference

18 In the films of Harryhausen and Cecil B. Demille, and later in 3D films of the 1950s and 1960s such as *Creature from the Black Lagoon* and *The Stewardesses,* and then again in the 1980s with *Jaws 3D* and others. Epic special effects 'event' films of the 1990s included disaster movies *Deep Impact, Armageddon, Independence Day*; historical epics such as *Saving Private Ryan, Titanic,* and *Braveheart*; and sci-fi fantasy including *Jurassic Park*, *Terminator 2: Judgment Day,* and the reboot of the *Star Wars* series.

19 On the effects of home video on cinema, see, for instance, Barry R. Litman and Linda S. Kohl (1989).

and repetition, in this book, I aim to emphasise how the digital media forms repeat and change images in 'plastic' modes of modulation and mutation which are often beyond human intent. Our accelerated digital culture is then re-inscribed as being focused towards future possibility and unbounded creativity, with positive ethical attributes. In Chapter Two, I show how digital processes of repetition and distortion are put to work aesthetically in a very Deleuzian manner in Gaspar Noé's ENTER THE VOID, and, in Chapter Five, through the work of Gianni Vattimo, I elaborate the ethical side of this 'digital nihilism' by stating that, despite efforts to control and brand virtual diversity, it still proliferates *out* of control in original and transgressive ways.

Throughout this project, I attempt to develop an eye for objects of a digital screen culture that are not partitioned off from the popular realm of consumption, and which proliferate and multiply in heterogeneous spaces. These images are not only in multiplex cinemas, but also enter our homes on multiple screens in our living rooms, bedrooms, and kitchens, and further appear on buildings throughout our cities in the form of public projections and advertising screens. These images fold themselves around material objects and are inset into corners, walls, and floors, perceptually distorting the contours and edges of our familiar spaces. Together, they form a constantly present other dimension, just next to us, looming above us, or around the corner, where consistency and predictability break down, like another world pressing against our own, trying to lure us in. Is this an invasion, as many see it to be? Or is it really the projection of our own imagination in ever closer proximity to reality, both nightmarish and heavenly, which threatens, or perhaps promises to rupture the boundaries between worlds?

## From Cine-thinking to Digi-thinking

I ascertain a fundamental ontological difference that the digital shift in visual technologies instigates, within a growing area of film-philosophical reflection that is developing in many analyses of digital interfaces, engagements, and interactions. In the most significant work on digital media, cultural theorists such as Patricia Pisters, Thomas Elsaesser, Mark Hansen, and David Rodowick stand out in noting an ontological shift and a new state of, and understanding of, thinking, being, and acting within a digitally mediated world. These theorists describe a decisive departure from the indexical relation of the image to reality that was instilled by photographic/filmic processes, and elaborate an emergent aesthetic sensibility cultivated

by the new digital arrangement of images, image processes, and image components.

Gilles Deleuze's cinematic theory is the starting point and, in many ways, the heart of this project. For him, cinema instituted an emergent 'cine-thinking' entailing a particular kind of thought about time and space, in the same way perhaps as the train (discussed at the beginning of this introduction) instigated a kind of 'train-thinking' (Alliez, 2000).[20] So what then can we ascertain as a separate and distinct 'digi-thinking' in our contemporary moment? The *material* qualities of film seem to lend themselves to the manipulation of time – movement in space here is, after all, an illusion given by a sequence of still images on a film strip that are shown in quick succession. Subsequently, we ask how the relative *immaterial* materiality of digital data – where form and force can be infinitely folded and morphed in illusory modes – might lend itself to the contemplation and manipulation of *other* types of metaphysical qualia. If material filmic processes of cutting and splicing celluloid frames together exposed our habits of linear temporal perception, or memory's relative elasticity, then the material digital processes of immaterial simulation seem to render all metaphysical notions, including, but not limited to time and space, as intensely plastic in a way that draws all forms of linearity into doubt. If film is perceived as primarily a temporal medium, then the digital seems to be this and more.[21]

I am interested in how reality (as a contextual human understanding of underlying metaphysical schema) is produced or *synthesised* within the context of digital post-cinematic media. This question becomes one of how we as spectators are affected by contemporary media images in our cognitive and imaginative capacities, and, then, of how these media in their structure and content critically reflect upon mind, reality, and their own processes. These issues are not separate, but rather meet within a conception of existence as effectively synthesised by processes of consciousness, by which we are all *producers* of images, both mentally and culturally, individually and socially – i.e. we are all primarily engaged in processes of understanding and reproducing reality. In the famous words of Deleuze (in interview with

20 Cine-thinking is actually elaborated from Deleuze's concept of a 'camera-consciousness' and described and examined in Éric Alliez's chapter 'Midday, Midnight: The Emergence of Cine-Thinking' in *The Brain is the Screen.*

21 Both Damian Sutton (2009) and Timothy Scott Barker (2012) still focus on the primacy of cinematic time in their relative approaches, albeit with the temporal dimension becoming more chaotic and differential in the digital form. Movement, the body, gender, and materiality as concepts are always subservient to the overarching dimension of temporality.

*Cahiers du Cinema* in 1986): 'the brain is the screen'. This does not necessarily deny an objective reality, but posits that we are essentially image receivers, an actualised image amongst others, but a 'special kind of image' capable of making innovative 'virtual' connections between images (Flaxman, 2000, p. 35).[22] Though we may not mentally *create* reality per se (as is the view of a pure transcendental phenomenology), we do almost certainly craft 'aesthetic' images out of it.

Deleuze's notion of a 'camera consciousness', which emerges in the *Movement-Image* to explain the relation between our metaphysical awareness and the mediated images we consume, aligns well with Walter Benjamin's notion in *The Work of Art in the Age of Technological Reproduction* of a distracted mass whose apperception is moulded through the historically and technologically located media they consume. This is the process of an non-conscious absorption of 'abilities' to tackle what Benjamin calls 'the tasks which face the human apparatus of perception at the turning points of history' (1999), abilities that Deleuze might put in more metaphysical terms as our spatio-temporal, sensory-motor perceptual schema. These perceptive abilities as inhabited, embodied ways of seeing and feeling the world are, to Benjamin, appropriated in an 'absent minded' way in an age of moving images, as opposed to the engaged, contemplative engagement demanded by the static artwork; thus, the authority of, and reverence paid to, the organisation of human sense perception in the auratic work is disrupted. However, Deleuze in his *Cinema* books goes further than this to suggest that film does not just *influence* our metaphysical understanding of reality in our specific historical technological location, but stands in as a model for the whole of Western thought on the relationship between philosophy and time, and, by implication, power (Flaxman, 2000, p. 4).

In this model, as re-examined by Gregory Flaxman in the introduction to his edited volume *The Brain is the Screen,* time is initially subjugated to space in the cinematic movement-image and thus can only be understood through a spatial metaphor, and this amounts to a normative regulation of thought. In the time-image, however, cinema fulfils its inherent potential for Benjamin's dismantling of auratic authority, and time is freed from its imprisonment by spatial relations. For Flaxman, the movement-image is directly traceable back to ancient Greek philosophical thought which expressed time as existing actually and externally as *divine* space. The

22 Flaxman succinctly states: 'In the *Movement-Image,* Deleuze says that the brain is a very special kind of image, one that opens up an interval in the modulations and variations of the universe. This interval propels what we call thinking' (2000).

time-image then relates to the shift in thought started with Kant's *Critique of Pure Reason* by which time becomes seen for the first time as phenomenal, interior, and durational, as an 'a priori form of intuition', and not as existing externally (ibid, p. 4). Flaxman elaborates how this morally charged shift in Western thought was then reflected by the cinematic shift:

> The ′regime′ of the movement image bespeaks a process of regulation that Deleuze ascribes to a ′sensory motor schema′, a neural network that ′affectively′ contains the image-flux: the images procured are recognisable, capable of being linked to other images along a methodical, and ultimately normative, chain. The sensory motor schema is the mechanism of our relation to the world of images, the result of which is narrative, but this narrative must be understood as having been underwritten by a moral exigency, the promise to make good, common sense. (ibid, p. 5)

This rupture in the moral regime of images, for Deleuze, becomes manifest in the cinema of the post-Second World War period, which exhibits a crisis of faith in rational, causal containment or order through showing discontinuous spaces, times, and narratives. The clear, consistent, and predictable perception of reality and causality given by the movement-image was, at this time, seen by filmmakers to be expressive of the type of fascist moral certainty that had led to the Holocaust.[23] In the 1950s, a new morality, a new philosophy, and thus a new cinematic image, was needed.

Deleuze states that with the time-image's disruption: 'Camera-consciousness raises itself to a determination which is no longer formal or material, but genetic and differential. We have moved from a real to a genetic definition of perception' (1986, p. 85). This genetic and differential mode (a significant phrase which I repeat throughout this project) *pushes* us (a determination) into new realms of consciousness, rather than merely reflecting and representing 'common sense' perception. The time-image ceases to be simply a recapitulation of the rational/moral dynamic in Western thought, as the technological apparatus of cinema now takes an active and *determining* role in sculpting a transformation. To Deleuze, as to Mullarkey (2009), cinema can become in itself a practice of philosophy, which not only *represents* abstract thought, but manifests a potential to be its own distinct language of philosophical thought that proceeds through visual and aural intensive affectivity. Camera-consciousness, through images, thus raises

23 As discussed by Deleuze in his conclusion to *The Time-Image*, and by Peter Canning in 'The Imagination of Immanence' in Flaxman's *The Brain is the Screen* (2000).

itself from a *passive-reflective* to an *active-determinative* status and becomes a refraction of thought on reality. It does this most effectively through the tactile, synaesthetic medium of moving-images which mobilises us to think actively about time and space, but still foremost through a passive state of direct affective immersion. Cinema thus is seen as the medium which best expresses the progress of Western philosophical, metaphysical thought, but then also becomes, in the specific historical conditions of the 20th century, the technological circumstance which is the catalyst for a paradigm shift.

Within this understanding, the change that occurs in the technological shift from analogue cinematic media to the digital could present us with a further evolutionary transformation, another *determination* potentially amounting to a next paradigm shift. With the digital, we see an emergent tendency towards even more profound and sustained disturbances in any rational, methodical ordering of images and this can be seen, as with the time-image, to be a further 'ethical' fracturing of dogmatic metaphysical authority. This would imply then that, with the idea of camera-consciousness, Deleuze speaks not just about a subject who exists within a specific, technologically defined cultural condition, but rather of a subject who is continually reproduced or reframed within some immanent field of potential thought that is mediated and affected by the structural and formal aspects of different media forms. The technology reflects and refracts in ways specific to its form, affectively capturing the image-flux, and determining processes of consciousness in both regulatory and liberational modes.

## Technology and Reality

In the next chapter, I expand my understanding of some basic concepts of reality and our consciousness of it, through the prism of a philosophical notion of technology – more broadly of *technics* (from Heidegger's perspective on the 'essence' of technology). However, here it seems necessary to provide some introductory overview of these concepts. I do take the position that we all, necessarily, assume a naïve view of reality – the view that it actually exists objectively beyond our perception of it, and outside of our attempts to understand it.[24] Without this view of a stable objective reality, we simply could not function in the world. However, it is a given that our perception and conception of reality is highly partial and framed within

24 This concept of a 'naïve view' of reality as a 'direct realism' is developed by David Gamez in his *What We Can Never Know: Blindspots in Philosophy and Science* (2007, pp. 33-35).

culturally and psychologically specific parameters. This insight has been clearly ascertained through phenomenological, psychological, and, more recently, neurological discourses.[25] One does not need to have an extreme sceptical phenomenological perspective to understand that reality is not always as we perceive it and that processes of culture, and the human mind, can twist material reality quite out of shape under certain conditions.

I ascribe to the position emerging from Socrates and Plato – through Heidegger, Derrida, and Stiegler – that all the forces which shape our ability to conceive of the world are, in the broadest sense of the word, *technological*. In that we interact with the world at the basest level of survival of our organism – i.e. the acquisition of food or shelter – any mode of drawing things forth from the world can be considered as *techné*. For Heidegger (1977), the concept of techné originally expresses both tooled handcraft and other forms of *poesis* as a 'bringing forth' – as modes of shaping the world through the manual creation of objects, or through expression (in both functional modes of communication and artistic expression). These techné give order and shape to the world, and occupy almost all of our mental and physical energy in our engaged activity within the world. For Bernard Stiegler (1998), extending Heidegger's thought, even the biological becomes part of a technical process, as structures of control are imposed upon physical gesture so that they form meaningful systems. The body is understood as technologically cyborg since the development of the first tools, because it adapts and evolves according to the technological systems with which it engages. For Stiegler, to be human in the first place is to be a technical being – it is what defines us.

Accepting this, I follow Heidegger and Stiegler in positing reality as generated through technological means, both in our ability to interact with the world, and in our ability to understand and communicate about it. But, as the technologies that we invent give shape to the world, they also give shape to us. Naïvely again, humans have conventionally thought that the technologies that we employ are there to help us gain control of our environment as assistive prostheses of our own bodies and minds, seldom realising that these same technologies also shape the environment for us, and provide subtle limitations to our existence. We adapt to technology in many small ways, and yet, through time, this draws us into ever-greater

25 Neuroscience now has become one of the most influential recent developments in social and philosophical theory, the findings of which are investigated through many scientific, social science, and humanities texts. See, for instance, Maurizio Meloni's 'Philosophical implications of neuroscience: The space for a critique' (2011).

distance from the way we were before. However, as both Derrida and Stiegler point out (in a revision of Heidegger), this is not some process of us growing farther and farther away from some originary and ideal natural state, as each technology, despite being in one way limiting, also opens up new conditions for action, thought, and expression. 'Nature' is thought of not as the beginning point of a linear progression, but instead as an underlying immanent and virtual flux, a field of potentiality from which actualised modes of being are continually drawn from within certain technological parameters. Each technology, as *pharmakon*, is thus an enabling framework as much as it is also a limiting structure.

Within this view, digital processes are the latest technological condition of humanity which frame our world view, from our individual capacity to imagine potential futures as fictional (cinematic) images, to actual tangible scientific progress. Faith, science, and art can thus all be seen as co-defining; aesthetic fabulations going hand-in-hand with empirical discovery, both consequences of the given technological condition. Seeing things this way, it ceases to be any mystery why a digital post-cinema experiments with images which twist time, space, force, and materiality at the same time as physicists reached to discover the Higgs Boson 'god' particle that gives mass to the 'immanent flux' or 'pea soup' of the other elemental atomic particles.[26] Both processes fundamentally dwell on the same ontological *futurist* problematic. The dynamics of influence between artistic imagination and scientific discovery can be described in different ways – as anticipating or inspiring each other – but, by tracing both back to the same technological condition the philosophical division between them is, to a certain extent, collapsed.[27]

In subsequent chapters, I address the issues outlined above, through reference to specific films and practices within a contemporary digital visual

26 In July 2012, at the Large Hadron Collider at CERN, Switzerland, the discovery of the Higgs Boson was announced. In much of the press around the announcement, the particle was referred to in the context of the Higgs Field – an invisible force that explains how the universe moved from a nascent 'intergalactic atomic pea-soup' state to one composed of stars, life, and planets. This provides an interesting analogy for the philosophical concept of immanence.

27 There is an idea that much scientific discovery is anticipated in works of science fiction. See, for instance, 'The Science Fiction Effect' by Laura H. Kahn (2012). In the concept of *fabulation* (deployed philosophically by Bergson, extended by Deleuze and, more recently, John Mullarkey) inexplicable facts (of the senses) are made sense of through the imagination. This concept is held to explain early forms of theism in the invention of an intentional force behind natural processes, but also explains artistic creativity. Furthermore, holding to a Bergsonian concept of intuition as inspiration following the *inhabitation* of facts – rather that the intellectual and rational *examination* of facts – fabulation could be seen to be the true process of scientific discovery as creative problem solving (Bergson, 1977, orig. 1935).

culture. I stress that my objects are not cherry-picked for purpose, nor are they random, but rather have emerged during the writing of this text, since 2010, as conspicuous tangents or *events* within digital visual culture (with the exception of the 1982 film TRON, though this explicitly relates to its 2010 update in TRON: LEGACY). Out of these images, I have drawn dynamic links between content, affect, and technological circumstance to make observations about what I can describe as the digital, affective syntheses of metaphysical reality in contemporary media. These links fall into three areas which I address in three separate chapters: the dynamics of digital virtuality, the structural dynamics of digital images, and the dynamics of consciousness.

Before tackling these dynamics through image analysis, in Chapter Two, 'The Affective Synthesis of Reality by Digital Image', I expand on the issues and theorists laid out in this first chapter, which fall into four broad areas: the philosophy of technology, processes of affection and cognition, theoretical approaches to the digital image, and ethics and aesthetics. I expand on three philosophical concepts that prove useful in understanding how our consciousness of metaphysical qualities develops and is maintained within the mind/body, and the technological condition for their affective synthesis: these are Stiegler's 'grammatisation', Hume and Husserl's 'passive synthesis', and Deleuze's 'spiritual automaton'. It is these concepts, framed by Deleuze's notions of cinematic aesthetics/ethics and Heidegger's technics, that largely structure this work, and it is through these notions that I add complexity and nuance to an often vague, multidisciplinary conception of 'affect'.

In Chapter Three, 'A Digital Frontier to Reshape the Human Condition', I begin analysis by looking at the films TRON (1982), TRON: LEGACY (2010), and ENTER THE VOID (2010). Identifying the challenge to metaphysical consciousness posed by digitality as an *ontological problematic*, I ask how these films engage aesthetically with digital systems and processes to sculpt anthropomorphic metaphors for this problematic. In this process, I identify two approaches to the challenge of digital virtuality roughly represented by each film: one in which an idea of the emotional and tactile body is restored to the impersonal domain of the digital, and another in which the body is discarded and abjected as consciousness enters an immaterial dimension. What emerges as similar, however, is the affective tone of the represented middle space between worlds, the boundary or frontier space in which metaphysics are suspended in an immanent flux. I ask what these digital images, reflecting on the material conditions of their own creation, express about the way we can position ourselves within a digitally connected world.

Do we move into a post-human, object-orientated form of vision through which we abandon the body, or do we instead reinterpret the corporeal in a more dissolute sense of digital embodiment.

Chapter Four, 'Dynamic Digital Spaces, Bodies, and Forces', focuses on how exactly metaphysical awareness is synthesised within the formal aspects of digital systems of image capture and presentation, and how these might be understood within a much broader view of the evolution of consciousness. I look to the examples of the dance and the battle scene, raised within digital cinematic culture to the status of the 'spatio-temporal-energic' image *tour de force* in which structural relations of kinesis are heightened and stretched. This analysis is grounded within a genealogy of technical advances (from the first 'moving' images, to spatial simulations, and to digital 3D and digital slow motion), and within a theory of consciousness which speaks to how fundamental our proprioceptive sense is to our grounded dynamic presence in the world. What emerges is an experimental aesthetic and a new spatio-temporal image regime (seen in the neo-baroque folding of objects and spaces), expressed through structural and formal relations within the digital image. In my analysis, this is an aesthetic which collapses the distinction between the scientific truth of detail, and the artistic truth of expression, into a new 'digital naturalism'.

In Chapter Five, 'Reality Sutures, Simulation, and Digital Realism', I extend the issues raised in the previous two chapters surrounding our cognitive engagement with images in our conscious shaping of the world around us. I look at the concept of suture as how we aesthetically and affectively interface with images, asking how (and if) we successfully police the boundary between actual and virtual in experience. This discourse then engages with the discovery of mirror neurons, with a simulation theory of mind, the metaphorical structure of memory, and the mimetic capacity to establish that we are, in a non-pejorative sense, influenced and conditioned by the images we consume to inhabit certain fields of immanent possibility intuitively and corporeally. Within digital images, this field of possibility is rendered plastic, subject to reformation, modulation, and regeneration, and I argue that this encourages a more plastic mind in which actuality and virtuality fuse. By then looking at the films Avatar and Source Code, I illustrate how the real is exploded and reformed, with the virtual, quantum flux supplanting notions of stable reality not just within the image, or just within our phenomenal experience of the world, but potential in every metaphysical sense of the real world.

Finally, in Chapter Six, 'Digital Nihilism: Ethical Reflections', I turn to the more pragmatic political concerns of the project, asking whether we can

ascertain an ethics of the digital image. I address the concerns of Deleuze and Stiegler about the potential for insidious affective conditioning of desires, alongside their stated need for creative thought, political engagement, and new industrial practices within a condition of neoliberal cultural capitalism. I suggest that the digital in fact breeds a cognitively active consumer who capably negotiates affective lures, and creatively and playfully (though not necessarily intentionally) synthesises new metaphysical awarenesses as ontological truths. While both see an indirect form of activism through the resistance and transgression of images, for Rancière (2006), this issue is 'meta'-political and, for Pisters (2012), it is a form of 'micro'-politics. These ideas comes together through my use of Vattimo's concept of a 'mellow nihilism', which dispels rigid metaphysical notions for a new 'weak' ontology which is open and plastic, strategic rather than complacent. I move to establish a clear notion of an ontological plasticity within contemporary digital image culture.