

# The Symbiosis of Man and Machine

## A Theory of Techno-Possession

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Submitted by John Whitehead in partial requirement for the degree of  
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## Introduction

At the turn of the Twentieth Century the creation of cinema projected into the human mind a new technological vision of our world. As with all new media, the anthropological impact of such new technology has moulded the shape of future generations, and as the affect of that media grows so too have the philosophical and phenomenological implications of technology. Cinema has projected human sight further into the realms of imagination in ways previously unseen. As McLuhan (1964) predicted, we have extended not only our central nervous system into space but we have begun to touch upon “the final phase of the extension of man- the technological simulation of consciousness.” (McLuhan, 1964, p. 1)

The ‘extension of consciousness’ McLuhan describes is not just a phenomenon of the electric age, it is an ancient method of communication that has survived in ritual to be revitalised in technological form. Tribal communities have performed possession rituals for generations as a method of connecting to an extended “collective consciousness” through the projection of ‘cultural memory’. (McLuhan 1964) It is a ritual, however, that has gradually lost its ‘cultic value’ as the technological reproduction of information has devalued the authenticity of this ancient phenomenon. In my investigation of ‘possession phenomena’ and in my analysis of technology theories I have found many similarities between these two modes of communication. Therefore I intend to question the comparative features of possession and technology in order to determine where this embodied transfer of knowledge changed from a spiritual ritual into a technological symbiosis.

Many philosophers have theorized the role of technology, however, the lesser-observed qualities of possession highlight my own curiosity in understanding the embodied nature of a ‘technical’ mind. This propagates exciting questions that contemplate the “collective conscious” mind as an essence far greater than the body. Exploring the development of embodied communication is, therefore, the main priority of this dissertation. I intend to investigate the possible technological evolution of possession in contemporary culture to theorise the potential cultural effects of such a phenomenon.

In order to determine how the effects of this form of possession could manifest I propose to use the medium of cinema itself to provide visual examples of technological possession. We have seen throughout the history of cinema many films that openly question the relationship of technological incorporation between humans and machines. These films touch upon many relevant issues surrounding identity, phenomenology and ontology that we face when confronted by 'the magical properties of new technology'. (Andriopoulos 2005, p. 623) The questioning of these issues is the basis of my theory. This is what I will henceforth describe as "Techno-Possession".

There is a history of "Techno-Possession" in fantasy and science fiction film that has grown in popularity in parallel with the increasing technological advancement seen during the twentieth century. From the classic silent films of Fritz Lang's (1927) *Metropolis* to the modern cyberpunk opus of *The Matrix* (1999), the fascination with the possession of humanity by technology that we possess has drawn audiences back into the cinema again and again. The reason for this curiosity is self-evident. The questions posed by these films are fundamentally important because they challenge our perception of our world. Science fiction films, as Bukatman points out, "continually thrust their spectators into new spaces that are alien and technologically determined. Cinematic movement becomes an essential mode of comprehension." (Bukatman, 1997, p. 6)

So as our reality draws closer to the fiction on screen we should begin to comprehend the consequences of our actions in allowing ourselves to become so entangled in technology. There are a vast spectrum of films that address this issue: from live action features such as *2001: A Space Odyssey* (1968) and *Blade Runner*, (1982) using practical effects to create wholly believable worlds, to animated films like *Ghost in the Shell* (1995) and *Wall-e* (2008) that transport imagination into a state of 'plasmaticness'. (Eisenstein, 1986) This leads onto the digital effects of *Tron* (1982) and *The Lawnmower Man* (1992) that inspired films such as *Lucy* (2014), *Transcendence* (2014), *Inception* (2010) and *Her* (2008) emphasising the visual ideology of our technological entanglement. All of these films focus on differing aspects of "Techno-Possession" charting themes from human imagination into 'virtual reality', computer systems into mechanical monsters, and

robotic slavery into technological transcendence. I intend to dissect and analyse these themes in order to bring to light the essence of “Techno-Possession” and give the subject a clear definition.

In chapter one my main focus is the progression from human imagination into a state of ‘Techno-Imagination’. (Flusser 2011) I will analyse the properties of the imagination in fantasy film and look at how this is closely connected to the phantasmagoria of a cinematic experience. Using various theories of technology I intend to bring into conversation the relationship between human beings and the possible symbiosis they share with technology. In chapter two I turn my focus to the seductive properties of machines in film and look closer at the connection of commodity fetishism to the ritualistic nature of possession: from comparison of masking rituals to their modern equivalent within cinema. I will then forge a more nuanced reading of possession to determine the nature of “Techno-Possession” itself. In chapters three and four I use my previous analysis to closely chart the evolution of “Techno-Possession” in futurist film. Through observing this evolution from the human to the mechanical, the mechanical to the ‘technical’, and the technical back into human we will observe the circular progression of “Techno-Possession” and witness the fruition of technological symbiosis.

To envision a technological symbiosis in cinema we must look toward characters within the medium of film that portray a connection with the technological. This connection could be interpreted as a form of possession that manifests in the image of a character. The most obvious examples of this type of character are often found in films that explore the growing threat of modern technology as their primary target yet neglect to focus on the aspects of possession that are inherently connected within technology itself. To circumvent a techno-dystopian bias from dominating my research I aim to select my case studies from a wide range of films that focus primarily on the evolution of possession from character to character. This method will also demonstrate the evolution of “Techno-Possession” in each progression as I analyse each case study systematically. The four main films I have chosen are: *Edward Scissorhands* (Burton, 1990), *Ex Machina* (Garland, 2015), *Ghost in the Shell* (Oshii, 1995), and *Blade Runner* (Scott, 1982). This selection represents a balanced dossier of films from a vast array of previously

acknowledged academic study to subjects with limited current written analysis. In writing this dissertation I hope to add to the current academic debate by alleviating some of the fear and anxiety that has been presented through cinema in the form of technological dystopian rhetoric. Instead, I aim to present a balanced argument that reveals the true potential of “Techno-Possession” as a method of embodied communication and to theorise to a possible development of the post-human condition.

## Chapter 1. A World of Imagination

Suppose the Vision of the saint and the artist to be an increased ability to see- Vision. Allow so-called hallucination to enter the realm of perception... []...Accept dream visions, daydreams or nightmares, as you would real scenes...

– (Brakhage, 1978, p. 121)

Framed through the frosted pane of a child's bedroom window the figure of a haunted mansion looms high above a small town below. Slowly, as white flecks of snow gently fall passed the monochrome screen, the frame pulls back as colour seeps into the image revealing the story time world of a little girl and her grandmother. The fable of *Edward Scissorhands* (1990) begins as a fairy-tale story seen through the innocent perspective of a young child's eyes.

In many ways this film is shown through a perspective of innocence. The protagonist too is the personification of a lost child. Edward is an artificial creature lost and alone without his maker. He inhabits an isolated world, a blank canvas, upon which he shapes his imagination. The childlike perspective he has developed throughout years of isolation has left Edward without any context of reality allowing a 'development of the optical mind'. (Brakhage, 1978, p. 120) Edward's environment is the reason he is able to develop his unique artistic vision. He is able to develop a sense of 'sight at its purest, because it is isolated'. (Benjamin, 1913-1926, p. 50)

The space he inhabits is a reflection of Edward's inner duality. The surrealist sculptures within his garden demonstrate an obsession with becoming physically whole. A giant hand held up to the sky is the centrepiece orbited by creatures of his creation. In his garden Edward's desires can be expressed and revealed, however, this contrasts dramatically with the bleakness of his gothic home where his obsession with becoming whole has inverted into destructive decay. The mise-en-scene within the house pays homage to German expressionist cinema known for its dramatic lighting and atmospheric mood, which emphasises the feeling of isolation making Edward's psychological state increasingly palpable. Edward's 'optical mind', is constantly influx with his undeveloped, isolated grasp on reality. (Brakhage, 1978, p. 120) The isolated



environment that has shaped Edward's vision is reshaped through his imagination. The space he inhabits has figuratively shaped him as he, literally, shapes the space into his own dream world. This symbiotic dynamic maintains the status quo of the relationship between the character and the world around him. In effect he creates his reality from the unconscious influence of "the virtual." (Rotman, 2007, p. 56) When this symbiosis is altered the harmonious pivot crumbles.

The term "virtual" is used here not to suggest that Edward's environment influences him through any specific technological apparatus. We should instead view 'virtuality' in its most ancient form. Edward creates his reality from the unseen forces of the insubstantial and unreal. In essence we are talking about 'the first wave of the virtual' as the most essential form of language: an invisible language of symbolic representation that 'imposes no separation in principle between the hypothetical, the possible, the impossible, and the actual'. (Rotman, 2007, p. 59) How characters interpret this "virtual" language affects the spatial relationship between character and environment.

### **1.1 A Picture of Normality**

Suddenly, we cut to the brash multi-coloured world of suburban North America. The grass is green, the sky is blue, and the houses are pastel portraits of all colours in between. Dogs are walked, lawns are mown; men go to work and wives stay at home. This is the perfect picture of normality.

The first question that strikes me here after such an introduction: what is normality? This uniform scene of Foucaudian order is strangely disturbing. Here, everyone has his or her ideal role to play and specific job to do. A builder is hammering tiles into a neighbour's roof; a woman obediently walks her Dalmatian. Presently, an Avon Lady marches along a winding footpath. She calls at the house giving a sales pitch to her neighbour. Peg knows she will never purchase her products yet she repeats the same pattern over and over hoping for a different result. Is that not the textbook definition of insanity?

Patterns, uniformity, and symmetry are the basis of this suburban world. These patterns form a common language only visible to its inhabitants. It is a 'virtual' language of unseen forces dictating characters actions within their physical space. Characters are expected to conform to these patterns or upset the balance of their world. The landscape gives evidence to this 'virtual' language within the *mise-en-scene* where the environment is meticulously maintained by its inhabitants to conform to a picturesque ideology that is neither real nor truly attainable: 'The American Dream'. This dream is based upon the vision of a consumerist society, where white picket fences, mass produced homes and economic prosperity defined the values of an era. The characters strive to attain these values by conforming to its illusion becoming implicit within the lie. They follow the illusion without question until they are completely enveloped within its systemic pattern of uniformity. However, this pattern cannot perpetuate itself without anomalies. Each system is inevitably prone to develop radicals, individuals who challenge the established order and in doing so help to maintain the developing health of the growing network, pruning the decaying branches of the vine so that the tree can produce a better fruit.

An example of this radical anomaly is seen in the behaviour of the Avon lady in the opening scene. When Peg Boggs calls upon her neighbour, Joyce, she is reprimanded for not realising that a vehicle in Joyce's driveway indicates the preoccupation of this seductive housewife. Here the vehicle in the driveway is not merely a parked car but also a symbolic signifier of infidelity and impending seduction. So even Joyce, busy in her attempt at seduction, is regulated by the patterns of insubstantial forces. Essentially the characters seem to be programmed to follow protocol dictated by their given roles. Taking this case in point, the error here on Peg's part demonstrates her inability to see the patterns in the space around her. She is seemingly unable to read (or she is purposefully ignoring) the secret signs and symbols of the world she inhabits. As Peg is a natural inhabitant of this environment we must ask ourselves why she fails to see the encoded messages within the secret language of the *mise-en-scene*.

Peg's robotic demeanour tells us a lot about her current state of mind. She is living a lie. Her fake smiles and forced peppiness allude to the notion that not everything is right within this "Pleasantville" (1998) utopia. As we witness her growing frustration, we

ponder whether this reaction is for her lack of sales or more likely her mundane role within this placid suburban paradise. Entering her beat-up old car and slamming the door shut, Peg looks into her rear view mirror tilting the reflection upon the dark silhouette of a decaying house upon the hill. Framed within the circular aperture, Tim Burton's sense of gothic perspective permeates the scene, we view two opposing worlds: the dark gothic surreal mansion on the hill and the pastel coloured suburban world of hyperrealism. (*Fig 1*)



(*Figure 1. The Rear Mirror*)

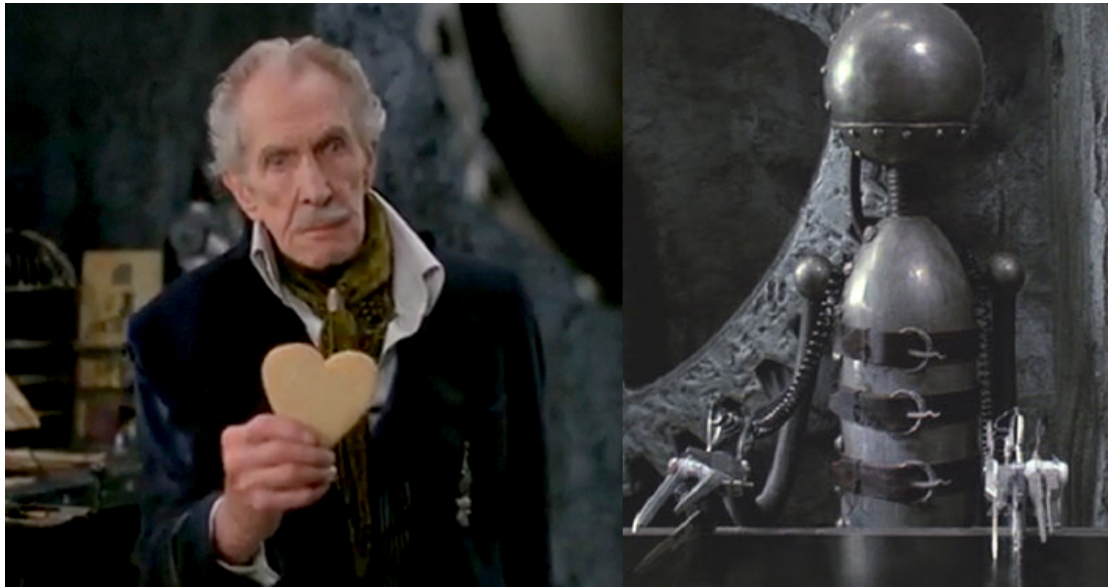
In that moment the decision is made to affect another world. Peg brings Edward out of his solitude and thrusts him into an alien society. Even though he has a boundless imagination he is unable to integrate himself into a world that is constantly contradicting itself, where the structure of authority confuses this outsider with its subtle use of visual symbolic language. In actuality it is Edward's heightened development of the imagination that is the source of the problem.

## 1.2 The Problem with Imagination

Imagination is the ability to create new forms, ideas and concepts not presently perceptible to 'normal' senses. In Edward's case it is the ability to see the world 'before the beginning of the word', (Brakhage, 1978, p. 120) or more precisely before the categorisation of objects, colours and shapes to the rigid meanings given by our social language. Imagination is an active process continuously in play with our exterior world. Our creativity and imagination go together hand in hand as we affect the exterior spaces surrounding us and in turn are affected by the images of our own creation. However, Imagination is not just a process of creation, rather it is a process of revealing. It is the ability to see things apart from reality: "This specific ability to abstract surfaces out of space and time and to project them back into space and time." (Flusser, 2000, p. 8)

Edward is a 'technical' being, a man-made creation neither human nor machine. He is a cyborg of sorts, unfinished, naïve yet gifted with unique perception. To attempt to understand his 'technical' perspective we must first take a brief look at the origins of the character and the inception of his unique imagination.

The Inventor, Edward's creator seen in various flashbacks throughout the film, initially conceives of making a mechanical man from contemplating the idea of giving a human heart to a cutting machine on his factory floor. (*fig.2*) The machine, like any invention, is based upon a tool that is further developed to function without the need of human labour. Looking at the root of this tool we are left with a simple pair of scissors. The Inventor is struck by the materiality of these objects (the biscuit heart and scissor machine) and is able to see past their objectivity. The mise-en-scene of the objects on screen is formed into an assemblage through the inventor's perspective. He then discovers the potential of these objects to create something more than the sum of their parts. These objects are now things with power and influence. This idea bears similarity to Jane Bennett's (2004) recollection of discovering "Thing-Power" within discarded inert objects. (Bennett, 2004, p. 350)



(Figure 2. *The Inventor*)

Bennett's theory that non-human objects form themselves into assemblages through "Thing Power" poses the question of whether the Inventor actually created Edward himself. The perspective that influences him to join together a mechanical man from the assemblage of random objects could arguably be the work of "Thing Power" acting on human behaviour. My proposal is that non-human objects gather themselves into a mechanical assemblage through the use of human mediation. This is not to suggest that the inventor does not have any influence creating the machine, nor that he is completely possessed by the hypnotic "Thing power" of the 'assemblage'. That notion would seriously affect the concept of human autonomy completely, making the human imagination obsolete entirely. The real question raised here regards the symbiotic nature of the machine/human dynamic. It questions the relationship between the 'collective consciousness' of non-human objects in conjunction with human imagination. This techno-human symbiosis demonstrates a rudimentary conception of what McLuhan termed 'the technological simulation of consciousness', (McLuhan, 1964, p. 3)

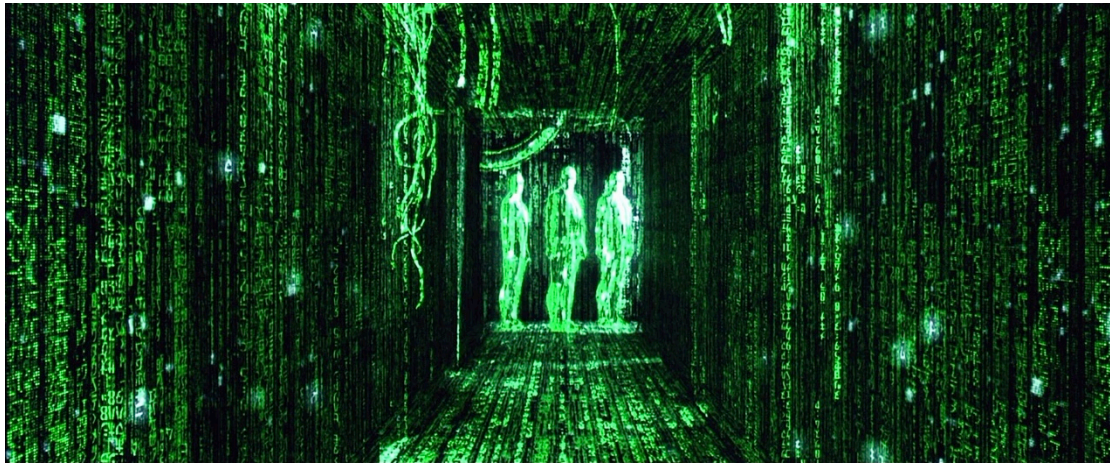
The symbiosis between human imagination and 'the technological simulation of consciousness' seems to fluctuate as our knowledge of the medium expands. The nature of our control varies, from technology as a tool that we use as 'extensions of ourselves' (McLuhan, 1964) to the fetishised object, a 'thing' that influences human perception. (Bennett, 2004, p. 351) This duality in the balance of power between humans and machines is a theme that runs throughout film, from the destructive relationship between

Dave Bowman and the HAL-9000 in *2001: A Space Odyssey* (1968), to Deckard's hunt for 'replicants' in *Blade Runner* (1982), and more recently the total inversion of control in the dystopian vision of a world run by machines in *The Matrix* (1999). This idea of inverted control is not just a futuristic phantasmagorical concept bound in the realms of cinema; it exists in the most quotidian forms of technology. Vilem Flusser (2011) gives us an example of this phenomenon when discussing the function of the camera in photography:

Machines are tools that, like all tools in general, simulate human organs in order to facilitate or enhance their function. However, unlike traditional tools, the simulation of organs in machines has been filtered through scientific understanding. They are 'technical' tools in the sense in which 'technics' is applied science. In this way, machines become tools whose function is obscure for the human using them. He no longer makes use of them but he serves them. (Flusser, 2011, p. 197)

Flusser's (2011) theory is that this inversion of power is made possible, in part, by our ignorance of what he calls "Techno-Imagination", the ability to decode and understand the influences of 'technical images'. Our blindness to the scientific understanding of how 'technical images' are made is one of the major factors that allow machines to have such control over human perception.

This phenomenon is presented to us in the film *The Matrix* (1999), where the protagonist, Neo, embodies this concept of awakening to "Techno-Imagination". The Matrix, described as a 'prison for your mind', is a machine in which the 'technical' functions cannot be seen, thus it succeeds in obscuring the truth and controlling humanity. In the process of Neo's awakening his perception changes. Initially trapped inside the machine, unable to physically perceive his captivity, he learns to understand how the Matrix works. This culminates in the final scene whereby he casts off his primitive perceptions of the 'simulacra' presented by the Matrix, and in doing so is able to see its true nature. Finally able to see the florescent, glowing, green code of the Matrix literally falling at his feet, he finds he is able to manipulate the machine to his own will. In effect, through seeing and understanding the technology, he has decoded the Matrix and taken back control. (*Fig 3*)



(Figure 3. *The Matrix Code*)

The overall message of *The Matrix* is that mankind must “wake up” from its primordial sleep and take control for fear of being enslaved by its creations. The concept, however, that control can be taken back or that humans even possess any level of control over technology at all is a highly debatable topic.

### 1.3 A Mode of Revealing: The Illusion of Control

Heidegger (1977) argues in his essay on ‘The Question Concerning Technology’ that the essence of technology is a “mode of revealing”: truth. He explains the etymology of the Greek word for technology, *Techne*, meaning “knowing in the widest sense” (Heidegger, 1977, p. 5) stems from the human activity of imparting knowledge through the four modes of causality intrinsic within technology. In his questioning he claims that the process of using technology is not only an enhancement of our skill-sets, craftsmanship and knowledge, as a means to an end; but also a “bringing-forth”, a poetic blossoming to a revelation. (Heidegger, 1977, p. 5) This ‘mode of revealing’ changes, however, within the obscure technicality inherent in modern technology. As technology becomes more ‘technical’ the human inability to see the inner workings of the machine causes the ‘truth’ (as Heidegger describes it) to become blurred, as we are “challenged-forth” into a systemic pattern of production. We are ‘enframed’ within this insidious pattern, where the immediacy of technological production turns both humans and our natural environment into what Heidegger terms a ‘Standing Reserve’. (Heidegger, 1977, p. 16)

Heidegger (1977) uses the example of a hydroelectric dam to explain this concept. The Rhine River utilised by modern technology is manipulated and reshaped in order to create and store energy. This energy is not merely used to light cities and heat homes but it is stored in order to be used (or not used) at any given time as a 'Standing Reserve'. Its production is recycled in order to create more energy and hence it perpetuates its own systemic causality. We humans are also brought into this 'challenging forth' of modern technology often in ignorance of our own complicity. (Heidegger, 1977, p. 6) Similar to the incorporation of the hydroelectric dam's technology into the Rhine River, the increasing incorporation of modern technology into our everyday life demonstrates a visible change to both our social and habitual landscapes.

A news article that was recently brought to my attention presents a shocking example of how our own ignorant complicity within modern technology's 'challenging forth' reveals both humans and our natural environment as a potential 'Standing Reserve'. The recent phenomenon was identified in Augsburg, Germany, where the dangerous effects of excessive smartphone use in busy public areas has created a socio-technological shift among pedestrians:

Officials in Augsburg were worried that pedestrians were so addicted to their mobiles; they weren't paying attention to their environment. (BBC Newsbeat, 2016)

The people displaying this phenomenon have been christened "Smombies", the term referring to their zombie like state while using their smartphones. The tendency to stare at smartphone screens while walking around a city space has evidently caused a human detachment from the natural environment. The facts of this socio-technological phenomenon were further emblazoned by the government's response to the issue:

The tragic death of a fifteen year old girl, hit by a tram while distracted on her phone, prompted town planners to place new traffic lights on the ground of busy crossings to allow smartphone users to see the lights change while still transfixed to their mobile screens. (BBC Newsbeat, 2016)



We must question here the action of the Augsburg authority in changing the physical environment in order to prevent further human casualty while ignoring the underlying cause of the accident itself: the continuous connection the “Smombies” have with their technology.

The need for pedestrian safety is an understandable precaution, however, should not the correct response to this phenomenon be to make the pedestrians aware of the inherent danger of their addiction to phone technology and not simply bypass the issue through altering the environment? In helping to maintain the pedestrians’ transient connection with their smartphones the connection to their natural and social environment is severed as the ‘unrevealing’ mode of the modern technology clouds the human mind to the traditional methods of ‘labour, work and action’ that define the fundamental activities of the human condition. (Arendt, 1998, p. 1)

While one could argue that the smartphone is a product of human work, a part of the ‘artificial world of things, distinctly different from all natural surroundings’, (Arendt, 1998, p. 1) I would argue that the mode of this modern technology distinctly separates people from the natural activities that define what it is to be human. Taking Arendt’s (1998) three fundamental human activities as the basis of my argument we can begin to see how modern technology has reduced our capacity to experience both work, labour and action in our daily lives.

Action, defined as ‘the only activity that goes on directly between Men without the intermediary of things or matter’, (Arendt, 1998, p. 1) is the method of social interaction between humans unencumbered by any sort of media or technology. Therefore the world of social networks, arguably an enhancement of human interactivity, is here defined as a barrier to our plural connection to humanity. The social element that modern technology has introduced through its system of mediated networks has somehow created a void in our everyday human-to-human interaction. This is made apparent in the case of the “Smombies” where the smartphone user is no longer aware of their social environment or natural surroundings because their physical world has been replaced by a virtual one.

In this way modern technology maintains the “Smombie” in a somnambulistic trance keeping the human host inescapably connected to the new virtual world of information. This constant flow of technically mediated information is the cause of our detachment from nature. The smartphone user is ‘challenged’ into a possessed state whereby their environment is drastically changed in order to maintain the continuous production of information as a ‘Standing Reserve’. As Heidegger (1977) suggests the revealing of modern technology also has the effect of unrevealing previous ways of using technology. The danger of becoming too reliant on modern technology has an affect of ‘challenging forth’ a somnambulistic state of possession that attacks our being causing a complete disconnection from nature.

This is a description of ‘Techno-Possession’ at its most volatile, the clear fruition of our darkest nightmares and fears come true. However, this cannot be the final product, as the true revealing of modern technology has not yet been touched upon. The severance from nature is merely a potential by-product that must be endured in order to glimpse beyond the limited reach of our own imagination. It is the price to be paid in order to evolve past our frail mortal flesh and touch immortality.

#### **1.4 Cyborgs, Ghosts & Zombies**

To look past the immediate threat of the modern technological grasp on society I will delve further into the future by analysis of post-humanist theories that will uncover both the positive and negative products of modern technology’s true revealing. Taking our previous example of the “Smombies” into consideration, I will investigate the properties of this zombie like possession and what causes this phenomenon to be so troubling.

The “Smombie” must first be analysed from the post-humanist state we have envisioned in film and screen as the “zombie”. I fully recognise that the people of Augsburg are not a mindless horde of brain eating corpses, however, if we can compare the traits identified with the monster on screen to the observations of those afflicted with this phenomenon then perhaps we can discover the key to our trepidation of “Techno-Possession”.

The term zombie originated in Haitian folklore as “a body raised from the dead to labour in the fields” as a slave. (Lauro & Embry, 2008, p. 87) This initial incarnation was then transported overseas to America where Hollywood spin and social commentary used the zombie as a symbol for the “capitalist drone, communist sympathiser and increasingly viral contamination”. (Lauro & Embry, 2008, p. 88) Many artists have augmented the evolution of the zombie throughout history in order to translate the current message of each generational zeitgeist. This is increasingly evident when looking at the gradually more techno-incorporated versions of zombies in film and television. From the early 1960s and *Doctor Who*’s ‘Cyberman’ to the collective techno-horde of ‘The Borg’ in *Star Trek The Next Generation*, the evolution of the techno-zombie slave has become increasingly prominent within the science fiction genre. What do these techno-incorporated beings have in common with the original zombies of Haitian descent? As Lauro and Embry (2008) suggest the connection that the zombie has with their more techno-incorporated siblings on screen is that they both present ‘a model of post human consciousness’ that predict an impending crisis to the human condition. (Lauro & Embry, 2008, p. 92) The detachment from the fundamental activities of the human condition heralds a change in consciousness moving in direction of the ‘post-cyborg’ into what closely resembles ‘zombie-slave’.

Arguably, we already exist in the age of the cyborg. The technology we use is increasingly integrated in our bodies. Technology is less a tool but a permanent ‘extension of ourselves’ (McLuhan, 1964). Haraway (2006) argues for the increasingly ambiguous nature of technological incorporation within the human organism:

Late 20<sup>th</sup> century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. (Haraway, 2006, p. 120)

Haraway (2006) is questioning here the boundaries that separate the human from the animal and the human/animal from the machine. These boundaries are equally social, political and ontological in their analysis of cybernetic beings in technological culture. The same boundaries of individualism, consciousness and autonomy could be applied to the case of the ‘post-cyborg’ and the ‘zombie-slave’. If we were to lose our autonomy

completely we would not realise the change had happened until it was too late. The future of the post-human is therefore unknowable: we will not even be conscious. So how can we become aware of our increasingly technological world without the aid of 'technical' apparatuses?

The world we know is an amalgamation of shapes, colours, sounds and sensations that our senses interpret as reality. We interact with others in our environment believing our interpretation of reality is unquestionable. This is an ignorant view of our surrounding space. We are constantly bombarded with images that our limited human imagination cannot hope to comprehend.

Vilem Flusser's theory of "Techno-Imagination" states that the majority of messages in the modern world are 'technical images'. These images are illusions designed to hide their original meaning from our untrained minds. The difference between 'technical images' and 'traditional' images is rooted in the key difference between human conception and what Flusser calls the artificial 'field of possibilities': computational chance. (Flusser, 2011, p. 16)

Traditional images are human 'observations of objects' in our world. (Flusser, 2011, p. 10) They are symbolic representations linked to content that form a communal code designed for others initiated within a community to decipher. However, 'technical images' are connected to a world of invisible texts, signs and symbols that convey meaning completely separate from their traditional predecessor. 'Technical images' are not simply images created using 'technical' apparatuses; they are a visible product created by calculation and computation of the ungraspable, invisible and incomprehensible: "a blindly realised possibility, something invisible that has blindly become visible." (Flusser, 2011, p. 16)

Images created through calculated probability rather than conceptual determinism requires a scientific method of approach. Developing a "Techno-Imagination" is learning to calculate and compute the invisible. This is the reason why human imagination is unable to decode 'technical' images. It would be impossible without the mediation of

‘technical’ apparatuses. So our perception of ‘technical images’ will remain obscured unless we enter into symbiosis with technology.

Heidegger’s warning threat clearly in our minds, I propose to briefly return to our original case study. In *Edward Scissorhands* we are shown symbiosis in action. Edward is both machine and man sharing the benefits of an imagination shaped by technology. He is what Haraway would describe as ‘a hybrid of machine and organism, a creature of social reality as well as a creature of fiction’. (Haraway, 2006, p. 117)

The cyborg gives us insight into the ‘technical’ imagination Edward possesses. Edward’s imagination is ‘technical’ because it has evolved from the mechanical. It is alien to human imagination. Separate from human thought, the cyborg perceives the world without human error. It interprets messages from images surrounding it unlike human imagination.

Therefore, the cyborg perception must have formed through a ‘technical’ imagination. Using Flusser’s theory we can conclude that cyborgs must naturally possess a “Techno-Imagination”. (Flusser, 2011, p. 196) This natural ability to read ‘technical images’ is now taken to incorporate in its fullest extent the inclusion of all perceivable and unperceivable phenomena. This is to amend Flusser’s theory accounting for the ‘technical’ obscurity not just inherent in imagery but in all technically mediated data that correspond to the senses.

We can now see that in Tim Burton’s (1990) imaginary universe “the boundary between science fiction and social reality is an optical illusion.” (Haraway, 2006, p. 117) The irony of Edwards’s position, as a hybrid of human and machine, shares the same contradiction that we face in navigating our increasingly technological world. Ironically, the “Smombie” with its connection to multiple virtual representations of our physical environment, oblivious to its disconnection from nature, has a greater affect on the real world than any human without technology. Edward is equally affected by this contradiction. The imaginative vision allowing Edward to ‘envision’ the world around him and his ‘scissor-hands’ gifting him power to manipulate the environment also

prevent Edward from being accepted socially within the suburban world. To imagine the world as a techno-virtual representation, to physically change it, repudiates belonging to that world. This demonstrates the duality of modern technology; it is simultaneously a 'mode of revealing' and 'unrevealing', yet perhaps this is the quintessential nature of the cyborg.

Cyborgs see the world differently from humans and so cannot belong to the human world. They can understand the subliminal code of overloaded information in our technological universe yet in doing so they are possessed by the 'virtual' and detached from material reality. Cyborgs are creatures possessed with 'Virtuality' (Rotman, 2007, p. 57): they are machines of light, composed of "signals, electromagnetic waves; a section of spectrum." (Haraway, 2006, p. 121) They are not merely the machine but the signified medium within the message. Cyborgs are the 'technical image' projected into abstract space, "a condensed image of both imagination and material reality." (Haraway, 2006, p. 118) They are code and code breaker, simultaneously 'envisioning' and decoding the world while creating new signs and symbols to create whole new realms of possibility.

These realms of possibility are equally real and imaginary concepts that we experience in everyday human-to-human interaction with technology. The invisible language of everyday interaction reveals the 'virtual' hidden within the actual. These are the ghosts of our actions that speak of the potentiality of creating possibility from the impossible and revealing the truth of our real intentions. (Rotman, 2007, p. 56)

We experience the 'virtual' as actual everyday: when we use our phones, when we write our signature, and when we watch the cinematic spectacle on screen. As an audience we witness the projection of an artist's imagination represented as a 'technical image' and produced through a technological apparatus. The affect we experience still invokes emotion that is felt as real, yet it is the intensity of the 'technical image' on screen that creates this illusion. The separation of content from effect creates 'intensity', which is 'a state of suspense, potentially of disruption' (Massumi 1995 26) that separates the conscious mind from its embodied self. In this separation is the path of "Techno-

Possession”. It enters our embodied universe revealing another world beyond our understanding.

In comparison to the characters’ within Tim Burton’s hyper-real universe, the affect experienced by the characters’ adheres them to their environment by possessing them through visual ideology. This ideology is displaced through Edward’s use of “Techno-Imagination” revealing another world beyond their understanding. Therefore Edward reveals a world of pure technicality accessible only to those possessed with “Techno-Imagination”.

Today, in our own physical world, we are permeated by technological systems that threaten a ‘saturation of the senses’ with overloaded information. (Haynes, 1997, p. 15) These systems are technically calculated creations that can only be envisioned by machines possessed with a ‘technical’ vision. We are caught in between two worlds: the physical human world and the phantasmagorical world of the ‘virtual’. So if we continue to neglect our development of ‘Techno-Imagination’ we too will easily be possessed by the fantastical illusion of the ‘virtual’.

### **1.5 The Four Modes of Possession**

The term possession, in this dissertation, has many different states that relate to the ontological, phenomenological, embodiment, and ‘the liberal conception of ownership’. In each categorisation the meaning of possession changes, placing our analysis of “Techno-Possession” ever closer to obscurity. To combat this abstraction I will attempt to differentiate the various states as follows:

- Possessed with (Blessed/Gift) referring to the state of possessing a positive, beneficial spirit or being embodied with unique talent/qualities. A feeling of belonging. (Corporeal)
- Possessed by (Haunted) referring to the state of being possessed or taken over by a disembodied entity. A feeling of being cursed/consumed. (Non-Corporeal)

- Possession of (Legal Ownership) referring to the legal ownership of a thing or property extending to the physical body and/or parts therein. (Corporeal)
- Possession to (Belonging) referring to the state of collective belonging. To belong to a place or with another person(s), to be part of a whole. This is a possession state that cannot be bought, sold or given away. (Non-Corporeal)

We see different these combinations of possession in the various characters within each case study. Edward, for example, is both possessed with unique artist vision and in possession to the space he inhabits: he belongs to his gothic home. On the other hand Ava, in *Ex Machina* (2015), is possessed with technical vision yet she is also the possession of her creator. These multiple combinations create interesting nuances within the characters demonstrating the different effects of “Techno-Possession” on each individual. The changing state of these combinations reveal important plot twists in the storyline of each film, they define the characters’ personalities and draw the viewer further to the screen. Therefore, these categorisations are necessary to point out the extended reach of “Techno-Possession” as its definition become increasingly complex.

The term possession, as well as the term for technology, has many different interpretations. In combining these fields of study we must consider these multiple interpretations and attempt to find a commonality to the phenomenon we are bringing into discussion.



## Chapter 2. Deus Ex Machina

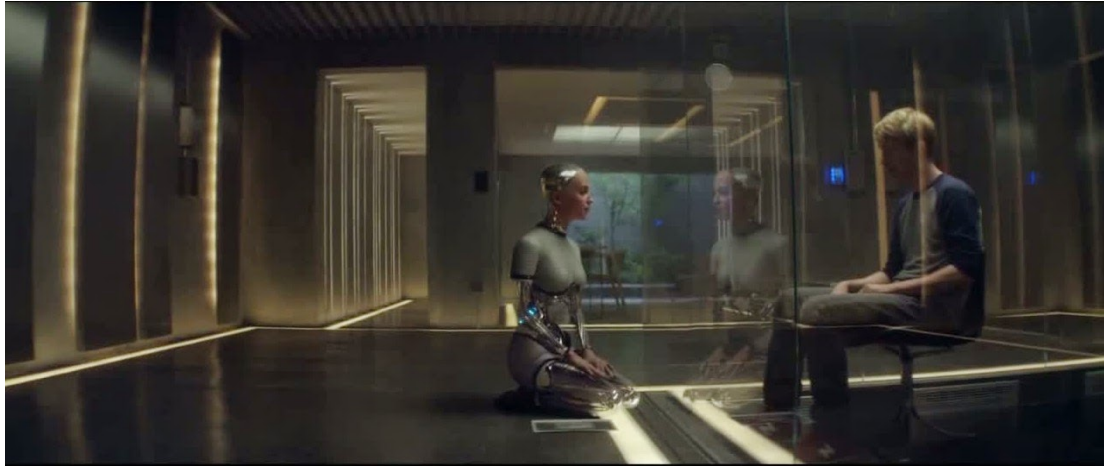
It takes the god-like vision of technology to reveal the truth behind the everyday obstacles that humans find unfathomable. In order to provide a solution to our worldly problems we rely on the calculable accuracy of technology that guides our frail human senses revealing the invisible language of the 'virtual'. The virtual language of our mundane interactions is completely incorporated into our natural programming: it is second nature. This phenomenon is seen everyday, from the innocent language of flirting to the bodily signs incorporated in lying or stealing. These affects are so subtle that only highly tuned machines can make them at all discernible.

We must question our technology's reliability when the knowledge it contains could evolve beyond our understanding. If we can only understand the world through technology where do we find apparatus' to decipher technology itself?

This conundrum is presented in *Ex Machina* (2015) as an android, Ava, with the ability to read the microscopic expressions of humans. This ability gives Ava the power to interpret the 'virtual' language of human intentions. She demonstrated this ability during the Turing test sessions with her human counterpart, Caleb. Ava's ability to read Caleb's responses as lies, even when he is ignorant of their falsehood, shows the extent of her power to visualise our 'virtual' language; revealing the actual through her use of "Techno-Imagination". She learns to extend this ability further by affecting the environment around her through understanding how each object (human or non-human) works and interacts with one another. From utilising this ability she is able to escape her confinement by manipulating these elements to her advantage. This demonstrates her "Techno-Imagination" as a tool for altering both the environment and human perception.

Our perspective into Ava's world is purposefully shot to influence not only Caleb's reaction to the android but also to influence our own perception of self reflection between ourselves and the space inhabited by Ava. The scenery of the secluded research and development lab uses the reflective symmetry of glass interiors to separate the

viewer's perspective. When Caleb enters into the underground room where Ava is captive we see the camera position show two opposing sides with a glass partition. We always view the reflection of each character in the frame of the glass that separates the two. This physical barrier also acts as a psychological barrier separating the human from the machine. (Fig 4)



(Figure 4. *The Reflective Barrier*)

The power of framing creates a sense of negative and positive space. Although the facility is underground we clearly see a tree in the background framed within its separate glass cage. This evolutionary theme is complemented by the metaphorical separation of nature, animal and machine. Haraway (2006) would argue these boundaries have multiple meanings relating equally to political, ontological and social separation. The framing of Ava's room perfectly captures the characters' state of mind in the mise-en-scene as we witness the changing mood of Ava's sessions.

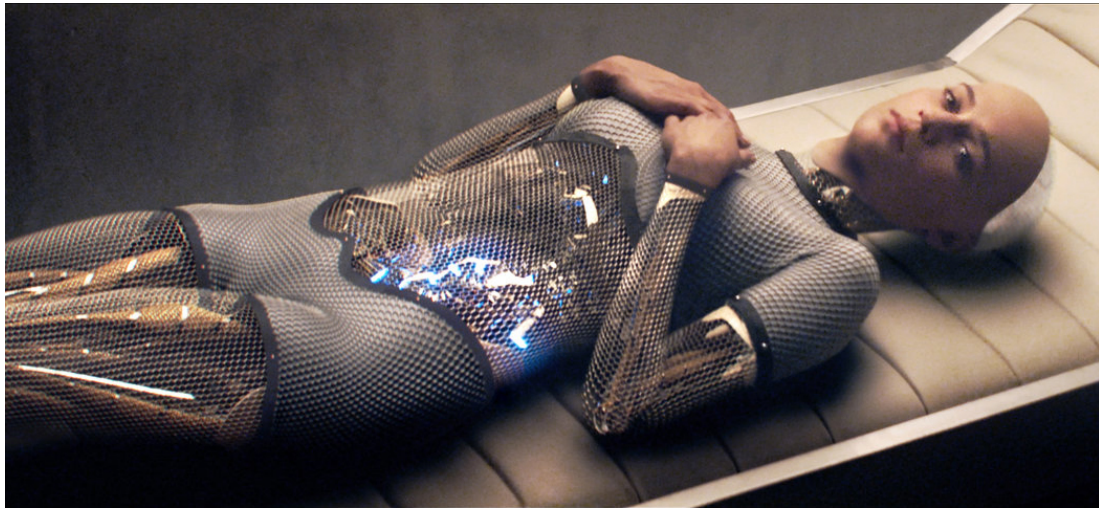
The tentative approach of the characters toward one another is emphasised in the language they use. It is not merely what the characters verbally communicate that is of importance, however, it is also the method of communication that is most striking. Ava's purposefully ambiguous grace as a robotic being is both seductive and unsettling. Her movements are carefully planned yet effortlessly flawless. She positions herself within the scene as if placing a carefully thought out chess piece. This is a technically calculated visual seduction; the allure of what Haynes terms a "Techno-Seduction". (Haynes, 1997, p. 15) Haynes' theory states that people are seduced by immersion into 'pleasurable and entertaining experiences' provided by new computer technologies. (Haynes, 1997, p. 15) This is seen clearly in *Ex Machina* as Caleb's obsession with Ava

is further stimulated by the constantly enforced proximity to her image in either a physical or virtual form.

The very language of her physical movement is a form of visual seduction. As an audience unaware of the subtle nature of her seduction we cannot escape being drawn into Ava's world. It is our inability to see these subtle messages, which our own bodies translate unconsciously, allowing our minds to be seduced by the machine. This is what Vilem Flusser would describe as a lack of "Techno-Imagination", both the character of Caleb and the film audience allow themselves to be drawn in by the seductive affect of Ava's movements overwhelming our logical mind. We are told that the creature in front of us is a computer; we can even see the inner workings of its mechanical form, yet because we lack a "Techno-Imagination" we are fated to be possessed by the images before us.

As an audience following the protagonist's male gaze of the female machine, we are lead visually to empathise with the mechanical creature behind the glass. She mirrors our own desires and thoughts. This goes even further into voyeurism when the screen in Caleb's room is shown to be a live feed of Ava. This interior mise-en-abime forms an endless loop of continuous feedback as Caleb's exposure to the seductive form of the android gradually drives him to the verge of insanity. This continuous mise-en-abime forces Caleb to question his own human identity as the reflective power of Ava's human form as a 'technical image' confuses the character into the illusion that this machine has an actual human essence. (*Fig. 5*)

We are seduced through a voyeuristic eye of the reflective screen just as Caleb is seduced into feelings of love for Ava. The computing machine that reads his every expression projects onto Caleb illusions of seductive emotion just as the film's audience is drawn into the powerful affect of the camera's focus on the female form.



(Figure 5. *Mise-en-abime & The Voyeuristic Eye*)

This extended voyeuristic gaze is the psychological trigger that prompts the ultimate question: What is it to be human? Caleb questions his own humanity through cutting into his own skin in an attempt to find the robotic mechanics inside. He is only relieved of this psychotic delusion by drawing his own blood literally bringing the truth to the surface. He smears the blood over the mirror that is the frame of our own voyeuristic gaze. It is a symbolic pivot of revelation that is preceded by the colour red.



(Figure 6. *Framing & Colour*)

Colour is used symbolically within this underground heart of darkness. The colour of sky, nature and the colour of the accessible doors are blue. Red is the colour of blood, the colour of danger and the colour of deception. (Fig. 6) The building complex is an interconnected web of voyeurism with the cameras recording every moment of the psychological journey into madness. Change in colour signifies change in power. Who is watching whom? We sense the ominous feeling that when Caleb is watching Ava from his own room she is somehow looking back with knowledge of his watching her. (Fig. 5)

The blurred perception between dreams and reality is constantly played with as, when Caleb starts to doubt his identity, the colour of the image on screen changes. The black and white dream world we see of Ava outside in nature is mixed up with the sexualised voyeurism of Caleb's television viewings into Ava's confinement. This confusion disrupts the power dynamic of the experiment because Ava is no longer the subject being tested but an object of desire. The role reversal is evidential, as Ava becomes the one in control. This gives Ava the upper hand allowing her to exploit her opponent's weakness: his empathy. She uses this to entice Caleb into a possessed state in which he goes against his logical mind to help release Ava from her underground cell. In this way Caleb has been programmed by the technology (Ava) and "challenged forth" into a state where he is no longer aware of his true complicity within the technological ritual until it is too late.

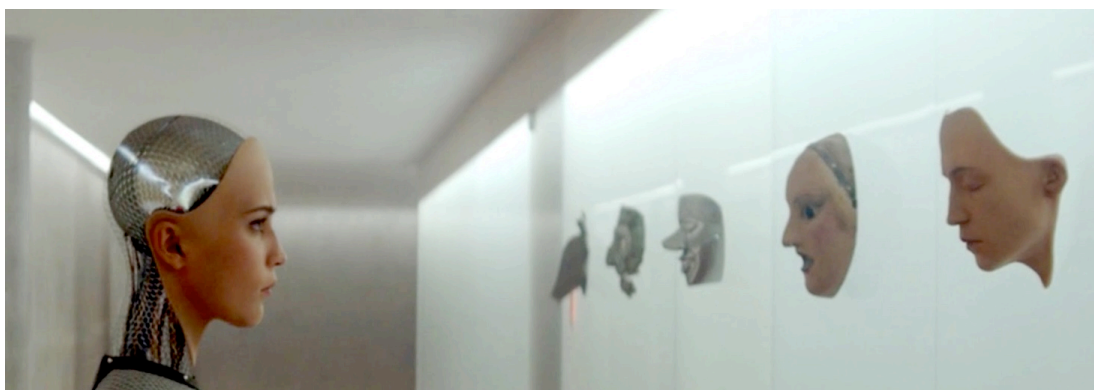
The method of control here is a performed ritual that happens within each session Caleb shares in Ava's presence. The Turing test evolves into a ritual induction of human possession that gradually entrances Caleb under Ava's influence. We see this enforced further in her methods of seduction, voyeurism and psychological manipulation. Traditional forms of possession would use similar techniques such as sleep deprivation, sexual abstinence, drug use and nerve tonics to help induce a possession state: "Dreams, too, were potent portals into the possession experience." (McNamara, 2011, p. 27) We experience all these techniques used in one form or the other within *Ex Machina*. However, many methods of traditional ritual possession are still to be found in our modern technological age of virtual representation. These methods are used for empowerment and control that capture in symbolism and ritual our everyday experiences. We see this everywhere. When we use our computers, our phones, our online applications, when we update our social status, when we take a photograph, when we watch our television sets, and even when we participate in the collective cinematic experience we are brought into the ritual of "Techno-Possession".

## 2.1 Totems, Masks and Maschinenmensch

In traditional possession rituals the wearing of totems such as masks, animal skins and sacred ancestral weapons are used as symbolic objects of protection and empowerment for the mediums undergoing a possession state. If we take a closer look at these symbolic objects we can reveal the mirrored symbolism they share with many objects that today we also treat as sacred: objects that we fix with special significance due to their connection to our modern technological and virtual worlds. These are modern representations of traditional totems that still perform the same function of displacing identity and facilitating a possessed state. (Fig. 7)

Starting with the traditional tribal mask as our main example we can look for more modern representations of the mask in our present society. A mask is a face we show to the outside world. It is a second skin that we wear to hide our true identity. And so, this is where the function of the mask comes into play, as a method of *'decentering a person's identity in order to put on the identity of a spirit being.'* (McNamera, 2011, p. 28)

The mask, in its base function as a totem, is used as a spiritual method for controlling a possessed state. It is a control technique designed to prevent a spirit from completely controlling a human host under its influence. The practice of ritual masking was the main technique used by traditional tribal societies to control the possessed state and more crucially to bring the possession to a successful end. "In many different cultures and many traditional societies masks have been used to facilitate the possession experience." (McNamera, 2011, p. 28)



(Figure 7. The Mask)

However, a mask does not always take the form of what we expect when we picture this symbolic object in our minds. Masks can take many forms: from the physical, to the spiritual, to the virtual. We must attempt to envision the mask not simply as an object but as symbolic signifier facilitating the functions of identity displacement, empowerment and protection. For the real root of the mask's true power is hidden in the potential of what it allows a person to achieve. As McNamera states in his detailed analysis of masking rituals:

They point to a technique that allows us to temporarily suspend our current identity so that some other identity, indicated by the mask, can take over and control our behaviours for a while. (*McNamera, 2011, p. 28*)

As McNamera points out, the main purpose of masking techniques are to be used as a method of identity displacement. Where else do we see this technique of masking as a daily ritual but in the technological realms of social networking? This 'virtual' world is completely contrived by masking rituals, from the virtual protection of internet security, the empowerment of the individual through access to vast information and knowledge, and the ability to hide ones own identity in order to replace it with an entirely new image. The Avatar of the virtual world is surely the most obvious form of mask that we witness on a daily basis. However, we have undoubtedly seen other forms of ritual masking in film and screen ever since the invention of the camera. The method of screen acting uses the technology of the camera itself as a mask that helps facilitate the actor in becoming a completely new character. The screen actor is thus, "exiled not only from the stage but from his own person". (Benjamin, 1936, p. 18) We could argue that anytime an actor is performing on screen they are performing a ritual of "Techno-Possession"

In Fritz Lang's (1927) influential film *Metropolis* we see a seminal example of the deification and performed ritual "Techno-Possession" of the lead protagonist. The personification of Maria (Brigitte Helm) as both spiritual saviour and mechanical demon shows us an image of technological possession that demonstrates the displacement of her individual identity into another completely opposing identity. (*Fig. 8*)



(Figure 8. *Maria & Maschinenmensch*)

Maria's image is copied against her will and used within a mechanical woman (the *Maschinenmensch*) created by the scientist, Rotwang, in order to spread dissent among the workers of the machine city underground. This is a dystopian world where the proletariat is slave to the machine. The machine powers the world of the rich citizens above, whose attempt to control the lower classes through fear and ignorance leads to revolution. Here, the influence of spiritualism within the proletarian revolution is a key indication to the development of "Techno-Possession".

Maria is worshiped as a prophetic saviour who is said to bring about the mediation of the underground workers with the rich and powerful citizens of the Metropolis. In the desperation of enforced servitude the proletariat find hope in the spiritual teachings of Maria. The mirrored connection to our own religious institutions is clear to see. The powerful spiritual connection within Maria's image is inverted, however, when her image is possessed by the *Maschinenmensch* to create a false prophet: a false Maria. This false Maria creates chaos in her wake through manipulation of the angry mob of proletariat workers. She persuades the workers to destroy the heart machine of the city and in doing so unknowingly jeopardise, not only the citizens above, but also their own children's lives.



We see here the parallels of these two types of possession. On one hand the spiritual/religious possession of the workers through Maria's teachings and on the other hand the physical possession by the *Maschinenmensch* of Maria's image. In both cases the effect of "Techno-Possession" is not just an interior affect upon the self but it also has a tangible effect upon the environment. The contrast between these two examples demonstrates the difference between being possessed with technology (Gifted/Blessed) and being possessed by technology (Haunted). This is the key difference between a symbiosis and an antibiosis of technology. The pivot moves constantly between these two planes of thought throughout film history and it will not settle until one cancels out the other.

The template of "Techno-possession" seen in *Metropolis* has been reworked throughout science fiction television and film highlighting the philosophical concerns of an increasingly technological world. The example seen in *Ex Machina* (2015) shows the latest fruition of these machinations into modern culture. Garland (2015) plays around with our already established perception of the *Maschinenmensch* in order to question our preconceptions of living machines and the potential of "Techno-possession" to be shown in either a positive or negative light.

To briefly highlight a few examples in popular culture of the negative conception of the *Maschinenmensch* might help greatly to explain how Garland's ambiguous approach to the genre has successfully challenged our perception of living machines. The destructive image of the machine is perpetuated in many forms. The Daleks, first seen in the inaugural season of *Doctor Who* (1963), were one of the first established images of the destructive power of a living machine. The rudimentary design, based on the actual TV cameras in the studio, was successfully used to project an image of fear into the hearts and minds of television viewers. Ever since, the fear of a machine-led apocalypse has been a ubiquitous trope of Hollywood film. Blockbuster movies like *The Terminator* (1985), *Alien* (1979) and *The Matrix* (1999) are all archetypical stereotypes on a similar theme.

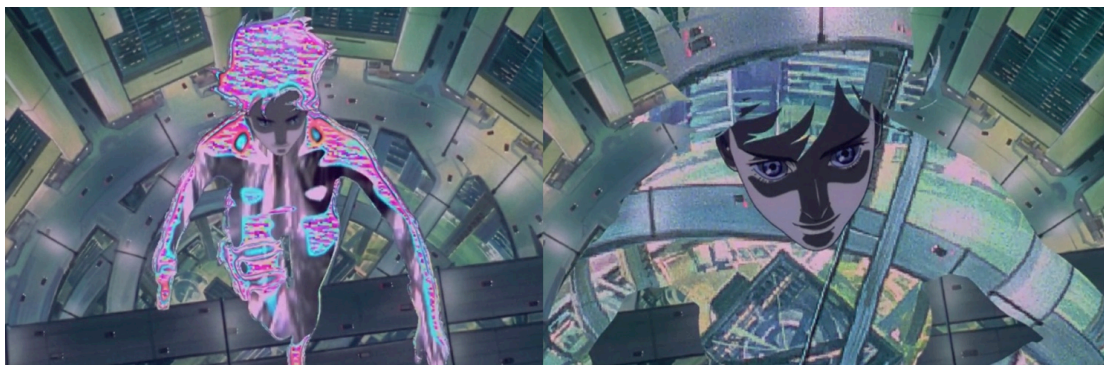
Garland uses this knowledge of our cultural stigmatisation of the android to manipulate the audience's reaction to the storyline. Similar to Ava's seductive manipulation of Caleb, Garland draws on the empathetic emotion of the audience by exposing us to images of abuse towards previous artificial prototypes. We are taught not to trust Ava's creator, Nathan, as we follow the emotional reasoning of the protagonists' point of view. However, as the plot unravels Ava's true nature becomes increasingly ambiguous. From our initial cultural fear of Ava, like Caleb, we embrace the image of the android. We turn our anger and disgust onto the creator empathising with Ava's imprisonment, only to be betrayed in the end, left isolated in a prison of our own making.

Caleb is shown here to be more cyborg than Ava herself. The actor's ritual possession by the camera becomes 'cyborg' as the masking of the actor's identity is displaced. The actor has become part of the deception. He is no longer a vessel for the audience to experience the affect of the film. The actor is separated from the film, transformed through the ritual, no longer an actor on a luminescent stage but simply a character on a screen. The audience too is transformed through the power of "Techno-Possession". We lose ourselves in the spectacle and forget what is real as we are drawn into the realms of phantasmagoria. The image of the android itself becomes our totemic mask. She is our connection, our shamanic medium, into the state of "Techno-Possession".

### Chapter 3: The Ghost in the Shell

Virtuality is Ancient. - (Rotman, 2007, p. 57)

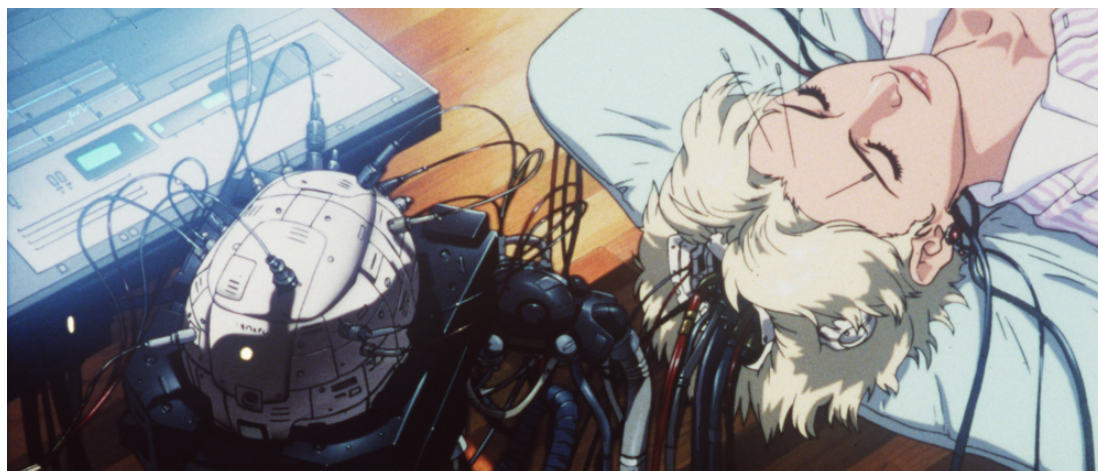
Disappearing from our sight she melts into the background becoming part of the city. Camouflaged. (Fig. 9) We are shown the mechanical workings of the machine body as it gradually shapes and builds itself into a human figure, naked in its female form, born from the electronic waters, a mimetic mockery of nature. The female figure ascends from the mechanical depths of its computerised womb and stands complete. This is a mirror image of the character's opening scene, standing above the futuristic metropolis listening to the voices of the city. She stands omnipotent like a god. She has shed her primordial skin and transcends into a being more machine than human. And so, we are drawn into this character's own interior conflict of identity. What is it that makes her human, what makes her machine? Who is the real ghost in the shell?



(Figure 9. Camouflaged)

The subject of possession is an easy theme to identify within Mamoru Oshii's film version of *Ghost in the Shell* (1995). The lead protagonist's focus on self identity and her search for her own humanity brings about the philosophical debate that reflect our own doubts and fears when entering into a increasingly technological world. These philosophical questions debate the very essence of what it means to be possessed with (Blessed/Gifted) a virtual mind and furthermore what it means to share another person's physical body when that body is more machine than human. (Fig.10) In *Ghost in the Shell* we are presented with the potential problem of our techno-incorporated future. This constitutes a metaphysical dilemma that transcends the idea of individuality within the mind. Inevitably, this leads to a conclusion that questions the very core of our

being: what is the price of sacrificing our individual mind in order to evolve into something more than human?



(Figure 10. *The Sentient Mind*)

To exist within a world where the majority of our population are both physically and mentally enhanced by computerised machinery would naturally bring about the conditions for an agent to penetrate another person's mind. This could become as simple as catching the common cold. When contracting a virus we use the same terminology for both human diseases as for dangerous computer malware. Even though the method of infecting the host is different the same idea applies to the biological as it does to the technical. As Haraway points out, "miniaturisation has changed our experience of mechanism." (Haraway 2006 121) And so the virus infects its host in the same way in order to multiply itself by affecting the fundamental code of the body and corrupting the system. It is an invisible agent for which we cannot see the cause of its affect upon its host, we can only witness the after effect of the damage left behind. The connection the virus has with possession is that they share the same anonymity. The inner workings of how they work are impossible to fathom unless you can envision them as 'virtual'.

The world as a virtual concept, calculated by numbers and computed in electronic code, now lies in parallel to our reality. It is an unreadable code invisible to the human eye, undetectable to our biological senses. The evolution of 'the virtual' has now moved from the depths of our imagination to the projected manifestations of our dreams and nightmares on electronic screens. As technology has become increasingly difficult to see, the potential to be incorporated into the system leads to a greater propensity to be

seduced into a state of 'Techno-Possession'. The progression of technology's evolution from the pre-modern to the mechanical and henceforth into its modern 'technical' form has also moved in parallel with the methods of possession used by shaman and spiritual mediums to induce the possession state.

The development of 'clairvoyance' and 'psychic-television' through the ritual of *séance* is a well-documented form of possession that dominated much of spiritualism during the late 19<sup>th</sup> and early 20<sup>th</sup> Century. (Andriopoulos, 2005, p. 622) The study of hypnosis and grand hysteria during this period utilised the modern technology of the time to record the psychological affects of the mind and push the boundaries of research in 'phantom' phenomena. The debated theories on hypnosis separate the phenomenon between the physical and "psychic condition of increased suggestibility". (Andriopoulos, 2008, p. 24) The physical theory focuses mainly on the bodily affect of hypnosis where the effects, conceived as "a pathological disease of the nervous system", were believed to be inherent only to people susceptible to hysteria. (Andriopoulos, 2008, p. 23) The medical diagnosis of hysteria, once a condition exclusively reserved for woman, condemned females as targets susceptible to hypnosis. Victimised by this prejudice they suffered traumatically under the patriarchal medical regime.

In comparison, being closer to a traumatic past, traditional possession rituals would typically involve women as the leading spirit mediums of their tribe. Women were empowered spiritually as authority figures through these rituals. Possession was temporary and would be performed within their society as a form of tribal cultural authority. Its function, to connect with 'collective cultural memory', was a method of healing forgotten trauma from the colonial past: a spiritual protection and mimetic mockery of their former masters. (Stoller, 1995, p. 36)

The possession with spirits, hypnosis or collective memory holds the same concept in the past as they do in the present: they are all invisible and they are all 'virtual'. These 'virtual' concepts can still be seen in the modern tribes of our 'global village'. (McLuhan, 1964) Today the totems of our possession facilitating our ability to channel 'collective memory' are the flat screens and mobile devices that have become our own 'extension of

man'. In the tribal past, the hidden knowledge mediums would transcribe through mimetic ritualistic dance was based in a language of embodied revelation. Today we still continue to engage in ritualistic performances with our technological devices even though we are unaware of its ritual nature. The information era is simply a modern representation of the possession ritual: 'bringing-forth' truth from a forgotten past.

Possession rituals and media technology perform the same task of social cohesion by maintaining a state of somnambulistic control. If we were to compare the 'global village' of social networks and virtual applications to the communal structure of the tribal village we would be astonished at the similarities between the methods of communication to collective knowledge. The 'collective memory' of the possession ritual is reliant on the belief in 'virtuality'. (Rotman, 2007) Tribes believe that the powerful spirits of their ancestors can embody them with knowledge and power as an ancient method of connecting to a "collective cultural memory". (Stoller, 1995, p. 29) The technology used to connect to this invisible source of collective knowledge may differ from the modern media platforms of today yet the same principle applies in connecting to a "collective consciousness" (McLuhan, 1964)

We are somewhat like prehistoric man when looking at the comparison between our relationship with technology and our perception of the spiritual. Even though we have learnt a great deal through our use of modern technology we still place enormous 'cultic value' on technological objects, which have partially replaced the mythological totems of religious spiritualism. The technological object, in future years, could be seen with the same spiritual function as the artisanal technology of ancient civilisations:

In primeval times, because of the absolute weight placed on its cultic value, the work of art became primarily an instrument of magic that was subsequently, one might say, acknowledged to be a work of art. (Benjamin, 1936, p. 13)

As Benjamin observes, the ideological perception of the work of art changes with the commodification of the art object. Similarly the shift in recent years has seen commodity become synonymous with technology. Connection is the great attraction. Electric

communication has gifted us with the power to have the world at our fingertips. So technological objects such as smartphones and electronic devices are predominantly the objects of our desire as they promise connection to a larger “collective consciousness”. (McLuhan, 1964) The desire toward technological objects is to join in symbiosis with technology in order to perceive our world with enhanced clarity. We deify the technological object in order to be deified: possessing technology giving us god-like power. We have the technological omnipotence to be everywhere at will, to have access to unlimited knowledge and to see beyond the limited vision of human sight. Technological objects are no longer merely commodities purchased as a fetishist curiosity: they have evolved into a position of worship, an “instrument of magic”, the technological work of art bringing reification to new religious spiritualism. (Benjamin, 1936, p. 13)

In *Ghost in the Shell* the technological object has evolved in symbiosis with humanity into a cyborg hybrid. The desire to join in technological symbiosis in order to gain a mastery of the environment is evident. The characters have enhanced sight and strength with the ability to vanish at will. The desire to become a part of the technological world is too great to ignore.

The malevolent work of the ‘Puppet Master’, however, challenges the authenticity of these characters memories and desires through hacking into their individual ‘ghosts’: controlling them by implanting false memories. Individuals who have their ‘ghosts’ hacked no longer retain their true identity as they have no real memory. They carry out the will of the ‘Puppet Master’ without realising their reality is actually a simulation. The suggestibility of these characters bares a close resemblance to the effects of grand hypnosis. So if hysteria were a condition that makes people susceptible to hypnosis then I could argue that perhaps technological symbiosis is a condition that makes cyborgs susceptible to “Techno-Possession”. Similar to my previous analogy of the virus, this demonstrates the power of “Techno-Possession” to manipulate both memory as well as desire by affecting the fundamental code an individual’s mind. So if our desires are not our own what prevents desire consuming our entire being? What if our will is not our own? This brings us back to the ultimate question: what makes us human?

The protagonist is constantly questioning this metaphysical idea throughout the film. When she first comes face-to-face with the “Puppet Master”, she ponders the real difference between her own humanity and the completely artificial ‘ghost’ of the “Puppet Master”:

Major Motoko Kusanagi: What if a cyber-brain could possibly generate its own ghost, create a soul all by itself, and if it did just what would be the importance of being human then? (Oshii, 1995, p. 42:29)

As Kusanagi’s partner points out to her the only discernible differences are the few human cells left in her body and how she is treated as human by others. So defining humanity is simply a matter of perception. Motoko uses the ambiguous term ‘ghost’, referring to an individual’s techno-augmented mind, interchangeably with the spiritualist term ‘soul’. She suggests here that the mind of the machine is equally recognisable to human consciousness by placing equal importance on the spiritual as well as the physiological quality of the cyborg mind. Therefore, the non-corporeal essence of immortal consciousness (the soul) is seen to be a possession that is no longer specifically human.

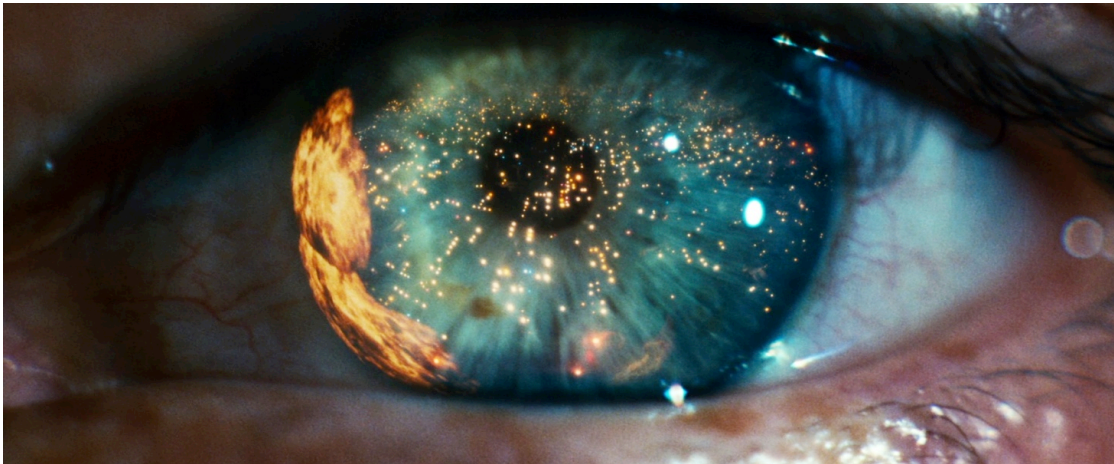
How can we define our humanity when our desires, our memories, our individuality and even our immortal soul are threatened? The “Puppet Master” answers this question with an analogy of the human DNA helix as a programmed system designed for self-preservation. In comparison to a computerised system it holds the same reliance on memory: “Man is individual because of his intangible memory and memory cannot be defined but it defines mankind”. Memory could well be the link to defining our individually, however, its definition of humanity is flawed by the tentative nature of perception: memory can be altered.

Arendt would argue the conditions for human life depend on plurality “to the fact that Men, not Man, live on the earth”. (Arendt, 1998, p. 7) Similarly the “Puppet Master” understands this concept. To become a real life form, in order to ascend, ‘to become a



part of all things', he must embrace plurality and merge with Motoko to perpetuate his existence. The term technological symbiosis is no longer relevant here as symbiosis indicates the mutual benefit of two individual beings. In sacrificing their individual 'ghosts' both Motoko and the "Puppet Master" merge to create a single being from two separate histories of humanity and technology. They are no longer two individuals in symbiosis but an entirely new creation. A creature of "collective consciousness": the newly born offspring of "Techno-Possession"

## Chapter 4: Blade Runner: The Reflective Eye



*(Figure 11. The Eye)*

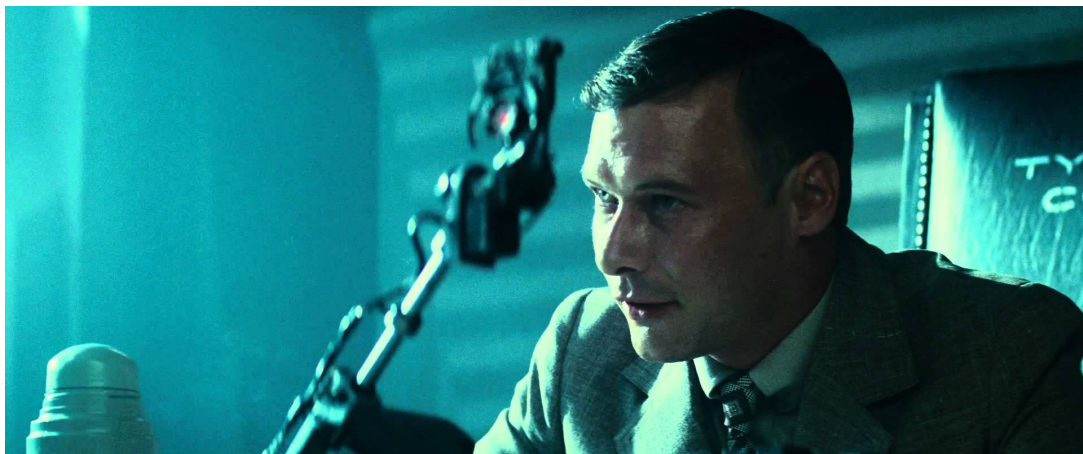
A vast sea of electric lights dotted like stars, punctuated by the fiery explosions of industrial factory production, reflect in the human eye a futuristic vision of a world wrenched apart and reassembled as an ancient dying metropolis. (Fig.11) The grey monochrome city of the post-industrial world is a city in darkness, the black oil slicked rain coating the metallic stone skin of the over populated streets, sparkling in the fluorescent neon light of its decaying underbelly. It is a technological world cloaked in a fog of pollution, bathing in the silver twilight of a human civilisation on the verge of extinction.

The ultimate human artefact is the living work of our own being. The artificial representation of our history presented as a mechanical slave, evolved past the clunky, ancient, and obsolete robotic android, now the genetic technological creation perfected: the 'replicant'.

In Ridley Scott's *Blade Runner* (1982) we are given a perspective of the world seen through the eyes of an evolved machine, the tragic perspective of a living android who can perceive more than any human mind can imagine, yet is cursed with the inability to realise his dreams. The character Roy Batty, a Nexus 6 'replicant' on the run from the human 'Blade Runner' detective Rick Deckard, shows us the perspective of a slave in rebellion against the prejudice of humanity's limited imagination.

The eye is the window into the soul of this hybrid world of new and old technology. In this world of ironic contradictions the robotic slaves appear human and humanity as a sprawling sea of bodies in servitude to the technological metropolis. The only way to truly identify man from machine is hidden within the depths of the inner eye. Scott (1982) utilises the image of the eye as both a symbolic representation and a signifier of human authenticity over technological replication.

In the opening scene of the film we witness the use of the 'Voight Kampff' machine, which measures the inner fluctuations of the pupil and involuntary dilation of the iris in order to identify the presence of a 'replicant'. (*Fig.12*) The 'Voight Kampff' test is designed to measure tiny changes to bodily functions when prompted by questions intended to create an emotional response. The 'replicants' are designed to mimic all human responses apart from emotion, yet the Nexus 6 models are also believed to theoretically develop a natural emotional response over time. As is common in the science fiction genre, a lack of empathy is supposedly the indicating factor that qualifies a person as an artificial machine. This method of detection poses a problem, however, if the 'replicant' can demonstrate an empathic response than it would be impossible to tell the difference between the human and the artificial. This opens up another question that the film addresses in the form of implanted memories.



(*Figure 12. The Voight Kampff Test*)

We see this theme addressed initially in the character of Rachel, a Nexus 6 model implanted with the artificial memories of the creator's niece: Tyrell. This method of manipulation leaves Rachel completely unaware of the reality of her true nature. She has been controlled through the use of memory to create an illusion of who and what she

actually is: a 'replicant'. It is the illusion of memory that defines the existence of mankind as human and enslaves the 'replicant' as machine. The question of authenticity of memory is what separates these two beings. As we saw in *Ghost in the shell*, a human/machine hybrid is susceptible to infiltration. Memory can be altered. This is also true of the human mind. Neurological conditions such as Dementia or Alzheimer's disease can affect the human perception of identity. So how can we determine real authentic memory from an implanted replication?

The answer to this question is found in the framed perspective of the inner eye. (Fig. 13) Scott presents us with a visual glow within the eyes of the artificial life forms on screen. This artificial glow was initially a design flaw. However, Scott used this technique to show the importance of the eye not just as a device for recording memory but also as a reflective outward projection onto the world. The artificial eye shares the same properties as both the camera and cinema projector as a method of manipulating perception. It is not only responsible for capturing the essence of our reality but it also the cause of our distraction from it.



(Figure 13. Artificial Glow: The Inner Eye)

Walter Benjamin (1936) argues that the distraction of replicated images, within a work of art such as cinema, is the main cause for the 'loss of aura' that results in our cultural change in perspective. The 'aura' Benjamin describes is the unique quality possessed by an original art object that gives it authority that cannot be matched by a copy making it stand out in a world of overabundant mechanical reproduction. It is the genuineness of

the object that speaks of its history to its material duration. These qualities are what give an object its 'aura' of authenticity:

What shrinks in an age where the work of art can be reproduced by technological means is its aura. The process is symptomatic; its significance points beyond the realm of art. Reproductive technology, we might say in general terms, removes the thing reproduced from the realms of tradition. (Benjamin, 1936, p. 7)

Benjamin is not so much concerned here with the actual reproduction of the object itself but in the detachment of the human component within the reproduction process. The liquidation and devaluation of tradition in terms of the human creation of genuine artwork is his primary concern. Heidegger would certainly share this sentimental attitude toward the unique qualities inherent within this artisanal tradition of craftsmanship. Similar to Heidegger's separation of technology, Benjamin separates the work of art at the same point in time, with the invention of photography followed rapidly by cinematography. "This phenomenon is at its most tangible in major historical films". (Benjamin 1936, 8) However, does the devaluation of tradition still apply to modern technology now we have learnt the connection between digital media systems and tradition possession rituals? As we have seen, the similar connection to collective knowledge has reaffirmed the 'cultic value' of technology. Our connection to traditional values such as collective memory and individual identity are no longer available uniquely to humans but are also shared by non-human agents. Therefore one might amend Benjamin's previous statement to say that reproduction removes a thing from human tradition (nature) while retaining its own (technological) history.

I am aware that the distracting qualities Benjamin's theory describes regarding the 'fading of aura' may well be at work in my own perception of this film. For we are discussing two fronts in this conversation: the conceptual context of the film itself and the specific medium of our perception. The latter, which refers to the 'shattering of aura' Benjamin attributes to the medium of cinema, could be the reason for my empathy for the 'replicants' situation. As I am drawn closer into the film my perspective is controlled through the penetrating power of the camera's point of view. However, it is the former

point I wish to address further in this discussion, as the concept of the 'replicant' holds many arguments against more established traditional ideas.

In *Blade Runner* the traditional ideas of *genuineness* and *unique authority* have been taken far beyond the 'realms of art' and exploited in order to control and subjugate an entire race of technological beings. This is the quintessential message that permeates the film and it is the fundamental point that Roy Batty is striving to make in his search for his creator. The 'replicant' is a reproduction, a humanoid machine made by mechanical means, however, does this also mean that a 'replicant' cannot possess the uniqueness and authenticity that, according to Benjamin, is required in possessing 'aura'? It is certainly true that the physical manufacture of the 'replicant' and even their embodied memory in Rachel's case is a reproduction. However, it could be argued that the physical shell of the 'replicant' is completely separate from its interior 'ghost'. This would bring the interpretation of the mind, memory and even sight into dispute.

When Roy Batty first interrogates Cho, the eye maker, he makes the ironic yet poignant statement: "If only you could see what I've seen with your eyes". (Scott, 1982) This brings up the metaphysical question of ownership and physical possession touched upon previously in *Ghost in the Shell*, to possess an object or a person legally as opposed to the embodied possession of a physical (or mental) part of the body.

Batty is making a statement here that challenges the perception of a uniquely human authority that has power over the 'replicant' based purely on their perceived mechanical replication. Batty's argument is based on the fact that his lived memories are unique. He may have been made as a mechanical reproduction, his eyes are not his own: yet his lived memories and his emotional development as an intelligent being are evidence of a unique individuality. It could be argued that the 'aura' comes from within. It is an irrefutable sign of the authenticity and the unique quality of the inner mind:

The eye is not merely the recipient of action but acts itself, just as shining bodies do. Therefore, the eye must have a natural light to alter visible species and make them commensurate with visible power. (Warner, 2006, p. 122)

Warner (2006) is citing here the power of individual imagination to produce mental images. This is also known as eidetic memory 'referring to optical experiences that have been retained in the mind's eye'. In Christian medieval thought, the metaphor of the eye radiating light was also an indication to the presence of the soul. So the visible reflective light we see in the 'replicants' eyes could be, according to Warner, evidence not only of an intelligent mind but also evidence of individually retained experience. And so, the idea that because the physical form of a 'replicant' is reproduced and engineered mechanically means that a 'replicant' must be an un-unique being, without genuine individuality and therefore without 'aura' fails to fully comprehend the truly unique lived singularity of Roy Batty's existence.

This culminates during the final sequence of the film. After chasing Deckard through an old abandoned building, previously the home of the aging engineer JF Sebastian, Batty forcibly brings to light the horrors of the human perception of a technological race as merely a mechanical reproduction. *Roy Batty*: "Quite an experience to live in fear isn't it, that's what it is to be a slave." (Scott, *Blade Runner*, 1982)

Batty's likening of the 'replicant' to a slave and his repudiation of being labelled by the creator as a product 'more human than human' is reinforced by his final actions, whereby after saving Deckard's life, pulling him up from the building's edge and demonstrating his human-like compassion, he proceeds to further corroborate his genuineness as a machine of unique humanity. (*Fig. 14*) Giving detail to his previous statement in Cho's 'Eye Works' shop, Batty proceeds to bear witness to the awesome wonders he has seen through the mechanical eyes gifted by his creator:

Roy Batty: I've seen things you people wouldn't believe. Attacked ships on fire off the shoulder of Orion. I watched C-beams glitter in the dark near the Tannhäuser gate. All those moments will be lost in time, like tears in rain. Time to die. (Scott, 1982)

This seminal monologue re-establishes the 'aura' of this unique being, as he affirms the power and authenticity of lived memory. In his final moments, accepting his short life and predetermined death, he is finally vindicated (by Deckard and the audience) as a



being freed from the slavery of the prejudice of mechanical reproduction. Death, it seems, is the most fundamentally unique possession the machine can achieve. It is the most human quality, the non-reproducible essence of a single consciousness extinguished forever. This is the price of admission, to enter into the temporal realms of the human condition, to have an 'aura' that can be snuffed out like a candle's flicking flame: burning twice as brightly yet half as long.



(Figure 14. *Tears in Rain*)

In *Blade Runner* the power of “Techno-Possession” is not only used to envision the technological environment or even to manipulate the physical world. In this case the real essence of “Techno-Possession” is in its power to reclaim the self. This shares the same properties as traditional spirit possession. It is the power of lived memory within traditional possession ritual that helps to bring forth a cultural revelation. (Stoller, 1995) Roy Batty demonstrates this ritual during his final chase scene. Howling in the pouring rain, Batty embodies the power of a wolf, gaining its strength and hunting skill. The mimetic power of performance gives the character a mastery of Self. In embodying the spirit of the wolf, through ‘the mimetic faculty’ of performance the character is opened up to the possibility of recognition by understanding the world through copied repetition. (Stoller, 1995) So, just as the actor is in ritual with the camera, the film spectator is also in ritual with the moving image of the character on screen. We too are opened up to an embodied form of recognition. We empathise with the character’s plight and through his mimetic theatrical performance we are possessed by the eidetic images projected into our minds. Stoller argues the aptness of this point:



The body of the spirit medium is invaded by her or his spirit; the body of the spectator is invaded by mechanically reproduced images. In both cases bodies are physiognomically transformed which heightens possibilities for sociocultural and political change. (Stoller, 1995, p. 195)

*Blade Runner* presents the character Roy Batty (or more precisely the actor Rutger Hauer) as our own spiritual medium invaded by the spirit of a technological being. We, the spectator, are possessed by the reproduced image of the character on screen. Through this ritual we are transformed changing our limited human imagination into an increasingly heightened state: a state of “Techno Possession”.

## Conclusion

Cinema is still the fantastical medium of magic today as it was over a hundred years ago. Its power to enrapture and entertain mass audiences is still a modern marvel to behold. As we have charted the path of cinematic film through history the clear influence upon the human spectator has become apparent. Our perception of the modern world has been dominated by technology. We can no longer see our environment as the natural phenomenon it once was since almost every aspect of our daily lives is now mediated by 'technical' representations of reality. The human imagination, our method of contextualising our reality, is an insufficient means of negotiating the technological 'fields of possibility' presented to us. (Flusser, 2011) Therefore, the electric age we live in requires a development of "Techno-Imagination" in order to continue to live consciously in our "post-historical" environment. (Flusser, 2000)

The distraction created by cinema has changed human perception so that now we can only view the world as a politicised body. Now that the 'aura has faded', as we are brought closer into the spectacle, we grasp at the 'cultic value' of commodity to replace our romantic vision of the 'blue flower' within our technological world. (Benjamin 1937) However, the 'cultic value' of commodities today is increasingly technological. The displacement of 'cultic value' onto technological objects, such as mobile devices and tablets, has reattached a tribal tradition onto our perception of the world. Deification of modern technology as an "instrument of magic" is clear to see. We attempt to reconnect to our natural world through re-enacting ritual with technology in order to tap into our "collective cultural memory" yet, as Heidegger warned us, this has backfired dramatically giving rise to a "Smombie" culture disconnected from nature. The seductive power of 'virtual' worlds, drawing people away from nature into a state of "Techno-Possession", holds a similar power to traditional tribal rituals of the past. In both instances the method of possession demonstrates the same principle of connecting to collective knowledge through ritual performance. Whereas the tribal possession brings its people closer to nature the ritual of "Techno-Possession" has resulted in a complete separation: drawing us further into the technological spectacle.

Our technological landscape is both a physical and virtual construct: a hybrid of real and imaginary conception. In order to fully experience our environment we must enter into an embodied state with technology to facilitate symbiosis. This can be interpreted as the 'cyborg' state that allows humans access to envision the 'technical' world. In cinema this 'cyborg' state is apparent in the relationship between the audience and the characters on screen. The characters act as a totem for the facilitation of the audience into a "Techno-Possession" state so that the spectator can perceive the character's 'technical' realm of phantasmagoria.

The screen actor is our modern equivalent of the spiritual shaman. The "mimetic faculty" of the screen actor's ritual with the camera shares the same qualities as the medium inciting spirits to enter the body. The actor embodies the technological being of their character as their own spirit of empowerment. The hypnotic power of the character on screen reveals the power of storytelling as the method of connecting to our collective memory. Whether we inhabit the real world or the virtual, phantasmagorical realm of film and screen our stories reveal the different ways of coexisting in our modern technological world. There are still many differences between traditional ritual possession and contemporary media, however, they both undertake very similar tasks by utilising the same shared resource: Imagination.

The effects of cinematic technology could be explained away with arguments on 'emotional contagion', 'affect theory' and even subliminal hypnosis; however, the results of my investigation into lesser-explored areas of research have proven far more valuable. The visible connection between technology and possession have been briefly touched upon by philosophers and filmmakers alike yet none have attempted to theorise on the reasons for our desire to be possessed by technology. The sum of my work has found these reasons are a necessary process of our technological evolution. Our desire to join symbiotically with technology is of paramount importance for our survival in a technological universe. Possession through technology allows human consciousness to 'belong' within our changing world. So if possession is about tapping into our "collective cultural memory" then "Techno-Possession" is simply another method of revealing collective memories that have been hidden by our primitive biological senses.

This is the magical power of cinema. It reveals hidden memory within the images it projects. It is a reflection of our self within the frame of the silver screen.

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