# The Face as Technology

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In this article, we contribute to thinking about the emergence of the face in digital culture. Building on work in the fields of art history, cinema studies, and surveillance studies, which have long established a technological interest in the human face, we move this critical discourse on by locating in contemporary popular culture, and Hollywood narrative cinema in particular, anxieties about, and play with, the face as a new kind of digital object. By studying the face as a digital object away from its primary sites of recognition – online, in CCTV imagery, in identification documents – we encounter in narrative cinema the face as a story. In particular, the recent films of Scarlett Johansson tell stories about the face as made by and in relation to digital technology, but also in relation to discourses of celebrity, whiteness, and femininity. Johansson's face is a generative filmic object with which to interrogate the normative conditions of the face in contemporary digital culture. It is her face that becomes the computer in *Lucy* (dir. Luc Besson, 2014), her face that is the alien black sheen of *Under the Skin* (dir. Jonathan Glazer, 2013), and her face that is the absent signified in *her* (dir. Spike Jonze, 2013). Focusing on Johansson's films enables us to think together the interface-object of celebrity in the contemporary, the technological face of digital cinema, and importantly, the face as primarily a gendered and raced technology in the making.

**Keywords**: digital culture, Hollywood, facial recognition, surveillance technologies, gender, race

In April of 2016, Ricky Ma, a Hong Kong-based product and graphic designer, unveiled his new robot 'Mark 1'. What dominated reporting on this achievement was, as one headline in the *International Business Times* put it, the way Mark 1 'looks eerily like Scarlett Johansson'.[1] More specifically, it was the facial likeness to Johansson that was newsworthy and even 'dangerous'. Commentators on Ma's creation linked it to such science fiction historical precedents as the robot in *Metropolis* (dir. Fritz Lang, 1927), suggesting that Mark 1 represented only the most recent incarnation of male fantasies of sexy female robots. As April Glaser, writing for *Wired*, notes:

> [a]nyone who's turned on a TV in the past decade shouldn't be surprised to learn that one of the first – and creepiest – examples of this development ['amateur' men building robots at home] involves movie star Scarlett Johansson.[2]

1. Mary-Ann Russon, 'Meet Mark 1: A $50,000 3D printed humanoid robot that looks eerily like Scarlett Johansson,' *International Business Times*, 1 April 2016, http://www.ibtimes.co.uk/meet-mark-1-50000-3d-printed-humanoid-robot-that-looks-eerily-like-scarlett-johansson-1552710.

2. April Glaser, 'The Scarlett Johansson Bot is the Future of Objectifying Women', *Wired*, 4 April 2016, https://www.wired.com/2016/04/the-scarlett-johansson-bot-signals-some-icky-things-about-our-future/.

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Ostensibly alluding to Johansson's status as a Hollywood sex symbol, such responses suggest that there is also something obvious and almost unnoteworthy about Mark 1's likeness to Johansson – her's is a face that regularly features on lists of Hollywood's most desirable women. Of interest to us here, is not Johansson as an obvious object of male fantasy, but rather Johansson as central to emergent anxieties about embodiment and technology.

Mark 1 raises questions about the face in a moment of contemporary flux – where no one knows what it means for a robot to have a face so 'eerily' similar to Johansson's, where the legality of this face is unclear, and where the use of such a replica is undetermined. Ma's robot perhaps represents a predictable next stage in a post-cinematic digital moment, which, as Tanya Horeck argues, 'has galvanised the way that we as "users" now engage and interact with stars (and indeed, they with us)'.[3] Horeck is referencing the impact that social media has had on celebrity culture and the ways that technology has transformed our access to and interactions with celebrities – noting in particular, that tactile technologies such as portable smart phones and tablets provoke new ways to physically manipulate and scrutinise celebrity images. Horeck suggests that stars have become '(inter)face-objects', so that the 'tactile and the visceral' are fundamental to the 'ways in which we now experience stars as media flows and processes' (p261).

3. Tanya Horeck, '#ReneeZellweger's face', *Celebrity Studies*, 6, *2* (2015), 261-264, p261.

Ma's robot makes perfect sense within this celebrity-as-interface-object world, even as it raises new questions about privacy law. As Glaser asks, 'Is there any legal recourse to prevent someone from building a ScarJo bot, or Beyoncé bot, or a bot of you?'.[4] Such worry over a near future where anyone might find themselves replicated, points to the ways Mark 1, and thus Johansson, are central to a wider discussion of what happens to the face – any face – in an emergent technological present. Mark 1, we contend, belongs to a contemporary moment in which the meaning of the face is changing and emergent: from the ubiquity of CCTV, selfie-culture and the portrait mode of apps such as FaceTime and Tindr, to celebrities as '(inter)face-objects', to the facial recognition software that links such public and private, personal and common modes.

4. April Glaser, 'The Scarlett Johansson Bot is the Future of Objectifying Women', *Wired*, 4 April 2016.

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## FACIAL RECOGNITION

We often think of digital media as substitutions for face to face interaction. Interest in celebrity faces and the pleasure of manipulating them is made possible by the distinction we draw between the image and the 'real' face. This distinction and its political implications are precisely what Ma unsettles by making Mark 1. To discuss new media inter-facial encounters is to interrogate the binary supposition that the face as new media image is in opposition to the embodied, biological face. As feminist and critical posthumanism has taught us, there are no autonomous humans and machines. Ambient technological systems are busy constructing our faces all the time; humans, in Barad's words, are entangled, lacking an 'independent self-contained existence'.[5] Whether on Facebook and Snapchat, at airports or traffic stops, biometric facial recognition is an indelible part of software in everyday life. As Sarah Kember notes, ambient facial recognition technologies implicate new media modes of surveillance in vernacular new media culture; such 'systems normalize and naturalize a culture in which the joint operation of marketing and surveillance is becoming dominant'.[6] The celebrity face image or selfies are not so much the flip side to biometric surveillance culture as they are its more palatable extension.

The artist Zach Blas has called this contemporary vernacular our 'Global Face Culture'.[7] Global face culture is exemplified by 'biometrics and facial detection technologies', as well as popular modes of facial expression. The personalised new media face culture of social media is an effect of 'ever obsessive and paranoid impulses to know, capture, calculate, categorize, and standardize human faces'. As Blas suggests, global face culture is 'explosive and emergent', and so 'the very meaning of a face – what it is, does, and communicates – is continuously redefined' (*Escaping the Face*). The global face culture of today is a legacy of analogue surveillance techniques, primarily the use of photography as a disciplining technology.[8] Contemporary facial recognition programmes inherit the ideology of earlier modes of surveillance, those 'technically limited, pseudo-scientific and politically problematic ways of seeing', but in the age of 'smart terror', and with the infinite archive of

5. Karen Barad, *Meeting the Universe Halfway*, Durham, NC, Duke University Press, 2007, p ix.

6. Sarah Kember, 'Face Recognition and the Emergence of Smart Photography', *Journal of Visual Culture*, 13, *2*, 2014, pp182-199, p184. (Hereafter *Face Recognition*).

7. Zach Blas, 'Escaping the Face: Biometric Facial Recognition and the Facial Weaponization Suite', *Media-N*, 9, *2*, 2013. (Hereafter *Escaping the Face*).

8. See Sarah Kember, 'Face Recognition and the Emergence of Smart Photography'; Allan Sekula, 'The Body and the Archive', *October*, 39, 1986, pp3-64; John Tagg, *The Burden of Representation: Essays on Photography and Histories*, London, Macmillan Education, 1988.

faces that is social media, 'the demands on these inadequate bureaucratic-clerical-statistical systems of intelligence have increased exponentially' (*Face Recognition*, p189).

Facial recognition programs work by making over the face as co-ordinates, data; such systems 'substitute the meaning of faces for a mathematics of faces' (p186). Mark Hansen calls our new math-face the 'Digital Facial Image' (DFI). To encounter the DFI is to experience 'the radical material indifference of digital information to human sensory ratios'.[9] For Hansen, the DFI 'draws attention to the non-seamlessness of the interface between embodied human beings and the computer' (p207). The production of difference between human and machine as "non-seamlessness" might be another way of describing new affective experiences associated with digital technologies. Thinking through Karen Barad's theories of entanglement, with reference to the work of facial recognition software, Kember notes, '[o]ntological and epistemological entanglements undermine the tenets of representationalism that allow humans to represent machines as if there was an essential distinction or "gap" between them' (*Face Recognition*, p186). This 'as if' is crucial for thinking about the doctrine of Global Face Culture: 'as if' is a gesture of simulation, or performativity; it also belies an emerging situation that is not as of yet apprehendable, so that actions proceed 'as if'. In the end, faces are stubbornly complex; in the mathematics of recognising them, 'categories leak and the classification structure does not hold' (p194). Facial recognition relies on both the certainty of human-machine binaries (that there is an autonomous face to be recognised by an autonomous programme) and on the premise these autonomies can be overturned by the machine (that the face can be "understood" by the software). In addition, the process of recognition will always be disturbed by the face itself which, seen as the 'quasi-object' of facial recognition software, proves to be a leaky object, eliding proper recognition. In other words, there is no perfect facial recognition just as there is no perfect face; we proceed to read the face 'as if'.

9. Mark Hansen, 'Affect as Medium, or the "Digital-Facial-Image",' *Journal of Visual Culture*, 2, *2*, 2003, pp205-228, p206. (Hereafter *Affect as Medium*).

Much contemporary art explores this potential for the radical contingency of the digital face image. *Colour Separation* (1997), a project by the artists' collective Mongrel, comprises a series of full frontal head-shots, each overlaid with a smaller frontal head-shot of a different racial type; stitches border the smaller face to give the appearance of different racial types being sewn together. The images exist, in Jennifer González's words, as 'impossible referents', signifying 'subjects who do not exist except in digital form and in the imagination of those who created them'.[10] In Kirsten Geisler's work, *Dream of Beauty 2.0* (1999), banal images of computer generated beauty – an anonymous white woman's symmetrical face – enable an encounter with what Hansen calls the 'affective autonomy' of the digital facial image (*Affect as Medium*, p216). Eva and Franco Mattes' series of self-portraits of avatars from Second Life, *Portraits* (2006-07), questions the agency of the programmers

10. Jennifer González, 'The Face and the Public: Race, Secrecy and Digital Art Practice', *Camera Obscura*, 24, 1_70, 2009, pp37-65, p53.

and users who develop and select an 'avatar', and draws attention to the homogenizing aesthetic of much digital media, 'its propensity to make things look the same'.[11] Ed Atkins' repeated use of a computer generated talking head as a mode of artist-supplement, for example in *Us Dead Talk Love* (2012), allows him to transgress expectations of representational digital media and authentic recognition by animating, as character, what is 'already dead' – the medium itself.[12] Such works do not capitulate within but instead explode the premise whereby we proceed 'as if' we will be who and what our software tells us we are. Doing away with a recognisable face altogether, Zach Blas' 'Facial Weaponization Suite' (2011-2014) is a series of 'collective masks' to be used for public interventions and performances. For example, the 'Fag Face' collective mask is a pink face mask generated from the 'biometric facial data of many queer men's faces'.[13] To wear the mask is to singly embody many. The mask resists software recognition through obfuscation. In the case of 'Fag Face', the mask subverts the processes of software that purport to identify gay men from facial surveillance alone.[14] Blas' work significantly troubles the narrative by which we proceed as if software can know its object and offers an aesthetic refusal to be known.

In this essay, we want to expand this archive beyond the realm of avant-garde artistic practice to look at another site of digital facial imagery – popular Hollywood cinema. Here, narrative cinema affords a way to encounter the making of digital facial imagery, which is to say, an encounter with the story of the face as digital object. As outlined above, theorisations of new media faces tend to turn to emergent sites, such as social media or biometric technologies. We want to insist that we have to put narrative cinema into dialogue with these emergent sites because the digital face of cinema is not separate from the digital face of distributed and digital networks in general. Moreover, turning to narrative cinema better enables us to think of the face not just as a static object but as technology, something that is made and remade, both in our encounters with technological processes and gendered and racial discourses.

Much film studies and cinema theory has been invested in the significance of the face as seen on screen, and in particular on the close-up; on the tension between the narrative and abstract signification of a cut-up, blown up face-image. While the close-up is not always of a face, as Mary Ann Doane argues, 'the face is indissociably linked with the process of *effacement*, a move beyond codification' – a function of the close-up.[15] For Doane 'the close-up' is 'simultaneously posing as microcosm and macrocosm, detail and whole'. Doane suggests the attachment to the close-up in film theory is an attachment to a 'simulacra' of wholeness in the face of 'accelerating rationalization, specialization' (p93). These paradoxical connotations of cinema are historically constituted with the facial recognition technologies described earlier. Recognising this history, we want to frame contemporary digital cinema within the conditions of global face culture. Although surveillance is a heightened mode of existence under global face culture, cinematic

11. Zara Dinnen, 'Pictures of Self-Portraits: Eva and Franco Mattes' Avatar Portraits', *In media res*, 1 May 2012, http://mediacommons.futureofthebook.org/imr/2012/05/01/pictures-self-portraits-eva-and-franco-mattes-avatar-portraits.

12. Ed Atkins and Francesca Gavin, 'Ed Atkins on bodily fluids and death', *Dazed*, January 2014, http://www.dazeddigital.com/artsandculture/article/18084/1/ed-atkins.

13. http://www.zachblas.info/works/facial-weaponization-suite/

14. Other masks in Blas' series include black and feminist collective masks, which reconfigure surveillance technologies' inability to detect dark skin, and engendering of oppressive legislation against the wearing of veils. A fourth mask has also been developed to resist the security technology deployed at the Mexico-US border.

15. Mary Ann Doane, 'The Close-Up: Scale and Detail in the Cinema,' *differences: A Journal of Feminist Cultural Studies*, 14, *3*, 2003, pp89-111, p96. (Hereafter *Close-Up*).

modes of looking have always been complexly related to surveillance. Writing on these intersections in terms of 'surveillance cinema' Catherine Zimmer notes that, 'from the simplest narratives of early cinema to the most complex psychological, aesthetic, philosophical and political explorations of contemporary film, narrativity and surveillance have continued to intersect in dynamic and structurally significant ways'.[16] Cinema is a means by which the 'production of visible bodies' can be recognised in terms of 'mediated visibilities and surveillance' (p428).

The project of making visible bodies has always also meant the production of raced and gendered bodies. Early surveillance technologies were used to monitor and capture people who had escaped slavery, producing, as Zimmer puts it, 'identity along racial lines, while at the same time disavowing identity in order to maintain the racialized subject as object'. Early cinematic narratives 'were engaged in a similar project, producing the black figure as an identity that is without identity: a signifier upon which the narrative can turn' (p430). The co-constitution of racial difference as surveillance and cinema is not a historical anomaly, but rather defines these technologies. The production of race, of bodies, through regimes of surveillance and the mediated visibilities of cinema is also the production of a technological subject. In the words of Wendy Hui Kyong Chun, such a condition is 'race and/as technology'.[17] Chun's formulation advocates understanding race not only as something that intersects with technology, but that functions as technology, that is, race as 'always already a mix of science, art, and culture' (p8). For Chun, race is not a static object (whether cultural or biological), but rather a tool that mediates bodies relationships to other bodies. Importantly, 'understanding race and/as technology enables us to frame the discussion around ethics rather than around ontology, on modes of recognition and relation, rather than on being' (p9). The ethic of recognition brings us back to faces. The face is the site at which we might recognise the body we encounter. In this way, the facial image always signifies race. For 'race, like one's face, is not simply a private possession or technology [...] but rather exists at the cusp between the public and the private, the visible and the invisible' (p23). To return to Doane, through Zimmer, through Chun, the close-up of a face in cinema is an affective signifier of the technological apparatus, and the means by which a subject is made. As we will argue in the discussion below, to attend to the making of Johansson's face, or her face as technology, is to also insist on this face's centrality to discourses not only of global face culture and digital cinema, but also Hollywood stardom and white femininity.

16. Catherine Zimmer, 'Surveillance Cinema: Narrative between Technology and Politics', *Surveillance & Society*, 8, *4*, 2011, pp427-40, p430. On the intersections of state surveillance and cinema, see also Tom Gunning, 'Tracing the Individual Body: Photography, Detectives, and Early Cinema', in L. Charney and V. R. Schwartz (eds), *Cinema and the Invention of Modern Life*, Berkeley, CA, University of California Press, 1995, pp15-45.; Thomas Y. Levin, 'Rhetoric of the Temporal Index: Surveillant Narration and the Cinema of "Real Time"', in T. Y. Levin, U. Frohne, and P. Weibel (eds), *CRTL [SPACE]: Rhetorics of Surveillance from Bentham to Big Brother*, Center for Art and Media, 2002, pp578-93; Garrett Stewart, *Closed Circuits: Screening Narrative Surveillance*, Chicago, IL, University of Chicago Press, 2015. (Herafter *Closed Circuits*).

17. Wendy Hui Kyong Chun, 'Race and/as Technology; or, How to Do Things to Race,' *Camera Obscura* 24, 1_70, 2009, pp6-35.

## MAKING THE FACE

The recent appearance of Johansson as 'the face' of contemporary science fiction cinema might be explainable through her characteristic flat expression. This blank, or flattened style, can been traced back to her

first 'adult' break-out roles in *Ghost World* (dir. Terry Zwigoff, 2001), *Lost in Translation* (dir. Sophia Coppola, 2003), and *Girl with the Pearl Earring* (dir. Peter Webber, 2003). If this 'flat' performance or, in Lauren Berlant's words, 'underperformative', was pivotal to Johansson's earlier films, in her more recent films, Johansson's underperformance is mobilised as the performance of technological 'other'.[18] Her refusal of emotional codes in *Lucy*, for instance, is one of the ways that we know that she is becoming increasingly technological. Or, her learning of the human's emotional register in *her* is how we know she is becoming increasingly human-like. Similarly, in *Under the Skin*, her character is likened to a blank screen that, again, disturbs the normative expectations of emotional expression on screen. Crudely, Johansson's casting in these films appears to be about representing technology through her, by now, characteristic flattened emotionality. For us though, there is a more productive way of considering why Johansson is necessary for the films to work; this involves attending to the film's shared interests in digital subjectivity, surveillance technologies, and the face. It matters to these films that Johansson is a Hollywood star whose face is ubiquitous; it is this ubiquity which makes the films work, not only her performance style. The films play on the known quantity of her face. Through gestures of disguising, dissolving, breaking, making, ripping off, and disappearing Johansson's face, the films challenge assumptions about recognition, revealing the face, her face, as technology – as something that is made by digital cinema, the Hollywood star system, and discourses of celebrity culture and new media. Much like facial recognition software must presume a stable, legible face, but more often reveals the impossibility of such a subject, and the discriminatory ideologies encoded in acts of recognition, in recent science fiction films Johansson's face is represented as known, but gestures as well toward the processes through which this face comes to be known.

18. Lauren Berlant, 'Structures of Unfeeling: *Mysterious Skin*', *International Journal of Politics, Culture, and Society*, 28, *3*, 2015, pp191-213.

*Under the Skin*, an adaptation of a Michel Faber novel, follows an alien 'woman' who entraps human males in a black borderless mass. Scarlett Johansson plays the alien, listed as 'the woman' in the cast credits. In *Under the Skin*, alienness surfaces as the digital image – the film plays with and exploits the digital possibilities of cinema to produce alienness. In other words, the alien in *Under the Skin* is a both a biological entity and digital image; a biometric being. Thus the film emerges from the same contemporary conditions of visibility as Blas' masks – biometric surveillance and the labour of making faces. Importantly, it is the face, Johansson's face, that is particularly central to the way that the film imagines conditions of surveillance. *Under the Skin* begins with the making of Johansson's character, 'the woman', imagined as a technological making, a cultural making, and a process of self-making – this making is always both gendered and technological, a process of surveillance and of being watched. The film opens with the sound of her learning to make sounds, sounds that will eventually become language.

We watch her eye being made, it, like language's introduction via sound, is introduced as a technological creation, referencing both vision as a technology and the face as a technological object. From the creation of this eye, the film cuts to a male motorcyclist retrieving an inert female body from the side of the road, and her face is presented for our observation. This face is likely to be initially taken for Johansson's, however, an initial reading of 'the dead woman' (Lynsey Taylor Mackay) as Johansson is disrupted when the camera pans back and Johansson is revealed to be naked, beside the body. Johansson proceeds to methodically undress the dead woman and put on her clothes.

In *Under the Skin*, Johansson's character, the woman, emerges from a computer-generated animation – the digital animation of her eye being formed. This digital animation draws our attention to this making of Johansson – the image-work – by the fact the first face we see, which we think might be Johansson, is not. It is a look-alike who will be the person Johansson's alien looks like. Johansson then drives to a shopping mall, where she is filmed from behind. While Johansson is the ostensible subject of the camera gaze, it is the faces of the unknowing shoppers that are captured in this scene. Johansson is shown walking through a women's clothing store and then a cosmetics store, where the camera watches as women's faces are 'made'. The making-of-Johansson is complete when Johansson puts on lipstick, shot through the compact mirror, producing a refracted image of Johansson's face. In these scenes, the making of 'the woman' is a process of mimicry and double-ness, a technological becoming, and a culturally-coded 'making-up' of the face. *Under the Skin* brings together technologies of surveillance with technologies of gender, revealing the face as always also a gendered technology.

Yet, it is also interested in the process of surveillance in relation to celebrity and to the everyday. In *Under the Skin* Johansson plays against her media celebrity. As she walks through the centre of Glasgow, and drives around in a white van, her alienness there plays to the cinema audience's awareness that it is Scarlett Johansson doing those things. The uncanniness of a scene where Johansson walks through a Glaswegian shopping centre for instance, resides in the way a cinematic viewer, who knows that it is Johansson, watches a public who does not see her. They should be surveilling her, but because they are not, we surveil them. It is the Glaswegian public that we watch in these scenes, cinematic cameras are likened to the probable CCTV cameras in the shopping centre. Here, the cinematic structures which usually produce Johansson's face as already-known, become likened to surveillance structures which produce the general public as the site of observation. The sequence explodes what Garrett Stewart has referred to as the 'unique homology' that exists in cinema 'between agents in the world, unwittingly recorded, and characters in a film who act as if they weren't being' (*Closed Circuits*, p2). In *Under the Skin*, cinematic watching is likened to the scrutiny of surveillance in everyday life. Of course, this sequence,

and the film as a whole, can only do this work because Johansson is a celebrity and her face is verified as such elsewhere, beyond cinema, by the surveillance technologies of celebrity culture. Because this is Johansson's face being misrecognised, we begin to see both that the apparatus of looking is something that can go wrong, and that the face being watched is being made up as it is made visible.

As the film progresses, 'the woman' seemingly reaches full humanity when she recognises her sexed vulnerability – she can be penetrated. This has been read as the film's feminist intervention; in a male-dominated world, as Ara Osterweil puts it, 'to be female is to be alien'.[19] Yet, we would re-orient the film's apex not around a moment of bodily vulnerability, but a moment of the face's technological matter. To read this film as about becoming an embodied woman is to lose sight of the film's consistent interest in the making (and recognition) of faces. In the final section of the film, 'the woman' is on the run. She escapes a sexual assault perpetrated by a forest ranger, only to be caught as she attempts to run away. She is thrown on the ground and he pulls at her underwear, but pulls too hard. The shot cuts to his point of view and we see her, her back, with two great gashes, two rips; her skin (the shell) has come away revealing black alien matter. The ranger runs away and the woman/alien bends back down to the ground; she grabs at her head and pulls off the human shell. The ranger comes back and douses the woman/alien with lighter fuel. He burns her/it alive. After the struggle, before the fire, is the most arresting scene of the film. The woman/alien pulls off her face revealing the bald black head and upper torso of an alien figure, with the faint facial features of Johansson; the alien holds the woman's face in her hands and these two Johanssons gaze at each other. The woman's face blinks. Here is the cinematic face as technology.

19. Ara Osterweil, '*Under the Skin*: The Perils of Becoming Female', *Film Quarterly*, 67, *4*, 2014, pp44-5.

The digital image manifests an 'impossible signifier' – the alien and human Johanssons – and the face is revealed (again) as technology, not a stable object but a tool that mediates one body's encounter with another. The white human celebrity woman's face is held in the look of the black alien woman (the other Johansson). The white human celebrity face is revealed as technology, as made. Simultaneously the black Johansson's face – the alien face – is subject to the audience gaze; it is 'revealed' to us and recognised by us as alien. As Lucas Hildebrand notes, 'the revelation of a black female body becomes the ultimate and absolute evidence of the character's non-humanity'.[20] As will be seen even more explicitly in *Lucy*, the alien black matter with which the film ends, is not only a processual effect of the digital imaging software that makes the film and the cinematic face; it is also the production of technology – the biotechnical matter of advanced capitalist societies, the oil and plastics that make us. Johansson's face in this scene is not only an image in which mediated subjectivity is being made, and likewise, undone; her whiteness is seen to be made and undone by its proximity to blackness, a proximity which slips between technology and race as signifying difference.

20. Lucas Hildebrand, 'On the matter of blackness in *Under the Skin*', *Jump Cut: A Review of Contemporary Media*, 57, 2016. (Hereafter *Matter of Blackness*).

In *Lucy*, Johansson plays the title character who is forced into being a drug mule, involuntarily absorbs the synthetic drug CPH4, and releases 100 per cent of her brain capacity; Lucy becomes non-human because she exceeds the human. The naming of 'Lucy' implicitly allies her with the three-million-year-old female hominid fossil nicknamed 'Lucy' and the film explicitly works through a Darwinian narrative of evolutionary progress – Lucy becomes the best human but, in this process, also ceases to be human. Her cells, to preserve their own immortality, obliterate the human body that holds them back, and reform as a bio-machine. In particular, Lucy's human face is in various ways the site at which we can see her humanity at risk. By the end of the film, the human face is obliterated and what remains this time is definitely an interface: the knowledge Lucy has accrued is 'downloaded' as a black organic plastic mass – a computer that will have been.

The film has a lot of fun at undoing Johansson's face, playing with the value of this face. As with the play with Johansson's celebrity in *Under the Skin*, *Lucy* depends upon and plays with the value of Johansson's face and our attachment to it. The film has been described as ridiculous, 'idiotic' and over-the-top, an aspect that we would locate specifically in Johansson's performance of 'being machine'.[21] As more of her brain power is unlocked Lucy begins to talk monosyllabically, has a new clunkiness to her walk, and blankness to her expression. Pressing on the visual metaphors for becoming machine, the film is most spectacular in the colourful, dramatic, lengthy ways we watch Johansson's face dissolve. In a particularly notable scene, where her capacity is at 40 per cent, Johansson is on an airplane demonstrating her increased affinity to technology, through her relationship to laptops. Johansson's hands are shown typing on two laptops at once, sped-up, ostensibly to emphasise that the distinction between her ontological body and the machines she is using is disintegrating. Here, the technological as tool for the human subject dissolves into bio-technical assemblage. Johansson's hands attract the confused attention of a fellow passenger, who marvels at her improper use of technology. Johansson is approached by a cheery flight attendant who requests that she put her laptops away for landing. Johansson's inhuman-ness in this scene is a product of her relationship to the laptops, but also her affective difference to those around her. Unlike the man's astonished face, Johansson's registers nothing – she blinks awkwardly in time with the screen's flashing. Unlike the flight attendant's cheery disposition, Johansson is monosyllabic, not even lifting her head to communicate face to face with the attendant. She is past communicating with those around her and illegible to them. As she goes to drink her glass of champagne, this otherness becomes a disintegration. She loses a tooth in her champagne glass and her hand begins to dissolve in front of her eyes.

The digital special effects here make this scene, even as they are put to

21. Christopher Orr, '*Lucy*: The Dumbest Movie Ever Made About Brain Capacity,' *The Atlantic*, 25 July 2014, http://www.theatlantic.com/entertainment/archive/2014/07/life-is-futile-so-heres-what-to-do-with-it-according-to-lucy-a-spoilereview/375006/.

use to unmake Johansson's character. The digital play with undoing the body of Johansson is again taken to the comedic extreme, as she runs toward the toilet and can barely muster enough ontological certainty to flip the 'occupied' latch. Once the painfully long scene of her trying to move the latch concludes, the shot cuts to Johansson's face reflected in the mirror, where she is trying to hold her dissolving face together with her similarly dissolving hands. In the fantastic realm of the film, Johansson devours CPH4 and her face seems to remake itself before she explodes. This immediately cuts to her passport photo in the hands of a Parisian police detective. In this cut, a link is made between Johansson's face being unmade in the airplane toilet and the biometric passport where her face is the site of governmental identification. There is a suggestion then, that without this face, or in the case of its undoing, Johansson's ability to be governed and surveilled by the law is similarly undone. The face's undoing is at once horrifying, freeing, and technological (both in the diegetic of the film and in the digital technology that enables this scene). Johansson's underperformance is compared to the overperformance of the special effect. There are computer generated effects throughout all three of these films, but the ones that register most effectively are the ones that de-centre the certainty of Johansson's face, showing instead the variable ontology of the digital image.

The film gives away a final gesture of unease with the face as technology – as infinitely malleable, non-essential, of no origin – with its final two sequences that reaffirm the sanctity of the white female celebrity face and re-establish its import for the ongoing reproduction of humanity. Once Lucy realises that she cannot sustain her human form she is on a mission to impart all the wisdom her 100 per cent brain capacity has engendered, and to get this to a group of scientists led by Professor Samuel Norman (Morgan Freeman). In order to get as much from her power as possible, Lucy overdoses on CPH4 in a sequence even more spectacular than the airplane: we see what Lucy sees, the 'whole' of human history – Time Square throughout the ages, the formation of the solar system, the dinosaurs, the first mammals. This imaginary is intercut with Lucy becoming machine, finally: she turns into a black liquid supercomputer that eventually spits out a USB stick containing the sum-total of human knowledge to be. We want to linger here on the similarities between *Under the Skin* and *Lucy* in their visualising of otherness through blackness. As Marc Francis notes, Johansson's 'repeated resignification' 'into blackness' poses a 'worrisome dilemma'.[22] As with *Under the Skin*, blackness indexes plasticity or technological matter. Yet, because *Lucy* explicitly situates itself within an evolutionary discourse, blackness here perhaps more than in *Under the Skin*, indexes the film's inability to develop or engage with racial politics. From the undifferentiated Asian 'baddies' to the Chinese prison graffiti that translates into English as the names of fruits, *Lucy* has been rightly critiqued for its racial politics. Perhaps most shocking is its clear message that human evolution reaches its pinnacle in white femininity. This is expressed through

22. Mark Francis, 'Splitting the difference: on the queer-feminist divide in Scarlett Johansson's recent body politics', *Jump Cut: A Review of Contemporary Media*, 57, 2016.

the relationship between the female hominid 'Lucy' and Johansson's character – during her time travels Lucy reaches out her hand in a Michelangelo-esque attempt to touch her distant relative. As Olivia Cole puts it, this scene, with no nuance whatsoever, represents 'humanity at its beginning, and then humanity at its end, at its most perfect. Blonde, white and blue-eyed'.[23]

Such an image of white supremacy makes the close-up scene of Johansson turning into black machinic matter all the more arresting. As the camera closes in on Johansson's face, with the blackness creeping up from her neck, the film attempts, similarly to *Under the Skin*, to keep this transformation from white to black separate from racialisation. As Andre Seewood notes, Johansson's 'becoming' racially marked as black is elided through the close-up cuts:

> Besson avoids emphasising the racial nature of this change by shooting the transfiguration in isolated close-up shots. We see a part of her leg, a part of her arm, a cheek and an eye socket, but not the entire wondrous change from White to Black.[24]

Johansson is never allowed to be black, even as she becomes machine. As with *Under the Skin*, the blackness that we are left with in both films is never a racially marked subject, but rather always the non-human. The narrative of technological becoming evident in both films is inseparable from race, yet, race is the unspoken becoming that neither film can adequately incorporate. The making and unmaking of Johansson's face in these films determines the white privileged celebrity face to be the currency of new media face culture. Even as the subject here is whiteness, the blackness which takes over Johansson's face (specifically the black matter of digital media), inevitably recalls, without being able to account for, the ways that beyond the cinema it is people of colour that are disproportionately the subject of new media surveillance apparatus trained on faces.[25] Both films are full of missed opportunities to interrogate the links between race and technology, or, to return to Chun, the way that race is a technology, even as they are unable to visualise technology without reference to racial difference.

## THE ABSENT FACE

*Lucy* and *Under the Skin* represent the face as a dissolving object: unmade and re-made by digital technology, which always makes the face, while also always potentially threatens to undo the promise of the face as site of identification. In Spike Jonze's film *her*, these questions once again play out, albeit this time through the absence of Johansson's face. The film follows a twee man, Theodore Twombly (Joaquin Phoenix), who falls in love with his new operating system, voiced by Johansson. The film opens by asking the audience to consider what the relationship is between the human face and a new media interface. The scene is a soft-focus close-up of Phoenix's face, a

23. Olivia Cole, '*Lucy*: Why I'm Tired of Seeing White People on the Big Screen', *The Huffington Post*, 28 July 2014, http://www.huffingtonpost.com/olivia-cole/lucy-why-im-tired-of-seei_b_5627318.html.

24. Andre Seewood, '*Lucy* and the Absence of the Black Race in Origin of Humanity Theories', *IndieWire*, 7 January 2015, http://www.indiewire.com/2015/01/sa-2014-highlights-lucy-and-the-absence-of-the-black-race-in-origin-of-humanity-theories-235471/.

25. See Simone Brown, *Dark Matters: On the Surveillance of Blackness*, Durham, Duke University Press, 2015 and Rachel. E. Dubrofsky and Shoshana Amielle Magnet (eds), *Feminist Surveillance Studies*, Durham, NC, Duke University Press, 2015.

shot which lasts over a minute as Theodore narrates a letter that he produces in his job as a professional writer of other people's love notes. The shot of Theodore's face then becomes a shot of his computer screen, prompting from the first minutes of the film a juxtaposition between the human face and the interface of the screen, inviting a reading of both as technology. Theodore's exaggerated emotional performance, which in this scene and throughout the film is frequently shot as a close-up, invites scrutiny, and insists on the face as something 'that is made'. In the cut to the computer screen, we are invited to compare Theodore's made-up face with the explicitly technological interface of the screen. The screen displays a love letter giving us the opportunity to read this other surface as an emotional interface, another kind of face. While here the interface of the screen seems to provide a counterpoint to the human face, asking us to worry about the future of face-to-face relationships, *her*, as with *Lucy* and *Under the Skin*, also points toward the face as a technology.

*her* pushes the face-as-technology into more literal territory, turning Johansson's 'face' into a stylised operating system. The flat affective performance of Johansson's alien or dissolving-into-machinic subjectivity in *Under the Skin* and *Lucy* is here realised as a screen interface. This presents a problem for cinematic structures of feeling. As Jackie Stacey puts it, in the generic history of romance, 'conventionalised femininities have become legible through a repertoire of emotional intensities', or, in other words, emotional intensity registers femininity; in *her*, Theodore's face must do this work.[26] We see this from the opening shot and throughout the film – it is his face that must register the film's emotional content. It is his face we watch falling in love, it is his face we watch in bed, and it is his face that holds the camera's close-up shots. Moreover, we are never allowed to forget that there is something potentially feminine about this. In the opening scene, for instance, we learn that Theodore is writing a letter as a woman. Theodore's ability to signify as feminine is remarked upon numerous times in the film, in particular by his boss, Paul (notably played by the 'dude-ish' Chris Pratt). In *her*, Theodore registers as feminine precisely because he holds/performs intense emotion, shot as close-ups. Theodore, throughout the film, is coded as hyper-emotional, as perhaps too feminine. Here, we see a clear example of how the technologies of cinematic faces are also gendered technologies. The lack of the female face proves particularly troubling in the film's sex scenes. The female face is frequently (and in non-pornographic films) the site where we 'read' sex – in the close-up of the female face in pleasure.[27] The sex scene in *her* involves a minute and a half of black screen while we hear Theodore and Samantha's voices narrating what they would/are doing to each other. In this scene, it is Phoenix's face that dissolves into the black screen (where the past films have placed Johansson's face into proximity with blackness). His face meets hers, producing in the film another mode of technological blackness: the blank cinematic screen. The black-out screen is almost opposite to the cinematic close-up, is not 'a sign, a text, a surface that demands to be

26. Jackie Stacey, 'Crossing over with Tilda Swinton – the Mistress of "Flat Affect"', *International Journal of Politics, Culture, and Society*, 28, *3*, 2015, pp243-271, p224.

27. Annamarie Jagose, *Orgasmology*, Durham, NC, Duke University Press, 2012.

read' (*Close-Up*, p94). Instead, it is a surface that points toward that which cannot be represented – or perhaps to the desire that Phoenix's face cannot hold on its own.

That it is Johansson's face that is missing is particularly important and connects *her* to the previous films we've discussed. Similar to the way *Under the Skin* 'works' precisely through the uncanniness of Johansson as unrecognisable, *her* 'works' because Johansson's voice always reminds us of the absence of her face. This is perhaps why Samantha Morton, originally cast to voice Samantha, was replaced by Johansson at a very late stage in production. Johansson's voice, in ways that lesser known stars cannot, calls to mind the face that is not there. The film further explores this when Samantha has another woman, Isabella (Portia Doubleday), act as a surrogate for her, act as her body in a sexual encounter with Theodore. While it is ostensibly the body that is important, it is the face that is primary throughout the scene. We watch Isabella arrive and, with the help of the camera and the earpiece (which is shot as a close-up), she makes her face (through the addition of technology) into Samantha's. Highlighting the centrality of the face to an affective performance, it is precisely through her face that Isabella ruins the illusion – her body performs just fine. The illusion is disrupted, in Theodore's words, first because he does not know her, but more importantly, because 'her lip quivered'. In other words, we are brought back to the failure of the surrogate's face to be Samantha's (and doubly, the failure of Isabella to be Johansson). This scene to some extent inverts the beginning of *Under the Skin* where Johansson becomes the girl at the side of the road. Both scenes work because audiences know Johansson and her absence disrupts processes of cinematic recognition.

In comparison to *Lucy* and *Under the Skin*, *her* contains a much stronger humanist lament for the face; rather than a play with its dissolution, *her* locates the pathos of a near technological future in the absence of the face. *her*, in ways that are not so much about digital play and manipulation, imagines what the absence of the female face means for cinematic codes of affect. As with *Under the Skin* and *Lucy*, we are brought back to the black expanse, the blank screen and the reconstruction of race and gender and/as technology through the face as technology. *her* is a white film which wills into view a white future for a city (LA) that is statistically unlikely to have one. Moreover, this future is one of complete homogeneity; as Edgar Rivera Colón points out, *her* is a film of 'elite whiteness'.[28] The casting of Johansson is once again key to maintaining the construction of whiteness: because her voice is recognisable the audience understands the 'neutral' software as white and female.[29] When the screen goes to black Johansson is once again visually 'resignified'. Reappropriating Hildebrand's description of moments of blackness in *Under the Skin*, we might consider the moments of cinematic blackness in *her* as such an about turn in the aesthetic schema – which is not just full of white bodies but tinted an Instagram-rose – that it appears as an 'embodiment of blackness [...] so blatant

28. Edgar Rivera Colón, 'Spike Jonze's Her: Loneliness, Race, & Digital Polyamory', *The Feminist Wire*, 3 March 2014, http://www.thefeministwire.com/2014/03/her-film-loneliness-race-spike-jonze/.

29. It is notable that Scarlett Johansson's recent role as the Japanese character Major Kusanagi in the live action remake of *Ghost in the Shell*, has been criticised as whitewashing and imagines again whiteness as technological neutrality.

[...] it becomes difficult to understand the metaphor in any way other than as racialised, the embodiment of difference' (*Matter of Blackness*). Here the difference is marked by blackness as also an invitation to listen more closely, which ironically throws us back into the act of recognising the absent white celebrity face of Johansson. Once again, the face (here in its absence) is the technology by which we recognise the individual human as technologised and the difference of human and machine is upheld through a visual connection of the machine to a blackness that makes whiteness—technology and/as race.

## CONCLUSION

In this essay, we have been interested in the particular relevance of the face for thinking through issues of identity as a technological mode. Dominant critical writing about the face in an emergent global face culture has turned to subversive art-making practices as a primary site through which to think these conditions. We insist, through our focus on Johansson's recent films, that Hollywood and new media celebrity culture are equally vital sites for exploring the politics of the face as technology. Indeed, the face in cinema is just as much a digital object as the face as produced by social media or biometric surveillance. In narrative cinema though, and in the recent films of Scarlett Johansson, the face is never just object, it is also always narrative. Here then, we are able to witness the face as an object in flux, as something that is made and remade in relation not only to its relationship to technology but also discourses of race and gender. The turn to narrative cinema enables us to account for not just the face as a technology, but also what faces signal about the presence of new technologies. To return to our opening example, responses to Ma's Mark 1 reveal how often the dangers and pleasures of new technologies are figured through the face. Mark 1 is a feat because of the way it reproduces Johansson's face and it is also dangerous because of the way it reproduces Johansson's face. In popular culture, the figuring of technology through a face is often bound to protecting norms and privileges, in particular of securing whiteness and femininity as intrinsically human traits under threat from new technological formations. The face is central to contemporary fantasies of digital media. Through our analyses of these films we identify a tension at the root of this fantasy, which proliferates through culture more broadly: a tension between a conservative impulse to understand the face as a privileged site of human encounter, and conversely, a desire to encounter the face as a radical site of instability in our technological present.

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