Everything is Animated: Pervasive Media and the Networked Subject
Beth Coleman

The online version of this article can be found at:
http://bod.sagepub.com/content/18/1/79

Published by:
$SAGE

http://www.sagepublications.com

On behalf of:
The TCS Centre, Nottingham Trent University

Additional services and information for *Body & Society* can be found at:

Email Alerts: http://bod.sagepub.com/cgi/alerts

Subscriptions: http://bod.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

>> Version of Record - Mar 28, 2012

What is This?

Everything is Animated: Pervasive Media and the Networked Subject

Beth Coleman
Harvard University, USA

Abstract

In a world of pervasive media and ubiquitous computing, this article asks what happens as everything (objects, subjects, and actions) moves toward animation across a network. How do media and mediation affect our sense of agency? I argue that the contemporary subject, as described by real-world media practice and animated film, exists within a space of accelerated mediation that distorts self-perception. I use the example of *A Scanner Darkly*, the 2006 Richard Linklater film, to discuss the effects of pervasive media and how it affects the parameters of self-reflection and agency. The importance of *A Scanner Darkly* to my argument is that it provides a vision of pervasive mediation in which subjects and objects collide. In *A Scanner Darkly*, I focus on the use of rotoscoping animation as visual effect and conceptual filter. Effectively, as I argue, animation is used in this case to illustrate the loss of face-to-face engagement – the impossibility of the unmediated encounter. In the first section of the article, I conceptualize a networked subject in reference to the film's rendition of a subject adrift in a field of mediation. In the second section, I contrast this vision with a formulation of networked subjectivity that engages modalities of mediated presence to explore issues of agency in light of a technologically animated environment. The question I ask is: if as a society we are subjected to a pervasive mediation, how may we imagine modes of agency within an animated world?

Vague Blur: The State of Animation in Network Culture

Everything is animated. Such is the proposition of a distributed network (the Internet) and the fate of distributed media (the contents

---

Corresponding author:
Beth Coleman
Email: bcoleman@mit.edu
http://www.sagepub.net/tcs/

or communication that move across the network). For example, we now live in a world where objects count themselves. Whether it is with RFID tags or another kind of sensor, one finds information systems that track in real time objects whose presence can be read by satellite, radio, or scanner (Bleeker, 2006; Sterling, 2005). In effect, one sees the emergence of a world in which all forms (objects, actions, and capacities) can be automated. The Internet of Things is the name of a growing movement in media design in which sensor-linked objects, actions, and capacities are tethered to a network, describing such a form of automation. These are networked technologies that mark the arrival of what I am calling a pervasive media.

In introducing the term 'pervasive media', I borrow from the language of computer science where pervasive computing, also known as ubiquitous computing (ubicomp), is an established field that looks at computing for a mobile and smart world (Coleman, 2011). This is the world of the Internet of Things, a sensor-relay world that has moved beyond the desk-based personal computer and assumes an informational mantle across the environment. With ubicomp the computational work of information processing is integrated into objects, activities, and sites of the everyday.

Implicit in the logic of the Internet of Things is also an idea of the sensible object: the formerly dumb thing newly animated with a network intelligence. The threat of an animated world works something like this: if objects are automated (are given an appearance of autonomous action), then how may one comprehend, in this context, the autonomous actions of an agent (a self-aware actor)? It is this space of the thing becoming sensible and the human subject, as a subject of a network culture, becoming more thing-like that I investigate here. To this effect, I address the risk of pervasive media as the risk of an interpellation as object rather than subject.

With the concept of pervasive media, I contextualize my reading in relation to recent scholarship on the material fabric of distributed networks as well as the increasingly porous relationship between public and private spaces as a shift in societal configurations of power, affect, and agency (see Galloway and Thacker, 2007; Hayles, 2009a, 2009b). Additionally, I address directly in this article foundational theoretical work on the subject of ubiquitous media/mediation (Baudrillard). My primary point of differentiation from the existing

literature in the field is my focus away from power and control as the locus of a pervasive media society, with a shift toward the possibility of agency in the context of hypermediation. Later in the article, I discuss the work of socio-cognitive psychologist Albert Bandura as a potential model for such an engagement of mediated subject as agent and not exclusively object.

I take the film *A Scanner Darkly* (Richard Linklater, 2006) as a key text to my analysis that offers vivid rendition of issues of animation and automation in a time of pervasive media. Using a rotoscoping animation technique revamped for the digital age, the film frames a world where, indeed, everything is animated. Based on the Gnostic speculative fiction of Philip K. Dick (the eponymous 1991 (1977) novel), in the dark vision of the film one sees the subject – the agent of a speculative near future – reduced to a thing on a network. In its *mise-en-scène* and narrative themes, the film literally animates a crisis of mediation wherein the threat of pervasive mediation (expressed as the loss of face-to-face engagement) is equivalent to the dissolution of subjective agency. I argue that animation, and specifically the Rotoscope technique, is used in this case to illustrate the impossibility of the unmediated encounter.

I am proposing that *A Scanner Darkly* demonstrates the place of animation in a network culture that is accelerating toward the obfuscation of the subject, blurring the lines between the thing and the self. In *A Scanner Darkly*, I focus on the use of rotoscoping animation as visual effect and conceptual filter. I draw an analogy between the historical filmic technique of Rotoscope – drawing from live action for an animation – to reflect on the current emergent state of a simulation of live-action – an auto-animation – that one finds increasingly in the world itself. *A Scanner Darkly* engages Rotoscope to illustrate a vision of how the networked subject may be borne out. But its history in animation is a long one, with diverse effects. Invented by animator Max Fleischer, Rotoscope is a technique in which a motion is drawn from live-action (usually a film source) and then broken into still frames to be re-animated as cels. Fleischer created the form in 1914 and applied it to the experimental series *Out of the Inkwell* (1918–29), but it was not until the 1930s that the technique was popularized in animated films such as Disney's *Snow White* (Disney, 1937; see Leslie, 2002). The Rotoscope technique used in *A Scanner Darkly* is a digital process called Rotoshop. It is an animation based

on the photographic image that looks so real that one blinks twice. In effect, Rotoshop produces a kind of gossamer over the film, silkily linking all objects in the frame. One keeps wiping the cobwebs from one's eyes but for the viewer, as for the film's protagonist Bob Arctor, there is no clear vision.

In *A Scanner Darkly*'s use of Rotoscope to describe a world of mediation, the film links animation (a filmic one) and automation (a machinic one). It is the second time that director Linklater has used rotoscoping through the entirety of a feature-length film. *Waking Life* (2001) was the first, and the technology has advanced since then: the texture of skin, the play of light on surfaces, and the nuance of the technique produce uncanny effects. Where *Waking Life* used Roto-shop to create the gentle amble of lucid dreaming, with *Scanner* there is a turn toward the grotesque. We get a vision of what happens when cartoon characters hallucinate. With the use of an updated Rotoscope as the ubiquitous filter through which one sees the film, technique and narrative, I argue, are intertwined. The significance of such a suture speaks to a quality of contemporary networked media where one finds, increasingly, a combination of the animated and the automated.

The importance of *A Scanner Darkly* to my argument is that it provides a vision of pervasive mediation in which subjects and objects collide. Effectively, as I contend, animation is used in this case to illustrate a loss of the face-to-face engagement – the impossibility of the unmediated encounter. In the first section of the article, I conceptualize a networked subject in reference to the film's rendition of a subject adrift in a field of mediation. In the second section, I put forward a conception of mediation and agency that contests some of the dominant theories of hypermediation (what I am also calling pervasive media) as described by philosopher of postmodernity Jean Baudrillard and others.

Signs of Life

In the history of media, animation is the illusion of movement. A series of still images is made to look as if it constitutes one fluid gesture. If one looks at the pre-technical use of the term, 'animation' is that which imparts life or the sign of life to something that had been static (*Oxford English Dictionary*, 1989). In thinking about

animation and automation, I am tracing a line from a pre-mechanical concept of animation as anima through its construction as a filmic technique (with a focus on the rotoscopic 'drawing from life') to the present moment when one finds an animated world in which computational automation allows for a technological network of enlivened actors (what I have described as an Internet of Things).

My analysis draws on the work of media theorist Vivian Sobchack on animation, automation, and speculative fiction in film. In her essay 'Animation and Automation, or, the Incredible Effortfulness of Being', Sobchack defines the terms 'animation' and 'automation' in relation to each other, drawing on a history of cinema and modern mechanization as well as an increasingly pervasive presence of computational automation. She writes:

> [animation] entailing (in often vexed ways) not only movement and life but also a form of cinema and cinema as a form ... [and automation] entailing not only self-moving, mechanized systems devised to replace human labor but also the modern cinematic–animatic apparatus. (2009: 375)

In her comments, she theorizes a link between the animation of the world as such in relation to an enervated and entropic subject (her example is the science fiction animation *Wall-e* (Stanton, 2008)).

Particularly in the first part of my analysis, I draw upon Sobchack's schematic of animation as both spirit (anima) and mechanical auto-production (the machinic). In focusing on Rotoscope animation in relation to a modality of pervasive media, I add to this discourse an analysis of accelerated mediation in filmic and worldly experience. I contend that animation across an informational network links the technological and mythological senses of animation, bringing the semblance of sensibility to things that had been dumbly mute. And that is a newly powerful way in which everything now becomes animated. Animation adds life to objects, albeit a synthetic life. With people, conversely, it can reduce life, the agent assuming a position closer to instrument. In effect, one may ask: how might a societal animated (an Internet of Things) affect the self-directed mechanism by which we animated ourselves? What I see in a film such as *A Scanner Darkly* is an exploration of precisely this issue, where a world system of perpetual mediation distorts perception as part of a procession of simulacra – an animation of self replaces the autonomy of agency.

Figure 1. Let's hear it for the vague blur: *A Scanner Darkly*'s Bob Arctor, undercover narcotics officer and drug addict, in his scramble suit.
Source: Paramount Pictures.

Figure 2. The man in the media mirror: inside the scramble suit Arctor (Reeves) begins his search for himself.
Source: Paramount Pictures.

Let's Hear it for the Vague Blur

As a film, thematically *A Scanner Darkly* plays with a loose boundary between a quotidian media engagement and the experience of

Figure 3. Scanner live: the world seen through a haze of surveillance technology and paranoia.
Source: Paramount Pictures.

media excess that is like a drug addiction. To achieve this expression, the live-action film is processed entirely through rotoscoping animation, making vivid the madness the film channels: it illustrates a dementia by media.

The film tells a classic story of a man in search of his true identity. *A Scanner Darkly* is the hero's tale turned inside out, where the quest leads to greater opacity of self and world. It is the hapless Bob Arctor, also known as Fred and 'vague blur', who is the anti-hero of the narrative. Arctor, undercover narcotics officer and Substance D addict, is assigned to spy on himself. (The slurring of 'actor' and 'Arctor' is one that the film plays on.) In the film, we see that splitting by way of animation. The pervasive Rotoscope overlay of *A Scanner Darkly* creates a perceptual distance between subject and subjective representation and visually echoes the film's thematic concerns. In effect, everyone is their own avatar, an image of themselves. And, the consequence of such self-alienation is a subject who literally cannot collect him- or herself; identity is so splayed across a network that it is only the data collection agency of the state that holds the full picture of who a subject may be.

When we first encounter Arctor in the film, it is in the persona of Fred, the narcotics officer, who is only recognizable by his scramble suit – a suit of many colors that keeps morphing shape and image to

look like no one in particular, a 'vague blur'. The film viewer is let into the suit to meet 'Fred' for the first time when he is giving a speech. We are momentarily reassured that there is a person we can recognize, the actor Keanu Reeves as a matter of fact. A point-of-view shot from inside the suit then signals to the viewer that the speech is a live transmission, part of a network of surveillance operation. 'Fred' begins to veer off his set speech (a cautionary tale about drugs), and he is prompted by a voice in his head to continue on script.

It seems that this voice is the voice of headquarters or some other Panopticon-like authority. Yet, by the time we get to the end of the film there is no reassurance that it is not one in a long line of audio-visual hallucinations. The direct result of a ubiquitous roto scoping of the live action is the flattening of the world. There is no foreground or background, no agents or world, but rather a visual mesh of one complex multicolored pattern. Using Rotoscope as the technique to portray the dual influences of drugs and media, the film loses any depth of field.

Essentially, *A Scanner Darkly* applies Rotoscope in a reverse process where drawing from life becomes a process of losing touch with the real rather than inscribing it into another form of representation. On the visual plane, the value of the body as a marker of the real floats away with the animated signal. In the case of *A Scanner Darkly*, the link between animation and automation is one of dissolution, where losing distinct boundaries of form predicts the loss of subjective autonomy.

Networked Subject

I use *A Scanner Darkly* to represent the threat of an accelerated mediation in the emergence of a pervasive network. I have suggested that networked media allow one to understand one's environment as synchronous data streams in addition to the sensorally perceptible. In building out a network of things, the thorny point that arises is that, in animating everything, we put at risk the position of agency; we alter what had been the terms of autonomy as such.

For the purposes of this analysis, I define agency in terms of how one might understand oneself as an actor in an environment and how one's effect on that environment might be gauged. My definition builds on the model of emergent interactive agency defined by

psychologist Albert Bandura (1986, 1989). He describes a subject that is neither a mechanical instrument, responding slavishly to the environment, nor a fully autonomous monad, perfectly self-determining. Rather, his theory of interactive agency assesses an actor in context. 'Personal agency', he writes, 'operates within the interactional causal structure' (1989). With this concept he describes a subject both contingent on the contextual yet also self-organizing and capable of self-determining action. With regard to my analysis, I do not engage Bandura's conceptualization of agency as a form of scientific evidence with which I scaffold a theory of pervasive media. On the contrary, in the spirit of what media theorist Brian Massumi has called 'shameless poaching' of scientific discourses for humanist theory, I appropriate Bandura's model of agency from one context (socio-cognitive psychology) to that of cultural theory, where I use it to explicate possibilities of freedom of movement in the context of a pervasive surveillance culture (for an extended discussion of humanist appropriation of scientific concepts see Massumi, 2002; Papoulias and Callard, 2010). In other words, I reference the conceptual framing of an 'emergent interactive agency' as a site to rethink the theoretical terms of agency in relation to a hypermediation as opposed to an experimental practice.[1]

I frame such a conceptualization of emergent interactive agency in the belief that it allows for greater latitude in reading sites of agency in the everyday engagement with pervasive mediation. As I have posited, my analysis is based on a reframing of the loss of face-to-face communication as a re-imagining of the co-present (mediated communication) toward an understanding of contemporary practices of agency. Given a world of increasingly 'smart' sensor-enabled objects, as I have defined the Internet of Things in their aspect of pervasive media, one may reflect on the terms of autonomy in self-organizing or self-determining (to use Bandura's criteria). Without revisiting the history of artificial intelligence, one may still state that things now behave with increasing self-animation.

In looking at the role of animation in contemporary network culture, I see its logic – the making animate of the still image or object – applied to all manner of things, places, and people. As we continue along a trajectory of pervasive network media use, as subjects we are increasingly participants – knowingly and unknowingly – in a world in which our actions, words, and location are included in an

expanding pool of personal data. The problem one encounters with this metamorphosis of thing to being is that the pull moves equally in the opposite direction wherein the being becomes thing. The idea of an autonomous agent, one who moves freely or chooses freely, is certainly altered, if not abandoned in a context of creating a networked subject.

I am suggesting that this shift in status, power, and affect represents a critical change that must be comprehended in relation to an emergent network society. A networked subject, I would contend, is the subject of the contemporary age, what is described by sociologist Manual Castells (1996) as the network age in which identity, behaviors, and community are all affected by the global adoption of connected communication technologies. In a network society, if everything moves toward being animated as information, then we must also look to see the ways in which subjects may be interpolated into a system of things. The threat is that we are rendered as information; in pervasive mediation, we animate an image of ourselves (an avatar) that becomes part of a procession of simulacra.

The phenomenon of animating the world presents an inversion of the Althusserian mechanic of interpellation, wherein we are conscripted into a network that we can neither discern nor control. In the Althusserian model, the subject comes into being after being hailed by the law; the cop calling out 'Hey, you there!' is the moment that defines the parameters of subjectivity (Althusser, 1971). With *A Scanner Darkly*, the law, as represented by the narcotics officer, only succeeds in further obscuring the subject, opening an increasingly porous boundary between subject, world, and simulation. In effect, the world of pervasive media in which the networked subject participates is an animated one, but one that may actually be experienced more as a nightmarish distortion of the world than an amusing cartoon.

One of the most influential postmodern thinkers of pervasive mediation, Baudrillard (1981) expresses in his theory of the procession of simulacra – a theory he formulated before the event of mass adoption of networked digital media – the idea that western culture is already lost in the haze of simulation where we mistake the map for the territory. Baudrillard describes the procession of simulacra as a fact of the postindustrial world. And, I am suggesting, we have seen an augmentation of mass communication media (the context Baudrillard's

critique) with network technologies, drawing a broader technological domain of mediation and simulation.

In my example of the film *A Scanner Darkly*, I see a graphic display of the Baudrillardian critique of mediation as an act of simulation that leads to a loss of subjectivity. In my reading of the film, one literally sees an animation of a disappearing subject in the haze of pervasive media and drugs. The world becomes increasingly *affective*, with animated environments, objects, and surveillance networks even as the subject becomes increasingly inert and object-like.

In this sense, *A Scanner Darkly* represents the threat of accelerated mediation as the loss of the primacy of self, of bodily autonomy, and, most expressively, the loss of face-to-face proximity. The primary example of this is Arctor in his scramble suit as he automatically cycles through a series of hybrid personas. As with many Dick plots, the denouement is triggered by Arctor's realization that he himself is the man he is looking for and that there is no exit from these veils of simulacra. To see through a glass darkly, or in this case a multitude of screens, is to see the world as such. The promise of deliverance, a return to face-to-face, is not offered in this vision. There is no antidote to media as drug and drug as pervasive medium, only exacerbation.

Loss of Face-to-Face

If one hearkens to the vision of Dick, the muse of millennial western cinema (*Blade Runner*, *Minority Report*, *Total Recall* … the list goes on),[2] this affective environment is the result of collective bad conscience. Drugs, paranoia, surveillance, and the power of anonymity (or mutable identities) dissolve the subject of this southern California futurism as surely as acid eats through celluloid. Animation and a delirium tremens of identity go hand in hand. In true Dickian style, the novel crests in a monumental effort to link biblical lore with psychedelic swinger. The Gnostic strain in Dick's work, where the given world is mere appearance – a simulacrum of the real – alludes to the passages from 1 Corinthians from which the title is taken.

> 13:11 When I was a child, I spake as a child, I understood as a child, I thought as a child: but when I became a man, I put away childish things.

13:12 For now we see through a glass, darkly; but then face to face:
now I know in part; but then shall I know even as also I am known.
(King James Bible)

In the course of the novel and the film, we learn that there is no
face-to-face. We watch as animated faces blur into each other,
cloaking and blending identities. The subject of pervasive media,
the networked subject, becomes a subject without qualities or def-
inition. This is the threat of a society of accelerated mediation: one
loses body (face) as an index of the real. In the second half of this
article, my goal is to contrast this vision of the abject subject with a
formulation of networked subjectivity that engages modalities of
mediated presence. My interest is in exploring possibilities of
agency in light of a technologically animated environment. In other
words, if as a society we are subjected to a pervasive mediation,
how may we imagine modes of agency within an animated world?

Old School Pharmacopoeias: The Logic of Hypermediation

Even as I have used the example of *A Scanner Darkly* to frame a
threat of accelerated mediation, I use the same animated film to look
at what I am positing as the possibility of accelerated mediation. In
other words, what are the possibilities of a networked subject outside
of a diagnosis of objectification, inertia, and self-alienation? To do
so, I draw a connection between the history of media technology
design and its use as illustrated by the hypermediated society the film
describes. Toward this purpose, I discuss briefly the rhetorics of face-
to-face engagement as a trope of the *unmediated* in the scientific
language of human–computer interaction (HCI) as well as aspects
of a sociology of technology.

The value of the face-to-face, I contend, is often placed in scientific
discourses in a binary relation to that of the mediated; that is, the
mediated is located in opposition to the 'real', and the two rest as dis-
tinct, recognizable states. I am suggesting that this binary logic must
be rethought as we move forward in a network society. Additionally,
I theorize a logic of the pharmakon – a double valence of a technique
or technology – as it plays out in *A Scanner Darkly* and as an emblematic
logic of networked mediation. I argue that the 'old school pharmaco-
poeias', as stated in the film, may be reoriented in thinking of a

networked subject that maintains agency within the scope of pervasive mediation.

I pursue the idea that the antidote to accelerated simulation may be more simulation. In discussing a world of pervasive media, I characterize 'more simulation', in this case not so much in a technical valence but in a framework of how agency may be manifest in the context of ubiquitous animation. My question is: how, in fact, might the networked subject understand him- or herself as an autonomous agent within the frame of pervasive media and mediation? In answering that question, my initial steps here are to return to a concept of face-to-face interaction as the apex of human communication.

Across various technological and humanist discourses the figure of the face-to-face is one that signifies an unmediated communication – a communication of pure presence as such. In keeping with the biblical passage from which *A Scanner Darkly* derives its name, as quoted above, one finds an explicit reference to an antediluvian time when people engaged in a communication without mediation. In order to rethink the values of agency and engagement in a time of pervasive media, I would like to problematize this construction of a prior, unmediated (pre-technological) time to which the film alludes.

In my reassessment of face-to-face as a trope of the unmediated, I focus here on a recent (and recognizably technological) history of HCI. I am suggesting that key discourses from the 1990s to the present in that field have performed central roles in modeling language around technological engagement for the broader society. In doing so, HCI continues to frame human presence as the corporally proximate: to be there is to physically occupy a shared space. In much of the HCI literature (and in the common sense of daily practice) one finds the general assumption that face-to-face communication is always superior to technologically mediated communication.

In her paper 'More Than Just a Pretty Face: Affordances of Embodiment', HCI scientist Justine Cassell states this proposition directly: 'If you have something important to say you say it face-to-face' (2000: 52). Other scientists working in HCI and information visualization, such as Ben Shneiderman (2002), who has helped to lead the field, concur. The thought is that technological mediation fails to replicate the nuance, the touch, and the multisensory aspects of a face-to-face encounter. In my analysis, I see this elevated status of the face-to-face as reflecting more about the technological

aspirations of computer science (a perfect simulated realism) than it does about how people actually communicate with each other, which, I am suggesting is pervasively, imperfectly, and innovatively (Coleman, 2011).

This same mentality, I put forward, is mirrored in adjacent fields. In keeping with the HCI valuation of a prelapsarian face-to-face, sociologist of technology Sherry Turkle (2011) has recently described the age of pervasive media as a fugue state of being 'alone together', where we have lost the ability to engage each other face-to-face. She casts increased mediation as a causal factor in increased isolation at a societal scale. I would suggest, to the contrary, that we must view the accelerated mediation of the early 21st century as a repositioning of the subject. I argue that there is no return to a bucolic face-to-face, an unmediated world, as Turkle suggests, if it ever existed in the first place. In this sense, Baudrillard's critique of simulacra is irrefutable – there is no limit as such to simulation. In addressing the possibilities of pervasive media, my interest is in identifying moments when the appropriation of a media technology – as opposed to a technological perfectionism – may be seen as an affordance of agency.

I am suggesting a re-assessment of mediation technologies along lines that replace the binary distinction between real and simulated (and the implicit technology-driven desire to make the simulated the real), wherein one may experience a spectrum of mediation within the terms of agency. If indeed we are society caught in an endless procession of simulacra, as *A Scanner Darkly* and theorists such as Baudrillard suggest, perhaps we might recognize the critical function of a spectrum of mediation and, not merely, repetitively, a continued lack around the loss of the face-to-face. I say this not in the spirit of a cold-heartedness – with regard to a loss of affect and affection for each other – but in the recognition that, indeed, many of our most passionate and engaged utterances occur in short bursts of texts or images small enough to be sent across mobile devices. In effect, we shift the frame of the conception of mediated face-to-face away from a technologically driven one (where an 'intelligent' or 'automated' software drives the agent) toward a conception of social softwares and mobile computing with which people address each other across media channels.

This is a logic, I am suggesting, already at play in even such pessimistic speculations as *A Scanner Darkly*. The 18th-century figure of the Panopticon described the emergence of a surveillance society,

where the subject learned to imagine an all-seeing, centralized control. The discourse of a centralized state control (which becomes self-monitoring) certainly exists in contemporary society even as it is mirrored and amplified in the film. But that specific configuration of pervasive media as a pervasive surveillance may actually only address one societal filter among others as we move into a networked age. I am proposing a logic of the spectrum as opposed to absolutes in addressing pervasive mediation; it is a logic that emerges in *A Scanner Darkly* in the play of the pharmacological where the internal state of drug addiction corresponds to the external state of surveillance as a conflation of mediations.

James Barris, the drug-addled character played by actor Robert Downey Jr., makes explicit the twin topoi of the film in linking the escalation of drugs and surveillance as forms of pervasive mediation. As Barris states in the opening credits of *A Scanner Darkly*, 'Like the old school pharmacopoeias, a tolerance develops. These visions of bugs are just a garden variety psychosis.' In dialogue such as this and the hallucinatory use of Rotoscope as a visual filter throughout, *A Scanner Darkly* makes clear that the outside world mirrors the interior drug experience with visions of a surveillance network. Barris continues in this vein, 'Seven years from now everything you do will be recorded.' In my analysis of the networked subject, I hear in Barris's invocation of 'old school pharmacopoeias' a dissolution of the subject (the becoming junkie) but also an opportunity for the reimagination of subjective position. In other words, there is a possible diagnosis other than psychosis for how one might experience accelerated mediation. I am, in fact, putting forth the idea that in the case of ubiquitous mediation the poison may be the remedy.

Pharmacopoeia is an index of drug-making, a reference to a pharmacological practice that guides one on subjects such as ingredients and dosage for a remedy. Or a poison. If one follows the logic of media as drug addiction – the pharmacopoeia of *A Scanner Darkly* – Barris describes an exacerbation of the malady (further addiction) as a possible cure itself ('a tolerance develops'). In Barris's invocation of pharmacopoeia, I hear a type of pharmakon. In other words, he speaks to a blending of poison and remedy that the double meaning of pharmakon offers (Derrida, 1981).

In relation to my argument regarding the networked subject, I see a logic of the pharmakon at work in a pervasive media society where

the ailment is hypermediation (Baudrillard's hyperreal as it were) and the remedy is also a mode of augmented mediation. With this perspective, I am positing a technological augmentation, an augmented reality, where we recognize a changed societal valuation of face-to-face. The primary difference between a figure such as the hapless Bob Arctor, who has lost his way as an actor, and a networked subject, as I have begun to trace here, is a faculty of personal agency in light of a world that is already animated.

I would not volunteer a schema that outlines for whom this position of networked subject is available. On the one hand the networked subject is an emergent position, in the sense of continuously becoming; one the other hand, a network society also carries the traces of history – that is, we do not leave behind the historical instantiations of who might occupy the position of subject within a society. And yet, my purpose in advocating for an understanding of an animated world in which one participates as networked subject is expressly an advocacy around conceptualizations of agency that might be framed in moving toward a reassessment of human communication and machine augmentation. In the face of an autonomous animation of things, instead of what has been theorized as a seemingly unstoppable progression toward an inertia of the human subject, one may also engage other modalities of agency.

In a world animated by networked mediation – effectively a ubiquitous mediation – I am suggesting that we recognize the formation of pervasive media systems as a regular supplement to face-to-face encounters. The mediation does not substitute for physical and proximal contact, but it does provide specific forms of augmentation that extend one's realm of engagement. The distinction I am making is between an unmoored identity, the 'vague blur' as such, and an augmented one. In short, networked subjectivity may offer meaningful sites of actual engagement. In my articulation, the actual describes sites of engagement that are neither real nor virtual but spanning territories. It is a logic of continuum in sync with the pharmacological, where the remedy is embedded in the poison.

I am proposing an understanding of augmentation that relates a society of accelerated mediation to instantiations of presence. As opposed to a procession of simulacra that reflects lack, absence, and obfuscation, one might address mediation as extended presence. In this case, presence refers to the sense of being 'someplace', even if

that place is a purely simulated one, such as a shared online environment (Lee, 2004; Schroeder, 2006).

If a medium has a message, as Marshall McLuhan famously pronounced, then the message of the increasingly real-time, visual, and locative media we engage is 'I am here.' I am suggesting that being here does not rely exclusively on a physical instantiation. In other words, neither geographic territory nor corporeal embodiment stand as the exclusive indication of being somewhere, of being present. I am not arguing for an equivalence of bodily, lived experience and experience as filtered through an avatar (a networked proxy). I am arguing for recognition of porous spheres of engagement that meet across a continuum of the actual. My contribution to the protracted debate on the place of media technologies in regard to subjectivity, embodiment (as an index of the real), and society, is a repositioning of agency within the context of a network society that speaks to an augmented reality.

Conclusion: Being There

In the penultimate scene of *A Scanner Darkly*, Arctor describes his experience of waking up next to a junkie who has given him sex in exchange for drugs. In a William Burroughs-like turn, Arctor describes the affect of the woman he wakes up next to as alternately undead and mechanical. 'Every junkie, [Arctor] thought, is a recording,' Dick writes in the novel (1991 (1977)). Arctor speaks of the junkie as a soulless animation of life, a being of mere repetition. And the junkie, in her mechanical responses, shows herself to be just that, a recording, a tape player, an organic Turing machine that will play back any commands as long as they are carefully inscribed on the tape.

In coming face-to-face with this being (the junkie) in the process of becoming-an-object, Arctor suffers his own psychotic break. He has a momentary aphasic shift where his true love Donna Hawthorne (Winona Ryder) appears in the bed like a rock'n'roll Virgin Mary. She is either hallucination or a wrinkle in time, taking over briefly the form of the slumbering junkie. If we have indeed seen into Arctor's inner life, his phantasmic libidinal world, we cannot in truth tell the difference between waking life and dreamt phantasm.

This scene in bed with the junkie presents a tidy synecdoche for the film's miasma of perception: the risk of mistaking one thing for

another – a mechanical being for one's beloved – presents a threat to the subject itself. From the subjective perspective, Arctor cannot discern between states of representation and states of being. From the objective view, the view of the audience as it were, neither can we. I am suggesting that the critical rethinking we must do as a society rests in recognizing the different sites of engagement in which we participate across a spectrum of mediation. In doing so, we potentially gain a contextual understanding of agency. What we lose is the domain of the face-to-face encounter as the exclusive site of engagement.

In a society where everything is animated, one encounters a play of agency outside of the inherited boundaries of autonomy. The term I have used to describe this position is the 'networked subject'. In this new horizon of pervasive mediation it is not yet a foregone conclusion what one may find. There are potentials for new-found spaces of agency. And there are risks of an overall culture of numbness, where people and things are all subjected to simulacra.

Notes

1. The work on this subject by media theorist Constantina Papoulias and social scientist Felicity Callard is particularly illuminating in regard to the need for humanist scholars to demarcate and critically reflect on the use of applied sciences to humanist analysis. They argue that over the past decade there has been a distinct movement in the humanities to reference works of cognitive science and psychology that marks an 'affective turn' in cultural theory and philosophy of technology. In their argument, they caution theorists against using scientific evidence (particularly the biological) as a foundation for culture or cultural analysis.

2. A complete list of Dick adaptations that have been made into film is as follows: *Blade Runner* (Scott, 1982), based on *Do Androids Dream of Electric Sheep?*; *Screamers* (Duguay,1995), based on 'Second Variety'; *Total Recall* (Verhoeven, 1990), based on 'We Can Remember It for You Wholesale'; *Confessions d'un Barjo* (Boivin, 1992), based on *Confessions of a Crap Artist*; *Impostor* (Fleder, 2001), based on 'Impostor'; *Minority Report* (Spielberg, 2002), based on 'The Minority Report'; *Paycheck* (Woo, 2003), based on 'Paycheck'; *A Scanner Darkly* (Linklater, 2006), based on *A Scanner Darkly*; *Next* (Tamahori, 2007), based

on *The Golden Man*; *The Adjustment Bureau* (Nolfi, 2010), based on 'Adjustment Team'; *Radio Free Albemuth* (Simon, 2010), based on *Radio Free Albemuth*.

References

Althusser, L. (1971) 'Ideology and Ideological State Apparatuses', in *Lenin and Philosophy and Other Essays*, trans B. Brewster. New York: Monthly Review Press.

Bandura, A. (1986) *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1989) 'Human Agency in Social Cognitive Theory', *American Psychologist* 44(9): 1175–84.

Baudrillard, J. (1981) *Simulation and Simulacra*, trans. S. Glaser. Ann Arbor, MI: University of Michigan Press.

Bleeker, J. (2006) 'A Manifesto for Networked Objects: Cohabiting with Pigeons, Arphids and Aibos in the Internet of Things (Why Things Matter)', available at: http://www.nearfuturelaboratory. com/2006/02/26/a-manifesto-for-networked-objects/

Cassell, J., T. Bickmore, H. Vilhjálmsson and Y. Hao (2000) 'More Than Just a Pretty Face: Affordances of Embodiment', *Intelligent User Interfaces* 15(3): 52–67.

Castells, M. (1996) *Rise of the Network Society*. Hoboken, NJ: Wiley.

Coleman, B. (2011) *Hello Avatar*. Cambridge, MA: MIT Press.

Derrida, J. (1981) *Dissemination*, trans. B. Johnson. Chicago, IL: University of Chicago Press.

Dick, P.K. (1991 (1977)) *A Scanner Darkly*. New York: Vintage.

Disney, W. (dir.) (1937) *Snow White*. Walt Disney Productions.

Fleischer, D. (producer) (1918–29) *Out of the Inkwell*. J.R. Bray Studios.

Galloway, A. and E. Thacker (2007) *The Exploit: A Theory of Networks*. Minneapolis, MN: University of Minnesota Press.

Hayles, K. (2009a) 'Sleep-walking into a Surveillance Society', *Surveillance and Society* 6(3): 313–16.

Hayles, K. (2009b) 'RFID: Human Agency and Meaning in Information-intensive Environments', *Theory, Culture & Society* 26(2/3): 47–72.

King James Bible (1989) 1 Corinthians 13:11–12. The Project Gutenberg Etext #10. Available at: http://www.gutenberg.org/etext/10

Leslie, E. (2002) *Hollywood Flatlands: Animation, Critical Theory and the Avant-Garde*. New York: Verso.

Lee, K.M. (2004) 'Why Presence Occurs: Evolutionary Psychology, Media Equation, and Presence', *Presence* 13(4): 494–505.

Linklater, R. (dir.) (2001) *Waking Life*. Fox Searchlight.

Linklater, R. (dir.) (2006) *A Scanner Darkly*. Paramount Pictures.

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

Oxford English Dictionary (1989) 2nd edn. Oxford: Oxford University Press.

Papoulias, C. and F. Callard (2010) 'Biology's Gift: Interrogating the Turn to Affect', *Body & Society* 16(1): 29–56.

Schroeder, R. (2006) 'Being There Together and the Future of Connected Presence', *Presence* 15(4): 78–92.

Shneiderman, B. (2002) *Leonardo's Laptop: Human Needs and the New Computing Technologies*. Cambridge, MA: MIT Press.

Sobchack, V. (2009) 'Animation and Automation, or, the Incredible Effortfulness of Being', *Screen* 50(4): 375–91.

Stanton, A. (dir.) (2008) *Wall-e*. Disney/Pixar.

Sterling, B. (2005) *Shaping Things*. Cambridge, MA: MIT Press.

Turkle, S. (2011) *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.

Author biography

Beth Coleman is the director of City as Platform lab, Amsterdam. Her research focuses on the role of human agency in the context of media and data engagement. She is currently a Harvard University Faculty Fellow at Berkman Center for Internet and Society and a visiting professor at the Institute of Network Cultures, Hogeschool van Amsterdam. From 2005 to 2011, she has been an assistant professor of comparative media studies at Massachusetts Institute of Technology. Her book *Hello Avatar: Rise of the Networked Generation* is published by the MIT Press.