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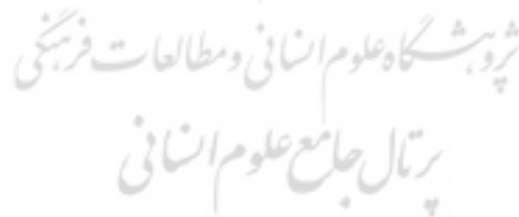
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Affect as medium, or the 'digital-facial-image'

Mark B.N. Hansen

Abstract

By exploring a number of contemporary new media artworks that focus on the digitized image of the face, I propose the encounter with the 'digital-facial-image' (DFI) as a new paradigm for the human interface with digital data. Whereas the currently predominant model of the human-computer-interface (HCI) functions precisely by reducing the wide-bandwidth of embodied human expressivity to a fixed repertoire of functions and icons, the DFI transfers the site of this interface from computer-embodied functions to the open-ended, positive feedback loop connecting digital information with the entire affective register operative in the embodied viewer-participant. For this reason, the DFI allows us to reconceptualize the very notion of the interface: by bypassing investment in more effective technical 'solutions', it invests in the body's capacity to supplement technology – the potential it holds for 'collaborating' with the information presented by the interface in order to create images.

Key words

affect • cinema • Deleuze • digital-facial-image (DFI) • facialization • human-computer-interface (HCI) • new media art • Pierre Lévy • virtualization

You enter a darkened corner of a large room and position yourself in front of a giant, digitally generated close-up image of an attractive female face. After reading the instructions affixed to a post on your left, you nervously pick up the telephone receiver located just above these instructions and prepare to speak into it. 'Hello, can you hear me?', you ask in a quivering, muffled voice, all the while continuing to fix your gaze on the image in front of you. After 10 or 12 seconds, and no apparent change in the mild indifference expressed by the facial image, which continues to sway softly back and forth in front of you in a kind of digital haze, you steel yourself and try again. 'Hello, can you hear me?', you again intone, this time trying your best to speak crisply and loudly into the telephone receiver. Once again,

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however, 10 or 12 seconds pass, with no change in the image. With a gradually mounting feeling of strangeness you will later associate with the very enterprise of interrogating a digital image, you nonetheless persist, trying perhaps four or five more times. Finally, after what seems to be an unbearably long period of interrogation, the creature compensates your efforts with a sudden, disengaged, perhaps even mocking laugh and turn of the head to your left, almost instantaneously reverting back to her indifferent hovering. Emboldened by this meager response you enter another round of questioning, and this time, again after what seem to be countless efforts on your part, you are awarded a quick kiss, again followed almost immediately by the return of the image to its default disengagement. Further emboldened by this fleeting display of what you cannot help but take as a sign of affection, you branch out in your line of questioning, asking the creature where it lives, whether it is happy, whether it needs to eat to stay alive, whether it sleeps and dreams, and if so, what about? Through all this, you are rather disappointed to discover, its pattern of response seems to remain constant, with a predominant detached hovering very occasionally giving way to an almost instantaneous, mocking smile or overly mannered kiss. Having grown accustomed to this odd form of exchange, or perhaps simply distressed at the ineffectuality of your efforts to become more intimate with this odd creature, you turn away, with a vague though nagging sense of your own irrelevance.

The digital artwork you have just encountered is German artist Kirsten Geisler's *Dream of Beauty 2.0* (1999, see Figure 1), an interactive, voice-



Figure 1 Kirsten Geisler, *Dream of Beauty 2.0* (1999). Digitally generated close-up image of virtual personal affords limited possibilities for interaction with the digital domain.

activated installation with a digitally generated female persona.¹ And the experience it has catalyzed for you is an affective interfacing with what I shall call the 'digital-facial-image' (DFI). In this experience, the infelicitous encounter with the digitally generated close-up image of a face – and specifically the affective correlate it generates in you, the viewer-participant – comes to function as the very medium for the interface between the embodied human and the domain of digital information. Geisler's work is exemplary of aesthetic experimentations with the DFI precisely because of its success at furnishing an experience of the radical material indifference of digital information to human sensory ratios. By catalyzing a

disturbing confrontation with the digital, *Dream of Beauty 2.0* draws attention to the non-seamlessness of the interface between embodied human beings and the computer. Yet in so doing, it manages to forge a connection between them that stands as proof against the more nihilistic posthumanism of, say, German media scientist Friedrich Kittler, who has infamously pronounced the structural irrelevance of the human in the face of 'digital convergence'.² Geisler's work answers Kittler's (1997) claims, as it were, by generating an intense affective experience that forms a kind of human counterpart to the potential autonomy of the digital, a new domain of human embodiment that emerges out of our response to digitization.

I propose the encounter with the DFI as a new paradigm for the human interface with digital data. Via the affective response it triggers, the DFI offers a promising alternative to the profoundly impoverished, yet currently predominant model of the human-computer-interface (HCI). Whereas the HCI functions precisely by reducing the wide-bandwidth of embodied human expressivity to a fixed repertoire of functions and icons, the DFI transfers the site of this interface from computer-embodied functions to the open-ended, positive feedback loop connecting the digital-facial-image and the entire affective register operative in the embodied viewer-participant. Thus, rather than channeling the body's contribution through the narrow frame of preconstituted software options, the DFI opens the interface to the richness of the bodily processing of information.³ For this reason, the DFI allows us to reconceptualize the very notion of the interface: by bypassing investment in more effective technical 'solutions', it invests in the body's capacity to supplement technology – the potential it holds for 'collaborating' with the information presented by the interface in order to create images.

This potential stems from the bodily dimension of affectivity, as it has been understood by Henri Bergson and, following his lead, the French biophenomenologist, Gilbert Simondon. As I have argued at length in the larger project to which this essay belongs (Hansen, 2003), both of these philosophers have foregrounded the centrality of affection in perceptual and sensory experience. In *Matter and Memory* (1991[1896]), Bergson has insisted that 'there is no perception without affection', meaning that every act of perceiving an object (or image) at a distance from one's body (or literally, as the potential for the body to act on that object) is necessarily accompanied by an action of the body on itself, a self-affection of the body. Simondon (1989) has expanded this conception by treating affection – or what he prefers to call 'affectivity' – as the mode of sensation that opens embodied experience to that which does not conform to already contracted bodily habits. It does so, Simondon claims, because it mediates between the domain of the 'individual' (i.e. whatever comprises the already individuated human organism) and the domain of the 'preindividual' that comprises the domain of 'metastability' conditioning all processes of individuation.⁴ Accordingly, whereas perception appeals to structures already constituted in the interior of the individuated being,

affectivity indicates and comprises the relation between the individualized being and preindividual reality: it is thus to a certain extent heterogeneous in relation to individualized reality, and appears to bring it something from the exterior, indicating to the individualized being that it is not a complete and closed set [*ensemble*] of reality. (p. 108)

As the mode of experience in which the embodied being lives its own excess, affectivity introduces the power of creativity into the sensorimotor body.

Insofar as the confrontation with the DFI functions by triggering affectivity as, precisely, a faculty of embodied heterogenesis, it operates a transfer of affective power *from* the image to the body. Instead of a static dimension or element intrinsic to the image, affectivity thereby becomes the very medium of interface with the image. What this means is that affectivity actualizes the potential of the image at the same time as it virtualizes the body: the crucial element is neither image nor body alone, but the dynamical interaction between them. As the digital artworks discussed at the end of this article propose, if we can allow the computer to impact our embodied affectivity directly, our communication and our coevolution with the computer – and along with it visual culture more generally – will enter a truly new, ‘post-imagistic’ phase.

From facialization to the close-up and back again

Why, we might be inclined to ask, the face? What is it exactly that justifies the privilege accorded the facial-image in this process of affective bodily supplementation? Consider the correlation Deleuze and Guattari posit between the semiotics of capitalism and the process of ‘facialization’ in *A Thousand Plateaus* (1987). Defined as the overcoding of the body on the face, facialization carries out the ‘jump’ that makes possible capitalist semiotics: the jump ‘from the organic strata to the strata of signification and subjectification’. Facialization, therefore, requires the wholesale sublimation of the body, as Deleuze and Guattari explain:

This machine is called the faciality machine because it is the social production of face, because it performs the facialization of the entire body and all its surroundings and objects, and the landscapification of all worlds and milieus. The deterritorialization of the body implies a reterritorialization on the face; the collapse of corporeal coordinates or milieus implies the constitution of a landscape. The semiotic of the signifier and the subjective never operates through bodies. It is absurd to claim to relate the signifier to the body. At any rate it can be related only to a body that has already been entirely facialized. (p. 181)

As the catalyst for a dynamic re-embodiment of the interface, the DFI reverses precisely this process of facialization that, we can now see, comprises the very principle of the HCI as an instrument of capitalist semiotics. In the experience of the DFI, that is, the face becomes the catalyst for a reinvestment of the body as the rich source for meaning and the precondition for communication. The DFI thus forms the very vehicle of contact between our bodies and the domain of information that would otherwise remain largely without relation to us.

For this reason, the DFI can be likened to the close-up in film, following Deleuze’s analysis in *Cinema I* (1986). Defined as the concentration of all expressive elements on the surface of the face, the close-up fundamentally revalorizes facialization as a liberation of affect from its ties to the body:

The face is this organ-carrying plate of nerves which has sacrificed most of its global mobility and which gathers or expresses in a free way all kinds of tiny local movements which the rest of the body usually keeps hidden. Each time we discover these two poles in something – reflecting surface and intensive micro-movements – we can say that this thing has been treated as a face [*visage*]: it has been 'envisaged' or rather 'facialized' [*visagéifié*], and in turn it stares at us [*dévisage*], it looks at us ... even if it does not resemble a face. Hence the close-up of the clock. As for the face itself, we will not say that the close-up deals with it or subjects it to some kind of treatment; there is no close-up *of* the face, the face is in itself close-up, the close-up is by itself face and both are affect, affection-image. (pp. 87–8, translation modified)

Rather than overcoding the body (as it did in *A Thousand Plateaus*), the face is now endowed with the function of expressing the intensity of the body abstracted or purified, as it were, from its spatio-temporal functions.⁵ The close-up possesses the 'power to tear the image away from spatio-temporal co-ordinates in order to call forth the pure affect as the expressed' (p. 96).

Aesthetic experimentations with the DFI likewise invest the process of facialization as a positive conduit from the domain of information back to the body. Yet, these experimentations also diverge fundamentally from Deleuze's analysis of the close-up: in them, the face does not so much *express* the body, as *catalyze* the production of a *supplementary* sensorimotor connection between the body and a domain (informatics) that is fundamentally heterogeneous to it. Like the affective modality of preverbal parent–infant 'attunement', following the concept of psychologist Daniel Stern, this supplementary sensorimotor connection capitalizes on the contagious dynamics of affectivity in order to attune the body to a stimulus that is novel – in this case, on account of its radical heterogeneity to already developed human perceptual capacities (Stern, 1985: ch. 4). It is as if affectivity steps in precisely where no perceptual contact can be made. Thus the DFI furnishes a way back into the body that need not be understood as a simple 'return to' the body.⁶ By investing in the affective bodily response to facialization, the experience triggered by the DFI directly counters the overcoding of the body on the face that constitutes facialization in its capitalist mode. For this reason, aesthetic experimentations with the DFI strike directly against late capitalist semiotic mechanisms (e.g. televisual advertising but also the dominant HCI itself) that function specifically by reducing embodied singularity to facialized generality.

The affective intensity of the digital-facial-image

We can now pinpoint exactly how digital-facialization differs from Deleuze's (1986) positive refunctionalization of facialization in *Cinema 1*: whereas Deleuze celebrates the close-up as a liberation of affect *from the body*, the DFI aims to catalyze the production of affect *as an interface between the domain of information (the digital) and embodied human experience*. The task of unpacking what is at stake in the DFI thus calls for a trajectory that is the precise inverse of the one pursued by Deleuze in *Cinema 1*. While it shares Deleuze's privileging of

affection,⁷ this trajectory will move toward a defense of Bergson's embodied conception of affection against Deleuze's transformative critique. Consequently, it will call on us to reverse the fundamental philosophical gesture of Deleuze's appropriation of Bergson's ontology of images: his reduction of bodily affection to one specific permutation of the movement-image (the affection-image).

In his second commentary on Bergson, Deleuze derives the affection-image as one possible result of the encounter between the movement-image and a center of indetermination, as one possible embodiment of the movement-image. Following in the wake of the 'perception-image' and the 'action-image', the affection-image is thereby defined as the 'third material aspect of subjectivity' (Deleuze, 1986: 65). In this office, affection mediates between the other material aspects of subjectivity, namely, perception and action; specifically, affection fills the interval between perception and action – the very interval that allows the body *qua* center of indetermination to delay reaction and thus organize unexpected responses:

Affection is what occupies the interval, what occupies it without filling it in or filling it up. It surges in the center of indetermination, that is to say in the subject, between a perception which is troubling in certain respects and a hesitant action. It is a coincidence of subject and object, or the way in which the subject perceives itself, or rather experiences itself or feels itself 'from the inside' (third material aspect of subjectivity). It relates movement to a 'quality' as lived state (adjective). Indeed, it is not sufficient to think that perception – thanks to distance – retains or reflects what interests us by letting pass what is indifferent to us. There is inevitably a part of external movements that we 'absorb,' that we refract, and which does not transform itself into *either objects of perception or acts of the subject*; rather they mark the coincidence of the subject and the object in a pure quality. (p. 65, emphasis added)

This understanding of affection as 'pure quality' is made necessary, Deleuze contends, because as centers of indetermination, we humans have specialized one of our facets into 'receptive organs at the price of condemning them to immobility': this specialized facet absorbs movement rather than reflecting it, which means that a "'tendency" or "effort" replaces ... action which has become momentarily or locally impossible' (pp. 65–6).

Though drawn directly from Bergson's definition of affection, Deleuze's interpretation – with its emphasis on affect as pure quality – marks a fundamental break from its source. Whereas Bergson views affection as a phenomenological modality in its own right and posits a difference of *kind* between affection and perception,⁸ Deleuze (1986) determines affection as a (sub)component of perception. Specifically, affection is made to designate a *particular modality of perception*: an attenuated or short-circuited perception that ceases to yield an action, and instead brings forth an expression:

There is therefore a relationship between affection and movement in general ... the movement of translation is not merely interrupted in its direct propagation by an interval... Between the two there is affection which

re-establishes the relation. But, it is precisely in affection that the movement ceases to be that of translation in order to become movement of expression, that is to say quality, simple tendency stirring up an immobile element. (p. 66)

And, as a modality of perception, affection becomes a type of image: the affection-image or close-up. With this determination of affection as a variety of the movement-image, Deleuze manages to *subsume affection within perception*, thereby dissolving its constitutive link to the body.

If we contrast the examples Deleuze offers in support of his interpretation against recent engagements by new media artists with faciality, what we find is precisely the fundamental philosophical *and* aesthetic difference introduced earlier. Whereas Deleuze's examples subsume bodily activity into the expressive quality of the close-up, new media art works turn attention back on the process of affective attunement through which facial signals spontaneously trigger affective bodily responses. We might say that new media art reinserts the body in the circuit connecting affectivity and the face, thereby supplementing what Deleuze calls the 'icon' (the set of the expressed and its expression) with a third term: the embodied activity that produces affect from the image and that reveals the origin of all affectivity in embodied life (p. 97).⁹

For Deleuze, there are two poles of the close-up: on the one hand, micro-movements that 'gather and express in a free way' what the body keeps hidden; on the other, the receptivity and immobility that makes the face into a 'reflecting and reflected unity' (p. 87). To these poles correspond 'two sorts of questions [one] can put to a face ... what are you thinking about? Or, what is bothering you, what is the matter, what do you sense or feel?' (p. 88). Insofar as it thinks about something, Deleuze suggests, the face functions as a reflecting unity: it has value through its 'surrounding outline'. This sort of close-up was the hallmark of Griffith, according to Deleuze, who cites a scene in *Enoch Arden* where a young woman thinks about her husband and, more generally, all the famous Griffith close-ups 'in which everything is organized for the pure and soft outline of a feminine face' (p. 89). On the other hand, when the face feels something, it is said to have value 'through the intensive series that its parts successively traverse as far as paroxysm, each part taking on a kind of momentary independence' (pp. 88–9). Here it is Eisenstein to whom Deleuze turns, citing the scene in *The General Line* where the priest's face dissolves and gives way to 'a cheating look which links up with the narrow back of the head and the fleshy earlobe' (p. 89). In this scene, 'it is as if the traits of faceity were escaping the outline' (p. 89).

As this analysis proceeds, it becomes clear that Deleuze's focus on the close-up aims toward a certain transcendence: a cinematic detachment of affect from body. While mental reflection is 'undoubtedly the process by which one thinks of something', *cinematographically* it is 'accompanied by a more radical reflection expressing a pure quality' (p. 90). Likewise, though the intensive micro-movements of the face undoubtedly express states of the body, *cinematographically* they 'begin to work on their own account', passing from 'one quality to another, to emerge on to a new quality' or rather a 'pure Power' (pp. 89–90). This cinematographic *epoche* of the bodily basis of affect reaches its apex in Eisenstein's intensive series insofar

as the latter directly unites ‘an immense collective reflection with the particular emotions of each individual’ and thus expresses ‘*the unity of power and quality*’ (p. 92). By so doing, Eisenstein’s practice exemplifies the status of the close-up not as ‘partial object’, but as ‘Entity’ abstracted from all spatio-temporal coordinates. Rather than a mere enlargement, the close-up implies an absolute change of dimension: ‘a mutation of movement which ceases to be translation in order to become expression’ (p. 96). Transcending its ties to the body by tearing the image away from its spatio-temporal localization, the close-up calls forth ‘the pure affect as the expressed’: the ‘affect is the entity, that is Power or Quality ... the affection-image is power or quality considered for themselves, as expressed’ (p. 97). For this reason, the close-up might be said to annihilate the face:

There is no close-up of the face. The close-up is the face, but the face precisely in so far as it has destroyed its triple function [individuation, socialization, communication] ... the close-up turns the face into a phantom.... The face is the vampire. (p. 99)

By contrast, the DFI deploys affect to entirely different ends: rather than a transcendence or suspension of individuation, what is at stake in recent aesthetic experimentations with digital faciality is the catalysis of an individuation that utilizes affectivity as a medium to engage with the digital processes of contemporary image production. Rather than a drive toward autonomy of the image as the expressed of affect, what digitally generated affection-images call out for is the sheer forging of contact – any contact – with the domain of information. For in the case of the DFI, the image is autonomous from the outset and the problem is how and whether it can be embodied at all.

Appropriating Deleuze’s distinction between receptivity and intensity, let us distinguish two tendencies in experimentations with the DFI: on the one hand, to confront the participant-viewer with single, relatively static digital affection-images; and, on the other, to engage the participant-viewer in a protracted interaction with a moving close-up of what can only be called a ‘virtual creature’.

Exemplary of the former is Inez van Lamsweerde’s *Me Kissing Vinoodh (Passionately)* (1999, see Figure 2), a monumental photographic image of the artist kissing her boyfriend, whose image has been digitally extracted, leaving in its place a sort of shadow of its former presence. Exploring the work, the viewer-participant quickly becomes aware that this extraction does not leave a simple absence in its wake: rather, as expressed by the distortion of the artist’s face, the digital manipulation of the image has transformed its spatial coordinates in a way that makes it seem fundamentally discontinuous with the space of ordinary phenomenal perception. The distortion endows the work with ‘a feeling of violent disjunction’ that confronts the viewer as a punctual shock (Whitney Museum, 2000). As we process this shock, we begin to feel with a rapidly mounting intensity that the image is not necessarily *of* the same ‘reality’ as we are, and that there may be no ready bridge between it and us. By suggesting a radical disjunction between its space and ours, this image might thus be said to form a kind of inversion of the Griffith close-up: rather than autonomizing affection in a perfectly bounded receptive surface (the woman’s face), it operates a distortion of this very receptive surface that functions



Figure 2 Inez van Lamsweerde, *Me Kissing Vinoodh (Passionately)* (1999). Monumental photograph of artist kissing void in image from which her boyfriend's face has been digitally extracted. Reproduced from the Whitney Museum's 'Digital Domains' (2000) show by courtesy of ArtScene and the column's author, John O'Brien.

to catalyze an affective reaction in the viewer and, in this way, holds forth the potential to restore some form of contact with this strangely alien image.

Exemplary of the latter tendency is Luc Courchesne's *Portrait no. 1* (1990, see Figure 3), a computer-supported dialogic interface with the close-up image of a virtual persona.¹⁰ The viewer-participant is invited to initiate conversation with the close-up image of an attractive young woman named Marie. Choosing one of six languages, the viewer-participant enters into a question and answer session with Marie. Ranging in attitude from bland and straightforward to coy and contemptuous, Marie seems oddly detached from the dialogue situation, as if she were burdened by her all-too-keen awareness of her virtual ontological status: 'I only have my past', she at one point intones, 'For me, time stood still the day I became what I am now. Because I am a portrait, my real existence is elsewhere.' During interaction with Marie, the viewer (if this viewer's experience is, in any



Figure 3 Luc Courchesne, *Portrait no. 1* (1990). Computer-based interface facilitates dialogue with a close-up image of a virtual persona.

way, exemplary) moves from an initial curiosity to a more self-reflexive sense of the oddness of the entire enterprise, mixed with a dawning realization of the limitedness of its interactional possibilities. As the seductive appeal of Marie's engaging face cedes place to a mild feeling of tedium that begins to ensue once the majority of interactional paths have been explored, the viewer is made to confront the fact of Marie's difference: this is a being whose initial promise (bound up with the affect presented by her close-up image) is belied by her limited repertoire. What we encounter in this digital creature is a kind of 'virtual' mirror: a being whose own shrinking presence gives way to self-reflection as the problematic of her paradoxical existence seeps beyond its virtual space. 'It is true that I am unreachable – and that you cannot change me', Marie admits. 'But', she continues, 'look at the people around you: Are they so different from me? Are they reachable?' By threatening to contaminate the viewer-participant's most fundamental social assumptions, *Portrait no. 1* follows a trajectory precisely opposite to that of Eisenstein's intensive series: rather than autonomizing an unfolding affection-image across a self-sufficient set of images, the mounting intensity of our engagement with the image of Marie bleeds into the space and time of our lived experience, calling on us to recognize our intense desire to engage affectively with the 'virtual' at the same time as we confront the disconcerting possibility of its utter indifference to us.

Like their cinematic equivalents, these two tendencies of digital faciality themselves tend to coalesce. Here, however, what informs this tendency is the active role of the embodied viewer-participant whose affective reaction might be said to supplement what *initially* confronts her *as an already autonomous affection-image*: far from disjoining image from body, affection is the very medium of their contact.

Both Alba d'Urbano's *Touch Me* (1995, see Figure 4) and Geisler's *Who Are You?* (1996) exploit the informational basis of the affection-image in ways that explicitly



Figure 4 Alba d'Urbano, *Touch Me* (1995). By touching a digital image of the artist's face, the viewer causes its dissolution; a real-time video image of the viewer's face temporarily fills the void in the image.

engage the bodily activity of the viewer-participant. In D'Urbano's work, the viewer-participant confronts a frontal close-up image of a woman's (in fact, the artist's) face on a monitor housed within a column at eye level.¹¹ When the viewer-participant touches the monitor, the image undergoes what appears to be a digital fragmentation; as this process comes to an end, the image's original face is replaced by a live video image of the viewer-participant. Like Joachim Sauter's and Dirk Lüsebrink's pioneering 'Zerseher', this work correlates the activity of experiencing an image with its destruction.¹² Yet here the foregrounded activity is not looking but touching, and the destruction that results yields not blank space, but a place for an image of the viewer-participant's own face. Accordingly, the work does more than simply use digital technology to expose the bodily dimension of image perception. It *engages* the viewer-participant *tactilely* with the informational materiality of the digital image. Yet at the same time as it allows us to touch and insert ourselves into the digital image, D'Urbano's work also foregrounds the tenuousness of this very contact by repeatedly looping back to its starting point and confronting us with the infinitely regenerative potential of the digitized image. Faced with this potential, the viewer-participant cannot but see himself or herself as a transitory punctuation in the ongoing and inhuman digital flux:

the image offered will always go back to the starting point. Its expression stays untouched, inexperienced....Only the impression of one's own reflection in the electronic mirror, and its temporary revival through a mimic sequence, stand in the way of the insurmountable technical logic. (Schwarz, 1997: 158)

By confronting its viewer-participant with a puzzle of indiscernibility, Geisler's *Who Are You?* foregrounds just how crucial a role viewer expectations play in the process through which the digital image acquires autonomy. *Who Are You?* is composed of two images of what appears to be the same female face, one a video registration, the other a digitally generated image. Housed within adjacent wooden frames, the two 'portraits' move in slow rhythm from the front to the side view and back again. As soon as they come to a standstill, the viewer-participant hears a female voice pose the question: 'Who are you?' three times, as each portrait interrogates the other, and then both together interrogate the viewer-participant. In this experience, the affection-image becomes the bearer not of the autonomy of affect but of the traces of its very materiality; as viewer-participants are led by convention to associate the video image with a 'real' person and to dismiss the computer-generated image as artificial, they are compelled to recognize the central role their own affective response plays in their commerce with digital images. In what amounts to an inversion of the problematic of indiscernibility that, following Arthur Danto's thesis (1981), informed the conceptual turn in modern art, an initial perceptual indiscernibility opens onto a difference largely borne by the bodily-registered expectations that a viewer brings to the experience of the image. Paradoxically then, the 'autonomy' of the affection-image is shown to be indelibly bound up with the connotations of the digital medium *as these are mediated through embodied response*.

Because it affords the viewer-participant a protracted experience of this same impermeability and indiscernibility, Geisler's *Dream of Beauty 2.0* best exemplifies

the interpenetration of the two tendencies of digital faciality. To offer up my own affective reaction as evidence, the bizarre feeling of inefficacy and irrelevance with which this interaction left me attests to the affective intensity of the DFI. The longer the interaction endured, the more I was confronted with the self-sufficiency of this image; and the more I experienced my own failure to make any real contact with it, the more intense the experience became, until a point when I simply could take it no longer. What ultimately makes *Dream of Beauty 2.0* exemplary of the DFI is the way it roots the affection-image in a materiality that has no necessary connection with the ratios of our embodied experience. If it affords an experience of the 'affective autonomy' of the close-up, it is one that cannot be separated from the material autonomy of information itself. Accordingly, when it generates a nearly intolerable affective reaction in the bodily engaged viewer-participant, what *Dream of Beauty* demonstrates about the digital affection-image is something very different from what Deleuze says about the close-up. Put bluntly, this digitally generated image does not need us, will continue to exist in total indifference to our efforts to engage it, and can only have meaning for us to the extent it foregrounds the very source of our affective response – our constitutive embodiment, which is to say, the profound divide between its materiality and our own.

From the virtual to virtualization

In what sense does the affective reaction catalyzed by the works just discussed denote an opening to the virtual? We might say that these aesthetic experimentations with the DFI carry out a *virtualization* of the body through the 'medium' of affectivity and, in the process, reveal affectivity to be a bodily 'capacity for' – a rich source for the production of new individuations beyond our contracted perceptual habits. These works deploy affectivity as an experiential modality separate from perception. As it is solicited by these works, affectivity correlates with a specific form of virtuality – a virtuality of the body – that differs in fundamental ways from Deleuze's development of the virtual as a transcendental force.

It is French media philosopher Pierre Lévy who has done the most to develop an embodied conception of the virtual. Breaking with a philosophical tradition (Deleuze, Serres) that privileges the passage from the virtual to the actual, Lévy focuses instead on the 'virtualization that climbs back from the real or the actual toward the virtual'. This philosophical reversal foregrounds the way in which the virtual constitutes the entity and thus functions to resituate the virtual *within* the body: 'virtualities ... are inherent to a being, its problematic, the knot of tensions, constraints and projects which animate it' (Lévy, 1998: 14). Because it is 'an essential part' of the 'determination' of every concrete biocultural body, the virtual is necessarily an element of the very body which it serves to constitute.

Carried over to the domain of the aesthetic, virtualization opens a recursive interaction between body and artwork. By actualizing the virtual dimensions of the artwork, the viewer-participant simultaneously triggers the virtualization of his or her body. In the case of new media art, such a recursive interaction opens a circuit between the body and an informational *process*:

... the [new media] artist ... attempts to construct an environment, a system of communication and production, a collective event that implies its recipients, transforms interpreters into actors, enables interpretation to enter the loop with collective action ... the art of implication doesn't constitute a work of art at all, even one that is open or indefinite. It brings forth a process.... It places us within a creative cycle, a living environment of which we are always already the coauthors. Work in progress? The accent has now shifted from work to progress. (Lévy, 1997: 123)

As the basis for a fluid and recursive process of 'co-creation', new media furnishes opportunities for us to 'create, modify and even interact with' molecular information in ways that mobilize our own virtualizations and attune our senses to information: 'interactive simulations ... are so many potential texts, images, sounds, or even tactile qualities, which individual situations actualize in a thousand different ways ... digitization reestablishes sensibility within the context of somatic technologies' (pp. 48–9).

Lévy's investment in embodied virtualization finds confirmation in cultural critic Timothy Murray's transformative appropriation of Deleuze's aesthetics of the virtual. For Murray, the interactive aesthetics of contemporary new media brings the Deleuzian understanding of the virtual to 'material fruition': with their 'technical ability to enfold the vicissitudes of space and time in the elliptical repetition of parallel structure', new media artworks give material embodiment to the elements that, in Deleuze's understanding of the virtual, constitute the object as Idea. By materializing the virtual elements of the object or work, new media artworks recast them as the catalyst for the viewer-participant's own virtualization: 'The promise of digital aesthetics is its *enhanced zone of 'interactivity'* through which the users' entry into the circuit of artistic presentation simulates or projects *their own virtualizations, fantasies, and memories* in consort with the artwork' (Murray, 2000: emphasis added).

Virtualization, then, is nothing less than the vehicle for what I have called the Bergsonist vocation of new media art (Hansen, 2003) – the means by which we can bring the force of the virtual to bear on our experience, to tap it as the catalyst for an expansion of the margin of indetermination constitutive of our technically-facilitated embodiment. It is only because the body, through its ongoing interaction with a constantly evolving environment, continually generates or maintains a virtuality proper to it, that the actualization of the virtual in the experience of the art work can at the same time be the catalyst for a virtualization of the body. This is why the virtual dimension opened by art as well as the ensuing virtualization of the body cannot be discussed as if they existed *outside* and *independently of* the interaction constitutive of them both: the virtual dimension at issue in new media art is precisely the virtual that gets actualized ('in a thousand ways', as Lévy, 1997, says) through the experience of the artwork as a process and that, in being actualized, taps into the potential of embodied affectivity. The promise of digital interactivity is its capacity to bring into correlation these *two distinct virtualities*: new media artworks facilitate interaction with virtual dimensions of the technosphere precisely in order to stimulate a virtualization of the body. By placing the body into interactive coupling with technically expanded virtual domains, such

works not only extend perception (i.e. the body's virtual action); more important still, they catalyze the production of new affects – or better, new affective *relations* (Simondon, 1989) – that *virtualize* contracted habits and rhythms of the body. For this reason, virtualization can be said to specify the virtual dimension constitutive of human experience.

The 'genetic element' of the digital-facial-image: affectivity

As the 'genetic element' of aesthetic experimentations with the DFI, affectivity differs fundamentally from the genetic transformation to which Deleuze submits the affection-image. Whereas Deleuze's generalization of the close-up from a particular type of cinematic image into a genetic principle of the cinema functions to *liberate* the affection-image to express its constitutive virtual side, new media artworks catalyze the production of affectivity as a virtualization of the body itself.

To transform the close-up from a specific *type* of image into a generic *function* of the image, Deleuze (1986) takes recourse to the *philosophical* distinction between the actual and the virtual:

there are two kinds of signs of the affection-image, or two figures of firstness: *on the one hand the power-quality expressed by a face ... but on the other hand the power-quality presented in any-space-whatever ...* the second is more subtle than the first, more suitable for extracting the birth, the advance and the spread of affect ... [for] as soon as we leave the face and the close-up, as soon as we consider complex shots which go beyond the simplistic distinction between close-up, medium shot and long shot, we seem to enter a 'system of emotions' which is much more subtle and differentiated, less easy to identify, capable of inducing non-human affects. (p. 110)

Underlying the close-up is a generic framing function – the any-space-whatever (ASW) – that is capable of expressing affects for themselves. In the ASW, the affection-image discovers its genetic element – what allows it to express affects independently of all connection to the human body and, beyond that, to express space itself as affective. In the form of the ASW, the affection-image taps into *the other, virtual, side of affect*: not just the face as the affect 'actualized in an individual state of things and in the corresponding *real connections*' but affects 'as they are expressed for themselves, outside spatio-temporal co-ordinates, with their own ideal singularities and their *virtual conjunction*' (p. 102).

In Deleuze's conceptual history of the cinema, it is Robert Bresson who accomplishes the shift from the close-up to the ASW. Bresson's deployment of fragmentation first allows affect to obtain a space for itself independent of the face: 'It is the construction of a space, fragment by fragment, a space of tactile value, where the hand ends up by assuming the directing function which returns to it in *Pickpocket*, dethroning the face' (p. 108). By liberating affect from its dependence on the close-up, Bresson opens a wholly new conception of the cinematic presentation of space as the real genesis via the raw material of cinema itself (shadow, oscillation of light and dark, color): the ASW is, accordingly,

a perfectly singular space, which has merely lost its homogeneity, that is, the principle of its metric relations or the connection of its own parts, *so that the linkages can be made in an infinite number of ways. It is a space of virtual conjunction, grasped as pure locus of the possible.* (p. 109, emphasis added)

With the ASW it is as if everything were in suspension, as if all spatial connections were being forged on the spot:

Space itself has left behind its own co-ordinates and its metric relations. It is a tactile space.... The spiritual affect is no longer expressed by a face and space no longer needs to be subjected or assimilated to a close-up, treated as a close-up. The affect is now directly presented in medium shot. (p. 109)

In Bresson, space itself acquires an affective autonomy, and affect becomes a function of cinematic framing.

It is precisely this disembodiment of affect that is undone by aesthetic experimentations which, in their effort to carry out an affective virtualization of the viewer-participant's body, tap into what we might call the 'virtual side' of the DFI. In works like Mongrel's *Color Separation* (see Figure 5), Ken Feingold's recent animatronic sculptures, and the performances of the synthetic persona, Huge Harry, the DFI is variously deployed as an interface linking the domain of digital information with embodied affectivity. By deploying the image as a means rather than an autonomous expression, these works broaden the affective experience solicited by the DFI into an affectively generated framing of information itself. As a result, an *affective excess* comes to supplement the actualized facial image as a sort of fringe of virtuality. We might therefore propose the following general analogy: just as the medium-shot framing of the ASW constitutes the genetic element of the close-up or affection-image, so too does the affective framing of information comprise the genetic element of the DFI. Only in the latter case, what unleashes the force of the virtual is not so much a



Figure 5 Mongrel, *Color Separation* (1998). Interactive artwork confronts viewer with stereotyped facial images and stories of racial abuse.

liberation *from* the human body as a virtualization that itself operates *through the very medium of embodied affectivity*.

Color Separation is an interactive, multi-platform artwork that aims to catalyze a confrontation of the viewer-participant with the power of racial stereotypes. The work merges more than 100 ethnically diverse photographic close-ups into eight images of four distinct racial types in both male and female variants. The eight stereotyped racial images wear masks of the other stereotypes and these masks bear the traces of racial abuse in the form of spit that adorns them.¹³ Interacting with these images, the viewer is drawn into an experience of 'racial dichotomy': a forced identification with images that can only be likened to the abject leftovers of the morphing process. The installation thereby compels the viewer to confront the power of racial stereotypes at a more fundamental level than that of representation; it aims to get under the viewer's skin, to catalyze a reaction that might possibly lead to a loosening up of the sedimented layers of habitual, embodied racism. As the group explains:

Masking the face of an anonymous portrait encourages the viewer of a poster to be caught up in a racial dichotomy. The viewer is unsure why the base face has the skin of another face sewn onto it. Further, with the spit added, the user can detect signs of racial abuse but not identify who is the abuser or who is abused. (Mongrel, 1998)

In its form as an interactive installation at the ZKM exhibition *Net Condition*, the work consisted of an interactive, mouse-based interface and a projected image bearing the masked stereotyped faces. Entering the darkened room in which the work was shown, I began to move the mouse and immediately the images of the faces began to move so that ever new configurations of different subsets of the 64 iterations (combinations of the 8 face images and 8 mask images) continually scrolled into one another. Abruptly I stopped the mouse and centered the cursor on one of the images; as I clicked the mouse, an image of spit was projected onto the face. At the same moment, a raspy, female voice began what seemed at first to be a mundane monologue about an everyday event but that soon turned out to be a detailed and disturbing tale of racial abuse. Confronted with this image of 'racial dichotomy', I was flooded with questions: Does this voice belong to the face, or to the mask? How could it, since the face-mask is, or appears to be, male? Why is there a mask on this face, and why has it been spat upon? Confused yet somehow energized, I next honed in on a female face-mask combination. I heard yet another story, this time told by a male voice, again of racial abuse, and a similar affective process set itself into motion. After several further experiences of spoken narratives uncomfortably sutured to face-mask combinations apparently selected at random, I became overwhelmed with a feeling of the discordance between the richness of the narratives and the sameness, even the emptiness, of the various face-masks. Finally, more bewildered than edified, I chose to leave the installation. It was only sometime later that I began to fathom the constitutive paradox that sparked my reaction: while the installation was clearly asking me to correlate voice with image, I could only experience their sheer incommensurability. It was this failure to make sense of what I was sensing that produced the experience of a mounting, and ultimately intolerable, affective overflow.

As I now reflect upon the experience, I can see more clearly still how the play between image, voice and the spatialized data field was instrumental to the affective impact of the work. As an index of embodiment, the voice furnishes a cipher of singularity resistant to categorization via the limited repertoire presented by the face-mask combinations. The concrete intensity of these stories of abuse makes its impact felt precisely because it is betrayed by the poverty of the images. This installation portrays a series of DFIs that fail to facialize the bodily experience they would purport to express. In consequence, we are repeatedly returned to the dataspace of the installation in our vain, but no less irresistible, search for felicitous facialization. In the end, we experience an ever mounting affective excess that emerges in our bodies as a kind of correlate to – perhaps even a recompense for – the incongruity between the image of a face and the voice used to narrate its story. It is as if our affective response afforded some kind of bodily intuition of the continuum of racial difference literally masked over by these stereotyped facial images.

Ken Feingold's recent animatronic sculptures of heads function to intensify the affective stakes of precisely this experience of incommensurability.¹⁴ *If/Then* (2001, see Figure 6) is a sculptural installation consisting of a large cardboard box, filled with packing popcorn, in which are placed two identical heads facing in opposite directions. Sculpted in the 'likeness of an imaginary androgynous figure', these two heads speak incessantly to one another, attempting to determine whether they really exist or not, whether they are the same person or not, and whether they will ever find answers to these fundamental questions. *Sinking Feeling* (2001, see Figure 7) is an interactive installation consisting of a single head with whom the visitor is invited to converse. The head – a plastic, oddly rigid, and uncanny portrait of the artist himself, placed Beckett-like, in a flowerpot – seems to be quite convinced of its own existence, but desperate to know the answer to a series of core existential questions. Staring blankly out at the viewer, it plaintively asks: 'Why don't I have a body like everyone else?' or 'How did I get here and what am I doing here?' And as it poses these questions, what Feingold dubs its 'cognition' is made visible in a projection of its words on the wall behind it, as are the



Figure 6 Ken Feingold, *If/Then* (2001). Sculptural installation consisting of a large, packing popcorn-filled, cardboard box in which two opposite facing identical heads engage in incessant existential questioning.



Figure 7 Ken Feingold, *Sinking Feeling* (2001). Interactive installation featuring a single head sculpture with which the viewer is invited to converse.

DFI, we are brought into contact with the fully automated, computerized voice and thus, in a more general sense, with a radically new artifact in the technical history of language: the direct prosthesis of speech itself.¹⁶ Still, what ultimately proves to be most striking about Feingold's work is its capacity to elicit an affective response in the viewer-participant despite the total elimination of any index of bodily excess as an element of the interface. What viewer could fail to empathize with these machine-produced heads endlessly wondering if they really exist? Or with this isolated head plaintively asking why it doesn't have a body like everyone else? By transferring the vehicle of our contact with these bizarre creatures to the 'grain' of the digital voice, if I can be allowed to pervert Barthes's concept in this way,¹⁷ Feingold's works place the viewer-participant in contact with the zero-degree of affectivity: the fact that affectivity is a power of his or her own embodiment, the very medium of his or her virtualization. For how else, indeed, can we explain the ability of these creatures to elicit an excess of affect in us, if not by understanding affectivity as the very medium for communication as such, or in other words, for all of our contact with the outside.¹⁸

The potential for this exposure of the 'genetic element of affectivity to eschew the anthropomorphic colonization of the digital animates the conceptual performance art of the artificial creature, Huge Harry.¹⁹ With the help of his 'human support staff', Arthur Elsenaar ('display device') and Remko Scha ('word processing'), Harry has lectured widely on various topics concerning machines and art and, according to his website, has 'developed into one of the most outspoken and

words the viewer-participant speaks into the microphone located in front of the head. In this parody of the HCI, the human voice is brought into contact with the autonomous computational voice (speech as autonomous sound) via the mediation of the text projected on the wall. In this way, Feingold's work compels the viewer-participant to wonder whether his or her own speech is not itself perhaps the equivalent of the computer's anguished and often confused vocalizations, and what this potential equivalence might say about the process of communication itself.¹⁵

While Feingold's work deploys the disjunction between the image and voice as the catalyst for an affective virtualization, it inverts the fundamental coding of the voice, such that rather than interfacing us with a bodily excess compromised by an impoverished

authoritative voices in the discussion about art, society and technology – always representing the computational point of view with great vigor and clarity' (Huge Harry, 2002). Yet for all of his activism on behalf of machines, Harry acknowledges that machines are both fundamentally different from and yet dependent on humans, and he takes this difference and this dependence to constitute the very basis for their potential integration.

This insight is the fruit of research on the HCI involving experiments with 'the communicative meanings of the muscle contractions of certain parts of the human body', most prominently the face. In a lecture-performance delivered at the 1997 Ars Electronica festival, *Flesh Factor*, Huge Harry (1997) illustrated the crucial communicational function of human affectivity with the assistance of his 'human-display-system', namely the face of Arthur Elsenaar. Harry sent signals to Arthur's facial muscles that simulated what his 'brain would do', if his 'operating system' were in a particular emotional state. Harry proceeded through a series of expressions, from the blank face (the face in a neutral position in which all parameters are in their default positions) to various expressions created by particular parts of the face. Thus, focusing on the eyebrows, he took his audience through three states – attention (when the eyebrow is lifted high above the eye), reflection (where the whole eyebrow is lowered), and disdain (where the eyebrow is contracted) (Figure 8).²⁰ As Harry took pains to emphasize, this exercise illustrated that 'the range of parameter values that the eyebrows can express is much more subtle than what the words of language encode.' He then reiterated the analysis for



Figure 8 Huge Harry, *Selected Facial Expressions* (1995). Composite image of various affected states experienced by a computer and expressed through the medium of the human face.

Arthur's 'mouthpiece' – demonstrating joy (grin), sadness (frown), and 'serious processing difficulties' (combination of contempt and sadness) – as well as for the nose and ears, again emphasizing the same point concerning the richness of these facial expressions as well as their near universal significance and their instantaneity. 'Every person', concludes Harry, 'knows exactly in what state another human person is, when this person makes a face... Because they know what state *they* would be in, if *they* would make a face like this.'

The payoff of this analysis, at least as seen from the machine-centric position of Huge Harry himself, would be the potential for machines to utilize the human face in order to interface more effectively with humans. Harry's idea is that the computer will interface more seamlessly with the human because it will be able to display its internal states by triggering the muscles on a human face thereby communicating those states, universally and instantaneously, to human interlocutors. In a kind of machinic parody of N. Katherine Hayles's OREO structure (digital middle surrounded by analog outsides), this interface would convert data of digital origin into an analog surface comprised of the expression of the human face itself (1999).

Before we allow ourselves to become wholly seduced by the evident charms of Huge Harry, however, we would do well to grapple with his own, never explicitly acknowledged, dependence on Arthur Elsenaar. Whether or not Elsenaar should be credited as artist (and Harry as creation),²¹ it is certainly the case that Elsenaar plays a far greater role than would at first appear, since his input is the critical force informing Harry's various papers and presentations. A more felicitous way to understand their symbiosis would follow Eric Kluitenberg who, in his preface to an interview with Huge Harry, notes that Elsenaar has 'developed a portable controller system that allows quite sophisticated computational control of human facial muscles' and thereby '*enables him* [that is, Elsenaar] to "interface" more directly with digital machines' (Kluitenberg, 1998).

Following this refocusing of the experience of the interface *on the human element*, the project not only becomes less grandiose and tendentious, but also takes on an exemplary significance for our exploration of affectivity as a medium of interface: it specifies an avenue through which computer input can impact human affectivity beyond the control of the human involved and, for this reason, taps into the computer's potential to catalyze an affective heterogenesis – an expansion of the range of affectivity beyond its already embodied, habitual function.²² Recalling the cliché that smiling makes you happy (a cliché, incidentally, not without scientific plausibility),²³ the computer would thereby acquire the capacity to trigger material alterations of human affective states, and with it greater potential to communicate with human beings and to virtualize the human body. And even if such communication and virtualization remains circumscribed by an ineradicable anthropomorphism, since the range of possible affections necessarily coincides with the physiological range of human facial expression, the wresting of control over expression from the human agent would have the promising consequence of exposing the *autonomy of affect*, the fact that affectivity is, to paraphrase the description of pioneering video artist Bill Viola, something that passes through the body and that can only be felt, often at a scale and a speed beyond or beneath the perceptual thresholds of the unaided human perceptual apparatus.²⁴

Let me bring my analysis of the DFI to a close by very briefly drawing out its implications for visual culture more broadly speaking. To begin with, the shift of affective power here explored – from image to body – goes hand-in-hand, and indeed exemplifies, a larger shift currently underway in our incipient digital culture: from the preformed technical image to the embodied process of framing information that *produces* images.²⁵ What this means, ultimately, is that we can no longer be content with the notion that we live in a culture of already articulated images, as philosophers and cultural theorists from at least Bergson to Baudrillard have maintained. Rather, Bergson's 'universe of images' has given way to a *universe of information*, and the preestablished analogical connection between the body (which Bergson had defined as a privileged image among images) and the material domain has given way to a radical heterogeneity. Bluntly put, the processes governing embodied life in the contemporary infosphere are disjunctive from those governing digital information. Accordingly, in our effort to reconfigure visual culture for the information age, we must take stock of the supplementary sensorimotor dimension of embodied life that this heterogeneity makes necessary. Since there is no preformed analogy between embodiment and information, the bodily response to information – that is to say, affectivity – must step in to forge a *supplementary* one. In order for us to experience digital information, we must filter it through our embodied being, in the process transforming it from heterogeneous data flux into information units – images – that have meaning for us to the precise extent that they catalyze our affective response.

Notes

1. Let me say a brief word concerning the gendered dimensions of this work. Because the virtual persona seems to be inviting and yet backing away from contact with the spectator, I have chosen to liken the interaction it solicits to flirtation. In doing so, however, I see myself as following the intentions of the artist, who is interested in using familiar modes of social address (here flirtation) to engage the spectator in a failed contact with the digital. While the gender dimensions of this decision on the artist's part are important and worthy of attention, my focus is elsewhere: on how the artist borrows familiar forms of sociality in order to thematize communication with the digital domain itself.
2. See Kittler (1999: introduction). I criticize Kittler's position in Hansen (2002).
3. In this sense, my argument contrasts with Lev Manovich's recent call (2002) for a 'Software' aesthetic that invests in the 'tactical' uses of software functions. As I see it, this aesthetic risks a conceptual positivization not unlike that of Manovich's argument for the 'cinematic metaphor' that, as I have shown (Hansen, 2003: ch. 1), compromises his study of new media. Once we accept the software functions as preconstituted for us by industry, I would suggest, we have already sacrificed too much.
4. For an account of Simondon's conception of individuation, see Hansen (2001).
5. And in a more general sense, the 'white wall/ black hole' system of faciality has been recast as the expressive milieu par excellence of the cinema: the system of light and darkness that comprises the primordial soup of cinematic construction.
6. Deleuze and Guattari criticize all efforts at a 'return to' as always already and necessarily co-opted by very success of the semiotic of overcoding. Instead they advocate a radical deterritorialization, becoming-animal, schizogenesis. See Deleuze and Guattari (1987: 188–9).
7. 'If it is true that the cinematic image is always deterritorialized, there is ... a very special deterritorialization which is specific to the affection-image' (Deleuze, 1986: 96).

8. See, for example, his comparison of perception and affection as two distinct kinds of action:

our perception of an object distinct from our body, separated from our body by an interval, never expresses anything but a *virtual* action.... Suppose the distance reduced to zero, that is to say that the object to be perceived coincides with our body, that is to say again, that our body is the object to be perceived. Then it is no longer virtual action, but real action, that this specialized perception will express, and this is exactly what affection is. Our sensations are, then, to our perceptions that which the real action of our body is to its possible, or virtual action. (Bergson, 1991: 57)

9. Incidentally, here we might note that for Peirce – Deleuze’s source for this argument – there can be no instance of Firstness without Secondness.
10. *Portrait no. 1* was originally developed as an installation, involving a computer monitor and trackball mounted on an arch-shaped base. It has subsequently been reformatted onto a CD-ROM and is available as part of the ZKM’s publication, *Artintact 1*. For documentation of the project, see Courchesne (2002b).
11. For further documentation, see D’Urbano (2002).
12. A work in which the viewer’s eye-movement across the surface of a digital projection of a painting has the effect of destroying the image. For a discussion of ‘Zerseher’, see De Kerckhove (1993).
13. See Mongrel’s (1998) website for further documentation of this and closely related projects.
14. Feingold’s website contains a description of his work over the past two decades.
15. As the jury statement for *Vida 3.0* (a 2000 international competition on artificial life in which ‘Head’ was a prize winner) puts it,
- Feingold chooses to explore the zones of non-response, of mischief and misbehavior, or distortion, of scrambled and failed communication. [His work] makes us question the basis for everyday dialogue we tend to take for granted: how far is our exchange with others conditioned and limited by our own, thoroughly encoded eccentricities, our own programmed bugs and quirks? When indeed true communication occurs, how much is this just a matter of chance? (cited in Feingold, 2002).
16. ‘Neither human, nor machine’, creations like Feingold’s can be said to share in the birth of a new medium. Up until now, you could not listen to a text without listening to someone’s body. The independent text, independent of the human body, was always the *printed* text. For the first time, language now has a sound independent of the body – a sound that directly emanates from the linguistic system, from syntax and phonemes. (Scha, 1997)
17. Barthes, of course, linked the ‘grain of the voice’ to the throat (as opposed to the breath), imbuing it with an expressive physicality (Barthes, 1977).
18. A similar problematic is at issue in our experience of virtual characters created for Hollywood movies and, in a slightly different form, virtual creatures deployed by artists like Pierre Huyghe.
19. In truth, Huge Harry is one of the personalities of the speech synthesis machine, MITalk, designed by Dennis Klatt at the MIT Speech Laboratory, that has been acquired by a Dutch artist, Arthur Elsenaar.
20. See <http://www.media-gn.nl/artificial/varieties/varieties.mov> for a film displaying composite images of a random sampling of all possible (here 4096) facial expressions that can be produced on a wired face.
21. As Stephen Wilson (2002: 162–4) has recently suggested in his account of Huge Harry.

22. This will presumably not be the case so long as the affective states utilized are those of the so-called categorical affects, that is, the basic human emotions. In the larger project to which this article belongs, I return to this issue, exploring how the machinic inscription of time yields the potential to present ordinarily imperceptible 'vitality affects', affects that testify to the sheer fact of being alive, of continuing to live, of being essentially oriented to the future. See Hansen (2003: ch. 7).
23. The research of Paul Ekman, for example, has demonstrated the correlation between facial expressions and affective brain states (Ekman, 1992; Ekman and Davidson, 1993).
24. Bill Viola, Lecture at the Institute for Advanced Study, 6 May 2002.
25. It is, not incidentally, this larger shift that I explore in Hansen (2003).

References

- Barthes, Roland (1977) 'The Grain of the Voice', in *Image-Music-Text*, trans. R. Howard. New York: Hill and Wang.
- Bergson, Henri (1991[1896]) *Matter and Memory*, trans. N.M. Paul and W.S. Palmer. New York: Zone Books.
- Courchesne, Luc (2002a) [www.din.umontreal.ca/courchesne] accessed 24 March 2002.
- Courchesne, Luc (2002b) Online version of *Portrait no. 1* [www.fondation-langlois.org/portrait1.html] accessed 24 March 2002.
- Danto, Arthur (1981) *The Transfiguration of the Commonplace: A Philosophy of Art*. Cambridge, MA: Harvard University Press.
- De Kerckhove, Derrick (1993) 'Touch Versus Vision: Ästhetik Neuer Technologien', in W. Welsch (ed.) *Die Aktualität des Ästhetischen*, pp. 137–68. Munich: Wilhelm Fink Verlag.
- Deleuze, Gilles (1986) *Cinema I: The Movement-Image*, trans. H. Tomlinson and B. Habberjam. Minneapolis: University of Minnesota Press.
- Deleuze, Gilles (1994) *Difference and Repetition*, trans. P. Patton. New York: Columbia University Press.
- Deleuze, Gilles and Guattari, Félix (1987) *A Thousand Plateaus*, trans. B. Massumi. Minneapolis: University of Minnesota Press.
- D'Urbano, Alba (2002) [www.durbano.de/touchme/index.html] accessed 24 March 2002.
- Ekman, Paul (1992) 'Facial Expressions of Emotion: New Findings, New Questions', *Psychological Science* 3: 34–8.
- Ekman, Paul and Davidson, R.J. (1993) 'Voluntary Smiling Changes Register Brain Activity', *Psychological Science* 4: 342–5.
- Feingold, Ken (2002) Selected Online Bibliography [www.kenfeingold.com] accessed 24 March 2002.
- Hansen, Mark (2001) 'Internal Resonance, or Three Steps Towards a Non-Viral Becoming', *Culture Machine* 3, March [http://culturemachine.tees.ac.uk/frm_f1.htm]
- Hansen, Mark (2002) 'Cinema Beyond Cybernetics, or How to Frame the Digital-Image', *Configurations* 11(1), Winter: 51–90.
- Hansen, Mark (2003) *New Philosophy for New Media*. Cambridge, MA: MIT University Press.
- Hayles, N. Katherine (1999) 'Virtual Creatures', *Critical Inquiry* 26, Autumn: 1–26.
- Huge Harry (1997) 'On the Mechanism of Human Facial Expression as a Medium for Interactive Art' [www.iaaa.nl/hh/face/HHLecture2.html] accessed 1 April 2002.
- Huge Harry (2002) 'On the Role of Machines and Human Persons in the Art of the Future' [http://www.iaaa.nl/hh/pose.html and http://www.iaaa.nl/hh/cv.html] accessed 1 April 2002.
- Kittler, Friedrich (1997) *Literature, Media, Information Systems: Essays*, ed. J. Johnston. Amsterdam: G+B Arts International.

- Kittler, Friedrich (1999) *Gramophone, Film, Typewriter*, trans. M. Wutz and G. Winthrop-Young. Stanford, CA: Stanford University Press.
- Kluitenberg, Eric (1998) 'Human Art is Dead: Long Live the Algorithmic Art of the Machine: A *Mute* Exclusive Interview with Huge Harry', *Mute* 19, February: 14–21, [www.iaa.nl/hh/div/MuteInterview.html] accessed 1 April 2002.
- Lévy, Pierre (1997) *Collective Intelligence: Toward an Anthropology of Cyberspace*, trans. R. Bononno. New York: Plenum.
- Lévy, Pierre (1998) *Qu'est que le Virtuel?* Paris: La Découverte.
- Manovich, Lev (2002) 'Avant-Garde as Software', [visarts.ucsd.edu/~manovich] accessed 10 February 2002
- Mongrel (1998) [http://www.mongrelx.org/Project/projects.html#colour] accessed 23 May 2001.
- Murray, Timothy (2000) 'Digital Incompossibility: Cruising the Aesthetic Haze of the New Media', *CTHEORY*, [http://beta.ctheory.com/article/a078.html] accessed 21 February 2001.
- Scha, Remko (1997) 'Virtual Voices', [http://www.iaaa.nl/rs/virtual.html] accessed 2 April 2002.
- Schwarz, Hans-Peter (1997) *Media – Art – History: ZKM/Center for Art and Media Karlsruhe*. Munich: Prestel.
- Simondon, Gilbert (1989) *L'Individuation Psychique et Collective*. Paris: Aubier.
- Stern, Daniel (1985) *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology*. New York: Basic Books.
- Whitney Museum (2000) *Catalogue for 'Bitstreams' Exhibition*. New York: Whitney Museum.
- Wilson, Stephen (2002) *Information Arts: Intersections of Art, Science and Technology*. Cambridge, MA: MIT Press.

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