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Encounters at the Interface: Distributed Attention and Digital Embodiments

AYLISH WOOD

Screens are where images make their first appearance, giving access to the diverse imaginative and intellectual possibilities of cinema. We are familiar with the ability of cinematic technologies to create flickering patterns of light and dark, the changing shapes and colors that establish spaces inhabited by figures, maintaining the spatio-temporalities of an unfolding film. This view, however, immediately takes us beyond the screen into the world of the film, displacing it as a site that can inform us about our experiences of technological interfaces. The argument I present here steps back from the world of the film to re-stage an encounter with the screen, presenting it as an important interface where technologies of image construction and viewers come into contact. Instead of seeing the screen as transparent or as an ideologically implicated window onto a fictional world, it is also where the inscriptions of digital technologies are becoming increasingly apparent.

Throughout its history the cinema has been a site for continuing technological developments—recording devices for sounds and images, projectors, film-processing techniques, and a whole array of technologies used in various effects, including lighting, set design, as well as special and visual effects. Between them, many of these technologies have created the elements making up the whole of the image. That is, lighting effects, set designs, and optical compositing techniques all generate constitutive elements of an image which, within the traditions of a continuity system, are arranged as an assembly where the interplay of characters, space and action tend to privilege the character as the singular point of focus. The character moves in space, which in turn acts to support the actions of characters.

In the current era of emergent digital technologies this convention continues, but is joined by a second that reconfigures the interplay between character, space and action. Rather than only providing the space for action, effects are often employed to create elements that compete with characters for a viewer’s attention (Wood 2002 and 2004). Generating moving elements that compete for a viewer’s gaze is not, however, a particular facet of digital technologies; split-screen, for instance, has been used in the cinema since the 1920s, and is frequently employed on television. But as digital technologies become more pervasive, competing elements are increasingly visible within different media. Two particularly strong examples of competing elements are satellite television news broadcasts and web pages, in which words and images compete for a hold on the viewer’s consciousness. Though the presence of competing elements in television, news

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bulletins and web pages has been noted by critics within (new) media and communication studies, their impact on the overall design of narrative space and the viewing interface have been undertheorized within cinema studies.

Given this relative absence, the argument I present in this paper is primarily influenced by and responds to debates within cinema studies. I begin by generating a model that describes how a viewer’s gaze can be distributed across the competing elements of a screen. Though theories relying on the notion of a unifocal gaze may remain appropriate to thinking about films assembled around a seamless continuity system, other kinds of textual arrangements have need of a different approach. Accordingly, this paper starts out with a discussion of the split-screen film *Timecode* (2000). The obviousness of its competing elements makes *Timecode* a useful point of departure through which to ground the meaning of the terms distributed and attention. Following an initial explanation of these terms, my argument moves towards an articulation of how distributed attention represents a material encounter with the screen. The impetus behind this is to counter generalizations in which digital images seemingly lack materiality, by proposing instead interfaces establishing different kinds of encounters with the materialities of technology. Interfaces inscribed with traces of technology through the visibility of competing elements give a glimpse of such encounters. To explore this more fully, in addition to the split-screen interface of *Timecode*, the digital editing of *Hulk* (2003) is discussed.

It is not conventional to talk of the screen as an interface, though theories of spectatorship take it for granted as a place where different kinds of engagements occur. Psychoanalytic approaches, apparatus theory, and cognitive theories all see the screen as the site through which viewers become active participants in the paradigm established within their theoretical parameters. Looking closely at the screen as an interface constructed from competing elements, allows us to see more fully how it orchestrates such participation. For instance, split screen is frequently used in *Hulk*, and though it follows split screen conventions by showing parallel moments in time, it does so with an unusual degree of visual urgency. In the scenes of the frog experiment, multiple inserts are used to both simply show the actions carried out, but also to split a viewer’s attention across the different objects and figures on the screen. As the appearance of the inserts speeds up, the viewer’s eye movement is rapidly distributed across the different elements as the tension of the experiment increases. At such points in *Hulk*, the interface visibly intercedes with and directs a viewer’s abilities to engage with the story of the film.

The idea of distribution used above draws on Edwin Hutchins’ study of human and technological networks. While Hutchins discusses the actual situation of naval navigation, his point can be illustrated by a filmic example. In Roland Emmerich’s *The Day After Tomorrow* (2004), a group of varied environmental scientists assemble an account of imminent apocalypse. The detail of their account is generated across a network of technologies (monitoring devices in multiple locations around the world, computer and telecommunications systems) and a social network. Following Hutchins, the cognitive activity of the scientists is distributed across a technologized system and across a social network, generating an extended view of the world that mobilizes both human and technological systems. Of particular interest is the way a human sense of being in the world is modified by an interaction with technology. This does not involve a lessening of experience, but a reconfiguration of it through a technological interface. As N. Katherine Hayles remarks:

> By contrast, in the model that Hutchins presents...human functionality expands because the parameters of the cognitive system it inhabits expand.

> In this model, it is not a question of leaving the body behind but rather of
extending embodied awareness in highly specific, local and material ways that would be impossible without electronic prosthesis. (290-291)

Drawing explicitly on Hutchins, Hayles sees technologies as more fully distributing the spatial parameters of the human body through extensions of the cognitive system.

Viewing a screen clearly does not operate in the same way, as it is not an encounter in real time with activities and events occurring elsewhere, and the spatial distributions are more imaginative than actual. But as different kinds of cinematic technologies, or televisual and games technologies, create screens inscribed with multi-focal elements competing for the viewer’s gaze, a viewer’s initial means of engagement is distributed across the different elements of the image. As such, the activity of viewing emerges in the context of an attention which is distributed. Rather than occurring across a network of technologies, this occurs at an interface of competing elements generated by the organizing capacities of cinematic technologies.

Attention is understood as a process by which an individual attends to particular elements within their perceptive field (Pashler). The process is an active one, as it involves selection, of choosing to pay attention to something, as well as establishing a constraint on what is attended to. As attention is paid to spatial and temporal elements in the perceptive field, cueing occurs, a kind of “pointing to” which draws the attendee towards particular aspects of the perceptual field, while at the same time pulling them away from others.

Although cognitive approaches to attention refer to visual acuity in the actual world, the idea of attention and cueing is equally relevant to the cinema. Cinema technologies create a matrix of time and space, whatever the kind of film. Taken straightforwardly, all cinema cues attention, continuity editing seamlessly, jump cuts and other kinds of disruptive techniques jaggedly, disposing a viewer in different ways to what is occurring on the screen. The tactics of textual arrangement determine the viewing experience, intercepting engagements with characters, genres, and so on.

*Timecode*, with its four-way split screen editorial structure, moves beyond cueing to also distribute attention. Cueing of attention follows from plotting and the growing awareness by the viewer of the potential connections between the different characters. For instance, at the beginning of the film, after a series of images of filmmaking technologies, the upper right hand quadrant shows two women, one who takes a key role in the plot (Emma), and another who does not, her therapist. For several minutes these two women are the only human figures visible, with the sound of their voices fading in and out against a background of instrumental blues. Cueing is achieved both visually and aurally using what might be called fading counterpoint. This relatively simple set-up of sound and image is manipulated through the changing sound levels and depth of focus, which cue a viewer to pay attention to the spoken words, the music, or to one or other of the women.

Once a second screen becomes active, the cueing becomes more complex, as sounds and images begin to more fully distribute the attention of a viewer. On the second active screen, the top left, after a pause in action, a woman (Lauren) descends steps. As she approaches, passing by the camera, the scene is energized by camera movements that follow her to a parked car, where intriguingly she lets the air out of the tires. As this moment a third window is activated, the bottom left, which is itself divided into a four-way view of security camera footage, mostly empty. Finally, as the action in the upper segment is re-framed from Lauren to a second woman (Rosa), the final screen also becomes active.

Within two minutes the complexity of the screen has expanded exponentially. The emphatic cueing of music and focus shifting of the single quadrant has given way to the establishment of a dramatic intrigue between two women, all the while slowly introducing
other points of potential interest. The opening sequence of *Timecode*, because it builds from relative simplicity to a more complex pattern, demonstrates the generation of the higher order of cueing that I mean by distributed attention. The shifting sound and image-scapes of the first quadrant show the simple yet effective cueing of a single screen. But as the images and sounds build across the four segments, as camera movements catch the eye, as dramatic tension builds within a frame, attention is not only cued but also distributed across a range of competing elements.

The interfaces of *Timecode* and *Hulk* are both, in their different ways, contingent on emergent digital technologies. To make *Timecode* the director Mike Figgis exploited various innovations in digital technologies such as sound editing packages, light DV cameras and tape lengths (Lindsay). For *Hulk* digital editing techniques were used to generate split-screens and the more unusual temporal and spatial cuts on action seen throughout the film. As such, digital technologies mark the interface, and therefore have a role in distributing a viewer’s gaze. In the section that follows, I take this idea further, arguing that in distributing a viewer’s attention, these interfaces establish the ground from which it is possible to think about the materiality of digital imagery.

This discussion engages with Vivian Sobchack’s phenomenological study of cinematic and digital imagery. In her influential essay, “The Scene of the Screen,” she compares digital (and electronic) imagery less favorably with the cinematic, because the latter represents a dislocated material experience for a viewer: “[U]nlike cinematic representation, electronic representation by its very structure phenomenologically diffuses the fleshly presence of the human body and the dimensions of that body’s material world.” (161) Sobchack’s argument resonates with other recent writings expressing reservations about digital technologies. Within film studies this has frequently taken the form of concerns about a loss of indexicality. For instance, Winston Wheeler Dixon states that “the veracity of the moving image as been hopelessly compromised; the demarcation line between the real and the engineered (both aurally and visually) has been obliterated. All is construction and fabulation. All is predetermined; nothing natural remains” (359). Dixon’s articulation of the loss of indexicality is clearly applicable to films making extensive use of computer–generated images, such as Steven Spielberg’s *War of the Worlds* (2005), but Sobchack’s version of this argument unusually extends to incorporate all kinds of digital technology.

To understand more fully Sobchack’s take on digital and electronic technologies, it needs to placed in the context of her study of cinematic technologies. Drawing on Martin Heidegger’s famous statement that “[t]he essence of technology is by no means anything technological,” Sobchack sees our encounters with cinematic technologies as embodying perceiving subjects as “beings in the world.” In this view the link between perception and the cinematic emerges through the viewing subject. As perceiving subjects in the world we select and combine what we see, shifting our attention simultaneously away from and towards objects in the world. Our bodily orientation, our directionality of looking and hearing, expresses the intentionality of our perception. And as this is an embodied facet—orientation is defined in time and space—so it follows that our perceptions are equally always grounded in a particular spatio-temporal moment. As a specific example of a technology, Sobchack argues, cinema reveals our processes of perception, since it both enacts perception in an equivalent way to a human viewing subject, and presents that act of perception in the duration of a film:

As the multiplicity and discontinuity of time are synthesized and centered and cohere as the *experience* of a specific lived-body, so are multiple and discontinuous spaces synopsized and located in the spatial and material
synthesis of a particular body. That is, articulated as separate shots and scenes, discontiguous spaces and discontinuous times are synthetically gathered together in a coherence that is the cinematic lived-body. (152)

From the quotation above Sobchack’s view of indexicality becomes clearer. If an indexical relationship is one of existential contiguity, then the cinema is an index for perception as it constitutes a bond between perception and the world—the cinema not only presents the world, but points to a perceptive relationship with that world. Fundamental to this cinematic lived-body is both spatio-temporal embodiment and also continuity, and it is the displacement of these in the digital that trouble Sobchack: “electronic presence randomly disperses its being across a network, its kinetic gestures describing and lighting on the surface of the screen rather than inscribing it with bodily dimension (a function of centered and intentional projection)” (159).

It is at this point that I find myself deviating from Sobchack as her view of an indexical equivalence between the cinematic lived-body and the lived-body of a being-in-the-world, relies on seeing the technology of cinema as something that stands in the place of a perceiving subject, to some extent mimicking rather than interrupting processes of perception. My perspective, by contrast, takes for granted that technologies change how we inhabit the world, and so aims for an account of those transformations. So, while I agree with Sobchack’s view that devices such as DVD and video players alter how we experience films, and that digital information is dispersed across networks, which, unlike analogue, is compressible, manipulable, encoded and decoded by the processors of different interfaces, this view of digital information strikes me as a curiously machinic one that does not fully represent a viewer’s visual or aural experience.

Rather than looking only to the digital as a dispersed form or offering different control options in viewing, we can pay attention instead to the interfaces at which digital technologies are experienced as audio-visual media. I have already mentioned that the competing elements of Timecode and Hulk are contingent on emergent digital technologies, representing two examples of digital interfaces. And though the spatio-temporally embodied experiences of the world brought into being through the cinematic may indeed be disrupted by these different uses of technologies, diffusion and dispersal (even disembodiment) are not necessarily taking its place. Instead we find a range of interfaces exposing other relationships, and it is necessary to excavate them as sites of embodied experiences by viewers. To quote Hayles: “information, like humanity, cannot exist apart from the embodiment that brings it into being as a material entity in the world; and embodiment is always instantiatted, local and specific” (49). As such, it is important not to generalize about digital interfaces, but to look more closely as their specific details to reveal the possibilities of the encounters they offer.

Technologies of all kinds reconfigure our relationships with the world by enabling us to inhabit it differently, and technological interfaces can be taken as articulations of a multiplicity of habitations. A striking facet of digital interfaces inscribed by competing elements is the level to which the image is fragmented rather than continuous. The idea of such an interface may indeed seem to resonate with the notions of fragmentation and disembodiment sometimes used to characterize an experience of digital information. It does not follow, however, that when confronted with a more distributed world we become mere ghostly presences, caught up and wholly determined by the operations of a technology. The competing elements of interfaces offer a different mode of experience and perception, one in which agency can be gained through the process of making sense of the fragmented images.
Merleau-Ponty’s writing on the concept of freedom is useful in thinking about such an agency:

The world is already constituted, but also never completely constituted; in the first case we are acted upon, in the second we are open to an infinite number of possibilities. But this analysis is still abstract, for we exist in both ways at once. There is, therefore, never determinism and never absolute choice. (527)

Following on from this, I argue that engagements with interfaces constructed around competing elements are an encounter between determinism and absolute choice, and that different kinds of interfaces offer different kinds of encounters. Returning to Timecode before moving onto a discussion of Hulk can make this point more fully. As I discussed earlier in establishing the idea of distributed attention, making sense in Timecode revolves around working between the four screens on which dramatic action occurs. The sound is a limit case unless one is viewing the film through the option of the “interactive audio mix” on the DVD interface. Though the images remain constant in the four corners of the screen, a viewer can perceptually fade them in and out according to how their attention is engaged by the flow of images. This freedom of engagement is, however, qualified by varying degrees of determinism as the relationship between the four screens motivates how the flow is tracked.

Following the plot, for instance, is a relatively straightforward example of how a viewer’s gaze might be focused. Watching involves making sense of the plotting and establishing connections to individual characters, and this may cause a viewer to resist the cueing of the dialogue or soundtrack, or the movements in another panel as they attempt to follow a particular thread of the dramatic impetus in any one of the panels. Elements of Timecode’s structure can also counter a viewer’s ability to freely engage with the images by pre-establishing connections across the panels through reinforcing images. The strongest reinforcement occurs in the quake sequences, where camera shake and sound effects combine with the actors’ movements to give the overall impression of an earthquake.

Emotional registers also privilege particular panels, especially when they compete with the sometimes more mundane actions of other characters. The sequences involving Q, for instance, draw attention by using humor as the business of a film production company goes on as normal while various figures in the room are manipulated by the masseur. Similarly, suspense reinforces connections across panels. In the screening room scenes, the Red Mullet executives view screen tests as Rosa and Alex are having sex behind the screen, while connections across the other panels contribute to the suspense as to whether they will be seen or heard. The sequence begins with each of the four characters—Lauren, Rosa, Alex and Emma—listening and/or talking on either mobile phones or eavesdropping devices. Alex and Rosa talk on mobiles as he walks towards her location. Once Alex and Rosa are together (lower right hand panel) the music changes from the orchestration of Gustav Mahler’s Fifth Symphony to a rhythmic guitar score, and as they begin to have sex, the camera on the lower left panel starts to shift around the edge of the projection screen.

Just at the moment when the lower right panel re-frames to show the studio executives watching the screen, inviting the possibility that they may become aware of Alex and Rosa behind it, the two upper panels also become active in the generation of suspense. The woman who has been talking on a mobile outside Lauren’s limousine suddenly raps on the car’s window. This rap, heard as a sudden crack on the soundtrack, makes Lauren jump as though she has been caught eavesdropping. Lauren’s anxiety around being caught seems
also to pervade the two lower screens: will the studio executives catch onto the actual sex behind the act projected on the screen? Though not fully determining, such conjoined emotional cadences draw together particular combinations of images, favoring a synthesis of meaning that follows through on pre-established paths of connectivity.

What one sees in Timecode emerges, then, in the embodied attention of an individual viewer as they encounter the interface of the four-way screen, taking up an orientation that moves between the determinism of the pre-established arrangements of the text and individual choices. Timecode’s distribution of the viewer’s gaze has the potential to be generative rather than dispersive, since it opens the viewing interface to a diversity of possible viewing positions. It is in negotiating these diverse viewing positions that a viewer’s agency begins to become apparent.

To say more about this notion of agency I turn briefly to work in the field of sociology. While the argument presented in this essay does not invoke agency in the same sense as a fully articulated social agency, the latter does have purchase here. In Gender and Agency Lois McNay presents a view of generative agency. Taking to task versions of agency grounded in a negative paradigm operating via the dualities of dominant/resistant, McNay seeks ways of revealing agency with generative potential:

"The negative paradigm... tends to think of action mainly through the residual categories of resistance to or dislocation of dominant norms... This is not to deny the efficacy of all forms of resistance, but it is to suggest that a more precise and varied account of agency is required to explain the differing motivations and ways in which individuals and groups struggle over, appropriate and transform cultural meanings and resources. (3–4)"

To give this idea more substance, McNay cites the example of the gradually increasing movement of women into social fields previously confined to men as changing traditional gender norms. The potential for different kinds of agency exists in the dialogical relationships emerging from the intersections between the particularities of gender norms (for women and men) and the particularities of the social fields. In developing her argument McNay emphasizes the combination of Pierre Bourdieu’s models of habitus and field. Habitus expresses the idea that bodily identity is not natural but involves the inscription of dominant social norms, a process that includes both the establishment of the norms and a living through of those norms. Habitus is the site of the constitution of the person-in-action, a system of dispositions that is both objective and subjective, the dynamic intersection of structure and action, society and the individual.

In developing the more delimited agency involved in the process of embodied viewing, I make an analogy between Bourdieu’s description of the habitus and the interface established by competing elements. The competing elements are objective in the sense that they pre-exist and are visible to any viewer, but equally they are subjective in that individual viewers, through the embodiment of distributed attention, make sense of the images through their own framework. The synthesis of meaning through the process of distributed attention also bears some comparison to Bourdieu’s notion of the field. The field expresses the idea that individuals exist within an array of intersecting influences so that a category set up in the habitus can be reconfigured or deformed as lived through any given field.

The field is a frame for relational analysis, a multidimensional space of positions and the position taking of agents. As the logic of one set of influences intersects with the logic of another, the two are transformed. Thus, as a viewer makes a synthesis of meaning across a series of elements, the relationships between the elements become transformed by an
individual’s viewing. The diversity of transformation varies with the editorial design of the text, in that some offer more or less opportunities for viewing differences than others. Agency emerges between structure and action in the habitus, just as it emerges between the patterning of the texts and the viewer’s synthesis of meaning.

McNay’s generative agency is, then, relevant to the agency in play during the complexities of making sense of a text. Viewers distribute attention across the interface, and making sense is contingent on the cueing of the textual elements, and the distribution of one’s visual and aural senses. In addition, a viewer’s own histories of viewing, as well as their personal and cultural histories can be brought to bear on the text. For instance, throughout Timecode the impact of Alex and Rosa’s affair on their respective partners has developed, leading to Alex’s murder by Lauren and Emma’s truncated encounter with the woman she meets in the bookstore. Lauren might easily be placed in the long line of lesbian murder narratives, in which a spurned lover wreaks revenge by murdering, or attempting to murder, the new lover.

And indeed, this is an interpretation that stands, but can be qualified by other responses to the film made possible by its competing elements. The final images of Timecode are of Lauren and Emma walking in the street, Lauren away from the scene of her crime, and Emma apparently wandering as Skin is heard singing The Comfort of Strangers on the soundtrack. As these two women walk away from their respective partners—duplicitous and dying Alex, Rosa attempting only to reach Lauren via a mobile phone—the latter images end, leaving the two women alone together, contained within their separate quadrants on the screen. The images of the two continue almost throughout the credits until finally only that of Emma remains. Because of this extended counterpoint, my sense of disappointment that Lauren’s trajectory has been leading towards an inevitable incarceration mingles with a curiosity about where Emma’s life will lead once she discovers that Alex is dead: will she carry on seeing women, men or both; will she get her self together or fall apart? This interest in Emma does not alter the fact of Lauren’s fate, but it does place me in the position of constructing an alternative route of engagement with Timecode. I want to resist the determining narrative thread of Lauren’s murderous actions, so I become engaged with Emma, asking questions of the character, even as I also watch Lauren’s frequent over the shoulder glances, checking for the police or maybe Rosa. As the competing elements of the two screens distribute attention between the two narrative strands, there is scope for agency in the balance of creating a more generative reading of the film.

The opportunities for agency available to a viewer depend, then, on the different ways interfaces distribute the viewer’s gaze. In Timecode, the editing of the elements on the screen allows an extended distribution of attention across four panels offering high degrees of freedom. Though the dispersed audio-visual competing elements of Timecode may initially disorientate a viewer, dissemble their engagements with the text, its lengthy duration gives viewers a temporal axis along which they can work to make sense of the elements. The tendency towards fragmentation is countered by this temporal axis, creating an interface, which though circumscribed by technology’s ability to reframe the world through an expanded multiple view of events, is arranged so that viewer’s encounter is a generative one.

This is not to argue that all technological encounters are generative, since the technologies involved may not always allow a straightforward synthesis of meaning via a making of connections across competing elements. The interface might be more obstructive or even disruptive, establishing different modes of encounter and distinct experiences of the technologies. The use of digital technologies in Hulk offers, for instance, different modes
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of encounter within the same film. An “effects laden film,” digital technologies were used to create the figure of Hulk, in action sequences and some of landscapes, but they were also a significant presence in the more unusual editing of the film.

A feature of Hulk was the use of an AVID non-linear editing system to stylize the look of the film. Editor Tim Squyres and director Ang Lee experimented with digital manipulations on an AVID system, before handing them on to Industrial Light and Magic for finishing into the high-end imagery of the final version of the film (Hollyn). Though much of the editing in Hulk is seamless, relatively conventional, some spatial and temporal constructions confront the viewer with the ability of digital technology to manipulate space, but challenge our ability to make sense of it in a different way to Timecode. A number of these manipulations use visual echoes as bridging shots: foliage at dusk to stars, a green explosion to the green iris of Hulk. But other manipulations more deliberately play with spatial and temporal patterns, disturbing them by excising space between characters, placing them together in a frame when the previous or subsequent shots show that they are distinct locations within a room.

This occurs when Edie Banner tells her husband David she is pregnant. Initially the two are both standing on one side of the kitchen, and the shot cuts to David moving into the far space of the kitchen with Edie no longer visible. As she is heard saying, “David I have wonderful news,” he begins to turn back towards her. At this moment, with David’s movement still partially visible in the background, an insert moves up from the bottom of the screen, showing a closer view of David’s turning back, at the same time, a second insert drops down placing Edie into the framed space, as she is also turning towards David. The overall effect is to pull out the space between the two characters. An example of temporal disruption occurs through cutting within a zoom, a device making the transitions unusually jagged. As the digital zoom moves into the spatial depth of a shot of David playing with his baby son in his cot, the zoom speeds up to cover a cut in the image of the baby. The effect of the combination of the faster zoom and the not quite perfect substitution of the baby is a blurring around the figure of the baby, which is not matched by any blur in David.

Such disruptive editing in turn disturbs how a film is viewed. Unlike Timecode where the “editing” between the screens occurs in viewing, the editing of Hulk pre-exists viewing, and so the necessity for an active synthesis of meaning across competing elements is reduced. Nevertheless, spatial and temporal distortions break a straightforward viewing by introducing moments of a more unexpected encounter with the text, but as these occur abruptly and change again with equal rapidity, little opportunity is given to make them make sense in the initial moment of viewing.

Since there is no time to generate an embodied synthesis of the different elements on the screen, this instead becomes an encounter with the effect itself, a more direct experience of the sudden shifts enabled by technology that disturbs our easy engagement with the imagery, alerting us to its pattern. Though the place of agency is very reduced in this interface, it is not without meaning when allied to the story of Hulk. The two examples discussed above occur within the opening 6-minutes of the film including the credit sequence, during which images of the transformative experimentation at the centre of Hulk progresses from invertebrates to lower vertebrates and primates, with David Banner finally using himself as an experimental subject in a radical technoscientific intervention. The arrangements of elements on the interface invoke an equivalent encounter with transformed time and space. Just as the content of Hulk will tell the story of Bruce Banner’s transformations because of his father’s scientific hubris, the disruptive interface created by the editing enables a viewer’s identifications with the transformative potential of technology.
Rapidity of change is also a facet of the split screen effects that were influenced by the cartoon panels of the original comic book version of Hulk. Unlike Timecode, where the four screens allow a viewer the time to make a synthesis, in Hulk the screens shift rapidly, their appearance of mobility further engendered by the multi-directional motion of objects within the panels. In the sequence where Eric is forced to transform into Hulk and escapes within the military installation, split screens show parallel elements of the story (in-box dialogue between characters while Hulk rampages in the background), and reinforce the main action by showing a different view of the same event.

Just as in Timecode, these split-screens display a decentered view of events, and the capacity of technologies to generate distributed attention. However, the speed of the transforming screens gives the viewer a much-reduced temporal axis within which to experience the images. As such, their abilities to make sense of the competing elements, to make connections between the various micro-events occurring in reaction to the macro-event of Hulk’s escape, rely on a series of glances rather than a synthesis with agency. The quality of a temporally embodied viewing is reduced, with the spatial distribution marking the more determined role of the technologies. The dissimilarities of the split-screens of Hulk and Timecode reveals the importance of not only looking at the spatial design of the interface, but also its temporalities when thinking about the degrees of freedom available to a viewer.

Digital technologies are a part of contemporary sound and moving images. In commenting on their distinctiveness from analogue technologies, Timothy Allen Jackson calls for productive means of thinking through this difference: “I suggest that a positive transformative aesthetic environment requires finding, rather than losing oneself, and remaining connected to the present time and space in order to ground what you are experiencing in the dynamic ecology of that context” (351). In this article I describe the screen as an interface where digital presence is increasingly inscribed, one at which we can find ourselves embodied in different spatio-temporal patterns.

Finding this embodiment requires our looking more closely at the audio-visual materiality of digital media. Digital information is indeed disembodied by comparison to analogue information, flowing through networks, reducible to zeros and ones as bits combine to generate fragments that will eventually make up an image or sound. As viewers, however, we have no access to this form of information, gaining comprehension of it only through the interfaces of films and television, games, and software packages. These different digital interfaces inscribe the presence of technologies in very distinct ways, allowing us the opportunity to experience and think about how these technologies enable a range of spatio-temporal embodiments. Some of these experiences may be generative and productive encounters, others may not be, dissembling and reducing us to mere watchers of a system beyond our control. Giving an account of digital inscriptions reveals the diversity of our experiences of technologies, embodied encounters that exist within and between the determinism of the interface and the choices made in viewing.

Works Cited
