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THE MEDIA MULTIVERSE AND ADAPTIVE VIRTUALITY

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Zusammenfassung/Abstract

New mediated virtual worlds have created a changed context for ‹interpretive perception›. Each advance in mediated communications alters our perceptual range, our sense of our world, our relation to time and space. We increasingly conflate the real and the virtual, the natural and the artificial. The depth, range and reach of networked digital media, and their virtualised inputs and outputs have been so dispersed into so many facets of everyday life, that this new status constitutes a new media multiverse. The distance of human subjects from the media has so collapsed, as to make it difficult to distinguish media from the whole of life. Media immersion has become a fact of everyday life. The adaptive virtuality of the new networked media creates a powerful amalgam of social immediacy and mediated experiences in everyday situations. But there is little in the way of established critical practices for understanding how the ever present, shifting cultural practices of digital media have altered our perception and how we attempt to communicate.

Neue mediale virtuelle Welten haben zu veränderten Rahmenbedingungen für eine «interpretative Wahrnehmung» geschaffen. Jede Entwicklung medialer Kommunikation verändert unseren Wahrnehmungshorizont, unsere Weltsicht und unser Verständnis von Zeit und Raum. Dabei verschmelzen Realität und Virtuelle Realität ebenso wie auch das Natürliche und das Künstliche. Der Umfang, die Reichweite und die Auswirkungen der vernetzten digitalen Medien sowie deren virtueller In- und Output haben auf ganz vielfältige Art und Weise Einzug in unser Leben gehalten. Dies geht so weit, dass man die allumfassende Bedeutung der Medien zu Recht unterstreicht, indem man von einem neuen «Multiversum» sprechen kann. Die Distanz zwischen Mensch und Medium hat sich ebenfalls sukzessive aufgelöst, dass es zusehends schwierig erscheint Medien überhaupt von unserer Lebenswelt abzugrenzen. Die adaptive Virtualität der neuen medialen virtuellen Welt schafft so eine wichtige Verbindung von sozialer Unmittelbarkeit und medialer Alltagserfahrung. Es gibt jedoch bisher wenig ausgeprägte kritische Praktiken, um zu beschreiben, wie die omnipräsenten und sich stetig verändernden kulturellen Rahmenbedingungen digitaler Medien unser Nutzerverhalten und unsere Kommunikationsweisen verändern.

Our universe has swallowed its double, and it has lost its shadow.
(Jean Baudrillard)

Introduction

What is a virtual reality? Are not all media an illusion? Oliver Grau (2003) argued that artists, designers and creative media practitioners are always creating alternate views of reality in their cultural representations. Media «objects» have always been both real and virtual, invaded as they are by the conceptual, as the artist René Magritte demonstrated so clearly in the early Twentieth Century. Every mediated image is an abstraction, a two-dimensional illusion. All media are constituted through their signifiers and signifieds, their manifest form and latent content, their objective structures and potential for response and meaning, and impacted by the social and cultural worlds they come out of and go back into.

The actual (life, reality), and *the imagined* (the possible, the virtual), are caught up in a more complex set of relations than ordinarily thought. Once instantiated in some way, ideas, stories, images, sounds, are actual. They may relate to the ‹same› world we ordinarily bodily inhabit (realist), or be about other worlds (expressive). As Rodowick (2001) observes, the basis of all representation is virtuality. It is really an issue of modality, and of convention, that their status hangs on, rather than actuality and truth. Indeed, as Belsey (2005) argues, fantasies can be used to help interpret the everyday. More prosaically, Berger (2006: 112) argued that ‹we spend our lives immersed in narratives›. Equally, we now spend our lives immersed in media.

Contemporary efforts towards creating immersive digital virtual worlds, and those more pervasive applications of new media, provide the opportunity to reflexively gauge the role and place of both contemporary digital media and the cultural environment that supports them. After all, all digital media is ‹pure simulation› (Rodowick 2001: 37).

Understanding our Relation to Digital Media

The formative features of mediated virtual worlds go beyond the conceptual range of earlier notions of multimediated virtual reality. There is a multiplicity of factors that make up the loosely configured spectrum of background cultural influences upon the emergent virtual media formation, from the illusionistic neo-classical formalities of Romanticism, and the counter-illusionistic abstract, constructivist aesthetic movements and practices, through Abstract Expressionism to Pop Art and the more conceptual practices of Postmodernism. Developing on from the reproductive, semiotic methods of photomedia (photography, photomontage, cinema), and the electronic and networked features of telemedia (radio, broadcast television, and video), the scientific, mathematical power behind the computational and scalable attributes of digital media and virtual reality (VR) technologies, as well as the reciprocal responsiveness of digital telecommunications and broadband networked systems helped establish the coordinates of the new media *multiverse*. With the increase in manipulable, scalable, extensible, interoperable and interactional affordances, the metaplastic dimensions of the new media apparatus emerged, with its broad immersive social interactivity.

A difficulty with understanding our relation to digital media is that we are uncertain about its still emerging status. For instance, there is, as Rodowick (2001) argues, no fixed relation to digital visuals and sounds. Everything can be changed, altered, manipulated or modified in some way, more or less imperceptibly. Thus there is no reliability in the referential connection between images and sounds, and what they refer to. We do not yet have the benefit of a historical idea of how digital media are helping to constitute our understanding of how our social and cultural worlds have been changed by the most recent media factors. Rodowick argues we are caught up in a kind of ‹ontological perplexity› (2007: 94). We lack a clear perspectival position from which to view it, if that was possible. But in the digital era it is particularly difficult to understand our relation to our world not only because media are so inextricably bound up with contemporary life, but because the very media we depend upon are made up of images that do not appear to be images. The digital image mode is mutable, Rodowick argues — ‹we are equally uncertain that this perception has a singular or stable existence either in the present or in relation to the past› (2007: 94). Being still technologically emergent or operationally fully established, ‹digital mimicry› lacks perceptual credibility. It is not epistemologically framed with any clarity.

There has been a recurring thread of thinking about the manner in which the visual form eludes being defined that goes back before photography,

to the camera obscura, and even further back to the lingering shadows in Plato's cave. It was Susan Sontag, amongst others, who drew to our attention the realization that the ubiquity of photographic images had altered our ‹ethical sensibility› by fiddling with ‹the scale of the world›, by using imaging technologies which are ‹the ideal arm of consciousness in its acquisitive mood› (1977: 24). These media images were seen as possessing a ‹paradoxical form of natural technology›, as Lippit observes, that the optical patterns embedded in silver halide particles operated within a quasi ‹organic artifice› (2005: 55). And yet the virtuality of image media represents an estrangement from nature – a point of departure. The electronic image possessed never more than a fleeting trace of the real.

The very concept of «image» has been contested from the early days of Modernism, through it's practices. For example Rene Magritte's *The Treachery of Images* (1929), which clearly demonstrated not only the representational ambiguity of imagery, but also just how invaded the visual is by the conceptual. The advent of digital imaging methods in the 1980s literalised this image scepticism. Rodowick suggests: ‹To consider a photograph or a digital image as perceptually real involves an assumption that such images are representational› (2007: 102). As such, perceptual realism is seen as relationally linked to three-dimensional spatial experience. Otherwise media imagery would merely convey a sense of a flat visual field, a pattern of dots. Thus Rodowick argues that the artificial perceptual realism commonly associated with media images relates to mental or cognitive factors more than it does to actual phenomenological criteria. The ‹image world›, as Sontag termed it, influences our perceptions of the ‹real world›. Or, as Gans put it, ‹the postmoderns› had already realised that ‹representation is the fundamental mode of being› (1993: 213).

The *virtual* image world

The *virtual* image world of course is not a unified one. Not only is it a fluctuating agglomeration of media types and social relations, but it is an inherently conflicted one. For instance, the indexical *trace* function of photomedia, as alluded to, means that the «captured» image was tethered to a referent in some illusive way at an earlier time. That is, the image is umbilically tied to the past, destined to serve in many instances as evidence of someone or something that existed at a prior moment,

that lingers on in a virtual cultural memory bank. Think of the film footage of the gardener's antics captured by the Lumiere Brothers in the late Nineteenth Century in The Hoser Hosed (L'Arroseur arose, F 1895), still able to project a flickering remembrance of that person at that time so long ago, forever captured in play with that garden hose, then, and destined into the future to repeat those playful moments endlessly in a continuously disappearing present.

And yet as the image trace may have become unerasable, its meaning had been lost. Jacques Derrida argued that the trace, where the trace ‹is not a presence but the simulacrum of a presence that dislocates itself, displaces itself, refers (to) itself› (Derrida 1982: 24). The image ‹has no site›. The media image is not only *not* a presence (the thing or event represented), but it erases itself. Erasure belongs to its structure, Derrida argued. But digitally networked databased servers have become immense «memory» banks from which images can be retrieved, and replayed on demand.

Media image systems have also been powerfully linked from almost as long ago to more symbolic, constructed ends, as in the fantasist «animated» images of George Méliès film A Trip to the Moon (Le Voyage dans la lune, F 1902) about a then imagined and unlikely time of rocketships travelling to the moon. So media imagery can carry synthetic illusory imagery with an uncertain relationship to the present, perhaps an «unreal» present, a reflection of/from the past, and a projection of the possibility of an imagined future. As Brian Massumi observed, the virtual is ‹a realm of *potential*› (2002: 30).

Digital visual media have an enhanced affordance for presenting the non-real, the unreal, the almost real, and the seemingly actual real, which significantly trouble André Bazin's phenomenological notion of ‹the integrity of the real› (1967). Bazin's notion of realism was actually framed around a formalistic approach to cinematic realism, based upon camera and editing techniques such as the use of long, uninterrupted wide-angle camera takes in everyday settings, left largely unedited beyond joining the end of one shot to the start of another. It is a basic technique which holds sway today still with users of mobile phones and other small cameras, who place their everyday images into the deep digital media spaces of *YouTube* and *Facebook*. It is possible to posit this seeming realism of online video around the notion of immediacy as a key contemporary critical factor.

Interestingly, Bazin argued for a *spatial* realism, ‹not certainly the realism of subject matter or realism of expression, but that realism of space› (Bazin 1967: 112), which he believed constituted cinema, but which also essentially amounts to not only the immersive integrity of space but also of time. He argued against ‹the intrusion of form›, and of ‹rendering it [cinema] virtually invisible› (Bazin 1967: 74). That is, as a form of virtual reality. Bazin also linked his realist aesthetic to the depiction of the imaginary— ‹what is imaginary on the screen must have the spatial density of something real› (Bazin 1967: 48), if it is to attempt to put back ‹a sense of the ambiguity of reality› (see Monaco 1977: 330). The virtual, however imaginary in scope, must also seem in certain ways as real, realer than real, as is evidenced by contemporary efforts towards 3-D digital movie special effects of Avatar (James Cameron, USA 2009) —, «even better than the real thing».

The small broadcast networked monochrome television screen of the 1950s was able to assert itself over the greater mimetic force and the diegetic theatrical illusionism of the larger scaled cinematic apparatus. Despite the countervailing Cinemascope response, the sheer velocity and immediacy of it's glowing «live crosses» to major world events, to sites of agony and exhilaration of breaking news events or ecstatic and momentous sports and music events compelled the scattered viewers to watch (and listen) in massive numbers. Television was able to assert a realism of the immediate, and hence apparently accrued the transparent values of objectivity around its more realistic genres. The temporal virtuality of instantaneity that was conflated with being unmediated. «Live» events appeared to be transmitted faster than they could be edited. ‹Hand in glove with objectivity go authenticity and immediacy›, as John Fiske observed as he attempted to ideologically unravel the ‹transparency fallacy› around television news (1987: 289). Objectivity could in part be simulated through the illusion of instantaneity.

But Rodowick has argued that the virtuality of all media, their ‹mutability and susceptibility to transformation and recombination› (2007: 103) is now even more evident. Images, he says, are now more likely to be a ‹blending of capture and synthesis, combining images recorded from physical reality with images generated only on computers in the absence of any recording function or physical referent› (Rodowick 2007: 102–103). The idea of the referent is less clear now than perhaps it ever was.

It can clearly originate as a «free form» synthesised imagery, or conceptual construct, as much as it may be a «captured» image.

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Social Simulation

Media immersivity is, in technological terms, a logical extension of computer functionality and media practices. Media immersive environments utilise multimodal spatial-temporal input/outputs data to generate a human sensorily immersed experience via computer/media interface. The ‹immersispace› thus simulated by the ‹real-time› data acquisition, storage and retrieval of an integrated media system, often using haptic sensor and feedback technologies, may also utilise a graphically modelled avatar presence to facilitate the visual-aural ‹immersipresence› experience.

But the case made here is that media immersion no longer exclusively requires the operations of a single integral non-space of a media *metaverse*, such as a game world, or use of a headset or panoramic site installation, to generate the experience of immersivity. Online media and mobile communications have arguably come to assert an immense tidal pull of media across the everyday world through the virtual force of their pervasive simulated social presence. This ‹pull› has been asserted through the immediacy and immersive force of the telecommunicative

simulation interrelational responsiveness of interpersonal relations and social networks in and over the real world.

The new networked media operate through the seeming immediacy of the webs of interpersonal associations through the techno-responsiveness of telecommunications devices and locational flexibility of Wifi networks. They appear to provide an authentic subjective experience of the objective connectivity of sociality and the sheer intensities of the seemingly situated expressions of connectedness. That is, users are offered *simulated intimacy* – the virtual intimacy of friendships at a distance, and the quasi-interaction of virtual social worlds at, what I term, *instantaneous distance*, through social networks technologically overlaid on the real world.

Theories of technological and cultural convergence (Jenkins 2006), or even the foundational observations of Manovich (2002) on database logic, certainly provide valuable clues for how to incorporate or accommodate these qualities into the previously established perceptual models and performative patterns, which have been enhanced and/or disrupted for many people by the accelerated mediatization of our lives. Fuery puts it that the new media ‹further fragment an already heterogeneous and fragmented *episteme*› (2009: 120; original author's emphasis).

Perception and Plasticity

The newer logics of networked extensible media build upon the older models of mediated virtualities. The extensibility and responsiveness of the post-Web 2.0 stage of digital media, meant we moved from read-only, to read-write, to read-write-forward modes, in a relatively short timeframe. The variability and plasticity of the mobile wireless media compounded these changes, offering another dimension of reflexivity in extending human communicative competencies and creative capacities.

There is a need though to realign the critical models to fit this new meta-relational media environment. Digital media metaplasticity, the ways new adaptive techniques can be employed in developing variable relations between the ‹real world› and virtual worlds, offers a way to understand more about digital virtuality, and the complexities of new media experiences more broadly.

The key to understanding this new level of mediation is that the digital environment is based on the properties of computational plasticity. By being

readily copied, embedded, «mashed-up», digital media artefacts are changed, and the qualities of the mediated experience also changes. The media presentation and experience is itself altered through use. This *adaptive* plasticity mirrors the most recent understandings of the human brain from the neurosciences on ‹metaplasticity›. That is, the plasticity of plasticity.

Metaplasticity is where synaptic plasticity itself can be altered through prior synaptic activity (Jedlicka 2002: 140). The healthy human brain, according to Tsanov and Manahan-Vaughan, is permanently in a dynamic state of synaptic change driven by visual experience, which operates in response to immediate behavioural requirements (2008: 585–6). In pathological circumstances, such as in the treatment of the human brain after a stroke, parts of the brain can learn how to learn to do new functions previously handled elsewhere in the brain.

In a media context, this is comparable to where the visual-aural properties of the digital media situation are altered through the plasticity of the algorithm, triggered through user interaction behaviours. For instance, think of how the different levels and variable parameters alter as you advance in computer games, such as World of Warcraft (Blizzard Entertainment, USA 2004), as well as in Second Life (Linden Lab, USA 2003), and in other games-social media hybrid forms. This digital plasticity in turn produces changing perceptions of the mediated situation. Over time, like other cognitive learning situations, digital metaplasticity has the potential to change the user's brain functions.

With digital media metaplasticity, the virtual mediated experience more nearly mirrors the human mind's own operations, artificially. The capacity for medial ‹metaplasticity› in the structural and experiential ways we can now interact indicates the development of a new order of *adaptive* medial operations and can provide a way to review media aesthetics in the second media age, as well as for understanding what Goodman (1984) termed the semantic and syntactic *densities* of these new cultural methods.

Each new advance in mediated communications has altered or *extended* our perceptual range and experience of framed, rendered time and space, and in so doing further altered what Marshall McLuhan termed our ‹sense ratios›, our sense of how we are situated symbolically and psychically in relation to our experience of our world. As Hansen observed, ‹all reality is mixed reality› (2004: 27). And each new

advance in mediated communications has matched our psychical and referential experiences of living in a technologically overlayed world, with its real and virtual, natural and artificial, bodily and augmented parameters.

Digital networks are seen as a symbolically expressing our social networks, and frequently taken as being literally related to, if not wholly synonymous with being social, or at least social being. ‹Being digital›, to use Negroponte's (1995) term, is plainly different to inhabiting older analogue media spaces. The varied and shifting forms and formats for viewing/perceiving media, the complexities of new media methods of interactivity, have created a changed context for ‹interpretive perception›. Fuery (2009: 37) suggests there is little to assist in analysing the textual ambiguity, hypertextual openness, disintermediation and inevitable entropy of the experience of digitally networked media. It is difficult to be categoric about a mediated experience which tends towards disintegration into masses of tangles, side-tracks and dead-ends. The variable patterns of inputs and outputs, and the in-between forms, playable, embedded, downloadable, intermedial extensions and options for postings, Tweetings, uploads and feeds, of interoperability of communications media, and their mobilities, mean the ‹adaptive turn› in media is difficult to encapsulate, especially within the traditional explanatory models of our tendencies to narrativise.

The immediacy and relative instantaneity of online and mobile media, which confounds the temporality of the apparent present, also confounds the spatiality of here, and there, in the ‹communicative moment›. That is, it confounds the great distances involved in seemingly real-time *reciprocal* mediated communications, that can be occurring with someone or many people, at varying distances, global, local, and anywhere in between. The social and geographic nature of media immersion has been accelerated by the diverged, networked extensible media developments. This has involved the hybridization of social and cultural methods by the grafting of computing capacities onto the older audio-visual media symbolic activities.

These changes in the media multiverse have emerged from the earlier ‹marriage of symbol and circuit› (Hobart and Schiffman 2000: 267), and the accelerated processes of mediatization and digitalisation. The computer, itself a cultural symbol system constituted by computer codes, languages and «object» typologies, also incorporates, for visu-alization and interface purposes, the *screen*, itself emblematic of so much of older media culture, and incorporating as it does a powerful set of metaphors of human conceptual activity. The degree of mobility and touch-activated adaptability of screen-based portable devices has considerably changed the way users interact with their environment, social networks, public and commercial data sources, e-commerce operators and personal data usage.

M and M's

Although the terms *multiverse* and *metaverse* are sometimes used interchangeably, even in the science literature emanating from astronomy and geophysics, I will be using them to mean somewhat different concepts, consistent with their usage by other researchers in the published literature of new media and the sciences.

The notion of the multiverse arises, according to Ellis et al., from some basic ontological issues, and was seen as the only scientific way to avoid determining the precise conditions ‹for our seemingly very unlikely Universe to exist› (2004: 921). In cosmological terms, it was thought better to avoid the uncertainties and probabilities about the origins of a single theory about the origins of «the» Universe. The multiverse offered a working model that allowed for completely different conceptions of the universe to operate side by side. As Goodman put it: ‹Since there are conflicting truths, there are many worlds if any, but no such thing as *the* world› (1984: 125). In a sense the multiverse is both a logical and sematic necessity.

If digitalization propelled the interpenetration of computing into social domains and the overlaying of media systems, then it also atomised the logic of the older analogue media world/s, often referred to as technological «convergence». In the continuum comprising old and new media, the term *multiverse* offers a basis for describing the broad spread and multiplicities of technological, cultural, social and economic domains, and the physical and imaginary properties and overlays of the contemporary divergent mediated communications environment.

The emerging paradigm of the media multiverse is emblematically located around the depth, range and reach of digitally virtualised media inputs and outputs that have been increasingly dispersed into so many facets of everyday life. It is both convergent and divergent in how it becomes manifest, and can aid in contextualizing how, as Augé puts it, ‹media-

tised images and messages instantly put any person in relation to the whole world› (1999: 95). It is used here as an overarching macro descriptor of the spread and complexities of new media, but is not intended to be used in a prescriptive way to describe a supersystem which can account for all possibilities of the communicative systems and mental operations currently in play.

Although *metaverse* is sometimes used seemingly interchangeably with *multiverse*, and notwithstanding the «meta-» prefix, *metaverse* is used here in a more specific way, to describe particular digital virtual worlds in a micro sense, as designating specific kinds of virtual media contexts, or specific 3D applications and social interaction sites. This includes examples of virtual spaces such as SECOND LIFE, or networked game environments, such as WORLD OF WARCRAFT, related to the avatar-based engagements of games and hybrid social environments. These are, as Davis et al. observe, immersive three-dimensional virtual worlds where people interact as avatars with each other and with designed software agents, ‹using the metaphor of the real world but without its physical limitations› (2009: 91). It can also cover geo-spatial systems such as *Google Earth 3D*; or abstract spatial constructions and more poetic virtual environments, like Mura's *Meta-Plastic Virtual Worlds* (2008). The notion of a circumscribed metaverse can also be extended to cover a variety of more broadly dispersed networked and mobile organised online spaces, platforms, and data control points, such as *Facebook*, *MySpace*, *Vox*, *Plaxo*, and so on, that overlay the everyday world, and are increasing becoming part of ‹being digital›, or at least augmented «doing» in the digital era.

Metaverses are frequently thought of as multi-user computer-based interactive synthetic, three-dimensional graphics based spaces, where certain parts of real world behaviours are simulated, and where users can interact individually or collaboratively, or in an adversarial manner, within set parameters. Metaverses can be used in social, commercial, business, education and training contexts. Jones (2009) though cautions against assuming simulated 3D metaverse environments such as SECOND LIFE are somehow insulated from the world around them. Jones makes the point that people are —

«[…] often under the mistaken impression that this newest new thing is a self-contained and unitary virtual world set apart from the general chaos of the Web. Intellectual, cultural, and financial capital is flowing into and out of Linden Lab's «**metaverse**,» often because of an assumption that Second Life represents the «future of the Internet.»

(Jones 2009: 264; original author's emphasis)

Analysing the Virtual

The new kinds of virtual modes represent a changed relation to knowledge. The architectonics of digitally networked media represent new modes of spectacle, and new mediated virtualities, new kinds of «textualities», and thus require a modified if not «new» critical framework for analysis. In short, it requires a new ‹pragmatics› by which to uncertainly but creatively advance. As Rodchenko observed in 1919, analysis is the ‹engine of invention›, and the ‹spirit› of creativity, when put into action (Rodchenko 2005: 84).

With virtual media the visual *illusion* is strong. It can generate a sense of exhilaration while the seeming transparency effect overpowers the senses, merging vision with medium. Think of the compelling realism and bridging of the space between image and thought for audiences at the end of the Nineteenth Century watching the then new medium of the single take (unedited) film of the Lumière Brothers THE ARRIVAL OF A TRAIN AT LA CIOTAT STATION (L'ARRIVÉE D'UN TRAIN EN GARE DE LA CIOTAT, F 1895).

Think back even further, to the shadowy virtualised panoramas of landscapes projected through a small hole into the specially constructed darkened room, literally a *camera obscura*, creating the virtual impression of the outside world on its wall, blurring inside/outside, world/image, the workings of perception, and disrupting rational thought. The medium was seemingly invisible. Inexperienced viewers were confounded by the sight (spectacle) and light (lucidity) of the experience. The presence of the image signalled the illusionistic power of media that was to come, and that has been at the core of issues of media theory ever since.

Virtual reality worlds, VR systems, are spoken of as being, or simulating, immersive three-dimensional space. The promise of the immersive virtuality of VR systems is the paradoxical offer of a seemingly *non-spatial* experience — a space outside space — literally, *outerspace*. But immersive Virtual Reality media also represent a discourse of closing the distance between viewer and medium, between body and machine. This is about making the appearance of an interface disappear, so that the medium will ‹appear to be free of technological artifice› (Rodo-

wick 2001: 39). In fact what occurs, as Rodowick observes, is more of a marriage between body and machine, than the ‹disappearance› of the interface. And rather than a separation, of being freed from the machine interface, this immersive quest places a great burden upon the body, upon the user, who becomes ‹encased› in the technological ‹supplement› — the VR visual-aural headsets and body sensors and cables.

Massumi (2002: 159-160) points out, the notion of a ‹superposition› is non-spatial. The virtual, he asserts, has a «space likeness», an ‹incipient phenomenal surface›, with an ‹abstract echo› of virtual depth. It provides a *non-space*, a *real* non-space, if you like, but not an inhabitable one of course. ‹Virtual illusion› would be a more accurate description, than virtual *reality*, which is not to deny the force of the immersive virtuality. Simulated realities or simulacra, as Baudrillard termed it, can come to assume the perceptual and affective force of reality, as illustrated by the reaction of trainee pilots in a full flight simulator, or in the behaviours of the more addicted computer gamers.

- Grau observes that prior media experience is a key factor in media impact, of assessing the seemingly transparency of the illusionistic ‹effect› of media— ‹Immersion arises when artwork and technologically advanced apparatus, message and medium are perceived to merge inseparably› (2003: 339). The task of laying bare the virtual properties of digital media is even greater, to reveal something the nature of the new mediated experience. The axes of the mediated communication process can be seen, as Grau suggestthe media object,
- the transmission apparatus,
- the medium,
- the message.

Each of these four ‹dimensions› is problematic to establish as independent typologies and as phenomenal entities because they are perceived as fused inseparably in the representational experience. Andrew Murphie (1996: 83) argues that traditional patterns of relations *within* representation are ‹based upon an irremediable distance between that represented, the representation itself and that represented to›.

With new kinds of media, the referent (referential logic) progressively becomes lost as media immersiveness breaks down some of the distance along the axes Grau delineates, both in production practices, and in the communicative processes of reception/perception. Trying to approach the virtual «thing» is difficult. As with the electronic media artefact, the new kinds of digitality are immaterial and elusive. As observed elsewhere, networked and/or immersive digital media cannot be viewed or assessed as *static* completed media objects, in the way that the older, more singular media could be viewed, collected or captured in a relatively consistent form for analysis. Manuel DeLanda puts it— ‹The reality of the virtual is structure› (2002: 31).

Weight (2006) proposes the notion of the digital ‹text-as-apparatus› as a way of critically approaching the new media. This is where the ‹text-as-apparatus› is seen as comprised of its *key features* —

- the interface
- the database
- the algorithm

That is, the key features are firstly the visual environment within which digital interaction occurs, that modulates both actions and content, and to a certain extent form; secondly the data storage system from which individual items can be retrieved by different levels of user manipulation; and thirdly the computational operations which determine the kinds of connections the user behaviours can result in, along certain ‹hyperlinear› pathways.

Hayles (2004) observes that new media create new relationships between users and stored media. Digital interactivity operates within an *adaptive logic* or environment. It provides the conceptual basis for metaplastic design, as articulated by Mura (2008: 176), in that ‹it proposes a different approach to the construction of virtual reality based upon a conceptual poetry of the virtual space›. Adaptive systems are generative, and capable of communicative transformation. This is where the user experience holds the key. Ellen Strain, in her article on ‹Virtual VR› (1999: 11), writes of the ‹derealised subject position› of virtual media as representing a split consciousness ‹straddling here-and-now and a world where physicality can only be located in strings of code and chains of signals passed through labyrinthine circuitry›. This is where interaction, the dimension of presence, is seen as performative, and where presence is thought to be caught somewhere between what Seegert (2009) describes as ‹doing there› and ‹being there›. It is thus that the metaplastic virtuality of presence is *produced* in the digital

media ‹spacetime›, to use Manuel De Landa's term (2002).

But the virtual, Rodowick (2007: 78) suggests, ‹is always overrunning the actual› in the virtual *spacetime* of the screen. The media screen, from early cinema to immersive VR spatial equivalents, have always produced a kind of synaethesia. The screen appears to offer the illusion of an entry to memory, a portal to the past as present, and the present as future past tense, as history in the making. Think of television's immense incisions into world events with its coverage of assassinations, national walls being torn down, others going up, towers collapsing, as well as financial institutions. More recently Facebook has been able to capture smaller scale life stories «on the fly», to archive them in the endless loops of Web servers, and to disperse them across geographic space via the *virtual spacetime* of various screen devices.

The media spacetime, DeLanda (2008) argues, literally causes space to function as time. Images of events lost to the past are projected into the present. The ‹irreversible succession of passing presents›, Rodowick observes, soon disappear into the virtual time of memory (2007: 78–9).

The interwoven social illusion

Virtual reality is seen as the most technologically advanced form of mediated communications in that the goal is to attempt to camouflage its mediation processes by dissolving the frame, disguising the interface, and placing the viewer within the mediaspace. It presupposes the simulation of non-mindedness, or a system where the mind is in the ‹operative present›, as Luhmann (1994: 382) terms it, of the communications process. That is, it attempts to place the viewer/user in some conceptual way inside the media experience. But once «there», in the virtual immersive mediaspace, the metaverse, the mind can only confront itself. Virtual reality offers a paradoxical, idealised space.

If immersion is about the degree of engagement of the user/interactor in the mediation process, and confusion about where and when this begins and ends, then the practices of generating immersive three-dimensional VR sensory «bubbles» are not the only way to experience a sense of immersion. It can be thought of in terms of a collectively shared hallucination or suspension of normal critical faculties, as much as it can be of an immediately sensory experience.

Seegert (2009) argues that rather than simply the relative realism and impact of visual and aural overloading through computer graphics simulated virtual environments, or using more abstract synthetic spaces to generate a sense of presence, of seemingly «being there», it is more probably the processes of interaction, of *doing*, that powerfully simulates the sense of presence in a virtual way. Interaction, he argues, produces presence. Interaction is performed, not just passively experienced. It is not necessary to produce the real world metaphors of VR systems in digital communications to produce virtuality. It is the immersive power of *interaction* and *agency* that can generate presence in digital media, whether through games, abstract designed graphical formulations, or through less visually based forms, such as the narrative spaces of interactive fiction, as Seegert argues.

In a certain sense, virtuality can be about the manner of occupying space, whether real or idealised. We need to understand how we have been re-positioned in time and space through the new ways we interface with media, technologically and conceptually. Virtual reality technologies do not merely offer a technical platform of new computer enhanced or facilitated mediation, but according to Hansen (2004: 27) create a ‹domain of affordances for extending our evolutionary accomplished interface with the world›. Media imagery becomes part of situated cognition, and as such, according to Jonathan Crary's (2001) account of perception, is indistinguishable in some ways from the rest of the setting they occur in. The question is whether we have reached a tipping point, a stage where offline and online have become significantly blurred for some, where there is no absolute distinction or separation between the real and the virtual, and a kind of social immersion in the mediaspace, a *social virtuality* preferable to the seclusion of the virtual reality illusion, has now assumed the force of a new kind of mixed reality. Some time back, Jean Baudrillard argued that the distance of subjects from the media has, in certain ways and for certain people, began to collapse, so that it is difficult to distinguish media procedures from the whole of life.

«There is no longer any medium in the literal sense: it is now intangible, diffuse and diffracted in the real, and it can no longer even be said that the latter is distorted by it.»   *(Baudrillard 1983: 54)*

He was of course writing of the ascendancy of television rather than the present conditions of the dig-

ital-analogue multiverse, but his identification of the tendency towards ‹a viral, endemic, chronic, alarming presence› of the media presciently prefigures the present condition we find ourselves in. There is, it has to be said, an unevenness about the socio-economic and geographic applicability of the current virtual cybersociality, as with all social and cultural phenomena. But where accessible, the emerging ubiquity and immediacy, accessibility and processual variability, and the capacity for reciprocity of communicative actions of the newer media users, all have the properties and potential to create an all-of-life immersive impact equal to and at times greater than the sheer illusory impact of high resolution and 3D simulation image media. As Baudrillard put it, we begin to see ‹all of social life as dominated by this «operational simulation»› (1993: 57). The simulation of the real world, and of unreal worlds, has so widely interpenetrated the everyday world, in viral hybridising ways, and so impacted upon the ways we operate within the everyday world, that trying to comprehensively perceive, describe and think about the difference between the state of things, and what we think about the status of media and society, has become as problematised as contemporary considerations of the differences between brain and mind in psychology.

The Social Interface

This new relation to the emerging domination of social life by this ‹metastatic›-like ‹operational› virtuality, brings to mind the paradoxical question of whether with digital media there can be an «authentic» media experience. But the corresponding tendency towards excessive visuality and visibility, and the ‹absolute proximity› of things in the ‹circuit of communication› (Baudrillard 1990), conversely points towards Baudrillard's symptomatic identification of the apparent transparency of the world. He is not merely identifying an emerging philosophical position, or social potential as more recently evident, but sounding an alarm at the political implications.

The relatively real-time interactive capacities of visually based mobile, wire-less (Wifi) and other extended networks for smaller computers, with reasonably low-resolution screens, can create a *social* immediacy in everyday situations for younger users who have grown up with them that may be as powerful as, and in many contexts more powerful than, the illusionistic impact of larger high definition image media systems. This augmentation of everyday real-

ity, though not an immersive media experience in the ‹high def› or VR sense, can provide a mediated experience which overlays their immediate social actuality, with a force potentially greater than those more visually immersive formats. The social illusion afforded by interwoven media may suggest a newer expanded and collective sense of the media spacetime. As Woolgar (2002) observed, virtual interaction supplements rather than replaces real interactions, and can indeed stimulate greater real interaction.

It is contended here that recently a social virtuality, or *virtual sociality* if you prefer, has ascended to prominence, where the webs of social networks literally have begun to mesh with the vectors of communications networks, and the spaces of everyday life. The intermediality and extensibility of World Wide Web applications and other digital media platforms, have helped to create the reality and illusion of a *virtual cybersociality*. There has been a collision between the cultural interface, as Manovich termed it, of the new communications networks, with broader social spaces, which creates the *social interface*, as De Souza e Silva (2008) terms it, that intermediates human relationships and reshapes social networks.

The seemingly emancipatory naturalness of the social interface, with the immediacy of Twitter, can facilitate a complex kind of social interaction, more engaging than a purely media experience, like viewing television or sitting in a darkened cinema. The ease of content handling of modularised media artefacts, and their ready extensibility, means that videos can be shot, uploaded, downloaded and interlaced with everyday life in ways unimaginable a decade ago. This quantum leap in digital operations has mostly been linked with the so-called Web 2.0 developments, but it had been underway for longer, with developments in computer programming metalanguages, such as the Extensible Markup Language (XML), and the simulated 3D of VRML, which separate content from structure, as well as developments in networks, including roaming Wifi systems. The combination has helped to facilitate the complex meshworks of everyday experience becoming interlaced with multi-mediated, intermediated, hypermediated transmissions and Web-based settings of the new media multiverse. With this new relationality of entities and realities, the complexities of relations and distinctions between the real and the virtually real become further blurred.

Hybrid Worlds

The embedding of the Internet in society and the interrelational connectivities afforded by the newer hybrid media virtualities not merely alter our relation to time and space, but alter the ways we think of these, and later how we orientate ourselves towards ‹the real› and the ‹unreal› alike.

Eric Kabisch (2008) has pointed out that synthetic virtual worlds have often been portrayed as abstract spaces removed from the physical environment. But virtual media almost always at least indirectly relate to some «local» physical contexts – home bedrooms or family entertainment areas, games cafes and computer labs, and increasingly train carriages, passenger planes, cars, city parks, and so on— where they are readily encountered, embedded deep in the everyday world. In fact, they provide *hybrid* physical-mental experiences, embodied interactions, with the accumulations of affective and physiological sensations impacting upon the user's body. Brian Massumi also reminds us, the body too ‹is as immediately virtual as it is actual› (2002: 30). That is, it is a site of *potential*.

The emerging hybridization of real space and place with virtually modelled configurations within virtual technologies shows how they are becoming more specifically geo-spatial in nature, where users are linked to other networked users, in «real time» as they move about in «real space». Kabisch argues that the emergence of pervasive computing, where the ‹geospatial Web›, accessed via mobile and embedded digital devices, becomes linked to elaborate 3D environments which in a sense can overlay the real world places the user is inhabiting. These mixed reality configurations provide new kinds of fused metaverse-(real)environment hybrid experiences, where abstract data sets, private worlds, and public worlds merge in specific places and times to form new hybrid representational modes and spaces. Kabisch (2008: 225–228) provides a detailed account of the *Datascape* hybrid mobile narrative system, for instance, which is a specific kind of metaverse project embedded into the bigger media and communications multiverse and the world it overlays, where certain ‹technologies and technical practices become embedded into the world and Society› (Kabisch 2008: 228).

The additional element that ubiquity brings into the media-social mix is the *social virtuality* that it flags, and the greater degree of mediatisation of everyday life which these virtual technologies represent.

Virtual spaces, Siegfried Zielinski (2006) argues, provide opportunities for constructed attempts to connect what is separated. The direct and immediate productive engagement of communities of interest connected via networked virtuality can be seen in a preliminary way in the relatively real time impact of Twitter on social, commercial, educational and cultural activities.

As Geert Lovink and Ned Rossiter (2009) argue:

«There is nothing ‹false› about the virtuality of social networking sites. They are about as real as it gets these days. Stability accumulates for those hooked to networks. Things just keep expanding.»   *(n. p.)*

Social networks can be literalised, and operationalised, as networked device-bearing individuals increasingly interact in real world spaces. «Friends» can become correspondents, reporting on experiences, events, thoughts, through their own media channels. The diverse and divergent spread of media virtuality which the media multiverse represents, overlays and is woven into the physical world, and becomes a reality, the *real virtuality* which has progressively become stitched into our social relationships and communications modes.

Conclusion

Studying the newer advances in media usage brings into focus questions of our being able to live parallel lives, to inhabit parallel universes, even as they diffuse these possibilities so intricately into the actualities of private and social life/lives. That is, it provides a specific intellectual and practical focaliser for gaining some insight into the broader cultural condition of the contemporaneous. But as Augé points out, the word «contemporaneous» implies a multiplicity of worlds of coexistence. The paradox of our day, he asserts, is that ‹the world's diversity is recomposed every moment› (1999: 89).

Media virtuality is culturally constructed. We may be creatures of culture, but we are also its creators. It truly works like an ecology, rendered dynamic by the complex and at times contradictory social and material interrelationships within it. To paraphrase Marc Augé, the world of media, like virtuality itself, gives us the illusion that we can see everything, real and virtual, know everything, known and possible, and yet we are left in the this anxiety-producing world, with the uneasy feeling ‹that we are helpless to do anything about what we know› (1999: 66).

This account is more a departure point for future research, rather than the arrival point of a set of determinate conclusions, but, I would say in conclusion that we need to look carefully at how media are mobilised in the public and private spaces of the shifting social media ‹ecology›, and become conscious of how the media multiverse now shapes our interpretative perceptions.

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