The Metaverse Pioneers and the Collonisation of Open Simulator

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Abstract. The paper describes virtual worlds as exemplars of the virtual space and outlines the technical aspect of these spaces and their precursors. It describes the potential economic space as an emergent economic spaces and considers the important place of the virtual space in social networking and future border less collaboration. The aesthetics of the virtual space are described and where applicable related to real world art practice before outlining psychological and metaphysical questions, particularly the characteristic gestalt and phenomenological nature of the virtual space and areas for future research.

Keywords: virtual space, virtual world, avatar, gestalt, metaverse, virtual collaboration, immersion, virtual photography, machinima, virtual art, virtual gestalt, phenomenology

Introduction

"The present epoch will perhaps be above all the epoch of space."

Michel Foucault *Des Espace Autres* (1967)

Foucault's *space* is not a reference to an extraterrestrial environment but to earthly domains where human activities coalesce in shared concerns (Foucault 1967). Foucault refers to these spaces as civil, social or private, and examples would include the work place, the living space, the prison space or a ship. He distinguishes between utopias and heterotopias, the former being unreal and idealised while the latter have a hierarchy of differing importance. Foucault also describes various traits which are characteristic and associated with contemporary heterotopic spaces and in conclusion remarks: "*The last trait of heterotopias is that they have a function in relation to all the space that remains… their role is to create a space that is other, another real space, as perfect, as meticulous, as well arranged as ours is messy, ill constructed, and jumbled. This latter type would be the heterotopia, not of illusion, but of compensation, and I wonder if certain colonies have not functioned somewhat in this manner."*

Virtual worlds have many of the characteristics of Foucault's heterotopias, they are perfect and meticulous but above all they are colonies where individuals have embarked on the challenge to establish a new social space in hyperspace. Currently these are emergent spaces and while there are many models of social, personal, civic and military virtual worlds quite how over the coming decade theses virtual spaces will develop is an open question pregnant with possibility.

If we were to continue Foucault's descriptions of traits we might also describe virtual worlds as embodied technological spaces and extended social spaces. Furthermore virtual worlds are both external and internal spaces, they clearly exist external to us but when we are present in them they are very much an internal space of complex perceptions, attentions, feelings and emotions – a gestalt. In other contexts virtual worlds are dream spaces, theatre spaces and laboratories.

Consequently there are many genres of virtual space: Some are theatres of war for gamers, some are corporate meeting spaces, others are nerve centres for real world emergency planning, while others like Linden Lab's Second Life[1] are rich, developed, socialised worlds. My discussions here focus in the main upon the paradigm for the developed virtual world of Second Life and the nascent Open Simulator[2] developments following Linden Labs 2007 release of their Second Life code base for community development.

Precursors

The development of electric powered machines at the end of the nineteenth century drew upon the technical inventions and developments of steam power, similarly the infrastructure and protocols of virtual worlds follow those of the earlier digital communication revolution which Tim Berners-Lee called the 'world wide web'. While transforming, Lee's web of information connected by the internet is in many ways reassuringly familiar, relying as it does on older traditions of reading text documents or watching moving pictures. Information retrieval and wireless communication have revolutionised search and made anywhere access available and Manovich's database as symbolic form (Manovich 2001: 212-243) has found an aesthetic place in narratives of the social sphere. Elsewhere commerce scrapes away at apparently random data to create statistical profiles but the major outcome of the web from the citizen's point of view has been to allow massive knowledge transfers. In many ways however the web is largely a re-purposing of old information in a new format for a new medium, as Ted Nelson remarked *"HTML is precisely what we were trying to PREVENT(sic)— ever-breaking links, links going outward only, quotes you can't follow to their origins, no version management, no rights management."* (Nelson 2001 www.)

During the period in which the web came to dominate the media landscape there was also a parallel development of virtual environments, commonly now seen in the ubiquitous games for the Sony Play-station or Microsoft's X-Box. For most children in the western world these games have come to dominate their leisure time, gone are the toy soldiers and masquerade of 'cowboys and indians' the arena is now a virtual theatre of war where every avatar kill is a point. In the online virtual world presence, whether of oneself or the other is by the proxy character of an avatar[3] and essential to an understanding of the psychology of the virtual space is that what happens to your avatar is a *gestalt* experience, where the organized perceived whole, is more than the sum of its parts.

There is however a lesser known type of virtual environment which is distinguished from the aforementioned games - which are characterised by agreed movements, a defined outcome and usually in terms of one player or team winning and crucially controlled by the logic of algorithms. In contrast these other virtual environments which, may also enable elements of play, and here I use the *play* as described by Huizinga as " a distinct and and highly important factor in the world's life and doing " (Huizinga 1938: i), are initially presented as empty worlds, a *tabula rasa* where an author can create whatever he or she wants and if rules are to be used they are determined by the author.

Examples of self authored virtual environments are the many 'worlds' of Open Simulator and it's precursor Second Life where individuals effectively rent space on a server, as they would to host a web site. However instead of a web of linked documents and pictures, Open Simulator supports three dimensional virtual environments. The software of Open Simulator provides the programme

[1] Second Life (2005) is the copyright of Linden Lab, Ca, USA. http://secondlife.com

[2] Open Simulator is an open source community development upscaling towards a future metaverse of virtual worlds http://opensimulator.org

[3] Literally an *avatar* is an incarnation of the Hindu god Vishnu when he is on a mission to earth.

for an infrastructure which visually has the topography and geography of an archipelago of islands surround by sea which are accessed by a viewer; similar to the browser we use to access web pages.

The example of Second Life provides a good introduction to the developed possibilities of self authored virtual worlds. Everything in the world of Second Life has been created by its residents and the creative input has been enormous, it is as if a virtual reconstruction the size of Los Angeles has been built with free labour. There are now many similar examples in the rapidly growing worlds of Open Simulator where the term metaverse is used to describe a collection of virtual worlds - rather like continents which are connected to each other with the ultimate goal of creating an internet scale virtual environment network.

From a technical perspective virtual environments developed from text based internet chat rooms or Multi User Domains (MUDs), through Massive Multi-user Online Games (MMOG) for the X-Box and Play-station, and subsequently the Massive Multi-user Online Role Play Games (MMORPG) such as World of Warcraft and Lord of the Rings Online. While these have all been contributory, the game element in these examples is paramount, the future self authored virtual environments while retaining an element of play are not games but instead emphasise the creative, analytical, instructional and practical. As early as 1938 the French author Antonin Artaud, described theatre as "*la réalite virtuelle, a virtual reality in which the characters, objects, images, and in a general way all that constitutes the virtual reality of the theatre (sic) develops, and the purely fictitious and illusory world in which the symbols of alchemy are evolved.* (Artaud 1938: 49)

The mobile phone and laptop computer have already instigated the wave of decentralisation which the heterotopic virtual spaces will further enable and the market for 'apps' (applications) for Apple and Android devices have also prepared us for the growing market in virtual goods. Importantly the market for virtual goods in the metaverse moves us closer to Nelson's original idea of an internet with an equality of producers without the centralisation which we currently see. Reusing an item or object in Nelson's conception would carry with it a source reference and would therefore allow 'works' to be freely used while still retaining the copyright of the author.

One of the problems with this approach, and it is at the core of the architecture of Open Simulator code, is that every created 'object' has its own Universally Unique Identifier (UUID) which contains details of its author, the problem arises that every modification of an object is saved as a new object with another new UUID and nothing is ever deleted. While the 'grey goo' of nanotechnology may be a potential real world problem, its virtual counterpart known as asset immutability is a very real one for the expansion of the metaverse. Justin Clark-Casey describes asset immutability in Open Simulator as *"the fact that once an asset has been created and stored, whether that asset is a texture, a script or a note card, subsequent edits always create entirely new assets rather than any modification to the existing asset"* (Clark-Casey 2010: 14). Clark-Casey further outlines these problems in terms of inefficiency and deletion issues which if not resolved will present in the future a nightmare storage problem.

The technicalities of up-scaling the metaverse over the coming decade need not concern us here, my interests are instead with questions about the extent to which virtual environments offer a paradigm shift in how we might live, work and socially interact with each other in a post industrial, post peak oil society. Our initial question should include; that if the World Wide Web is currently a re-purposing of older media what are the precedents for virtual environments?

Emergent economic spaces

Virtual worlds are also emergent creative economies, emergent in the sense that we are aware of

them and can think about their possibilities but at the present time their role in any future real world economy is not clearly defined. Often the presentation of current economic data (for commercial confidentiality) is opaque and not open to easy analysis but what is clear is that a significant economy does exist. For example a Forbes report about Linden Lab's Second Life described that in 2009 *"the top 25 residents of the virtual world collectively earned $12 million."*[4] Economist Edwin Castranova in a remarkable 2001 paper on the economy of Norrath in the virtual game of EverQuest describes how *"the Gross National Product of EverQuest, measured by how much wealth all the players together created in a single year inside the game. It turned out to be US$2,266 per capita. By World Bank rankings, that made EverQuest richer than India, Bulgaria, or China, and nearly as wealthy as Russia. It was the 77th richest country in the world. And it didn't even exist."* (Castranova 2001: 33)

Castronova further describes how he found that, after allowing for variables the in-world earnings of the typical Norrath user, *"many users spend upwards of 80 hours per week in Norrath, hours of time input that are not unheard of in Earth professions. In 80 hours, at the average wage, the typical user generates Norrathian cash and goods worth $273.60. In a month that would be over $1,000, in a year over $12,000. The poverty line for a single person in the United States is $8,794. Economically speaking, there is little reason to question, on feasibility grounds at least, that those who claim to be living and working in Norrath, and not Earth, may actually be doing that."* (Castranova 2001: 36)

Given the exponential rise in the economies of virtual worlds some have already argued that tax authorities should pro-actively address these emerging issues[5].

Clearly in the coming decade real world retailers will use these virtual environments as an additional window for sales and marketing (Muller 2007). As a model we can point to the social habit of shopping in Second Life where the enthusiasm of residents for buying virtual goods made by other residents - such as frocks, shoes, houses and furniture; the conversion to selling real goods only requires the first retailer to make the imaginative leap. Architects and town planners, already accustomed to using Computer Aided Design (CAD) increasingly employ virtual environments to better envision eventual constructions and to test evacuation and safety protocols. It is one thing to go through a paper check list of actions in the event of a catastrophe, quite another when the catastrophe is all around you and no one is answering the phone, simulation as NASA has demonstrated is a very powerful tool.[6]

Virtual worlds also offer opportunities for border-less collaboration to realize defined objectives. While simulation can offer preparatory training for real world applications it is their use in dealing with real world events that may present a bigger opportunity. Austin Tate, Director of the Artificial Intelligence Applications Institute (AIAI) and Chair of Knowledge-Based Systems at the University of Edinburgh [7] employs virtual environments and artificial intelligence (AI) algorithms to coordinate real life emergency response teams to deal with global disasters. His Multi Planning Augmentation Team (MPAT) defines its goal as *"the creation and use of task centric virtual organisations involving people, governmental organisations, automated systems, grid and web*

[4] Chiang, O., Creating A $1M Virtual Goods Brand In Second Life (2010) http://www.forbes.com/sites/oliverchiang/2010/10/27/creating-a-1m-virtual-goods-brand-in-second-life/

[5] Compliance Issues : The IRS Should Proactively Address Emerging Issues Such as Those Arising From "Virtual Worlds". National Taxpayer Advocate's 2008 Annual Report to Congress Vol I p213-226. http://www.irs.gov/advocate/article/0,,id=202276,00.html

[6] For a broad overview of commercial applications see Allen P.D. & Demchak C,C. Applied Virtual Environments: Applications of Virtual Environments to Government, Military and Business Organizations Journal of Virtual Worlds Research (Volume 4 No. 1 July 2011) https://journals.tdl.org/jvwr/article/view/3553/5546

[7] Ai, Austin., Virtual Worlds Links http://www.aiai.ed.ac.uk/~ai/

services working alongside intelligent robotic, vehicle, building and environmental systems to respond to very dynamic events on scales from local to global." In a succinct description of new working practices Tate explains: *"Remember back in the early 1990s when you wanted to collaborate with anyone you used an FTP client, send floppy disks in the post and take half an hour to configure a video link. Then the World Wide Web came along. Step forward nearly two decades and we are about to be able to set up our office and enter it from anywhere in the world, and have it adapt to the context we are in. Forget URLs. Forget scrabbling about to find tools that work through firewalls when visiting a company. Forget having to spend time on set up and testing with collaborators. Enter a virtual world where your office is always waiting, and your materials are available and laid out as you choose."*[8]

The potential to connect a virtual space to other heterotopias is clearly enormous. The Education industry for example, increasingly unaffordable for the many will see its expensive bricks and mortar replaced by virtual classrooms. The University of Texas at Austin, one of the original eight Public Ivy institutions, launched a year-long, state-wide initiative to use Second Life in the curriculum for all sixteen of its campuses, experimenting with using the platform as a means of providing innovative, low-cost undergraduate instruction involving students, faculty, researchers and administrators and driven by a mandate to reduce or eliminate expensive brick-and-mortar costs while becoming energy efficient[9].

As with many technological innovations the use of the virtual space is in this context another example of doing an old thing in a new way, for example virtual teaching had already emerged by the early 1700s, carried out by posting text-books to a student, who read them and sent back for assignments to be marked. Similarly it is not hard to see how a call centre for a European bank which is currently located in Mumbai, India could be transposed to operate in a virtual environment.

However the possibility also arises that virtual worlds could become a new border-less world of global citizens where the social avatar as a proxy human agent has enormous potential for social and political change and potentially upsetting the current hegemony, where as Hinrichs remarks that "*the avatar is valued more for his performance, skill and abilities in the context of the virtual world, rather than by his race, pay grade or political affiliation"* (Hinrichs 2011). Furthermore as Castronova observed there is a greater egalitarianism and equality of opportunity in virtual worlds since "unlike Earth, in VWs there is real equality of opportunity, as everybody is born penniless and with the same minimal effectiveness" (2001).

Gestalt in the virtual space

There is a joke told in Second Life *"If First Life was so good why then did they need to invent a Second?"* The rapid growth of virtual environments and what Castranova has described as an 'Exodus' to the Virtual World' (Castronova 2007) has consequently prompted psychologists to ask why? What is the attraction? No matter that the related survey results are often complex (Ridings & Gefen 2004), nonetheless Castranova's research into the reasons for exploring virtual worlds and his conclusions may well raise alarm and provoke questions for policy makers throughout the globe: *"We find that people have higher life satisfaction in Second Life than in real life. That's not such a big deal by itself, but the effect size is large and leads to some startling comparisons. Such as: For an unemployed person, the happiness boost for going to Second Life is bigger than that for getting a job. An East German gets more of a life satisfaction increase by being in Second Life than by*

[8] The University of Edinburgh IT Futures Group http://www.itfutures.ed.ac.uk/austin_tate_nov07.shtml

[9] Cahill, R. , (2010), 'UT Health prof teaches nano course in virtual world Second Life seen as advance in distance education' University of Texas, School of Biomedical Informatics http://www.uthouston.edu/sbmi/story.htm?id=2297916

moving to West Germany." [10]

Most of us would recognise some truth in general surveys of life dissatisfaction and further we would not be surprised that a university educated supermarket shelf stacker would, rather than stacking shelves, be a knight on horseback with his damsel avatar by his side leading fellow warriors into battle to defeat a deadly enemy. Oh but that is only fantasy you say, he is dreaming and indeed he is. But isn't escapism the *sine qua non* of the novel and cinema? Recollect the aphorism as rebuke at the end of the nineteenth century when people remarked of a friend - Oh she is clearly not well, she spends all day at home reading French novels.[11]

Escaping into virtual worlds offers an escape for those who find the real world insufficient to their needs and while living a surrogate life as a medieval knight might not be your choice, a more disturbing ontological question is posed by Mike Treder, the managing director of the Institute for Ethics and Emerging Technologies: *"If you could live in a world that was just the way you wanted it to be, with specifications you'd chosen, customized and personalized to meet your every need and fulfil your fondest desires, would you spend all your time there? Or would you prefer to stay here, in the real world?"* [12]

Fundamental to the entire gestalt is the avatar as continuum of its owner and this actor avatar can appear in-world however their agent wishes, you literally choose the skin you wear. Most people choose to look like a human; some prefer to be another animal species and some as entirely different life forms. More usually a person's avatar is an idealised visual representation of their actual self, a remodelling based on vanity but also, with the potential for some to bring a beneficial change in how they can socially interact.

We discriminate on the basis of sex, race, colour, we judge people on their looks, their able bodiedness and their age. There may be biological reasons for this behaviour and while political correctness has had a great influence, the reality is that prejudice is deeply ingrained and the basis for much of our for much of our social and group identity. If the base causes for our prejudice could be removed, and so create a more level social playing field, would this correspond to an improvement in social well being? Virtual worlds however are great equalizers given that in a virtual world the avatar of an isolated house bound eighty year old person could look like a thirty year old who could – in world, talk and interact as an equal again. A hospital bound patient, a paraplegic, the extremely shy, those without the power of speech anybody who can use a mouse can find in a virtual world a new place for social interaction.

The social nexus of Second Life has proved to be a valuable database of avatars for social research and for those familiar with the depth possible in the gestalt of psychological immersion it will come as little surprise that a virtual health club can deliver real weight loss and positive life style changes[13]. Other surveys appear to show that half of virtual world residents felt they could communicate more openly with their virtual partner than their real-life partner. (Gilbert et al 2011: 585-589)

The anthropologist Tom Boellstorff has already written an anthropological introduction to the tribes of Second Life (Boellstorff 2010), in which he describes the manifestations, of the these tribes and their early habitations of the virtual space. As the demographic of the virtual space increases we can expect more sociological studies to emerge.

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[10] Castronova, E., (2011), Virtual Life Satisfaction (2011) http://terranova.blogs.com/terra_nova/2011/09/virtual-life-satisfaction.html

[11] anon

[12] 'We all live in a Virtual World', http://www.hypergridbusiness.com/2010/09/we-all-live-in-a-virtual-world/

[13] Virtual gym helps weight loss (BBC 5 June 2011) http://www.bbc.co.uk/news/health-13643471

So much for the developing social and economic possibilities - but what are the aesthetic precursors of these virtual spaces? The word which most characterises the virtual environment is immersion, virtual environments are immersive environments. When we read a novel we immerse ourselves in the story and empathise with the struggles of the heroine or anti-hero and the dramatic arc of their lives on the page. For the duration we allow ourselves a willing suspension of disbelief; in that while we know the events in the story are not real we allow ourselves to believe they are. The same pertains to cinema, particularly in the genres of the thriller and horror; these are ancient pleasures which earlier generations had similarly sought in theatre, opera and epic poetry.

Imagine then, instead of sitting in a comfortable chair, fingers tense with fear, watching and empathising with the on-screen character – that instead you are the character! This experience is already familiar to children in their war gaming where the psychological response to such immersion, the feeling of actually being there is very intense.

An actor could be described as immersed in his role; this was the method for Stanislavski's 'Building a Character' where the actor is no longer himself but another (Stanislavski 1958: 5-11). The willing suspension of disbelief is characteristic of all art and one of the unique aspects of virtual environments is their potential for per-formative action, which is called role play. Beyond any future attenuated corporate and educational uses for this form of improvisational acting, in our social lives we are about to embark on some fundamental questions about self identity.

The earliest recorded dramas in the western canon distinguished between tragedy and comedy, tragedy was drama about heroes, kings or gods who suffer a transition from good fortune to bad fortune and comedy concerned ordinary people who experience a transition from bad circumstances to good. Comedy was always seen as a fiction while tragedies, performed at the festival to Dionysus, usually followed a known myth, partly perhaps for ease of exposition; but also allowed for flexibility in the telling of the story. There is also another contemporary tradition which is perhaps more germane to the present discussion, widespread in Scandinavia it is called Live Action Role Play (LARP)[14] and is so ubiquitous that it has resulted in the LARP acronym becoming both a noun and verb – 'a larper,' and 'to larp.' A LARP is usually played out over the duration of a weekend by groups of four to forty like minded individuals[15]where the goal of the LARP, unlike the proximal practice of military re-enactments, is not to win but to experience. The LARP also finds expression in more orchestrated and explorative contemporary per-formative art practice[16] and it is perhaps no accident that here also the virtual world mirrors the real. An important aspect of the LARP is the concept of 'bleed'[17] where the border between the feelings, emotions and character of the player can merge back and forth between player and character, classically when a player's affection for another player influences her character's perception of the other's character to realise an intense gestalt experience.

War gaming is both the first live action role play; famously its practice gave the Spartans and later the Romans strategic superiority in battle, and is also the seminal example of online role playing. Less complex than Aeschylus' reworking of Herodotus online war gaming is also the simplest because players don't need a 'character'; they merely require to know their allowable moves and how to take an opponent out of the game. But in other role plays if the motivations are not as simple as kill or be killed how is dramatic structure established? Actors in theatre and film are aided by a

[14] Nordic LARP Eds. Stanross J & Montola M. http://nordiclarp.wordpress.com/

[15] see for example the larpsmiths Bjarke Pedersen http://www.bjarkep.com and Tobias Wrigstad http://www.jeepen.org

[16] The American artist Brody Condon's Level Five is highly indicative of this practice http://www.lvl5.org

[17] see LARP definition http://jeepen.org/dict/index.html#bleed

script describing the actions, plot and characters, in role play these crucial narrative devices, excepting the character, are not available. This is the realm of the highly literate role players where a loose plot is perhaps agreed in advance but the narrative of actions and dialogue are written on the fly.

Fundamentally these narratives create the environment for a story and provide the structure for the gestalt, they may be double handed or include an ensemble cast. Role players in a public bar in a virtual space like 'Dead End' [18]on the Second Life grid may, as in a real bar, engage in personal reflection typing their thoughts into a chat box for others to view, a personal narrative of sorts but hardly a story but often these apparently random lines of text from one player connect with the lines of another player, which is of course the linkage the paragraph role players seek from which to develop from inauspicious beginnings a complex narrative of human drama.

It is surprising how many groups engaged in role play use a real world novel as their starting point. The ancient kingdom of 'Gor' in Second Life was inspired by John Norman's novel 'Tarnsman of Gor' from 1967, where the simplicity of character definition - the patriarch rules and the position of Gorean women are clearly defined; which makes 'Gor' an early if surprising choice for many male and female avatars engaged in improvisational acting. Similarly Paula Reage's 'The Story of O' from 1952 and Anna Rice's catholic story of submission 'Reclaiming Beauty' from 1983, have both become themes for role play in environments where a hierarchy of masters, mistresses, princes and princesses accept willing tributes for initiation into allotted roles. The leader of the pack however has to be Bram Stoker's 'Dracula' written in 1897, which was reworked into the comic book 'Bloodlines' in 1993. This has resulted in the virtual blood bank of 'Bloodlines'[19] which services hungry vampire clans across many 3D worlds.

Role play based on the themes and the fictional narrative of a book offers the advantage of a readymade outline for a historical and geographic milieu as the context for characters in improvisational acting. Perhaps the two strongest peaks of human emotion are aggression and lust and consequently alongside war, there is also the common and ancient dramatic devices which also correspond closely with real life – namely seduction and romance where a knowledge of practice and the possible narrative arc makes this approach attractive because as in real life the purpose and denouement of such encounters need little explanation. The rise of virtual worlds like Red Light Center[20], which claims over six million registered users, point again to the pioneering role of the erotic in the development of new media This is not online dating as conventionally practiced, most players do not take their relationship into real life and for those who do it usually ends in disappointment but as research has demonstrated in-world the relationships can of themselves be intense and rewarding. While clearly a surrogate for real life one survey found that forty three percent of those surveyed were more satisfied with sexuality in Second Life, while only forty two percent preferred real life (Gilbert et al 2011: 585-589). Clearly the *bleed* of live action role play finds its counterpart in the virtual space.

There is much anecdotal evidence supported by research of the relationship between the human handler and the interactions of their avatar in bespoke virtual environments. From an empirical perspective observations of subjects in controlled situations have demonstrated that low cost test environments, where the subjects responses to a predetermined stimulus, measured by indicators including eye movement tracking, physiological arousal, heart rate, perspiration, muscular tension, blood pressure and penis plethsymography suggest an important role in psychological research and a potential cost effective role in for example the rehabilitation of offenders in the criminal justice

[18] Dead End :Urban Roleplay http://www.deadend.sl/
[19] Bloodlines http://www.slbloodlines.com/
[20] Red Light Center http://www.redlightcenter.com

system (Ticknor & Tillinghast 2011). One of the potential uses of virtual worlds may resolve the issues pertaining to psychological research with respect to what Stygg referred to as *"the confusion due to data from two different frames of reference"* (Snygg 1941: 404-424) and advocates envision standardised psychological spaces where many variables in research practice could be removed.

The major role for the uses of the virtual space is however social inter-personal interactions with other people and while the potential for agent duplicity is a given we also know that we are in the realm of theatre, since as Vernant remarked *"in the case of Dionysus, the mask disguises him as much as it proclaims his identity"* (Vernant & Frontisi-Ducroux 1988 : 23). The avatar is our mask and like the mask in the Baccic rituals and the festivals of Carnival it offers a temporary release from the mundane: The mask offers liberation, a device for fiction which explains why role play of a sexual nature is common allowing individuals to explore psychological danger from a safe distance; and furthermore as Tsu-chung Su observed *"There is always an ecstatic and mystic aura built around our confrontation with the mask, in which the affect of the Dionysian takes its effect."* (Tsu-chung Su 2003: 16)

Art of the virtual space

Perhaps the most significant mask in the virtual space is the pseudonym. In part this is a legacy of Linden Lab who unlike Facebook and Google's desire to track and verify the authenticity of every user; Philip Linden opened the flood gates to impersonality by insisting on pseudonyms when registering for a Second Life account. Consequently every metaverse avatar has a pseudonym more like the double barrelled handle of a hacker than any real world citizen. Many have also registered more than one avatar and often many, this may be the simple expedient of using an alternative avatar[21] as a warrior in role play, which would be preferable to bringing a corporate avatar onto the battlefield, but in other cases the *alt* becomes a vehicle for explorations of an alternative life which may not be possible due to real life restrictions.

Lest we think that the users who have registered hundreds of avatars have a desire for domination of the virtual space (although this may be the case) there is in fact little new here. Consider for example the 19th-century French writer Henri Beyle, better known by his pen name Stendhal who had more than one hundred other pseudonyms. Beyle who is considered to be one of the earliest practitioners of the realist novel, not only employed pseudonyms but further confused his biographers by inventing supposedly real life characters in his auto biographical writings. Seabald writes that *"Mme Gherandi whom he sometimes refers to as La Ghita who reappears a number of times on the periphery of Beyle's later work, is a mysterious, not to say unearthly figure. There is reason to suspect that Beyle used her name as a cipher for various lovers such as Adele Rebuffel, Angeline Bereyter and not least for Mathilde Dembowski and that Mmm Gherandhi whose life would easily furnish a whole novel, as Beyle writes at one point, never really existed, despite all the documentary evidence, and was merely a phantom, albeit one to whom Beyle remained true for decades."* (Seabald 1990: 21-22)

We recognise that the use the *nom de plume* is an acknowledged authorial literary device, from the ancient and probably composite Greek character of Homer to the modernist Portuguese poet and prose writer Fernando Pessoa for whom it was clearly a transparent exploration of personalities and of which he has written an extensive meta-analysis (Pessoa 1995[22]: 505-509). The use of the pseudonym finds its direct parallel in the alt avatar, to the extent that it would be a cliché to remark

[21] These alternative avatars are called by a shortened version of the word, i.e., as 'alts' in both game and metaverse parlance.
[22] Published posthumously, roughly 50 years after Pessoa's deth in 1935.

that many of the women in Second Life are men (equally many male avatars have a female handler) and lest we think this strange consider that the fictional writing of female characters by men and vis versa is a necessity for any literary author and in the virtual world we are in the realm of theatre where the *alt* pseudonym is either a space for the author to escape into, or a place with which to deal with events in the authors life which can't be dealt with elsewhere.

Psychologically a diagnosis of multiple personality disorder requires the patient to have no control over their behaviour, if instead it is a conscious decision to pursue multiple characters of self it is either the work of the dramatist, the con artist or the researcher. For some practising metaverse artists it is intrinsic to their work, the artist Elif Ayiter writes of her own research and her use of alts: *"First came Xia, or rather Xia came first in the sense that she started to live in the metaverse, started to develop an independent identity before the other two did. However, technically she is actually the last one to have been created. Grapho and Alpho actually came before her. But Xia has spent some considerable time as the only active avatar and consequently she is the only one of the three who has managed to acquire a more or less tangible personality. As of yet, the others are far more ephemeral."* (Ayiter 2010: 119 – 138)

In the context of role play the earlier reference to Artaud's conception of theatre as 'a purely fictitious and illusory world' precisely defines the virtual space but whereas Artaud eschewed the role of the author in favour of production and spectacle (Artaud 1938: 701-71), in the virtual space the actor is the author and the relationship between cast and audience is dissolved. There is clearly a closer relationship between role play in the virtual space and the real life LARP and although in comparison, the virtual role may be a liminal one, for its actors the freedom of access and lack of boundary constraints benefit the opportunity for a shared gestalt.

There are other opportunities for artists in virtual worlds including photography, animation, machinima and virtual sculpture. From the modern era photography has been reborn in virtual environments were screen shots, made with the user's computer graphics card, have replaced the machine camera. When at the end of the twentieth century digital cameras finally removed the last vestiges of craft from classical photography such that to paraphrase Moholy Nagy photography is now practised by literate and illiterate alike, it is ironic that the growth of virtual 'Photo Studios' in Second Life is reminiscent of the explosive growth of their real life counterparts during the nineteenth century.

Problematic for comparing photography in the virtual space with its real life counterpart is the physical constraint which makes it's classical practice unique, vis the photographer positioning herself in space to record the three dimensional *mise en scènes* in two dimensions whereas in the photography of virtual space this has already undergone a primary transformation by the intervention of the users screen. Camera-less virtual photography however allows any point of view to be established in the virtual space using the mouse and the ALT key. In consequence the organisation of visual space by the operator is simplified and any physical constraints on the *auteur* viewpoint are removed. The major constraint in virtual photography is depth of field, not as classically understood, but rather as the ability of the graphics card to render (make visible) distant objects in the field of view.

Nonetheless the results can be remarkable, portrait studios and exhibitions abound, the personal snapshot is ubiquitous and these 'memento mori' of virtual encounters with avatar friends has a direct parallel with the snapshots of real world memories. There is also a practice of professional virtual photography, instrumental it caters to the avatar fashion and modelling industries where the technical standards and Photoshop skills are extremely high. Other practitioners approach camera-less photography with different aspirations, many appropriate as did early classical photographers,

the styles and tropes of painting to present an enthusiastic pictorialist style which frequently relies on the erotic and the kitsch. The great schools of street photography which dominated the twentieth century's art of photography are however rarely evident and yet the *mise en scènes* of virtuality, which is a rapidly changing landscape itself, offers ample opportunity for description but appears to await the avatar photographers who document virtuality as the likes of Cartier Bresson, Lee Friedlander, and William Eggleston have in the physical world.

In parallel with virtual photography there has been the rapid growth of machinima, 'machinima' is a neologism based on the phrase machine-cinema and describes animation projects that use software to record action in real-time interactive 3D environments using a graphics card, effectively making video productions of virtuality. The production work flow is similar to real world film companies employing the usual units of actors, scriptwriters, story boarders, camera operators, sound recordists and editors. Edited using industry standard software tools the results are an invaluable tool for story boarders and advertisers and this use of virtuality as the backdrop for animated productions, already popular on YouTube, will due to its cost base transform advertising, promotional video and potentially cinema. One of the remarkable things about virtual activities is that while material and transport costs are minimal the time taken to accomplish anything and this applies to organising a virtual wedding reception to a machinima production - organisation takes just as long as it does in the real world. Here perhaps is a clue to how this technology will come to dominate the future, the emphasis shifts from paying material and transport costs to paying the skilled labourer.

There is another genre of art which is unique to virtual worlds, an art of such originality that it rarely reaches the museum visitor. Part of its description would be virtual sculpture, virtual installation and virtual land art. These works can be abstract or formal compositions of simple Platonic forms known as primitive objects or *prims* which are the building blocks of the virtual architect. Combinations of usually handmade surface textures provide a skin for the object; transient particle effects simulate atmospheres of water, mist and fire. Transparency is a sliding scale between visible and invisible, but where real world physics of gravity and wind can be invoked, or equally revoked to make stone have the density of a gas. In the virtual space the Platonic world view resides alongside the immaterial and the phantom object, where space itself is a plastic dimension and the avatar is granted the long desired ability to fly and where the relationship between the mimetic and the poetic can be drawn anywhere.

The art works presented in the virtual space are inherently conceptual and the object fetishism which has so distorted the values of visual art is subverted in virtual art practice and returns to the exchange value of poetry. Surprisingly and in seeming contradiction the virtual space also ushers in a return of craft. The tools are not the potter’s wheel but open source digital drawing tools, 3D computer graphics software and the language of code itself. One only need look at the utilitarian domestic products, the clothing and avatar skins to appreciate the hand craft skills available in the virtual colonies. Soon photo-realistic facial skins will be available for the CEO who wishes to appear in his virtual work space with an authoritative physiognomy and we can similarly anticipate that the craft of the composite object maker will be overtaken by software developments, none the less the inventiveness of the artist will be in demand by an economy which will far exceed the requirements of 2D web design.

Phenomenological nature of the virtual space

Finally what are the implications of the virtual space for traditional questions of philosophy? Metaphysical enquiries regarding ontology ie. what entities exist or can be said to exist would appear to be paramount given that the virtual space is essentially an internal human construct. What

does it mean to existentially 'be' in a virtual world while simultaneously being in the real world? In the context of role play, the analogy is with the actor's personification of a character for the duration of a performance, during which time they cease to be themselves and are entirely immersed in their stage role, consequently there is no duality but only a temporary suspension of the self. Virtual worlds are persistent and continue to exist as active inhabited spaces when I am not there but in what sense does my avatar and the virtual objects which I have created exist in the ontological hinterland of on/off? We struggle with the certainty that a 'real world' physical object exists, can objects held in a database which only have form at run time be considered objects at all? If so what happens to these objects when their existence ceases upon deletion?

Similarly with epistemological questions pertaining to knowledge and its limitations e.g. how do we know that we know anything? In the 'real world' our perceptions, attention and sense of touch, taste etc. provide us with common sense assurance. These haptic experiences are entirely absent in the virtual space, and worse for such an enquiry the accepted relationship between belief and knowledge are inverted given that crucial to the gestalt is a willing suspension of disbelief. Consequently does knowledge in the virtual space have any meaning at all? The use of the virtual space for experimental modelling might suggest that moral and ethical questions which arise are seemingly more self contained, however questions of authenticity are not so easily confined, instead they straddle real and virtual life. For example should the agents avatar be representative of the real self? And if not should this be declared in interpersonal relationships where physical appearance cannot be verified by sensory experience?

While the foregoing are largely academic questions which have been rehearsed for millennia, important to any consideration of the individual handler's experience of the virtual space are existential and phenomenological questions. Existential because questions of real life meaning are intertwined with the character of the avatar and regardless of their relationships to others in world the author/handler cannot avoid the question of who am I, myself or my avatar? On one level this may be relatively straightforward, for example my avatar represents myself in my professional role as a company employee. If however the handler presents herself as an avatar of a different character than there self, bluntly for example as an avatar of the opposite sex, does this change their essential self? While this question shares concerns with the character actor in theatre, being the agent of choice is very different from having that role allotted to you.

Fundamentally the experience of the virtual space is phenomenological. Phenomenology is concerned with the systematic reflection on and analysis of the structures of consciousness and can be contrasted with the purportedly objective orientation of positivist theories of psychology. Phenomenology instead explores the phenomenon of subjectivity and concerns itself with experiences such as judgements, perceptions, and emotions. Experience in the virtual world is fundamentally one of perception, based on visual stimulus and words written as text and where the relationship with other avatars is essentially primeval, often sceptical and sometimes driven by irrational fear and compounded by *bleed*. These experiences are entirely subjective given that the handler's relationship is more akin to theatre than the 'real world', and an individual's experience is a product of the mind rather than a response to 'real' sensory data. The handler/avatar relationship therefore raises further questions of what in Husserl's conception is the *lived body*, that is - the lived body is your own body experienced by yourself, as yourself. Importantly then, to what extent does the phenomenological nature of the virtual space, as a mirror subjective experience, allow theorisation about substantive sociological questions?

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Dr Peter Hagerty (aka avatar Arklo Galicia) is a photographer, writer and metaverse creator from Liverpool , UK.

Peter Hagerty was the founder Exhibitions Director of the Open Eye Gallery, Liverpool's first gallery devoted to photography. Subsequently, he would initiate a campaign to established a charitable trust on behalf of the photographer Chambré Hardman and campaigned for the retention in Liverpool of his unique collection of photographs and ephemera. As a result of enormous public support Hardman's House and Studio is now one of three National Trust properties on Merseyside and Hagerty is currently Chairperson of the Chambré Hardman Trust.

In recognition of this historical research Peter Hagerty was subsequently awarded a three year Doctoral Research Grant from Liverpool John Moores University. After the award of his PhD entitled “The Continuity of Landscape Representation: the Photography of E. Chambré Hardman (1898-1988)”; he has continued to teach academic research to photography graduate students.

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