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The Ontology of Digital Life: Art and Healing in Second Life

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Abstract

This paper is an introduction to the virtual 3D computer simulation world known as Second Life. It discusses specifically two important aspects of interaction and participation in this world – Art and the Therapeutic Benefits of spending time in SL. The brief introduction is enough to orientate and get started those not familiar with SL. Suggestions for further research and SL project developments are discussed throughout.

Keywords: Second Life, virtual reality, avatar, digital art, computer simulation, linden, Freedom Project, social interaction.

I walked through an enchanting garden, cobble stone path beneath my feet, the strange birds chirping and flying through the flowering plants led me towards a building of stone and light. Bindu Gallery bid me, Enter.

I stood in amazement as sculptures revolved and pulsated, I noticed a 3D spherical mandala near the stairs, I approached, stepped inside and sat on a red velvet cushion. I was looking out through the iridescent, geometric light patterns of the mandala. An indescribable mystical experience followed as the mandala energy flowed through me.

No, I had not died! No, I was not under the influence of hallucinogenic drugs! I had logged on to Second Life and visited a friend's Virtual Gallery Exhibition.



Fig1. Bindu Gallery is the virtual personal gallery of Second Life artist Sheba Blitz. Her original hand painted mandalas are uploaded from real life, manipulated in Second Life then displayed in this gallery.

Second Life (SL)¹ is a virtual (digital) 3D computer based world – it is not a game, not a social media app, but a digital version of real life (RL). Like the fragrance of coffee brewing it is a difficult thing to describe, immersion and participation is the best way to understand SL. As with most things the press and television media have also distorted and misrepresented SL, with claims of ruined lives, sexual abduction, huge costs, death and so on. Untrue!

Any individual adult, anywhere in the world may join the SL community for free, create their own avatar – the entity which allows you to live, work and play in SL – then create art, build astonishing architecture, create bizarre fashion or fly on a magic carpet. Flying or teleportation is the standard way to move around the various regions (sims) of SL. If you wish to buy your own land you must become a premium member which costs approximately \$70 USD per year, this returns a stipend paid to you of 300 Linden dollars a week. If you do not like flying you may use some of your Lindens to buy a car to drive around in, or perhaps catch a train!

Why Lindens? Philip Linden (Rosedale) was the creator and brainchild of SL. He attended the Burning Man event in the desert of Nevada, USA many years ago, this enormously influenced the already nascent digital, virtual version of SL. Linden Labs own SL, but the actual community is created by the residents with very few rules or regulations. So the basic currency of trading is called a Linden. SL is not the only virtual 3D community some others are; Blue Mars; InWorldz; OS Grid (presently with problems); Twinity; and Onverse.



Fig. 2 Screen shot of part of an art exhibition at the virtual SL version of Burning Man Festival.

This is probably enough basic information to orientate those not familiar with SL. As with most digital software and applications, things evolve and become more sophisticated and ‘mostly’ user friendly. Remember Unix/Dos command line communication via AARNet prior to the WWW? Perhaps not, but for those who do, how could we ever have imagined such a sophisticated and virtually real ‘thing’ as SL would

¹ Read about the Second Life community and download the required Viewer which installs on your computer from www.secondlife.com

develop?

This paper is mainly concerned with a general discussion of two important areas of SL - Art, and the possible Therapeutic benefits of spending time in SL. For those interested in a highly detailed investigation of all aspects of SL, one of the best studies I have found is *Coming Of Age In Second Life*. This book is a scholarly, anthropologically based study which dispels most “urban” myths and sensationalised nonsense concerning SL.²

Before looking at art and healing in detail, I should refute the notion that some techno-luddites hold; they argue that a virtual world such as SL is simply specks of light (pixels) on a computer monitor – nothing more, not “real” reality! This ignorance apart from ignoring the very real psychological impact, for good or ill, of interaction with others in a virtual world is that at a deep ontological level it can be argued that all “realities”, including humans, are simply complex conglomerates of light specks (photons). Detailed discussion of this concept/theory, which includes, but goes beyond quantum mechanics, is clearly beyond the scope of this paper. However, there is ample evidence to support this ontology, just one example is my paper published in Ylem Journal, 2007.³



Fig. 3 Exhibition of art by Harli Magic. Some work imported directly from RL, some pieces created in SL

The type and scope of art which can be created in SL is only limited by an individual’s imagination. Some artists replicate RL art, others create works which are only possible in a computer simulation such as SL. As an example of RL style art, a photographer may upload to SL their digital images. These are stored in their SL inventory. These images then become what is known as a *texture*. These textures may be placed (drag and drop) on a blank *prim*⁴ then displayed on the wall of an SL gallery.

² Boellstorff, T. *Coming Of Age In Second Life*. 2008 Princeton University Press. NJ. Also my review of this book: http://metapsychology.mentalhelp.net/poc/view_doc.php?type=book&id=4435&cn=396

³ *The Dichotomy of Reality* YLEM Journal. Harle, R.F. (Guest Editor) vol.27 Nos. 10 & 12 Sept/Dec 2007. Journal of YLEM Society, Artists Using Science & Technology. San Francisco, CA.

⁴ A prim, short for primitive, is a basic computer programming shape such as a cube or sphere which is used to construct all 3D forms.

Individual avatars may visit the virtual exhibition, walk around the gallery (at a distance or extremely close-up) just as one does in a RL gallery. These artworks may be for sale or simply for exhibition. Avatars purchase artworks with Linden dollars to hang on the walls of their SL houses.

More adventurous artists specialise in creating unique artworks which are only possible in a 3D virtual environment. For example, *animation scripts*⁵ may be added to an original texture. This enables the resultant artwork, perhaps a complex fractal, to pulsate, spin around or change colours randomly. Kinetic sculpture is especially suited to SL, there are numerous examples of these as a curious avatar will find out on their virtual travels.

A third type of art, now becoming very popular, is known as Machinima. Very briefly this is like a video clip which is normally shot in SL, that is, SL architecture and scenery are evident, avatars 'perform' within the landscape, sound is added, perhaps in post-production apps external to SL, then re-uploaded to be viewed in SL or depending on the codec in YouTube for example. One of the most well known and consummate Machinima artists is Bryn Oh⁶; her works are captivating, haunting and incredibly well made.

One incentive, other than the inner compulsion to create art, are competitions and themed exhibitions which occur regularly. One of the most important and long running of these is curated by the Perth based, University of Western Australia. This very progressive university has various presences in SL, their extensive art gallery and exhibition spaces are organised by an indefatigable visionary known as Jay Jay Zifanwe, (Jegathesan) his RL job is in the physics department of this university. Their competitions, which push the limits and "raise the bar" of art in SL, occur regularly, have excellent prize money and attract the very best builders and artists in SL. I say builders because architecture is another creative artistic aspect of SL which is nothing short of revolutionarily breath taking.

The old saying, "Gravity always gets me down :-)" does not apply in SL – one can create buildings which float above the ground, or high up in the rarefied SL atmosphere which are known as "sky boxes". The conventional column and beam construction method is just one choice in SL. One can create underwater observatories, time-warp bubbles, glass geodesic domes or a pirate's cave in which to live, work or play. As well as dedicated, serious artists many folks use SL as a fun form of interactive entertainment. They enjoy customising their avatar, decorating a house, going to dance parties or creating fantasy gardens and environments.

One thing which has emerged from the thousands of SL users over the years, which was not self-evident from SL's inception is the social engagement of avatars. Boellstorff addresses this aspect of SL in detail in his book as previously mentioned. However, since the time of writing that book the therapeutic benefits of social engagement for individuals, who for whatever reasons are restricted in RL, has emerged as a very real and positive outcome.

⁵ An animation script is a simple short piece of computer code which is added to an avatar to give animation instructions when clicked on or when encountering specific environmental triggers

⁶ Bryn Oh, a painter in RL has arguably set the standard of Machinima creations in SL. Her blog, outside SL is <http://www.brynoh.blogspot.com.au>

There are many predicaments which may cause an individual in RL to have highly restricted social interaction: Injury from accidents; Multiple Sclerosis; Parkinson's Disease; Paraplegia; Post Traumatic Stress; and even social phobia itself are just a few of them. Many people have found through their participation in SL previously unimagined worlds have opened up for them. Imagine the relief of someone restricted to one room, perhaps in their bed day after day, when suddenly they can talk with others (voice or text), their avatar can fly or dance. They may build or leap tall buildings, create stunning, original artwork and at their own pace, with no pressure, gain enough confidence to exhibit their artwork.

Once again UWA showed its creative foresight in this area by creating and sponsoring the Freedom Project ⁷ *“An exhibition of original virtual art by artists and filmmakers with disabilities or chronic illness.”* This virtual exhibition of art in SL was enough in its own right but UWA (Studies In Virtual Art Department) went one step further and produced a hard copy book, with colour plates of the artists, their artworks and most importantly their stories. Some of these are heart rending and should silence once and for all those who with little knowledge condemn or ridicule SL.

Health, or rather the lack thereof, is one of the great “levellers” in life. Some of the individuals in the Freedom Project had ‘important ‘ jobs, high profile careers, then suddenly because of a serious, near fatal accident their world changed dramatically. As their stories convey, participation in the SL community and engagement with artistic, creative pursuits has given them back meaning and purpose and some joy in their lives.

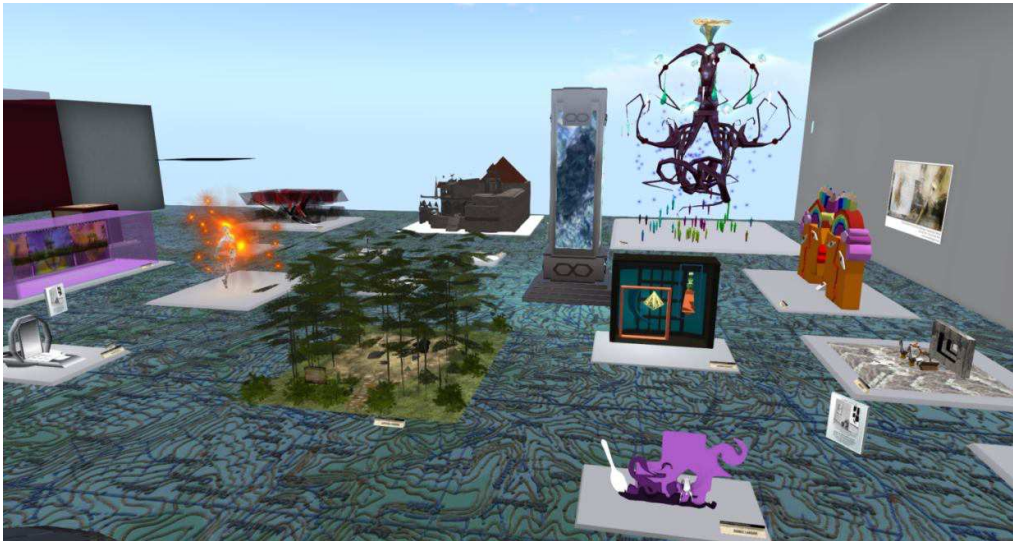


Fig. 4 Screen shot of a small section of the artworks exhibited in the Freedom Project virtual exhibition at UWA. When in SL search for Freedom Project – UWA.

I have been discussing the therapeutic benefits for individuals through specifically social interaction in SL. These benefits may be described as ‘indirect’ as they come about together with, and as a consequence of psychological social interaction – no less powerful or efficacious for this of course. The possibility of ‘direct’ physical healing through virtual interaction are only just starting to be realised. Preliminary studies have

⁷ *The Freedom Project*. UWA Studies In Virtual Arts. Spring 2014 vol.3 no.1 Jay Jay Jegathesan UWA Crawley WA

shown the possibilities that *visual observation of physical actions* of an avatar in a virtual environment may bring about actual physiological changes in the individual controlling the avatar.⁸

As an example when an individual suffers from stroke, certain neurological damage occurs in the brain, often resulting in paraplegia with loss of control over speech, limbs or facial muscles. Depending on many factors, especially the severity of the brain cell damage, it seems it is possible for the brain to “burn” new neural pathways so that adjacent areas of the brain learn and take over the function which the damaged cells can no longer do.

So, as an example, if a person with a paralysed left arm watches and controls their avatar (with their right hand obviously) perform Tai Chi or dance in SL, the incoming visual information may eventually re-program the person’s brain with the result that movement and feeling returns to their arm. This area of research needs urgent and scholarly study and trialling. It is a very low cost, universally available opportunity to bring about possible miraculous healing for this prevalent and disastrous impairment.

This brief paper has discussed art and healing benefits of participation in virtual digital environments. This is only one tiny area of the possibilities of virtual simulated worlds. Already we learn to drive, diagnose disease, perform surgical operations remotely using 3D computer interfaces, train airline pilots and manipulate objects in outer space via these 3D virtual applications.⁹

My own digital, computer generated artwork over the past decade has been a kind of documentation of this technoMetamorphosis, presenting people with various scenarios. I only hope humans use these virtual, digital worlds, undreamed of when I was a child, for the benefit of all humans, animals and the natural world which sustains our biological heritage and existence.

Rob Harle is an artist, writer and researcher. His academic work involves research into the philosophy of Transhumanism, Artificial Intelligence and the nature of Embodiment. Artwork, Biography and selected writings are available from his web sites: www.robharle.com, www.harliart.net.

⁸ *Sensorimotor Training in Virtual Reality: A Review* Sergei V. Adamovich, Gerard G. Fluet, Eugene Tunik, & Alma S. Merians, *Corresponding Author: Sergei Adamovich.*

⁹ *The Journal of Virtual Worlds Research* is a leading journal which discusses and investigates all aspects of virtual reality, including civilian, military and gaming applications. <http://www.jvwresearch.org>