

# Synthetic Worlds, Synthetic Strategies: Attaining Creativity in the Metaverse

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## **ABSTRACT**

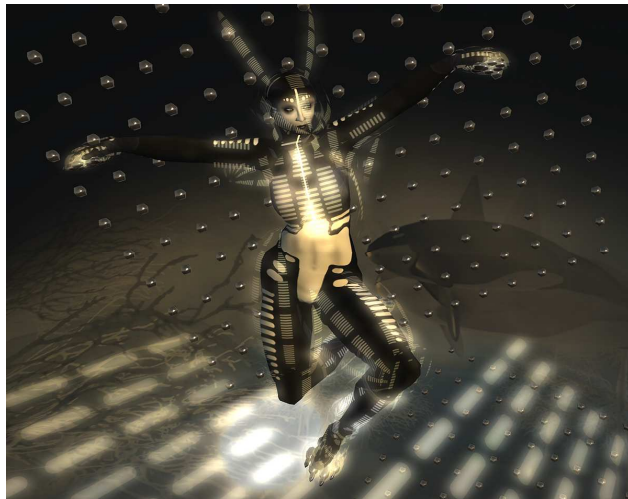
This text will attempt to delineate the underlying theoretical premises and the definition of the output of an immersive learning approach pertaining to the visual arts to be implemented in online, three dimensional synthetic worlds. Deviating from the prevalent practice of the replication of physical art studio teaching strategies within a virtual environment, the author proposes instead to apply the fundamental tenets of Roy Ascott's "Groundcourse", in combination with recent educational approaches such as "Transformative Learning" and "Constructionism". In an amalgamation of these educational approaches with findings drawn from the fields of Metanomics, Ludology, Cyberpsychology and Presence Studies, as well as an examination of creative practices manifest in the metaverse today, the formulation of a learning strategy for creative enablement unique to online, three dimensional synthetic worlds; one which will focus upon "Play" as well as Role Play, virtual Assemblage and the visual identity of the avatar within the pursuits, is being proposed in this chapter.

## **KEYWORDS**

Avatar, creativity, immersive, metaverse, online, Play, Presence, synthetic world, virtual world, virtuality,

## **INTRODUCTION**

In his book "Exodus to the Virtual World" economist Edward Castranova predicts that a migration of considerable proportions from the physical realm to three dimensional, online synthetic worlds is to be expected within the next few decades. The anticipated outcome would be a demographic landslide of significant enough socio-economic impact to constitute a need for compelling changes in political, social, cultural and economic strategies not only in the virtual but also the physical realm (Castranova, 2007).



*Figure 1. The Avatar "OrKa", by Alphi Fullstop, aka. Elif Ayiter, Second Life®, 2009*

As opposed to a discrete, one way migration, as would be the case in population shifts in the physical world,

the anticipated migration would be of a continuous nature, with migrants switching back and forth between the physical and the synthetic world. If, during this ebb and flow of time allocation more and more hours of activity become appropriated by the virtual world the physical world would suffer the consequences primarily through the loss of revenue generated by the consumption of (physical) goods. However, equally impactful would be the loss of interest and attention towards (physical) socio-cultural occurrences, events and policy. By looking at the current health indicators of virtual economies, the earnings of which can readily be translated into physical currencies such as the US Dollar, Castranova predicts that if a sufficiently large number of players migrate to virtual pastures the consequences upon physical economies, and by extension socio-political structures, will be powerful enough to instigate fundamental changes in (physical) public policies as well as a re-examination/re-definition of (physical) socio-cultural mechanisms globe-wide. Furthermore, Castranova sees this as a more than likely occurrence when viewed within the economic theory of human time use, the allocation of attention and the attractiveness of virtual worlds within its context, as well as the growth in the gaming industry coupled with the emergence of ubiquitous technologies.



*Figure 2. Virtual Assemblage: Skin created by Pandora Wrigglesworth and limb attachments created by Lucia Cyr are combined into a novel avatar by the author. Second Life®, 2008*

Since creative practices are inextricably intertwined with the socio-cultural milieu within which they flourish, it would follow that vast change, not only in terms of the actual creative output itself, but especially and more importantly in terms of the contextual premises within which this creative output is generated should also be expected. Malcolm McCullough approaches the the process of virtual creativity through an examination of the virtual medium itself and the ensuing requirements of craftsmanship which this medium brings to bear upon the creative processes involved in the realization of virtual artifacts. According to McCullough, individuated human craftsmanship, a term largely overlooked by modernist art and design movements, is being, once again, brought very much to the fore by the practitioners of digital creativity: While the assembly line of mechanized industry predicates that the developer/conceiver of the design object is inevitably removed from the actual phase of its production; artists, by and large, seem to have embraced the distinction of labor between concept and realization as well, where pre-eminence would appear to have been allotted to the conceptual phase of the work. Today, the affordances of the digital medium, with its pronounced ease of instigating playful improvisations and the ability to produce many variations and iterations of a single artifact allow for a flexibility of output which is once again attracting virtual content creators to the very process of production itself (McCullough, 1996). When McCullough's observations are coupled with Castranova's description of the mechanisms of virtual economies however, we end up at a juncture where we may well be finding ourselves facing a mode of creativity which harkens back to the days before the Industrial Revolution where the creator of the artifact is not only the craftsman thereof but also the merchant of his or her own output.

As appears to be the case with higher educational activity in the metaverse in general, in the virtual extensions of most of the art educational institutions manifest in Second Life® today, teaching is usually seen as a mere extension of real life studio teaching, with assignments and teaching methodologies closely emulating what goes on in the physical campus. Again, in the case of a considerable number of art educational establishments in Second Life® the virtual campus at which the learning activity occurs is a very close adaptation if not exact replication of the real world campus.

However, the problem does not reside in how the learning process is approached within the boundaries of the virtual campus alone: Art Schools, be they physical or virtual, may need to adapt and change their learning content and strategies in the face of the oncoming landslide predicted by Castranova: While it may be premature to relinquish present day art educational methodologies in their entirety, the author nonetheless feels that provision for change, and on a noteworthy scale at that, needs to be incorporated into the present day art educational curriculum. It appears to be fairly evident from present day creative activity embarked upon by the Residents of a metaverse such as Second Life® that this change will not only involve the attributes and nature of the artistic output itself but will also need to take into account the changes in behavior, in usage, in utility and function on behalf of the creator/users of art objects and artifacts; as well as the locus of the usage itself; i.e., immersive, participative synthetic worlds, worlds which, according to Castranova, define their core premise of existence as embedded in the provision of “fun” (Castranova, 2007). Furthermore, an entirely novel student profile, comprised of mature player/learners who wish to further their creative abilities for enhanced participation in the ongoing metanomic game, may also manifest themselves at the doorsteps of art educational institutions within a foreseeable future; and again it would seem that provision for their specialized learning needs would need to be taken into account.

## LEARNING AND LUDOS

### The State of the Art of Art Education in Synthetic Worlds

Notwithstanding that much has been accomplished in online educational systems that address the needs of most mainstream educational needs (Hill, 2003), the open-ended nature of art education requires special solutions which involve opportunities of unpredictability, associative processes, perceptual transformation and ultimately behavioral change.



*Figure 3. The jellyfish avatar created by the author instigates novel artistic output in its turn:  
“Arrival, by Catarina Carneiro de Sousa, aka. CapCat Ragu. Second Life®, 2009*

While web 2.0 domains have increased user interaction and participation, the metaverse has taken huge steps in the realization of a domain where awareness between participating agents is taken to an entirely new level providing not only the capability of social interaction and participation but also that of “presence”, creating far deeper reaching implications than what a mere novel display system or tool would indicate: New forms of embodiment, of presentation as well as perception and indeed of autopoiesis are being materialized, as have

also been the prior case in online games and simulations (Gredler, 2004). However, while computer games have the disadvantage of predefined structure and purpose, the metaverse poses the opportunity/challenge in that users define and create their own content and purpose. Thus, while having profound effects on every conceivable profession and walk of life, the effects of the metaverse on the creative arts does merit special consideration.

The highly socially interactive and emergent nature of the metaverse herself does indeed provide a satisfactory environment for the implementation of successful art educational strategies that position themselves in an open-ended discourse. It is thus surprising that very little usage seems to be made of these novel affordances by most art educational approaches at the present time. Instead, art institutions seem to be set upon following a far more pervasive and wide spread trend: Although Second Life® is used as a learning platform by hundreds of higher educational institutions worldwide (Lagorio, 2007), the general lack of concern over whether the unique properties of this thoroughly novel human condition can be exploited to develop entirely novel learning strategies is noteworthy. The overriding majority of Second Life® universities have appropriated dedicated sims upon which campuses in which learning activity that is entirely cut off from the rest of the metaverse have manifested. Most of these campuses have been built as exact replicas of their physical counterparts, thus metaverse learning activity is considered as a mere extension of education in the physical world. Indeed, in a considerable number of cases teaching is undertaken by faculty whose presence in the metaverse is limited to this activity alone:

*What is it that we can do in a 3D virtual world that we cannot do out of it? I can attend a formalized teaching session but if all the time I want to build a castle or fly to the other side of the island I will not be too concerned with the contents of the lecture. However if the learning tasks we construct involve building and flying then the learning itself is embedded in the platform's unique attributes. This is the current challenge and our biggest questions surround how we might evolve these learning activities. Very few educationalists are currently involved in this. We need a way of assessing our impact in Second Life without influencing the process by the observation itself whilst yet allowing our assessments to be both valid and reliable. So many factors influence knowledge exchange and the learning of new skills when we start using immersive technologies to teach. (Kirriemuir, 008)*

McPherson and Nunes (Mcpherson & Nunes, 2004) propose that the design of online learning environments should be based upon sound pedagogical models, appropriate to a specific educational scenario. For ground<c>, this pedagogical model is the Groundcourse (Ascott, 2003), a methodology, which through the emphasis it put upon behavioral change as an approach to the enablement of creativity, especially through the enactment of new personalities, i.e., role-play, is deemed to be particularly suited to the present quest of the author vis a vis the proposed realm of implementation, i.e. the metaverse.

## **The Precedent**

Combining cybernetics and constructivist educational theory, The Groundcourse devised a flexible structure the aim of which was to create an environment which would “enable the student to become aware of himself and the world, while enabling him to give dimension and substance to his will to create and change”; achieved through a drastic breaking down of preconceptions related to self, art and creativity. Thus the operative tenet that was employed was one of providing an environment that fostered the rethinking of preconceptions, prejudices and fixations with regards to self, society, personal/social limitations, art and all the ensuing relationships through a carefully thought out, coordinated and orchestrated range of assignments and exercises that entailed behavioral modification and indeed change.

During one of the most important assignments of the Groundcourse the problem that students had to address was the task of acquiring and acting out a totally new personality, which was largely the converse of what they would consider to be their normal selves. These new personalities were monitored with calibrators that were designed to read off responses to situations, materials, tools, and people within a completely new set of operant conditions. These responses were then used in the creation of mind maps to be utilized as consultational charts enabling handy reference to behavior pattern dictated by change in the limitations of space, substance, and state. These “new” personalities were asked to form hexagonal groups which had the task of producing an ordered entity out of substances and space in their environment, with severe limitations

on individual behavior and ideas, these forming the “irritants”, i.e. the educational aids of limitation in the pursuit of creative enablement:

*The Groundcourse places the student at the centre of a system of visual education designed to develop in him awareness of his personal responsibility towards idea, persons and the physical environment such that he may contribute to a social context within which his subsequent professional activity may become wholly creative and purposive. The intention of the Groundcourse is to create an organism which is constantly seeking for irritation. The term “organism” may be applied to both the individual student and to the Groundcourse as a whole. (Ascott, 2003)*

Students were then invited to return to their former personalities, making a full visual documentation of the whole process in which they had been engaged, searching for relationships and ideas unfamiliar to the conventional definitions of art, reflecting and becoming aware “of the flexibility of their responses, their resourcefulness and ingenuity in the face of difficulties. What they assumed to be ingrained in their personalities they now tend to see as controllable. A sense of creative viability has been acquired”. (Ascott, 2003)

The Groundcourse, with its pivotal emphasis on behavioral change as a founding tenet for the enablement of creativity, utilized the creation and enactment of new personalities as an educational process. This corresponds to the present day phenomenon of role-play in MMORPG’s and the metaverse. Research conducted in the emerging field of Cyberpsychology also substantiates the importance of role-play, the acquisition of alternative characters and indeed the acquisition of many alternative selves in the engenderment of behavioral change not only within the virtual environment itself but also, by extension, in real life. Thus, it is the position of the author that much insight and benefit can be attained from a critical examination and subsequent adaptation/re-interpretation of the Groundcourse’s educational philosophy and premises as a pedagogical model aiding the enablement of creativity in a metaverse.

### **Transformative Learning and Constructionism**

While Experiential Learning and Cybernetics were pivotal to the educational theory of the Groundcourse; relevant educational theory to the quest at hand that has been formulated between then and now. Two recent developments in adult education, namely Transformative Learning and Constructionism are also felt to be relevant subjects of inquiry.

As early as 1966 Ascott alerts readers to the emergence of “a new, leisured class” that will be involved in creative pursuits, furthermore a class which falls outside of the boundaries of traditional art educational practice. The current phenomenon of creative participation and sharing via www2 domains seems to amply validate Ascott’s early claim who structured his learning system as a fluid, symbiotic construct within which diverse learner groups could be accommodated: Transformative learning (Sheard, 2001), specifically addresses adult education and lifelong learning, as a process of getting beyond gaining factual knowledge alone to instead become changed by what one learns in some meaningful way. It involves questioning assumptions, beliefs and values, and considering multiple points of view, coming out of Jack Mezirow’s earlier theory of perspective transformation. In theorizing about such shifts, Mezirow proposes that there are several phases that one must go through in order for perspective transformation to occur. “Perspective transformation involves a sequence of learning activities that begins with a disorienting dilemma and concludes with a changed self-concept”. While instrumental learning involves cause-effect relationships and learning through problem solving, communicative learning necessitates actively negotiating one’s way ‘through a series of specific encounters by using language and gesture and by anticipating the actions of others’ (Mezirow, 1991). The former is about prescription whereas the latter is about ‘insight and attaining common ground through symbolic interaction’ with other persons.

Beyond role-play, the importance of playful activity itself as well as the building of concrete objects, i.e. toys, in the development of creative thinking is yet another concept that can be adapted with facility to the Groundcourse’s key strategies: Seymour Papert’s Constructionist learning is inspired by constructivist theories, as well some of the cognitive theories of Jean Piaget (Steffe, 1995). Constructionism holds that learning can happen spontaneously when people are engaged in actively making things (Kafai, 1996). To

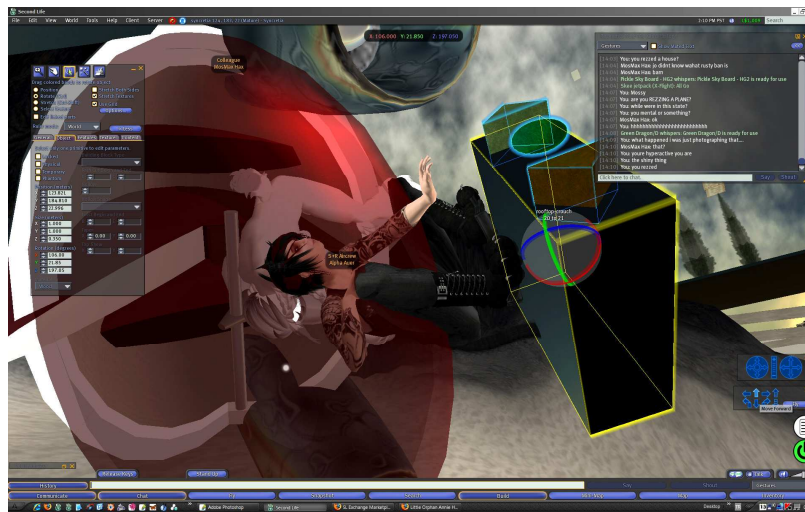
Papert, people best learn through constructing personally meaningful products that express something of importance to them. “To the adage ‘you learn by doing’ we add the rider ‘and best of all by thinking and talking about what you do’” (Papert, 1990). It is thus, a grave mistake, in Papert’s view, to forsake or cast off concrete thinking, in favor of purely abstract thought. Constructionism is a way of making formal, abstract ideas and relationships more concrete, and therefore more readily understandable.

Some of the research on which “Serious Play” is based has been charted into basic concepts such as play and identity; while the goals of the method are listed as social bonding, emotional expression, cognitive development, and constructive competition (Papert, 1980). Within this context play is defined as “a voluntary activity that involves the imaginary. That is, it is an activity limited in time and space, structured by rules, conventions, or agreements among the players, uncoerced by authority figures, and drawing on elements of fantasy and creative imagination” involving storytelling and metaphor. Emotions such as love, anger, or fear shape the different forms of play in which a player engages, as well as the symbolic expressions the player produces. Since play involves the capacity to pretend, and to shift attention and roles, it provides a natural setting in which a voluntary or unconscious therapeutic or cathartic experience may take place.

### Play for Experience, Play for Learning, Play for Art

*“Play is freedom. Play is extraordinary. Play is distinct from the ordinary both in locality and duration. Play is fun”.* (Huizinga, 1955)

Huizinga sets play and culture side by side, however insists that play is the primary force, since animal play pre-dates human culture; continuing that he does not propose to define the place of play among all other manifestations of culture, but rather to ascertain how far culture itself bears the character of play, thus setting an evolutionary framework for the concept, which is picked up again by Brian Sutton-Smith in the *Ambiguity of Play* (Sutton-Smith, 2001).



*Figure 4. Virtual "Objet Trouvé" as toy: A scripted pose stand initiates an elaborate yet entirely improvised game between avatars Alpha Auer and MosMax Hax. Second Life®, 2008*

Sutton-Smith draws from the fields of animal play, psychology, folklore, literary criticism, biology and anthropology. The book considers seven major play rhetorics that cover play as progress, addressing the claims of research into animal and child development; play as power in sports and games; play in the construction of identity through cultural activities such as festivals; imaginary play in art and literature; the self in play from the perspective of individual psychology; and the frivolous as a deconstruction of play. Sutton-Smith invites us to look at the separation of child play from adult play, juxtaposing play for adults, often altogether unrecognized as play, with play for children, usually recognized as play for progress; showing play to be a complex process, which is highly contributory to the cultural characteristics of a society.

Much inspiration as well as clarity of purpose has been attained from reading John Dewey on the experiential qualities of aesthetics and art. In as synthetic a world as the metaverse of Second Life® where the bulk of art work presented is still housed in designated art spaces such as galleries or museums, Dewey's concern for the separation of art work from its experiential functions seem to be well founded, given the suitability of virtual worlds for an in-depth reexamination of the role of artistic output in (virtual) society. Drawing attention to the modernist practice of relegating art work to rarefied but sterile repositories where they pursue an existence essentially cut off from everyday usage and appreciation, as would indeed be the case with museums, Dewey draws attention to cultures, ancient as well as contemporary, where aesthetic appreciation is inextricably bound with day to day usage, saying that "we do not have to travel to the ends of the earth nor return many millennia to find peoples for whom everything that intensifies the sense of immediate living is an object of intense admiration", adding that the present task at hand "is to restore continuity between the refined and intensified forms of experience that are works of art and the everyday events, doings, and sufferings that are universally recognized to constitute experience", thus elevating art work from its current state of being the provider of mere "transient pleasurable excitations" into once again becoming the powerful carriers of experience.



Figure 5. "The Bunny Girls" by Ravenelle, aka. Jennifer Olmstead, Second Life® and digital post-processing, 2009

Approaching play from the vantage point of the computational environment McCullough describes a circle:

*A chain of developments should be clear: play shapes learning; learning shapes the mind; mental structures shape software; and software data structures afford play.*

For McCullough improvisation is an intrinsic part play and where improvisation is concerned computational endeavor has a distinct advantage over its counterpart in the analog realm; one which is embedded into the very material difference between the two at that: The digital environment handles bits as opposed to material atoms. While atoms can only be manipulated to a certain degree before "material" starts breaking down, bits can be processed, reversed and manipulated infinitely with no loss. Computational creativity thus becomes an activity which can also be described as play with a perpetually evolving object which can endlessly be improvised upon. Although writing at a time predating the advent of fully operational metaverse such as Second Life®, which place their fundamental tenet solely in user created content, McCullough is nonetheless aware, through observing precursors of the genre such as SimCity, of the implications which these "builder worlds" have upon all digital creativity, when he notes that "*the popularity of these simulations without explicit winning conditions may reflect a constituency that also sustains the playful attitude in productive computing*". (McCullough, 1996)

Returning once again to Castranova, we find that one of the major issues his hypothesis addresses is the entire notion of fun: While, Hedonics, as a field of psychological research investigating the grounds of human happiness and fun had already been proposed during the 1990's, it is the game industry of the 21st century which seems to have instigated resounding research in this area whereby it has been assessed that there exists a correlation between the production of endorphins and a sense of achievement, which in its turn, is a commodity easily attained in synthetic worlds through either game related success or in a builder world such as Second Life®, through the realization of creative activity. Indeed, so powerful seems to be the pull of “fun” provided by synthetic worlds that Castranova even foresees a considerable shift in future physical public policy and socio-economic strategies aiding the establishment of a more “fun” physical world as a means of competing for the attention of the migratory population whose exodus to synthetic worlds has been described above (Castranova, 2007).

## SYNTHETIC EXISTENCE

### The body is the message: Presence and the Avatar

The social and economic impact of the metaverse was at the core of Stephenson's fiction, and as such is still very much of an open question today. What differentiates the metaverse from online role playing games is that unlike games, the metaverse has no intrinsic rules that are game related: There are no scores to be gained, no levels to be attained. However metaverse activity can be thought of as a game on a very basic level: These are unstructured virtual environments where characters undertake activities for the sole purpose of personal enjoyment, i.e. play. What makes the metaverse particularly relevant when viewed in juxtaposition to creative activity however is that in order for this playful activity to commence the apparatus of play, i.e., the actors/avatars, the environments, apparel, vehicles and the like need to be created by the players themselves. And taking the act of creativity even beyond the rendering of all the accoutrements of the game, metaverse Residents are also called upon to create the very game itself.



*Figure 6. Avatars Alpha Auer and Grapho Fullstop play a Norsk mythological game evoked by costumes created by June Dion. Second Life®, 2008*

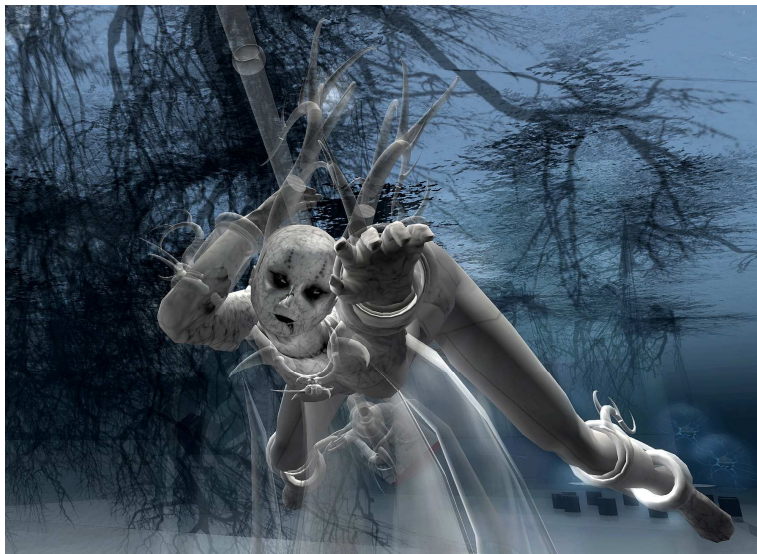
A salient aspect of Ascott's methodology in the propagation of behavioral change and stimulating creative processes is Role Play, as well as “pure play”, or “frivolous play” (Sutton-Smith, 2001). Since the author proposes to utilize the entire social and economic structure of the metaverse for creative learning activity, specifically through the enactment of different selves and persona through the agency of diverse play activity, this inevitably brings into prominence the role of the avatar.

Avatars are the all important, if not indeed sole agents of virtual social interaction since their inhabitants both consciously and unconsciously use them in ways very similar to their material body (Damer et al, 1997). They can be endowed with a wide range of physical attributes, and may be customized to produce a wide variety of humanoid and other forms. Furthermore a single person may have multiple accounts, i.e. “alts”



and thus be represented through multiple identities in a synthetic world. Given that they visually portray an inhabitant and allow visual communication, Suler contends that avatar appearance is crucial for identity formation as well as attaining Presence in virtual worlds (Suler, 2007).

Presence is defined as a sense of “being there” in a mediated environment (IJsselsteijn, deRidder, Freeman and Avons, 2000). Lombard and Ditton (1997) define it as an illusion of non-mediation in which a user no longer perceives the display medium as a separate entity. A high level of presence will help users remember a virtual environment as more of “a place visited”, rather than “a place seen” (Slater et al., 1999). A success indicator of the attainment of presence is also considered to be the realization of similar behavior patterns in virtual environments to those in the physical realm (Slater and Wilbur, 1997), and even the manifestation of similar physiological responses towards a given event to its approximation in the physical realm (Meehan, 2000). Various definitions of the term “Presence” and their relevance to the immersive virtual experience are discussed by Mantovani and Riva who challenge the notion that experiencing a simulated environment deals with the mere perception of its objective features; instead proclaiming that presence in an environment (real or simulated) means that individuals can perceive themselves, objects, as well as others not only as situated in that external space but as immersed in a socio-cultural web connected through interactions between objects and people (Mantovani, Riva, 1999).



*Figure 7. The avatar Alpha Auer playing in the synthetic ocean of Second Life®. 2008*

Positioning the concept of Presence primarily within a socially interactive context finds further resonance in Castranova who places the social nature of online synthetic worlds, i.e., the agency of “social presence” as possibly the single most important contributing factor to the sense of joy and satisfaction that being immersed in these worlds brings to their inhabitants: Social interactions such as emotions and successes shared, the formation of close bonds and affections as well as wider peer groups and alliances, the attractions of social discourse, joint memories and experiences would seem to be vast enhancements which the social world of online gaming provides over the video game performed in isolation. Indeed such is the pull of the social factor in online “Presence” that when the future market strategies of video game producers are held under scrutiny it becomes quickly apparent that all major developers are planning upon bringing their consoles online within an immediately foreseeable future (Castranova, 2007).

A rewarding overview of the literature on the avatar within the context of embodiment comes from Benjamin Joerissen (Joerissen, 2008) who directs us to the co-relation between the ideological affinity of the avatar and the human body: Drawing upon Plato, as well as the Sanskrit meaning of the word avatar itself, he points out that within these doctrines the human body itself can be identified as the disparaged, earthbound hybrid carrier/avatar of higher, divine, i.e., non-physical attributes. In a play upon McLuhan’s famous statement Joerissen continues to say that if soul is indeed “form”, the body is then the medium within which form

becomes corporeal and as such the body becomes the very message which it carries. However, according to Joerissen, a recent, post-Cartesian shift in the attributes with which an avatar is endowed is also noteworthy: In the post-humanistic world of artist Stelarc the avatar is no longer the belittled, lesser manifestation of the higher “form” but rather the “upload” of a perishable, mortal physicality into the mundus possibilis of a virtual, non-corporeal space; an agent in the realization of a “cybernetic platonic” state (List 2001) wherein technology may overcome the shackles of mortality. According to Joerissen viewing avatars as mere representational agents in virtual realms has become increasingly problematic over the past decade. Instead a holistic approach which weaves together the human handler, the representation thereof and the medium within which this representation materializes seems to be called for: In describing this hybrid actor whose virtual sojourn is a two way experience which can have profound influences on the human behind the keyboard, Joerissen quotes Yee: “Just as we choose our self-representations in virtual environments, our virtual self representations shape our Real Life behaviors in turn. These changes happen not over hours or weeks, but within minutes”. (Yee, Bailenson, 2007)

Drawing his conclusion Joerissen quotes Mark Hansen (Hansen, 2006) who points at a deep reaching biological/corporeal moment embedded within the virtual experience: Whilst placing the digital experience itself within the sensory organs of the biological body, Hansen ascribes a third element to digital embodiment, speaking of a “body submitted to and constituted by an unavoidable and empowering technical deterritorialization”, a “body-in-code”, which can only be realized in association with technology, and which, in its turn, can lead to unexpected self-perceptions in the human handler. Indeed Hansen endows this novel constellation with the capability of increasing the field of influence of the human operator “as an embodied being”. Thus, Hansen predicts a re-definition of the potential of the biological body through virtual embodiment.

### **Metanomics, Synthetic Objects and the (Virtual) 3D Collage**

What makes a search for unorthodox strategies for art educational content particularly relevant at this juncture is the emergence and continued success of Second Life®, which made its debut in 2003 as the first 3D synthetic world that allows its users to retain property rights to the virtual objects they create in the online economy. Furthermore, everything created in Second Life, from the formation of its very terrain to the architectural constructs placed thereupon, and down to the vast array of objects and wearables on sale and in usage is user generated. Indeed it can be said that outside of taking advantage of the economic activity or the ensuing milieu of creativity provided by Second Life® there is really not much point to residing there at all. The synthetic world is not an easy environment to adapt to: The very absence of system defined content and purpose sees to it that a very steep learning and adaptation curve awaits the newly fledged Resident. However, although the growth rate of the population of Second Life is nowhere near those of multi-user online gaming environments whose content and purpose is largely defined by their game developers, there is still enough growth and success, manifest by the fiscal results of in-world trading activity (Linden, 2009), to assert that Second Life® is a noteworthy experiment in creative activity even when viewed from the standpoint of economic health indicators alone.

One of the founding strategies behind Second Life® was the notion that the world would draw a cadre of elite content creators whose endeavor would be noteworthy enough that it would attract sizable numbers of players into joining the world to make usage of their output (Castranova, 2007). While this early vision does indeed seem to have materialized, an unexpected development in terms of creative activity also seems to be in the offering: What makes the world particularly compelling as a platform of artistic expression to the author, herself a full time Resident of Second Life®, is the largely unstructured, indeed sometimes emergent, nature of the creative activity which the first order user generated content seems to breed quite spontaneously in its turn: Residents will combine output generated by others, sometimes with their own as well, to create extraordinary wearable collages and environments which have been assembled entirely or partially out of “objet trouvé”. The conglomerated apparel and architecture, landscape as well as a diverse range of objects of usage will then be utilized as a point of trajectory in the creation of involved play/rituals, storytelling sessions, fantasy role play which then become the incubators for the generation of personal artwork by their participants. At the time of the writing of this text Second Life® video and photography output in www2 repositories is of sufficient creative and social impact to merit close scrutiny as a subject in its own right.

Thus, far from being an activity held solely in the hands of an elite cadre, creative activity in the metaverse seems to be materializing as a mass pursuit, forging its own techniques, ways and means towards personal expression.

Creative output in the metaverse becomes interactive in the truest meaning of the word: Far from being work meant to be viewed and admired but not to be interfered with in any truly fundamental way, design output as well as art objects are manipulated, re-structured and combined with others as fits the needs of the present owner; to suit specific purposes, such as props in playful activity, photography and video sessions, environmental decor and, of course, avatar appearance. What is however, most noteworthy in this second order creative content is that the roles and stories enacted very often find their origins in the combined visual elements of the initial assemblage/collage which seems to have instigated the very process of story-telling and of make-belief which these combined objects and imagery seems to evoke: Thus, akin to their Dadaist predecessors, the assembly of unrelated objects seems to go as noteworthy a distance virtually as they do physically in the instigation of associative creativity. Indeed quite possibly acceleratedly so in virtuality, when the contributions which a coded domain can bring to bear upon the enablement of the fantastical is also taken into account: Unconscious associative processes, which provoke further creative manifestations in the form of narrative/performative as well as visual output are evoked as par for the course in the synthetic lives of users and extended user groups, to the extent where it would be not much of an exaggeration to claim that the pursuit of these is at least one of the key joys and components of many a synthetic existence.



Figure 8. "Splitting the Atom to Kill Time" by ariel Brearly, aka. Kerry Wimpenny.  
*Virtual Collage, Second Life® and digital post-processing, 2009*

In "Art and Agency" (1998) Alfred Gell expounds upon the found object as part of the process of artistic activity stating that in the idea of the "found object" or the "ready-made", the artist does not so much "make" as "recognize" the particular cognitive index of the object. According to Gell, Western cultures seem to have a far more activist notion of artistic activity, whilst the Oriental approach esteems far more the "quietist" mode of creativity in which success attends those who open themselves to the inherent physiognomic appeal of the (naturally) found object. Conversely, the usage of the found object by Western artists such as Duchamp are less passive, their selection being presented as pure acts of will on behalf the artist. Duchamp claimed that his ready-mades possessed "the beauty of indifference", that is, the objects used in their creation were selected on the grounds that nobody could possibly imagine that there could be any particular reason for them to have been selected in preference over others. However, having "no reason" to select some "thing" as

an object of ready-made art, is in itself a reason, since it is motivated by the need to avoid selecting anything for whose selection some reason might be proposed. Consequently, even the purportedly "arbitrary" ready-mades of the Dadaists, forced themselves on these artists "who responded to the appeal of their arbitrariness and anonymity, just as the Buddhist landscape artists responded to their mutely speaking boulders".

Western Collage consists in reassembling preexisting images in such a way as to form a new image answering a poetic need. Max Ernst defined it as "the chance encounter of two distant realities on an unsuitable level", a formula which also finds resonance in Lautréamont's proposition: "Beautiful as the encounter of a sewing machine and an umbrella on a dissecting table, it gives us a remarkable method of triangulation that does not provide measures, but brings to the surface unrevealed mental images". Aragon states that collage "is more reminiscent of the operations of magic than of those of painting since it hinges on the artist's success in persuading us to recognize the connection of visual elements on the plane of poetry". Asked, if his collages were visible poetry Jean Arp replied "Yes, this is poetry made through plastic means".

It would be overly optimistic, if not indeed downright foolhardy, to view the bulk of the content created by the population of Second Life® in such a light as to do Jean Arp's words justice: While there is noteworthy output generated by a relatively small group of skilled builders, for the overwhelming part Second Life® creativity is devoid of the intrinsic attributes which would qualify it as meaningful to anyone outside of the person(s) engaged upon the task itself. However, when viewed in its entirety as a socio-cultural manifestation, if not indeed a way of life; it may again be foolhardy to disregard the cumulative creative endeavor in Second Life® as the mere doodlings of a largely amateur society. What seems to be at work is akin to what happens in a petri dish: While one cannot yet foresee the ultimate direction and outcome of the experiment heed should still be paid, not only in terms of what may materialize in the synthetic world itself, but in terms of how what materializes there may in the end be of relevance to artistic processes at large.

### **Creative Activity for Behavioral Change**

A pertinent result of creative activity in a synthetic world, when considered in relationship to the avatar, is the behavioral change "the created" effectuates upon "the creator". Yee and Bailenson have reported upon the relevance of the physical attributes of the three dimensional avatar, finding that both the height and the attractiveness of an avatar in an online environment are significant predictors of the player's performance. However truly startling is also the finding that according to The Proteus Effect, not only does the appearance of the virtual body change how dyads interact with others in the online communities themselves; but this effect is indeed powerful enough to be carried through to subsequent face-to-face interactions amongst the physical handlers of the avatars participating in the experiment (Yee, Bailenson, 2007).

Ascott's Groundcourse, with its emphasis on behavioral change, utilized the creation and enactment of new personalities as an integral part of the educational process. A personality is a thing comprised of many layers of complexity, comprised of a gamut of attributes, ranging from intelligence and temper to genetic make-up. However, based upon the importance which Suler (1996) as well as Yee and Bailenson (2007) place upon the physical attributes of the avatar the author has focused her current area of interest to the creation of visual identities and indeed multiple visual identities all belonging to one human handler as the visual manifestations of the diverse facets of the human persona: A previous exercise based upon a concept borrowed from Robotics, "The Uncanny Valley", conjoined with Kristeva's definition of "The Abject", has been the subject of a prior publication (Ayiter, 2008). A second experiment, alpha.tribe - a virtual fashion enterprise jointly operated by 5 alt avatars belonging to the author, addresses the ability of splitting the (visual) creative identity through physically divergent manifestations of one human, taking cues from the literary tradition of noms-de-plume and heteronyms into a visual domain of creativity. A novel, third addition to the series in which visual identity will be investigated from a synthetically genealogical standpoint is currently being deliberated upon.

### **CONCLUSION**

In "Exodus to the Virtual World" Castranova alerts his readers from the onset that the book is of a speculative nature. However, after this opening statement he continues on to list the scientific instruments by which he is constructing his model. Given the solidity of his assessment tools as well as his academic

expertise in economics and public policy, it would not be too imprudent to regard his predictions as anything other than informed deliberations, which it might behoove his readers to take into serious consideration: Even if his cogitations come to bear fruit only partially, humankind may find themselves living in a vastly altered world, or indeed in multiple worlds, “synthetic” and “real” simultaneously.

We may find ourselves in a social milieu where the bulk of recreational time, if not indeed work hours, are spent in fantastical, frivolous, playful and fun activity; where economic demand and supply are shaped by parameters that are currently being forged in online synthetic virtual worlds. Returning full circle to the days of the pre-industrial revolution designers and artists may find themselves to not only be the conceivers but also the crafters and merchants of their own creative output; an output whose intrinsic descriptors, function and usage may be vastly altered to those of the present day.

While it is important to educate dedicated, professional artists and designers in a manner which would take into account the essential requirements of establishing viable creative practices in the synthetic worlds of today and tomorrow; art educational enterprises may also need to prepare themselves to disseminating learning to a social group, the emergence of which was already foreseen by Ascott in 1966; i.e., “a new, leisured class” that will be involved in creative pursuits, furthermore a class which falls outside of the boundaries of traditional art educational practice.

This text has thus attempted to raise some of the issues related to a need for an, at least partial, restructuring of existent art educational curricula; positioned within the context of educational strategies which seem suited to the task at hand as well as an examination of related material from Cyberpsychology and Presence Studies, Ludology and present day creative activity in the metaverse.

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