Creative Studies Graduate Student Master's Projects   International Center for Studies in Creativity

5-2012

Avatar Training - A Humanistic and Creativity Driven Approach

Nicole M.T. Charest
International Center for Studies in Creativity, nicole_charest@globetrotter.net

Advisor
Dr. Susan Keller-Mathers

To learn more about the International Center for Studies in Creativity and its educational programs, research, and resources, go to http://creativity.buffalostate.edu/.

Buffalo State
State University of New York
Department of Creative Studies

Avatar Training
A Humanistic and Creativity Driven Approach

A Project in
Creative Studies

by

Nicole M.T. Charest

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

May 2012

Buffalo State
State University of New York
Department of Creative Studies

Avatar Training
A Humanistic and Creativity Driven Approach

A Project in
Creative Studies

by

Nicole M.T. Charest

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science
May 2012

Dates of Approval:

_____May 4th, 2012_____   _____

Dr. Susan Keller-Mathers
Associate Professor

_____May 4th, 2012_____   _____

Nicole M.T. Charest
Student

Avatar Training
A Humanistic and Creativity Driven Approach
by

Nicole M.T. Charest

An Abstract of a Project
in
Creative Studies

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

May 2012

Buffalo State
State University of New York
Department of Creative Studies

ABSTRACT OF PROJECT

Avatar Training
A Humanistic and Creativity Driven Approach

This project is about the development of a program prototype for a humanistic and creativity driven approach to avatar training to be delivered in Second Life™ (SL). Specifically, the program aims at developing the skills necessary to make a presentation in, and to safely explore, SL. It was proposed to create a unique learning framework that takes into account the targeted clientele, adult professionals with no or limited experience with SL, the sensibilities of 3D immersive social virtual environment, the avatar training needs, and the possibility to weave in creativity skills practice. To that end, the resulting framework for a humanistic and creativity driven approach to avatar training integrates elements of the following four learning frameworks: 1) Dialogue Education, a framework for adult learning; 2) Torrance Incubation Model, to weave in creativity skills training; 3) Maslow's Hierarchy of Needs, to inform the hierarchy of avatar training needs; and 4) Scopes' Cybergogy of Learning Archetypes and Learning Domains to take advantage of the affordance of Second Life for immersive and experiential learning.

_____
Nicole M.T. Charest

_____May 4, 2012_____
Date

DEDICATION

À ma maman, Fernande, qui a su me transmettre ses aptitudes artistiques, sa résilience, son

courage et de grandes valeurs humanistes. Tu vois, j'ai suivi ton conseil, j'ai fais confiance à

mon intuition et suis allée là où mon cœur m'a menée.

À Guy, mon amour et mon ami.

Merci, à toi qui partage ma vie et qui m'apporte ton amour et ton soutien inconditionnel.

Merci pour ta confiance et ton amour au quotidien.

ACKNOWLEDGEMENTS

When someone decides to undertake a project that is unusual or eccentric and if this project is about, and occurs in, an environment that is little known, poorly perceived or not accessible to many, those people that support you and continue to encourage you deserve a very particular thanks. I would especially like to thank Dr. Susan Keller-Mathers, who was my supervisor for this project; I have appreciated how she warmly welcomed my project idea with humor and great curiosity, the quality and usefulness of her feedback in the course of the project, and to haven taken the time and showed great courage to come and visit my installations in Second Life. A special thanks to Dr. John Cabra who introduced me to Second Life and who provided encouragement and support to continue exploring the medium. I had the chance and honor to have had two sounding board partners and friends: Beverly Gay McCarter and François Bernard Malo. They were present and supporting at all critical moments and more. Their presence, support, valuable feedback and encouragement helped me staying focused, positive and confident. I would like to thank Lesley Scopes for having taken the times to share her most advanced version of her Cybergogy's blended taxonomy as well for the permission to use it. I am also grateful to Anna Pratt, Amy Frazier, Keith Kirkwood and Irina Mishina for their feedback. Finally, thanks to all anonymous creativity and virtual worlds alumni who kindly contributed to the online brainstorming exercises on barriers to Second Life.

I would like to express my gratitude to all faculty members for this wonderful journey in creative studies. It changes my life. A special appreciation goes to Dr. Cynthia Burnett, for her dedication to making the international distance program a true success.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

SECTION ONE: BACKGROUND TO THE PROJECT

Purpose and Description of the Project

Goal of my Master Project

Within the parameters and timeline of the proposed Master project, my goal is to conceive and realize the prototypes of the two following products:

1) a 3D visual framework for a learning program to facilitate entry in, and early exploration of Second Life™ by adult learners and professionals so they can envision the opportunities offered by this platform for training, networking, collaboration and co-creation. The framework would be integrating humanism, adult and creativity learning theories and take into account both adult learners and avatar training needs; and

2) a first module of the learning program (including the specific goals, objectives, scenarios, activities, assessment criteria, supporting 3D training facilities and learning material).

These prototypes will provide the foundation for the creation of the first training product that I wish to offer: "a humanistic and creativity driven approach to avatar training". Prior to addressing the rationale for the selection of the proposed project and situating it in my own professional and motivational schemes, I thought it was important to begin with telling the story of the emergence of the project. The first section covers essentially elements such my encounter with 3D-immersive technologies, the description of the challenge that I wish to address, rationale for the approaches and theories I will apply, and the purpose and scope of the program (audience, overarching goal and specific learning objectives). The second section situates the project in the broader context of our rapidly changing world, the accelerated evolution of technologies with disruptive impacts on the economy, education, workplace and society, and the fascinating

challenge of exploring the opportunities that these new technologies might offer to bring to bear creative and change leadership skills crucial in the 21st century.

Toward a First Product Supporting my Vision

I was introduced two and half year ago to Second Life™; it was one of the venues suggested for holding collaborative meetings with colleagues participating in a distance course. I was immediately intrigued by this new platform integrating rich digital 3D graphics, multimodal communication technologies and a vast array of social and creation tools. I was amazed to discover that every object, building, place and landscape that I was discovering in Second Life™ had been created by its users. I was also seduced by the fact that, despite obvious technological similarities with popular online playing game worlds, Second Life™ was not a game with a narrative and directed goal, but a shared open-ended canvas. Very early in my exploration journey, I could envision that such technologies could help support real time collaboration between participants in distance learning courses or in geographically distributed work teams. In particular, professionally, I was interested in exploring the possibilities to use it to offer services to clients worldwide or to engage in collaboration and co-creation with others, independently of where on Earth they might be located.

This is how and why my exploration began. This is what has given me the energy, patience and passion to take the necessary steps to formally learn about the virtual immersive environments and develop the necessary skills to be able to build a "virtual immersive professional outpost."

Utilisation of virtual worlds by corporations, public institutions and higher education is still in its early days. Like other breakthrough technologies, the penetration and adoption of 3D

immersive virtual environments follow social patterns of innovation diffusion (Rogers, 2003).

As the body of case studies grows with stories of successful applications of virtual worlds, notably to challenges where every previous attempt has failed, virtual worlds will advance progressively beyond the radars of technology enthusiasts and visionaries (Heiphetz & Woodill, 2010). Numerous and diverse barriers also contribute to their slow adoption among which are such technical barriers as client hardware and network capability, reliability, scalability, compatibility and the security of platforms, the significant learning curves for users, and a range of negative perceptions. As an early adopter, I also realized that the market is not there waiting for me. Prior to being able to deliver a full range of services in creativity and creative leadership in 3D-virtual worlds, which primarily targets geographically dispersed teams and distributed communities, much more basic works needs to be done, and this, notwithstanding the need to create entire new ways and venues to deliver them.   I figured out that I would have to begin with investing time and energy in building awareness and facilitating skills development. It was clear to me, however, that me 3D-immersive virtual worlds and environments are not an end, but a potential venue to offer professional services in creativity and change leadership to adult audiences. Therefore, in essence, I had to figure out how I could contribute to building awareness and skills in a way that promotes creative skills, in a way that it can be engaging and meaningful to potential adult users. This challenge could be articulated as follows: How to create a training program to facilitate an early exploration of Second Life™ by adult learners and professionals to:

  1) expose learners at a basic level to a range of benefits user-created social virtual worlds

   might offer, and

2) provide opportunities to make informed decisions as to whether or not it is personally

worthwhile to the learner to further explore and begin to experiment with it?

I am therefore proposing to take advantage of the unique learning opportunity offered by the master project to begin building such a program. I am proposing to develop a "humanistic" and creative approach to avatar training. In 3D immersive virtual worlds, such as Second Life™, participants are represented by avatars. It is through avatars that users navigate through the virtual world and interact with objects and others. The sooner users are able to feel well represented by their avatars, the better disposed they will be to make use of these new technologies and make sense of their experience.

I propose to begin by articulating why avatar training should be approached in terms of needs and how Maslow's Hierarchy of Needs could provide guidance with respect to defining learning paths that respond to these needs and lead to achieving meaningful goals (Maslow, 1943; Maslow & Frager, 1987). Then, I propose to develop a 3D visual framework for a learning program to facilitate entry in, and early exploration of Second Life™ by adult learners and professionals, so that they can envision the opportunities offered by this platform for training and professional development, networking, collaboration and co-creation. Finally, I will develop the prototype (i.e. instructions, lesson plans, scenarios and venues in Second Life™).

The assessment of avatar training needs will be anchored in a humanistic perspective of learning. Humanists view learning as a volitional act to fulfill one's own potential (Huitt, 2007b; Humanism, 2012; Smith, 1999).   In humanism, learning is learner-centered and intrinsically motivated; the role of the instructor is one of a facilitator. The learning strategies should be personalized and designed to facilitate the engagement of the learners as whole persons with their experiences, combining affective and cognitive skills, as well as both logic and intuition. I

propose to draw a concept of a hierarchy of needs for avatar training and show how it can inform

the direction of a meaningful learning journey that takes into account learners' "real" personal or

professional goals and their current proficiency with respect to Second Life™ skills. A

humanistic approach to defining the learning path would aim at providing balance between

addressing the "deficiency needs" and facilitating meaningful learning experiences that keep

participants beyond boredom and anxiety (Csikszentmihalyi, 1975). This means that an adequate

learning path would have to integrate basic, intermediary and advanced Second Life™ skills in

such a way that not every skill has to be learned prior to being able to accomplish concrete tasks

and to build on small successes. The need and rationale for a humanistic approach in designing

an avatar training program are grounded in the following principles: avatars are extension of real

people with real life goals and needs; avatar training needs are real and relate to the skills that

users must practice, internalize and eventually master so they can take advantage of these new

technologies; and 3D immersive platforms such as Second Life™ can be used to achieve

meaningful and real goals, to seize emerging opportunities or to create new ones.

A humanistic approach to avatar training could inform the development of customized

learning programs and provide guidance for the content, directions, and overarching principles to

consider when targeting adult learners. The implementation of such an approach, however,

would have to be supported by instructional packages describing the learning strategies,

scenarios, activities, assessment processes, and 3D venues and objects. This being said, in the

context of this project, it is necessary to make arbitrary decisions upfront with respect to the

targeted audience and the overarching concrete goal for the program. I intend to target the

following audience : adult learners, professionals and educators, with no or limited knowledge of

Second Life ™, and those who would like to explore the opportunities that it might offer for

distance learning, networking and collaboration. With this audience in mind, I propose to tackle a familiar task as an overarching goal: making a short presentation in Second Life™. The objective here is to acquire the skills needed to prepare a presentation and be comfortable to present it is Second Life™, not to impose a specific topic or audience to the participants.

I intend to use the Torrance Incubation Model (TIM)'s approach for guidance to develop and deliver this specific avatar skill development program to the above mentioned targeted audience (Torrance, 1987; Torrance & Safter, 1990, 1999). TIM's three stage approach fits well with a humanistic approach to adult training notably, for the importance given to heightening and sustaining motivation and to facilitating reflective practices. Furthermore, it provides a unique framework to weave into the learning program opportunities to develop and practice creativity skills. At this stage in my reflection, I intend to target four creativity skills which I believe offer the greatest potential for synergies with the content, context and goals of the proposed program. They are, as coined by Torrance & Safter (1990, 1999) and supported through fifty years of longitudinal research (Millar, 2010; Runco, Millar, Acar, & Cramond, 2010): "keep open"; "be aware of emotions"; "let humor flow and use it"; and "get glimpses of the future."

The affordance and the rich immersive qualities of Second Life™ facilitate the learning of new skills (content) in context and offer opportunities for experiential learning, for learning by doing. I expect to identify grounding principles within the program framework to provide guidance when designing and facilitating learning programs for adult learners (Vella, 2002). The design of the learning activities and assessment framework will be framed around learning archetypes of the nascent field of cybergogy (Kapp & O'Driscoll, 2010; Scopes, 2011a, 2011b). In summary, my aim is that participants to such avatar training program will

- learn and practice the hierarchy of skills necessary to make a presentation in Second Life™;

- develop and practice creativity skills;

- experience new ways to learning in a rich 3D immersive social virtual world (3DiSVW); and,

- have the opportunity to feel the seven sensibilities of 3D virtual immersive environment as beautifully and efficiently articulated by Tony O' Driscoll in 2007 (Table 1).

Table 1

The Seven Sensibilities of Virtual Immersive Environments

Sensibilities	Explanation
The Sense of Self	Experiencing an extension of self as avatar into a virtual space.
The Death of Distance	Interacting with others, in real time, in a shared place; geographical barriers made history.
The Power of Presence	Being virtually there; experiencing a genuine sense of presence in a shared context.
The Sense of Space and Scale	Creating entirely new perspectives in taking advantage of virtually unlimited scale and space.
The Capability to Co-Create	Participating actively, new opportunities for generative learning and co-creation in a shared virtual context
The Pervasiveness of Practice	Learning by doing through trial and error and simulations.
The Enrichment of Experience	Creating memorable experiences, for experiential learning (watching, thinking, feeling, doing)
Kapp & O' Driscoll (2010)	http://www.youtube.com/watch?v=O2jY4UkPbAc

In doing so, I invite adult learners to take a familiar goal, i.e. making a presentation, and to transpose it in a strange context, in a social virtual world. The first two objectives will help providing the conditions for participants to make the "strange context" familiar. They will then be able to compare the two contexts, the physical and the 3D virtual environments, with respect

to making a presentation in a familiar way, i.e. to see the similarities and the differences and experience the advantages and disadvantages. The last two objectives should then set the stage to progressively make the familiar task strange. With an increasing awareness of the new possibilities offered by these "new worlds", participants could, with time, discover and imagine entirely new ways to present ideas, with new dimensions. The above notions of "making the strange familiar" and the "familiar strange" are inspired by the concepts at the core of the synectics approach. Synectics is a structured approach to problem solving that deliberately triggers creative inspiration using analogical and metaphorical thinking tools (Davis, 2004; Gordon, 1961; Prince, 1968). During this project, I will not formally apply synectics tools. However, reflective practices will be supported throughout the delivery of the program so that participants can make sense of their early exposure to connecting "within" 3D-immersive social virtual worlds.

Context for My Project

    A rapidly changing world.

    We are living in an era characterized by increased complexity, accelerated pace of change and rapid paradigm shifts. Every day, in our personal and professional life, we are witnessing the pervasive and disruptive impact of the rapid evolution of technologies on economy, society and education. We are living in an era of change and possibly witnessing a change of era.

> *The trouble with our times is that the future is not what it used to be.*
> Paul Valery
>
> http://www.quotegarden.com/future.html

    While business, education, societies and communities are pressured to adapt rapidly to new realities and find solutions to new challenges, we also find ourselves with a renewed interest in

classic philosophies. For instance, "thirty years ago, humanisms of all sorts were in retreat and, "…today there appears to be a marked reversal to this trend" (Gibson 2004, p. 155). Factors such as the enthusiasm for humanist themes in business management and business educational programs, the rapid turnover of technologies, the increased unpredictability of workplace and workforce requirements, and the increasing complexity of challenges are contributing to a renewed interest in humanism leading to the rediscovery of the value of general education by employers and educators (Gibson, 2004). Business leaders and educational policy makers are now putting more emphasis on the importance of critical thinking, creativity, and a range of generic skills (Flew, 2004). This may lead some to believe that this is a rupture with the emphasis on specialization that has dominated the recent decades; it may however pave the way to new and better ways of balancing generalist and specialist approaches in education and in the workplace so that students and employees develop the skills necessary to collaborate across disciplines (Pastor, 2010). There is an obvious need for developing flexibility and the ability to see new connections between apparently distinct domains and situations. In other spheres, humanism is being seen as "an antidote to narrow corporate-centric ways of representing interests in modern society" (Gibson, 2004, p. 156).

Just as we just began to manage the demands of the information age, we witness the impact of web 2.0 social technologies on the economy, society and education, and to the emergence of the "conversation age"; this conversation is a powerful driver of changes that reach far beyond the realm of the technologies that made them possible (Edelman, 2008; Huitt 2007b). And we are at the dawn of the web 3.0 technologies and likely to impact society in ways that we can hardly imagine (Kapp & O'Driscoll, 2010; Pink, 2005). The rapid "webvolution" which began in 1993 with the launch of Mosaic, the first browser, has changed the way we connect,

communicate, collaborate, make decisions and take action locally and globally: with web 1.0 we connect "to" Internet (accessing and finding information), then with web 2.0 we connect "through" Internet (we interact socially, we share, participate, collaborate) and, finally, with virtual worlds and the emergence of web 3.0 we now have the opportunity to connect "within" (offering new opportunities for immersive learning, collaboration and co-creation in real time and at a global scale) (Kapp & O'Driscoll, 2010).

Changes in the economy and technologies have profound transformational effects on society, economy, workplace and education. We observe a clear shift regarding the desired skills, competencies and attributes necessary to survive, live and prosper in this perpetually changing world (Gibson, 2004; Huitt, 2007b; Kapp & O'Driscoll 2010; Pastor, 2010; Puccio, Mance & Murdock, 2011). Attributes, skills and competencies such as emotional literacy, ability to balance empathy and logic, as well as creative and critical thinking, ability to play, ability differentiate and integrate, networking and technology proficiency, highly valued today, were not common language in the workplace and education a decade ago.

We are living in a rapidly changing world. The problems, the workplace, the approach to finding solution are changing. The problems we face are increasingly heuristic and complex and necessitate collaboration across disciplines at multi levels in real time and on a global scale, the ability to make sense and take action. As Pastor (2010) correctly asked "what skills and tools are needed to do this work?" Building on this question, we can also ask what technologies and collaboration platforms are needed to do this work.

New worlds with new challenges and opportunities for the "real" world.

There is no universally agreed upon definition for Virtual Worlds (Bell, 2007, 2008;

Cascio, Paffendorf & Smart, 2007; Spense, 2008). According to Cascio, Paffendorf and Smart

(2008), we have assisted to the development of a universe of 3D environments and tools that

could be described along two orthogonal continua (external –internal and simulation-

augmentation) defining four broad categories: "Virtual Worlds", "Mirror Worlds", "Augmented

Reality" and "Lifelogging". Virtual worlds are computer mediated and persistent 3D immersive

environments that exist on worldwide area network (WAN); these 3D immersive virtual worlds

(3DiVW) are massively multi-users and can accommodate on a global scale users represented by

avatars with agency, i.e. capable of performing actions (Peachy, Gillen, Livingston & Smith-

Robbins, 2010). Virtual worlds can be divided in two large categories, game centric (ex.

Massively Multi-players Role Play Games or MMRPG such as World of Warcraft) and social

centric virtual worlds such as SecondLife™. In game-centric 3DiVW, most of the activities are

built around character power development, story narrative (quest), and reward systems. Social

centric worlds leave a place to wider interpretations regarding their purpose because they are

open-ended, and there is no obvious way to "win" (Scopes, 2011a). Pure 3DiSVW such as

Second Life are open-ended and can be applied to any context as opposed to game-centric

worlds (Johnson & Levine, 2008). In 3D-immersive social virtual worlds (3DiSVW) strong

social and in-world creation tools have been substituted to the game mechanic at the core of

game-centric worlds (Peachy, Gillen, Livingston, Smith-Robbins, 2010). While in game-centric

worlds behaviors of participants are typically driven by external motivations in the form of

narrative, game goals and reward system, in social-centric world, both internal and external

drivers can influence motivation. According to Johnson and Levine (2008) the Maslow

Hierarchy of Needs can be illuminating when interpreting the learning behaviors of new entrants to 3DiSVW.

The use of 3DiSVW for corporate business and education is still in its early days of exploration and development; the corpus of case studies and research papers is rapidly growing and shows promising avenues (Heiphetz & Woodhill, 2010; Johnson & Levine, 2009; Hinrichs & Wankel, 2011; Kapp & O'Driscoll, 2010). Advances in application of virtual worlds are expected to profoundly affect the future of employee training and the way we learn as adults. Recent experiences with virtual worlds by large corporations such as Microsoft, IBM, Intel, Cisco, Michelin and the World Bank unveil the following emerging trends for the application of virtual worlds: to facilitate collaboration among members of geographically dispersed teams, to deliver specific corporate trainings, and to support leadership and team building and development (Heiphetz & Woodhill, 2010). Virtual worlds could offer so many benefits that companies, to stay at the leading edge, must at least support experimenting with them if they do not want to be at serious competitive disadvantage (Heiphetz & Woodill, 2010). In education, 3DiSVW offer "tremendous potential to increase not only the efficacy of learning, but the joy of learning that all self-directed learners know" (Johnson & Levine, 2008, p. 169).

According to the recent Gartner Hype Cycle, virtual worlds are currently in the middle of the "trough of disillusionment" (Frommer, 2011; Kapp, 2011). Gartner hype cycles are used to characterize the hype and subsequent disillusion that typically occur when new technologies are introduced; Gartner cycle distinguishes the five following phases in the technology maturation cycle: 1) technology trigger, 2) peak of inflated expectations, 3) through disillusionment, 4) slope of enlightenment and 5) plateau of productivity (Hype cycle, 2012). Technologies enter the "through of disillusionment" phase because they fail to meet the early and often inflated

expectations; usually, through that phase, technologies do not attract much press attention. However, the press may have stopped following the technologies but some businesses and institutions continue to experiment to better understand the real benefits and practical applications of the new technology. Kapp (2011) challenges somehow the position of virtual worlds in the latest version of Gartner's hype cycle; he argues that many new practical applications of virtual worlds are being enacted and believes that they will quickly leave the "through" phase and begin to move up the "slope of enlightenment".

A number of trends in technology development and in the economy are expected to contribute to foster further development and penetration of virtual worlds. Among the technological trends having the potential to further promote adoption of virtual worlds are: increasing hardware and network capacities; the increasing realism of 3D spaces, avatars and objects; improved tools to customize the creation of working and learning 3D virtual spaces; development of multi virtual worlds with progress toward their interoperability; the trend toward distributed sources of content; and the convergence of virtual world tools with other existing training technologies (Heiphetz & Woodill, 2011). Worldwide megatrends are also likely to foster further experimentation with, and broader adoption of virtual worlds' technologies and applications for collaboration and continuous learning. These trends comprise, but are not limited to: economical pressure; rising cost of energy and environmental consciousness leading to reduction of travel budget; increased complexity and pace of change; and, as a consequence, the need to tap into, and bring to bear, global collective intelligence in real time.

The future influences the present just as much as the past.
Friedrich Nietzsche

http://www.brainyquote.com/quotes/keywords/future_2.html#ixzz1ku1pcltH

A new virtual outpost for a Diaspora of creativity experts?

Despite this context, I have to admit that ventures and experimentations with virtual worlds to promote discussion about and collaboration on 21st century challenges and issues of interest to creativity experts and creative leaders globally are at best marginal. My sense is that 21st century 3DiVSW technologies could provide a dynamic place to initiate, nurture and advance a global dialogue on ways to bring creativity and change leadership to bear in our increasingly complex and rapidly changing world. Why are we waiting? What are we waiting for? In what ways, can I contribute to creating momentum? Certainly, the program that I will begin to develop within the course of this master project, would have the potential to facilitate entry of creativity professionals interested in creating a "place" for a Diaspora of creativity experts.

Creativity and Change Leadership Skills

With respect to developing and applying new creativity skills, I feel that this project will force me to go out of my comfort zone in order to develop the prototype of a learning program framework and the lesson plans, scenarios and 3D venues and material for the first module of the program. I have shown in the past natural talents for teaching. I have however no formal training and expertise with designing and implementing learning strategies. In this new context, it may, however, be seen as an advantage as I do not carry with me a baggage of traditional classroom based practices. I do feel comfortable with pursuing a vision with intent, spanning boundaries, cross-fertilizing, experimenting, and learning from mistakes. I can experiment without to being traumatized by failure as long as I see value, and invest myself with passion in the journey. I also believe that independence of mind and resistance to unfounded criticism and judgements are essential.

Rationale for Selection of this Project

My decision to apply in January 2009, to the certificate in Creativity and Change Leadership was linked to my profound desire to take a step back and take the time to "define my mid-career and life goals with the motivation to build on my strengths, do activities that I like the most and make a more significant contribution to society and to my community" (Charest, *Letter of Intent*, January 22, 2009, p.1).

In early summer 2009, when preparing the first assignment of the first course it became very obvious that I was beginning an entirely new journey and that to get the most of it, I should free myself from any preset goals and keep my eyes open, stay aware of my emotions and be reflective.

> *"A good traveler has no fixed plans*
> *and is not intent upon arriving.*
> *A good artist lets his intuition*
> *lead him wherever it wants.*
> A good scientist has freed himself of concepts
> *and keeps his mind open to what is."*
> Lao Tzu (570-490 BC)
>
> http://en.wikiquote.org/wiki/Lao_Tzu

I can only say that it has been a true insightful journey with many turning points and, now looking at it with some distance, surprisingly unfolding in a very coherent thread of personal and professional development.

In early June 2009, for the first time in my life, I was able to articulate clearly what constitutes the nature of my intrinsic motivation:

My motivation resides in the satisfaction to tackle difficult and meaningful challenges as long as they are offering potential for growth. Those challenges are not the destination but only a trajectory of my journey. I like to learn, understand, apply or transfer knowledge.

For me, ultimate satisfaction comes from illuminations that contribute to simplification and integration of complex challenges and concepts. (Charest, 2009, p.11)

Prior to fall 2009 session, I had not heard about Second Life™; I had no clue about it and fortunately no preconceived opinion. I simply knew that it was suggested that this platform could be used for meetings with our colleagues during our first online distance course with Dr. John Cabra and registered an avatar on August 25, 2009. Less than half of the members of our cohort registered an avatar. There was overall a limited appeal to try it and the timing could not have been worse. The creativity assessment course was the first online course for our cohort; the nature of the course and the adaptation to the distance learning platform and tools had steep learning curves, as well. I was lucky to have my colleague and friend, François Bernard Malo, as my sounding board partner for this course. Like me, he was curious and ready to give it a try and we decided to use it for our weekly sounding board partners' meetings. We made a point to always have both serious meeting discussions and some playful exploration at the agenda of our meetings. We were both amazed by the quality of the presence we felt and energized by the feeling of experiencing a new world together, in real time, and … François, was no less real when he showed up as Frankiki.

I must admit that I enjoyed it immediately but not without thinking to the following bottom line questions: what am I doing here and am I wasting my time? Committed to my intention to suspend judgment and to stay open to new discovery, I then decided to explore it further as a learner and to use it to do my last assignment of the 2009 fall course. I then decided to continue my exploration to get a better sense of the opportunity such platform could offer and to see if I can learn how to use it better. I found a short online program offered in Second Life™ by a German high school offering continuous learning programs to adults in Second Life™. I learned

the basic skills with them. I was having a growing sense of being in my element, envisioning all

possibilities such platform could offer. This first somehow deeper exploration of Second Life™

helped me to firm my early vision of the potential offered by such a platform.

> *"A rock pile ceases to be a rock pile the moment a single man contemplates it,*
> *bearing with him the image of a cathedral."*
> Antoine de Saint-Exupéry

> http://en.wikiquote.org/wiki/Antoine_de_Saint_Exup%C3%A9ry

In my philosophy and vision paper in the summer 2010 for the Creativity and Change

Leadership course, I wrote: "Where I am aiming to, professionally, can be seen as very

surprising; I would not have been able even to suggest such opportunity when I joined the

program*"* (Charest, 2010). I then formulated the following vision statement for my new

professional journey: "Virtually sparking new ways to develop and nurture creativity: Expanding

access to creative thinking via VIE-learning and VIE-teaming."

 In its original version, I was using "v-learning" and "v-teaming". This was not, however,

reflecting the powerful difference it makes to learn and collaborate in a 3D immersive

environment. The acronym "VIE", as coined by Karl Kapp & O' Driscoll (2010), stands for

Virtual Immersive Environment.

> *"All great deeds and all great thoughts have a ridiculous beginning"*
> Albert Camus

> http://www.quotationspage.com/quote/39992.html

I described then two strategic strands for potential creativity professional applications

using virtual worlds such as Second Life ™ as platform or venue. I see myself creating new

ways to offer creativity training and facilitation that spanned distances, with a particular interest

to apply it to geographically distributed teams and community groups. My first actionable step

then was to attend a webinar in July 2010 about the Certificate in Virtual Worlds offered by the

University of Washington. I applied immediately, began in September 2010 and graduated in June 2011.

Here I am with this project. I am certainly passionate about it. The project is both essential and timely. I also believe that it is time to grow a creativity expert presence and service offering to a broader clientele worldwide. It is also crucial to contribute to the rapidly growing corpus of training expertise in bringing to bear our expertise, to adapt and apply our tools and develop new one. This project is expected to ease the entry and initial exploration of virtual worlds. My goal is not to sell a new platform and I have no mission to convince anyone that this is the way to go. To me, virtual worlds are not an end, only a venue, but a rich and promising one. My goal is to make sure that the decision to use or not these new pervasive technologies is an informed one. There are a number of low hanging fruit that we could all take advantage. Just imagine what it would mean to be able to meet together in a shared common place, in real time, to discuss and share insights on the latest books we read, the latest experience we had, the upcoming challenge we face? Just imagine presenting at a creativity conference held in Second Life™, or even better, to attend a conference with presentations and panels held simultaneously in a real physical location and in a virtual world with the support of two-way streaming technologies! Just imagine!

"The creation of something new is not accomplished by the intellect but by the play instinct acting from inner necessity. The creative mind plays with the objects it loves."
Carl Jung

Jung, C. (1971). In J. Jacobe (Ed.), C.G. Jung: psychological reflections. A new anthology of his writings 1905-1961. London, England: Routledge and Kegan Paul Publishing.

SECTION TWO: PERTINENT LITERATURE

My mid-term goal is to offer creativity training and facilitation to geographically dispersed teams using 3D immersive social virtual worlds, such as Second Life, as platform for delivery. An important challenge, when using new cutting-edge technologies as a venue for training services, is the need to offer platform training prior to using it for the specific training services. Over time, as the technology gets broader penetration, the need for platform training usually decreases.

This current project aims at developing a training program for adults and professionals to facilitate their entry in, and early exploration of Second Life. The concept of developing a humanistic approach to avatar training informed by the Maslow Hierarchy of Needs came from my observations that once new users of Second Life have acquired basic functionality of movements and sight (camera), they tend to put a lot of energy in fine-tuning the appearance of their avatars and then in exploring groups and community of interests.

Since my ultimate goal is to provide creativity training, I thought that I could use the Torrance Incubation Model (TIM) (Torrance & Safter, 1990; Murdock & Keller-Mathers, 2008) to integrate creativity skills training into a humanistic approach to avatar training. Then, since I target adults, I would need to find out what educational models or practices could be used for guidance when developing a training program and design instructions for adult learners. I needed a learning framework for adults that would integrate well with humanism and the Torrance Incubation Model and be compatible with the recently developed learning archetypes for learning in 3D virtual immersive environments.

Because of the nature of the proposed project, the review of pertinent literature is divided along the following themes: adult learning, creativity training, designing for 3D learning and, hierarchy of avatar needs.

Adult Learning

Finding an appropriate framework for adult learning which I could grasp and apply fairly quickly was the most challenging element. I began with reviewing recent papers of pioneer educators actively involved in exploring the potential of virtual worlds as an education platform. I quickly realized that this was not an easy challenge for someone who is not a trained educator. There was so many educational frameworks applied and I had no immediate way to compare them to make an informed decision. I began with developing a list of the many theories and frameworks mentioned in those papers: experiential learning, social learning, collaborative learning, cognitive and social constructivism, active and action learning, problem-based learning… (Anderson, 2010; Gu, Gul, Williams & Nakapan, 2009; McKeown, 2009; Molka-Danielsen, 2009; Parson & Bignell, 2011; Sparrow, Blevins & Brenner, 2011). I was simply overwhelmed. I then took some time to reflect on my own experience as an adult learner and remembered that of the many types of formal training I had since my late twenties, the management trainings that used an approach called "andragogy" were, from my perspective, the most effective. I used the search engine for a preliminary exploration of andragogy. I first hit Wikipedia and was amazed by the six underlying assumptions with respect to motivation of adult learners: "1) Adults need to know the reason for learning, 2) Experience is the foundation of learning, 3) Adults needs to be responsible for their decisions on education, 4) Adults are most interested in learning subjects having immediate relevance to their personal or professional life,

5) Adult learning is problem-centered rather than content-oriented, and 6) Adults respond better to internal versus external motivators " (http://en.wikipedia.org/wiki/Andragogy). Although I felt good about these assumptions, as they perfectly applied to me, I had not found any direct application of andragogy in virtual worlds and could not imagine how to grasp this theoretical approach to adult education within a short timeframe.

I needed to find an overarching structure that would help me get a sense of the principles and spirit beyond the many educational theories. I found, on the learning-theory website, a brief content piece describing four overarching paradigms to learning theories: behaviorism, cognitivism, constructivism and humanism (http://www.learning-theories.com/paradims). This was a very helpful page as it helped me to organize and make sense of the information I had gathered. I could readily identify which framework belonged to constructivism and/or humanism paradigms or which have the potential to respond to my needs (table 2). I was not however able to clearly decide which of the two paradigms fit best. To me, they did not appear to be mutually exclusive. When considering, for instance, the basic idea underlying constructivism "learning viewed as an active and constructive process", and humanism "learning viewed as a personal act to fulfill one's potential", I was seeing these as two different levels of consideration, the former focussing on the process (the "how") and the later focussing on the purpose (the "why"). Also I could not see why "experiential learning" would be associated with humanism while "active learning" was viewed as a constructivist theory. While this helped me to begin structuring my general understanding about learning theories, I was far from having identified which approach I could concretely use for guidance. I then understood better for what I was searching.

Table 2

Comparing Constructivism and Humanism Learning Paradigms

Learning Paradigms	Paradigms' features

Constructivism	• Founders and proponents : John Dewey, Jean Piaget, Jerome Bruner, Lev Vygotsky
	• Basic idea: Learning viewed as an active, constructive process
	• Learner considered as an information constructor
	• People actively construct their own subjective views of objectives realities. New ideas or concepts are based upon current and past knowledge and experience.
	• Constructivist learning is a personal endeavor – social constructivist learning considers that knowledge is built when individuals engage socially to face shared problems or task
	• Teacher as facilitator
	• Theories:
	   o Stage theory of cognitive development
	   o Social development theory
	   o Communities of practice
	   o Constructivism
	   o Discovery learning
	   o Active learning

Humanism	• Founders and proponents : Abraham Maslow, Carl Rogers, David Kolb, Michael Knowles
	• Basic Idea: Learning is a personal act to fulfill one's potential
	• Learner considered as having affective and cognitive needs
	• Emphasis on the freedom, dignity, and potential of humans
	• Learning is student-centered and personal, facilitated by teachers, with the goal of developing self-actualized people in a cooperative, supportive environment.
	• Learner autonomous
	• Teachers as facilitator
	• Theories:
	   o Humanism
	   o Maslow Hierarchy of Needs
	   o Experiential Learning
	   o Andragogy (focused on adult learners)

http://www.learning-theories.com/paradigms
http://en.wikipedia.org/Andragogy
http://en.wikipedia/wiki/Learning_theory_%28education%29

My first "encounter" with the work of Jane Vella was when reading the chapter of

Deutschmann & Molka-Danielsen (2009) about the future directions for learning in virtual

worlds. They were advocating the need to develop innovative ways of learning and teaching for

the new virtual immersive environments, ways that would support two clear pedagogic goals: learners must be actively engaged with the content, and the tasks needed a sense of shared accountability for learning. They then indicated that Vella (2001) had developed an approach to designing learning tasks with these goals in mind. When reading the following two excerpts, I had the impression I had found a gem.

> She (Vella) advocates that the learner's tasks be designed with open questions that invite inductive and creative reasoning, and that collaboration and experienced based reflection and review are needed in any effective learning program. She emphasized the role of the 'open question' as most important in the learning process. (Deutschmann & Molka-Danielsen, 2009, p. 185)

> Vella defines four types of learning tasks: (1) inductive tasks that connect learners and what they already know with their context; (2) input tasks that invite learners to consider new content and the concepts, skills and attitudes associated with these; (3) implementation tasks that get the learners to do something directly themselves with the content; and (4) integration tasks that incorporate what they have learned into their lives. (Deutschmann & Molka-Danielsen, 2009, p. 186)

Considerations such as open questions, creative reasoning, reflection and collaboration resonated with me immediately and I had a real "aha" moment when I saw the parallels I could draw with TIM. I could see linkages between the inductive tasks and phase one, between the input and implementation tasks and phase two and finally, between the integration tasks and phase 3 of the Torrance's model. I immediately went online to purchase Vella (2001), was offered a "deal" to buy as well Vella (2002) and then patiently waited for their delivery. Vella (2002) arrived two weeks before Vella (2001). This was the perfect sequence for my own

preferences; I like to begin with the big picture, at the framework and principles levels, prior to getting into the details of planning and design.

Principles of Dialogue Education

Vella (2002) is the revised edition of "Learning to listen, learning to teach" which was first published in 1994 and prefaced by Michael Knowles an American leading scholar in adult education and with whom is generally associated the approach of "andragogy" (Reichmann, 2004). Knowles in his preface wrote "Although I have written eighteen books on the subject myself, I must admit that I was surprised how much I learned about the theory and practice of adult education from this book." (Vella, 2002, p. vii). The book is structured in three parts: part one, the first three chapters "A process that works and why"; part two, chapters 4 to 15, "The principles in practice: Across cultures and around the world"; and, part three, chapters 16 and 17, on "Becoming an effective teacher of adults". While the principles remained the same since the first edition, the illustrating stories in part II have been revised and viewed from the perspective of quantum thinking! "The more I read in quantum physics and quantum theory, the more I saw the connection between what I call quantum thinking and the humanistic, integrated approach in education" (Vella, 2002, p. 30). As quantum physics revolutionalized our perception of the universe, quantum thinking transformed the way she looked at the principles of dialogue education and her practice (Table 3).

Table 3

Six Principles of Quantum Physic: Connection to Dialogue Education and Creativity

Quantum physic principles(1)	Connections to Dialogue Education (1)	Connections to creativity (2)
1. Relatedness	• All what we do in design and teaching is related. Each of the twelve principles is related to each others.	• Creativity and leadership • Thinking Skills Model • Elaboration
2. A holistic perspective	• The whole is far more than the sum of its parts. Learners learn more than we teach!	• Rhodes' system approach to creativity • Group vs individual's creativity
3. Duality	• Embrace opposites, use both/and thinking. Open questions invite both/and thinking and dialogue.	• Creative tension • Keep open, suspend judgement • Balance between critical & creative thinking; between thinking and affective skills • Enriching debate rather than arguing from either/or positions
4. Uncertainty	• Every theory is constantly being constructed by application to new contexts.	• Changing contexts trigger both innovative and adaptative creativity which in turns change contexts • Embrace uncertainties
5. Participation	• The observer is part of what she observes. Each person's perception of any given reality is different, dependent on their context and culture. We evoke the world we perceive.	• Bringing a diversity of perspectives to bear • Everyone can be creative • We have unique ways to express our creativity • Participation and creative group processes
6. Energy	• Learning demands energy. Many of the principles and practices of dialogue education are designed to raise and sustain the energy of learners.	• Creative thinking tools also aim at sustaining energy during the creative problem solving process. • Intrinsic motivation and sustainable energy

(1) Excerpts from Vella (2002, pp. 30-31); (2) The connections with creativity that I was spontaneously making when reading

In "dialogue education", dialogue is seen as a macroprinciple supported by twelve interrelated principles and practices which contribute to closing the gap between the teacher and the learner. Dialogue supports not only communication but also understanding. Over the years, Vella and her colleagues have discovered that their aim was not teacher-centered nor learner-

centered learning but learning-centered learning. This shift represents a move toward shared accountability and new roles for the teachers. Teachers are not only responsible for preparing the content but also for the creation of a safe context for learning. The same principles have been applied by Vella and her collaborators, across the world, over five continents and in more than 40 countries. Dialogue Education's principles are also congruent with evidence-informed principles from the UK Teaching and Learning Research Programme toward making the most of ourselves in the 21st century (Pollard, 2008). Their experience has shown that the principles transcend cultures and domains. This is an important value-added attribute when considering its application to training in a 3DiSVW like Second Life™. The twelve principles of dialogue education are presented with brief explanations in table 4. Here again, I could not read about these principles without drawing connections with Ekvall's creative climate dimensions and West's four factor model to innovation (Ekvall, 1996; West, 1990) (Table 5). I would tend to see these principles as supporting the teacher's responsibility to creating a safe climate for learning.

In chapter 3, she introduces her seven steps of design (who, why, when, where, what, what for, how) and shows how the twelve principles inform the design. It should be noticed that despite apparent similarities with the diagnostic tool "5Ws and H", the seven steps of designs forms the structure of the design plan. In her seven step approach, the situation is explored under the question "why".

Reading about the principles for dialogue education was a true insightful and comforting journey. I had the feeling that everything was coming together naturally. From the perspective of its grounding principles, I could see that dialogue education, creative climate, Torrance Incubation Model, Maslow's Hierarchy of Needs, could nicely mesh together to form a coherent

whole. Even if I could not entirely envision the shape it could takes, I was energized by the sense of relatedness and holism, a quantum leap! From the perspective of immediacy, I was satisfied. Dialogue education would be useful for the current project and beyond, it was a good investment of my time.

Vella was born is 1931 and taught her first class in 1953 in Harlem. She was in her seventies when she revised "Learning to listen, learning to teach", when she was sharing how quantum thinking had transform her own way to look at her work. She is now retired in Raleigh, North Carolina. And, I wonder if she would have an avatar.

In quantum thinking, perception evokes reality.

We participate in making our world

Vella (2002, p. 19)

Reality is what we create

Vella (2002, p 23)

Table 4

Dialogue Education: Principles and Practices for Effective Adults Learning

Twelve Principles	Macroprinciple : Dialogue Practices
1. Needs and resources assessment	• Learners participate in naming "what" to be learned • Assessing WWW: "Who needs what as defined by whom?" • Does not form the course but informs the design
2. Safety	• Safe environment and process essential to effective learning • Essential to create a safe learning context; trust is crucial • Safe context does not exclude the kind of challenges associated with learning new SKAs (skills, knowledge, attitude)
3. Sound relationships	• Relationships between teacher and learner • Relationships among learners
4. Sequence of content/reinforcement	• Tasks sequenced from easy to difficult; from simple to complex; from group to solo. • Reinforcement (opportunity to apply new SKAs in interesting and diverse situations).
5. Praxis	• Action with reflection; learning by doing with reflection • Learning task as praxis, not simply practice • Interplay of inductive and deductive forms of learning • An on-going process
6. Respect for learners as decision makers	• Respect for learners as "subject", not "object" • Content as an open system, open to critical analysis, modification, additions • Respect shown by "open questions"
7. Ideas, feelings, and actions	• Substantive learning must involve the whole person the mind, the heart, the muscle • Cognitive, affective and psychomotor aspects guiding the learning design
8. Immediacy	• Learning experience must be perceived as useful • Immediacy with respect to transferability • Opportunity to re-create the content for other context
9. Clear roles and role development	• Reinforcement of human equity • New roles for teachers and learners • Roles being both a matter of heart and the heart of the matter
10. Teamwork	• Teamwork both as a principle and a process • Using small groups – safe environment for individual to affirm their voice • Designing for inclusion and shared responsibilities
11. Engagement	• Learners engaged in what they are learning
12. Accountability	• How do they know that they know • Learner and teacher sharing accountability

Underlying assumptions with respect to the principles:
• All twelve principles are essential to supporting the "dialogue"
• The principles are interconnected, linked to one another, they must be taken together, as a whole
Underlying assumptions with respect to adult learners:
• Dialogue is essential to effective adult learning
• Learners bring both their experience and personal perceptions of the world based on their experience and all deserve respect as subjects of a learning dialogue.
Value proposal: An approach that transcends cultural differences and proved to work worldwide

Vella (2002, chapter 1, pp. 3-28)

Table 5

Connections between Principles for Dialogue Education and Creative and Innovation Climate

Twelve Principles	Macroprinciple : Dialogue Climate dimensions and Innovation Factors
1 Needs and resources assessment	• West's vision (learner's vision) • Ekvall's Freedom (learner as decision maker)
2 Safety	• West's participation safety • Ekvall's trust and risk-taking
3 Sound relationships	• West's participation safety • Ekvall's trust
4 Sequence of content/reinforcement	• Reinforcement: West's support to innovation • Einforcement: Ekvall's idea support • Sequence - incremental challenge: flow (Csikszentmihalyi,, 1975)
5 Praxis	• West's support to innovation • Ekvall's idea time and trust • Reflexivity (West, 2000)
6 Respect for learners as decision makers	• West's participation safety • Ekvall's trust and risk taking
7 Ideas, feelings, and actions	• West's participation safety and support to innovation • Ekvalls's trust, debate, risk-taking
8 Immediacy	• West's vision • Ekvall's freedom
9 Clear roles and role development	• West's task orientation
10 Teamwork	• West's task orientation
11 Engagement	• West's task orientation • Ekvalls' challenge
12 Accountability	• West's task orientation

Csikszentmihalyi (1975)
Ekvall (1996)
Vella (2002, chapter 1, pp. 3-28)
West (1990; 2000)

Learning Tasks for a Structured Dialogue

In "Taking learning to task", Vella (2001) shares the mechanic of, and the rationale for, creating effective learning tasks to structure the "dialogue" for effective learning. In this book, which itself is built according to her approach to instructional design, she provides the resources needed, proposed learning tasks for learning and shares very useful reflections, good practices, and hints based on her experience. Reading through the book, especially if one has an immediate need like I do with this project, one can be confident to be ready to transfer the learning in real and "real virtual" situations.

The first five chapters cover the definition of learning task, the underlying assumptions, the differences between learning and teaching tasks, the learning tasks as an integrated part of the complete design, the four types of learning tasks and the importance of selecting appropriate "tough", "productive" and "respectful" active verbs in formulating learning tasks (Table 6).

The learning tasks are the "how" of the complete learning design (Table 7). Originally she was using a seven step approach to planning. Today, Dialogue Education has introduced an additional step, the "so that" (Goetzman, 2011; The Eight Steps of Design , n.d., Uccellani, n.d.). Previously both the current and the desired situations were covered under the "why" question. In the eight-step approach, "why" describes the current situation and "so that" describes the expected change, the expected impact, and if the new content (knowledge, skills and attitudes) was learned and transferred. This is explicitly introducing outcome level goals. Outcomes are at the impact level. The learning objectives are identified under the "what for"; these objectives have to be reached during the learning session. The teacher is accountable for preparing the content and the context and for designing carefully sequenced learning tasks; learners are

accountable for their learning.   Each piece of content is connected to at least one achievement-based objective which, itself, is linked to at least one learning task.

Table 6

Learning Tasks "in a Nutshell"

Learning Tasks – in a nutshell	
Definition	"A learning task is an open question put to members of a small group, who have been given all the resources they need to respond" (p. xiii).
Foundation	Open questions as a foundation for dialogue. Open questions open the door to critical thinking, reflection and creativity
Assumptions	1. "Learners arrive with the capacity to do the work involved in learning" (p. 3). 2. "Learners learn when they are actively engaged –cognitively, emotionally, and physically – with the content" (p. 3). 3. "New content can be presented through learning tasks" (p.5) 4. "Learning tasks promote accountability" (p. 6).
Types	The four Is: Inductive tasks: invitation to connect with what learners already know, with their experience, and context Input tasks: invitation to examine new content (concepts, skills, attitudes) Implementation tasks: invitation to implement, do something with the new content Integration tasks: invitation to integrate the new learning into their lives

Vella (2001)

Chapters six through eight cover the principles guiding the design, the art of, and the skills for, leading learning tasks, and time management. Vella distinguishes three levels of questions or considerations to take into account when designing learning tasks and programs: 1) epistemological considerations, 2) categorical considerations, and 3) learning styles

considerations. The epistemological considerations deal with the principles and practices that

apply to all educational events, groups and cultures; they relate to the twelve principles for

effective learning. The categorical level includes considerations related to different categories of

learners and, finally, considerations related to the diversity of learning styles. She warns though

that the considerations of the second and third levels should be addressed after fulfilling the

epistemological considerations. Considering that learning styles are idiosyncratic, a good

approach is to propose a diversity of cognitive, affective, and psychomotor learning tasks. She

discusses in chapter 10 cases where particular attention should be given to learning styles.

Chapter eight is about time management. Time is a crucial modulator when designing learning

programs and tasks and the risk of preparing too much or too little "what" (content) for the

"when" (the available time) is high. Her advice on time management will certainly be useful. I

like in particular how she balances content and time considerations, from a teacher's

accountability point of view.

Chapters nine through eleven offer an opportunity to review the concepts using examples

and address learning styles considerations and issues related to the early days of distance

learning on the Internet. Chapter twelve is a powerful summary where she honors the challenge

for teachers to make the move from traditional teaching to a learning-centered approach but

presents twenty good reasons to do so. Throughout her books, Vella does what she teaches.

Reading her books is similar to getting engaged in a learning task-based program with a great

coach. It is inspiring and motivating even if it means hard work ahead… About motivation,

which comes from Latin "movere" for moving, she wrote:

 In the physics of education, we know that one person cannot move another; one only

moves oneself. In our effort towards accountable learning-centered education, we know

that the only motivation that is not dominating is self-motivating. Imagine the self-

motivation of learners who have clarified not only what the new learning is about but also

what they perceive it can do to enhance their lives. (Vella, 2001, p. 40)

Table 7

Learning Tasks: The "How" of a Complete Design

| | The Eight * Steps of Planning | |
	Steps' Key Question	Steps' Matter
1	WHO	The participants, leaders, what they do…
2	WHY	Description of the current situation, challenges or needs that call for the learning event or program
3	SO THAT	Desired outcome resulting of the learning: What change is hoped to happen?
4	WHEN	Time considerations: date, time of the day, duration of learning sessions
5	WHERE	Location and site characteristics as learning venue
6	WHAT	Content elements of the program, knowledge, skills, attitudes (SKAs)
7	WHAT FOR	Achievement-based objectives (ABOs): What learners will do with the content
8	HOW	Learning tasks and material. It is how the learners will achieve the objectives (ABOs).

(*) originally Jane Vella (2001, 2002) used a 7 steps planning approach to design. Over the recent years, the "why" step was split in two steps: "why" and "so that". The new "why" aims to describing the current situation whereas the "so that" is the situation as it could possibly be as a result of the learning (Uccellani (n.d.)).
For more elaborate information on steps see: http://globalearning.com/download/8-Steps-of-Design.pdf and Vella (2001, chapter 3, pp. 23-32)

But, where does Dialogue Education fit in the universe of learning theories? Her approach

to adult education is practical; it builds on her experience and draws from the work of many

educational theorists, including Benjamin Bloom, Paulo Freire, Malcolm Knowles, and Kurt

Lewin; "Dialogue Education" is a form of constructivism that could also be a means for

transformative learning (Dialogue education, n.d.). Learning tasks engage learners in "Action

Learning" (Deutschman & Molka-Danielsen, 2009).

Creativity Training

What is creativity training? To answer this question we must first consider what creativity is and what are the factors affecting it and then see if training can modulate these factors.

Creativity is not restricted to the arts; it is seen as essential to prepare the youth for the 21st century challenges and is now seen as essential in the workplace, for organizations, communities and society (Puccio, Mance & Murdock, 2011). However, creativity has become somehow "fashionable", everyone uses the word; yet creativity is confusing (Piirto, 2004).

Creativity is a complex and multifaceted phenomenon and there is no universally agreed upon definition of creativity. Creativity has been studied by many disciplines and approached from many angles which also contributes to shaping a diversity of definitions for creativity (Table 8).

Creativity is the bringing together of knowledge from different areas of experience to produce new and improved ideas. Creativity is 'not' something limited to a chosen few – to artists, composers and scientific geniuses. It is a fundamental part of being human. All of us are naturally creative and invent new approaches to problems as we go about our daily lives. Small children with their immense powers of imagination prove this beyond a doubt. Creativity involves us in the constant discovery of new and improved ways of doing things; it means challenging well –tried and traditional approaches and coping with the conflict and change which this inevitably causes. (West, 1997, p. 2)

In 1961, after reviewing more than forty definitions of creativity and sixteen of imagination, Mel Rhodes published an analysis which contributed tremendously to the advancement of the way creativity was then approached by scholars and practitioners. He

showed that the definitions of creativity were not mutually exclusive, that they were interrelated or overlapping and that four strands or themes could be distinguished: the characteristics of creative people, the operations within the creative process, the creative results, and the context in which creativity takes place. He concluded that each strand has a unique identity and that is only when united that the four strands can operate functionally (Rhodes 1961). The conclusion of his analysis is often referred to as the *Rhodes 4Ps definition of Creativity*. The 4Ps stand for the four strands: Person, Process, Products, and Press. Press is a broad concept which is often translated by environment, context or climate. It is a systems approach to creativity. By adopting a systems approach to creativity, rather than a definition, we can then consider the factors affecting the person's creativeness, the creative climate, process and products to identify those modalities that can be enhanced and how training can contribute to optimising them. Creativity training should also be approached from a creativity systems point of view; it could address for instance creativity skills training for individuals, creative processes and tools training, creative facilitation and leadership training. Within the scope of the project, it is proposed to use the Torrance Incubation Model (TIM) as a framework to integrate creativity content into a humanistic approach to avatar training.

TIM is one of the few models "that related directly to the design and delivery of creative learning and teaching" (Murdock & Keller-Mathers, 2008). TIM is a framework that can be used alone for the design and delivery of "creativity content" and to integrate "creativity content" into other content areas; also it can be applied in combination with other approaches (Caropreso, 2011). It is a three stage process aiming at 1) "heightening anticipation", 2) "deepening expectations", and 3) "extending the learning" (Murdock & Keller-Mathers, 2008). Each stage use strategies to support and foster a particular learning and incubation function; the basic

strategies, when deliberately used, form the delivery systems for creativity skills (Caropreso, 2011; Torrance & Safter, 1990, 1999). The incubation model is generally portrayed in 2D figures as a rectangular prism (brick shape) (Figure 1). Tables 10 to 12 present a brief description of the three stages and their associated strategies.   TIM can be used for teaching skills (Caropreso, 2011; Murdock & Keller-Mathers, 2008; Torrance & Safter, 1999). The basic creativity skills include rational and "suprarational" factors (Table 9).

Not only can TIM be used in combination with other approaches, it is definitively congruent with Dialogue Education. Vella's approach is learning-centered, purposeful, structured with well sequenced learning tasks which are open-ended questions to learners who have the necessary resources to accomplish the task.   Despite being visualized as a brick shape with 3 faces (stages), the process, in practice, is iterative, recursive rather than linear, requires flexibility and encourages discovery by both learners and teachers (Caropreso, 2011). TIM is an interactive process that actively engages both thinking and doing; it considers the relationships among the person, process, product and environment (Caropreso, 2011). About the environment, Torrance (1995) wrote: "I am beginning to feel that I can identify rather accurately teachers who develop creative classroom atmospheres (…) of 'release control', permissiveness, a sense of security, an absence of fear, and flexible ways of working together" (p. 31). "Teachers can't make students learn but they can certainly set things up so that student want to learn" (Torrance & Safter, 1999, p. 39). In an interview by Michael E. Shaughnessy (1998), Torrance shared ways to overcome obstacles to creativity, notably: "giving opportunity to use what they learn…; giving a chance to communicate what they learn, providing learning tasks of appropriate difficulty; permitting them to learn in their own ways; and giving a genuine purpose and meaning to learning experiences" (p. 446). And, about extrinsic motivation, Torrance (1995)

underscores that this kind of motivation has "to be reapplied each time the desired performance is required and cannot count upon continued creative thinking" (p. 284).

> Evolution…will require changes in education: changes as radical as the technological shifts that are causing them; changes that require boldness, imagination and hard work. (Torrance, 1995, p5)

Table 8

A Selection of Definitions for Creativity

| Selected definitions of creativity	
Creativity is…	Sources
… a natural part of human being	Isaksen, Dorval &Treffinger (2011)
… discovering the elegant pattern of meaning across the areas of our knowledge and experience	West (1997)
… an imaginative process with outcomes that are original and of value	Robinson (2001)
… the culture equivalent of the process of genetic changes that result in biological evolution	Csikzentmihalyi (1996)
… our Aladdin's lamp, the power which is within the reach of every man and woman	Osborn (1948)
… a skill that can be learned, developed and applied; a skill that everyone can learn, practice and use	de Bono (2008)
… a novelty that is useful	Miller, Velar & Firestien (2001)
…playing with imagination and possibilities, leading to new meaningful connections and outcomes while interacting with ideas, people, and the environment	Lumsdaine & Lumsdaine (1995)
… as illustrated by Dr. Ruth Noller's equation, a function of attitude (a) involving knowledge (K), imagination (I) and evaluation (E): $C=f_a (K,I,E)$	Isaksen, Dorval &Treffinger (2011)
… a spark of life, the vitality that stirs desire to improve and change the statu quo … meaningfully, responsively, wisely and with impact	Segal (2001)
… deliberately taking a proactive approach toward the production of novel and useful ideas that address a predicament (problem) or an opportunity (challenge)	Puccio, Murdock & Mance (2007)
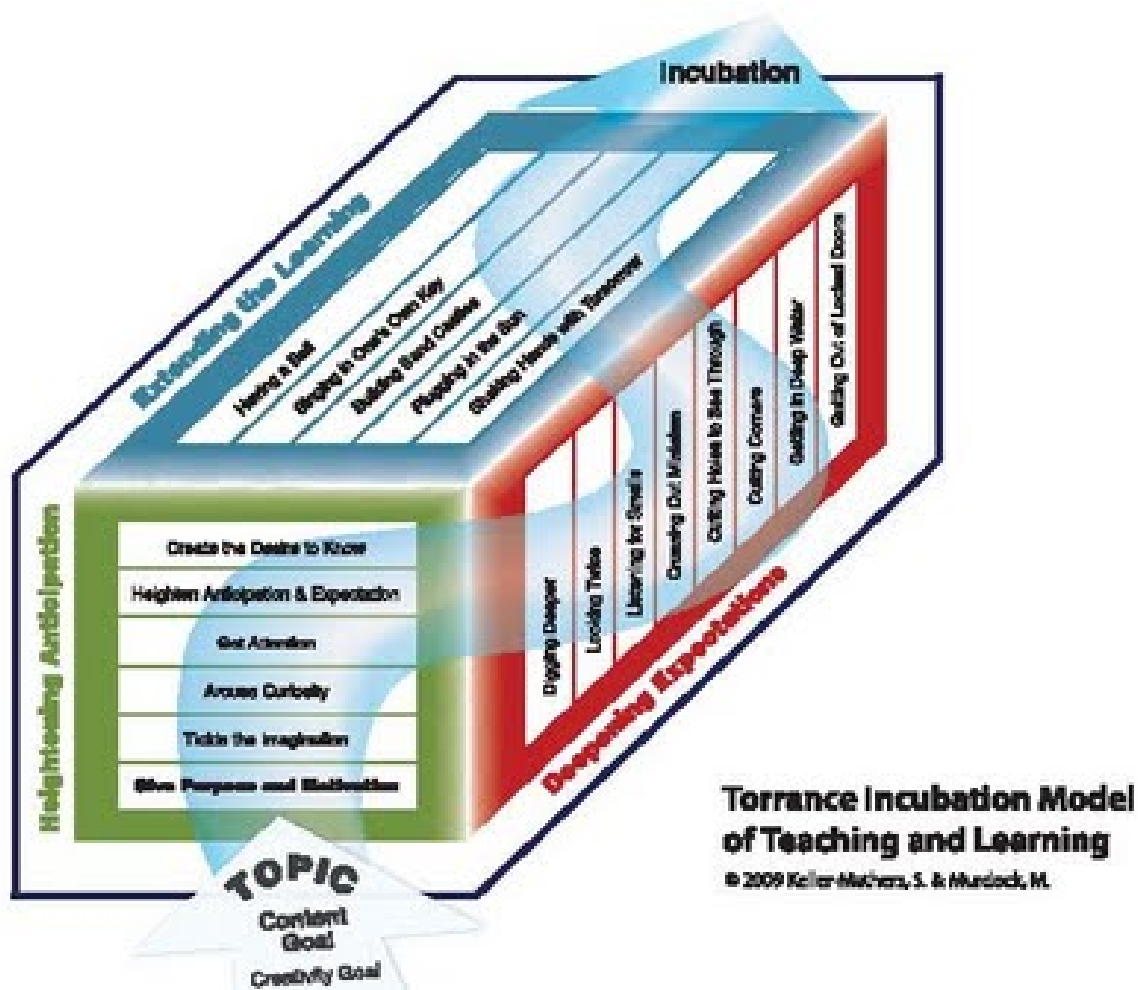
Figure 1. Torrance Incubation Model of Teaching and Learning
(Keller-Mathers & Murdock, 2009, Used with permission)

Table 9

Creativity Skills that can be Taught and Learned

Basis creativity skills for creative teaching and learning	
Rational factors: Creative factors	
Produce and consider many alternatives	• Fluency: generate many ideas, consider many alternatives • Flexibility: create different categories of content; different perspectives
Be original	• Break from the obvious; goes beyond habitual thought; break away from habit; create and support novel and unusual perspectives
Elaborate but not excessively	• Add details or ideas, develop ideas for possible implementation • Develop a plan, "sell" solution, implement
Suprarational factors: Creative strengths	
Highlight the essence	• Retain the essential , discriminate relevant from irrelevant information • Stay focus on essential, pertinent; refine and synthesize
Keep open	• Resist to premature closure & to "tension" to complete tasks in easiest way • Defer judgement; practice with ideas in variety of circumstances • Take and use of time
Be aware of emotions	• Acknowledge role & significance of affective experience • Recognize verbal/ non-verbal cues; trust, use feeling to understand people & situations
Put your ideas in context	• Situate experience in a bigger content; put experience together in a meaningful way • See connections between things; identify relationships and implications
Combine and synthesize	• Combine types and modes of information acquisition, processing & retrieval • Combine relatively unrelated elements and create new and useful connections
Visualize it richly and colorfully	• Create colourful, engaging imagery that appeals all five senses • Use vivid, exciting imagery; propose alternative perceptions
Enjoy, use fantasy	• Imagine, play and consider what does not yet exist, future possibilities • Extend thoughts beyond reality, embrace the unknown
Enrich imagery /Make it swing, make it ring	• Use kinesthetic and auditory senses; respond to movement and sounds • Experience via multiple modalities
Look at it in another way	• Being able to see things from different visual and psychological perspectives
Visualize the inside	• Pay attention to the internal dynamic working of things; • Picturing, describing the inside of things
Breakthrough – Extend the boundaries	• Think outside prescribed requirements; recognize that new possibilities always exist • Change paradigms or systems within which a problem resides; embrace ambiguity
Let humor flow, use it	• Perceive incongruity; respond to a surprise, to the unexpected • Recognize and respond to perceptual and conceptual discrepancies
Glimpse infinity/Get glimpse the future	• Wonder, dream about possibilities; view events as open-ended • Positive focus on the future; accept uncertainties

Millar (1995)
Murdock & Keller-Mathers (2008)
Torrance & Safter (1999)

Table 10

Stage one of Torrance Incubation Model

Torrance Incubation Model: Stage 1 : Heightening anticipation
Before

Purpose: Motivating
- To motivate learners
- To begin the engagement process
- To heighten anticipation and expectations and prepare the learners to make clear connections between what they are expected to learn and something meaningful in their lives

<div align="center">
Strategies:
Create desire to know
Heighten anticipation /expectation
Get attention
Arouse curiosity
Tickle imagination
Give purpose and motivate
</div>

Murdock, M.C. & Keller-Mathers (2008)
Torrance & Safter (1990)

Table 11

Stage two of Torrance Incubation Model

Torrance Incubation Model: Stage 2 : Deepening Expectations
During

Purpose: Thinking, experiencing, reflecting
- To sustain, use motivation to encourage deeper exploration; requiring alternating between anticipatory and participatory strategies

Strategies	More about the strategies
Digging deeper	Beyond the surface; diagnose difficulties, integrate available information; elaborate, diverge
Looking twice	Defer judgment; keep open; search for information; evaluate-reevaluate information
Listening for smells	Sense of congruence; use, integrate information from multiple sensory experiences
Crossing out mistakes	Make guesses, check correct, modify, re-examine, discard, refine, improve
Cutting holes to see through	Summarize simplify, direct, focus attention on relevant, promising specific information
Cutting corners	Avoid, discard irrelevant information; make mental leaps; make decisions
Getting in deep water	Search for unanswered questions; taboo topics; confront the unimaginable; being overwhelmed by complexity; being deeply absorbed in surrounding events
Getting out of the locked door	Solve the unsolvable; open new vistas; go beyond "more and better" of the same solutions

Murdock, M.C. & Keller-Mathers (2008)
Torrance & Safter (1990)

Table 12

Stage three of Torrance Incubation Model

Torrance Incubation Model: Stage 3 : Going beyond - Keeping it going - Extend the learning After	
Purpose: Incubating, transferring	
• Application and transfer of learning	
o Anticipate connections, uses of the learning	
o Focus on activities intense enough to sustain engagement after "formal lesson"	
Strategies	More about the strategies
Having a ball	Use humor, laughter, fantasy; attend to having fun uses of the mind
Singing in one's own key	Personalize information; relate personal experience to information; see implications of information for current or future problems, etc
Building sand castles	Use information as a basis for imagining, fantasying, searching for ideal approaches, going beyond the known, familiar
Plugging in the sun	Engage in hard work; follow up on information; find explore resources
Shaking hands with tomorrow	Relate to own future; enlarge, enrich, make more accurate images of the future; search for alternative solutions to future problems

Murdock, M.C. & Keller-Mathers (2008)
Torrance & Safter (1990)

Designing for 3D Learning

Social-centric 3D immersive user-created environments offer new possibilities to enhance

higher education and professional training. Virtual world technologies open the door to a

universe of new opportunities to complement "on campus" and at the workplace learning by

making possible immersive experiential learning otherwise impossible, too costly, or too risky to

be conducted in physical classroom and workplace settings. Most importantly, they can literally

transform the way we approach distance learning and telework by making possible collaboration

and co-creation in real time and in a shared immersive environment.

For educators and trainers, however, the challenge is not limited to mastering the

technology; they must adapt or entirely transform the way they approach teaching and instruction

design, the way they think about and conceive their training program and material if they want to

take advantage of the additional dimension and the affordance of rich user-created environments

such as Second Life (Hinrichs, 2011; Kapp & O'Driscoll, 2010). There is no reason to use virtual worlds if it is to replicate what you can do better in class or what you can do as well with Web 1.0 and 2.0 technologies. Whereas virtual worlds share singularities such as graphical user interface, shared space, interactivity, immediacy, persistence and socialization/communities with other social media, their value added comes from the fact that these six characteristics are combined in one platform with the potential to create more engaging experience (Wood, 2010). Taking advantage of the singularities of virtual worlds in education and professional development is a complex challenge, but an exciting creative one with the potential for creating more compelling comprehensive learning experiences.

The use of virtual worlds in education and professional training is still in its infancy. The body of literature showcasing highly creative (useful and novel) applications is however growing rapidly paving the way to new comers. For truly creative applications, it is important to remember that the application of virtual worlds to education and training should remain learning-centered; the technology should not rule but, rather enhance the effectiveness of the learning. Kapp & O'Driscoll (2010) propose a set of eight grounding principles for learning experiences in 3D immersive environments: instructionally grounded, reflectively synthesized, experiential, participant centered, contextually situated, discovery driven, action oriented, consequentially experienced and collaboratively motivated. All these principles, except for "participant centered" and "collaboratively motivated", are coherent with the underlying principles of dialogue education. Dialogue education is learning – centered and humanistic in spirit; it includes teamwork and the learner's engagement within its core principles but honors self-motivation.

Kapp & O'Driscoll (2007, 2010) have proposed a new architecture for designing 3D learning experiences with four macrostructures that are derived from their principles for learning in 3D, and a set of 3D learning archetypes as building blocks. It is crucial to underscore that the learning archetypes are not the end, but a means by which to achieve the learning objectives while taking into account the underlying principles and taking full advantage of the affordance of 3D immersive environments. The components of the proposed architecture and their connection to the seven sensibilities of virtual immersive environment are presented in table 13.

Table 13

Architecture for learning in 3D

Core elements for a 3D Learning Architecture		
Macrostructures	3D - Learning Archetypes	Sensibilities of virtual immersive environments
Agency	• Avatar persona • Role play	• Sense of self
Exploration	• Guided tour • Scavenger Hunt	• Sense of space • Pervasiveness of practice
Experience	• Operational application • Conceptual orienteering • Critical incident	• Enrichment of experience
Connectedness	• Social networking • Group forum • Small group work • Co-creation	• Power of presence • Death of Distance • Capability to co-create

Kapp & O'Driscoll (2010)

A slightly different set of learning archetypes has been proposed by Scope (2009, 2011a) and includes "Role Play", "Peregrination", "Simulation", "Meshed", "Assessment and Evaluation". The assessment and evaluation archetype, which could include "summative" and "formative", was not part of Kapp and O'Driscoll architecture (Scopes, 2009). Formative

assessment is intended to help both the instructor and the student to monitor progress during the course whereas the summative assessment would be a more formal assessment, for instance for certification purposes. Assessing progress is essential to shared accountability for learning, i.e. "How do we know they know, how do they know they know" as expressed by Vella (2001, 2002). However, in dialogue for education, the learning task, if well designed to support the achievement-based objective, should also served as an indicator for learning (Vella, 2001). Each of the learning archetypes proposed by Scopes (2009, 2011a) can be further broken down into frames.

Scopes (2009, 2011a, 2011b), however, goes beyond proposing a learning architecture based on archetypes. She proposes a "Model of Cybergogy of Learning Archetypes and Learning Domains" as a structure for "v-Teaching", supporting planning and execution of imaginative and reflective practices, and situates her model within a social constructivist approach. Her model has two intrinsic components: 1) five categories of learning archetypes which can be broken down in frames and sub-frames, and 2) four learning domains: cognitive, dextrous, social and emotional (Scopes, 2011a, 2011b). For the learning domains, she proposes a blended taxonomy with six implementation levels to define the six levels of learning outcomes within each domain (Table 14).

Scopes' proposed blended taxonomy is founded on well established, validated theoretical paradigms. Scopes (2011a) presents a reviewed and refined version of her blended taxonomy and reports on the application of her framework in five Second Life enhanced courses offered at Drury University (MO, USA): Introduction to Second Life for learners; History of Christianity, Astronomy; Social psychology; and, Arab-Israeli conflict studies. This is a prime example of the applicability of Second Life in higher education and in a broad range of educational domains.

As Scopes (2011a) indicated, "all learning experiences start in the imagination of the designer" and still largely depends on the skills of the instructor. She suggested three aspects to be considered when assessing learning activities for their potential implementation in Second Life: the effectiveness for learners; the feasibility of implementation and sustainability of the activity in that environment; and the viability of content quantity and quality (Scopes, 2011a, 2011b).

Table 14

Learning Outcomes as per Scopes' Blended Taxonomy for Learning Domains

Level of implementation	Learning domains			
	Cognitive	Emotional	Dextrous	Social
6th (high)	Creating	Influencing	Authoritative	Channeling
5th	Evaluating	Empathising	Naturalising	Networking
4th	Analysing	Engaging	Articulating	Affiliating
3rd	Applying	Self-Regulating	Developing precision	Communicating
2nd	Understanding	Attending	Manipulating	Contextualizing
1st (low)	Remembering	Perceiving	Imitating	Personalizing

Excerpt from Scopes (2011, p. 10) and used with permission,
with Scopes' revised scale for Emotional Domain: http://maps.secondlife.com/secondlife/ARCHI21/211/54/23

Hierarchy of Avatar Needs

Abraham Maslow has changed psychology forever by proposing a novel and "far deeper understanding of what it means to be human" (Norwood, 2009). Contrary to the vast majority of scholars of his time, he decided to explore what makes people exemplary; he explored the behaviors and motivations of the healthiest people and as a result developed a positive and inspiring theory to explain human motivations. It is in 1943, that Maslow first proposed his theory of human motivation; his theory was then fully expressed it is his book entitled "Motivation and Personality", first published in 1954 (Maslow & Frager, 1987). Maslow's

motivation theory is holistic and human centered; it is not a behavior theory because motivations are only one category of determinants of behaviors, "while behavior is almost always motivated, it is also almost always biologically, culturally and situationally determined as well" (Maslow, 1943, p. 370). Maslow's theory of human motivation is better known as Maslow's Hierarchy of Needs. Maslow (1943) distinguished five categories of needs: "physiological", "safety", "love", "esteem" growth needs and the "need for self-actualization".

> Human needs arrange themselves in hierarchies of pre-potency. That is to say, the appearance of one need, usually rest on the prior satisfaction of another, more pre-potent need. Man is a perpetually wanting animal. Also no need or drive can be treated as if it were isolated or discrete; every drive is related to the state of satisfaction or dissatisfaction of other drives. (Maslow, 1943, p. 370)

Maslow's Hierarchy of Needs is generally represented as a pyramid with at least five layers corresponding to the five categories of needs identified by Maslow (1943). Maslow posited the needs in two groups: deficiency or deficit needs and growth needs. The first four layers of the pyramid represent the four deficit needs which are from the bottom up: the physiological, safety, love and esteem needs. To move up toward the self-actualization, each "layer" of needs must be met. Later, Maslow differentiated two categories of growth needs below the self-actualization, the need to know and understand and the aesthetic needs, and one category beyond, the need for self-transcendence – helping other realizing their potential (Huitt, 2007a).

Table 15

Application of Maslow's Hierarchy of Needs to Distance Learning, Web Evolution and Avatars

Original five-level Hierarchy (H) of Needs (Maslow 1943)	Physiological Needs (lowest level)	Safety Needs	Love Needs	Esteem Needs	Need for Self-Actualization (highest level)
H. of distance learners' Needs (1)	(physical) System and Internet access	Protection from personal attacks and hackers Structure, order, consistency	Belonging to a community (the class as a whole) and to subgroups (teams)	The ability to contribute to the course / community and be respected for it. Competence and achievement.	The ability to take a role in the course / community that develops and challenges one's self
H. of Needs and Web evolution (1)	WEB 1.0 Goods for money (e-commerce; Paypal)	WEB 1.0 Services for fees (firewalls monster.com)	WEB 2.0 Online communities and networking (Facebook; LinkedIn)	WEB 2.0 Online communities and ratings (blogs; twitter)	WEB 3.0 VIRTUAL Wikipedia
H. of avatars' buying needs (2)	Existence of functioning computers Software, Network, and Grid servers	Reliability of the system Lack of intermittent crashes and downtime	The ability to communicate using a preferred method, chat/voice, the ability to move and teleport	The ability to customize your avatar and to become either realistic or inspiring	The ability to customize your surroundings to achieve a desired feeling
H. as a model for business development in Second Life (3)	(Physical) Content (objects, clothes, shapes, etc.) and land.	Tools, Distribution & management systems	(Belonging) Environments and experiences Performance	Branding	Cross-platform integration
H. of avatar needs as consumer of virtual goods (4)	(Cyber physical) Technology, Interface, First-life user, Software Broadband connection Processor, Graphic Card, Monitor	(Heuristic creative) Curiosity Navigational aptitude Creativity Media literacy	(Aesthetic/Esteem) Self-expression Appearance Ownership Self-esteem Confidence Respect	(Love/ Belonging) Friendship Communication Interaction Romance Sexual intimacy	(Emotional Safety) Privacy Property Resources
H. of avatar needs (5) Bases on authors' observation of learners	Logging on, Control of avatar movement Teleport Technological hardware	Potential dangers Embarrassments Who to trust Avatar social space	(Love /Belonging) Aligning with mentors Friendships in world Relationships in world Joining groups in world	Discovery Interaction Immersion State Confidence	Understanding Acceptance Creatively apply Create Envision

(1)   Beise & Wynekoop (2001)
(2)   Sarner & Moaz, 2010; Stolze (2009
(3)   Armi's blog SecondEffect (2009)
(4)   Dusanwriter's blog, (2009)
(5)   Ensslin (2011)
(6)   Johnson & Levine (2008)

Maslow's Hierarchy of Needs can inform both the design and the facilitation of learning programs. Each level of needs must be considered when programs are developed and implemented; lower level needs must be satisfied before learners can be motivated to move to higher level motivators (University of Florida, IFAS, n.d.). The teacher, according to Vella (2001, 2002), is not only responsible for the content but also for assuring a proper learning environment. Considerations about the room setting, temperature, comfort, lighting, and access to the location for example, aim at addressing physiological and safety needs. The teacher is also responsible to design and facilitate for adequate relations and collaborations, full participation and engagement and reinforcement and feedback. This help addressing both the social (belonging) and esteem needs. As well, the motivation of learners would depend on where they are in the process of satisfying their needs, hence the importance of assessing their needs.

Beise & Wynekoop (2001) proposed to use Maslow's Hierarchy of Needs as a framework for designing and evaluating distance course delivery. They situated the trends in distance learning educational theories at the convergence of a technical and social evolution, and in the early days of the application of social constructivism for the delivery of distance learning courses with notably an appreciation of the importance of the learning communities. They used the hierarchy of needs to describe five layers of needs that the members of a virtual community of learners would need to have satisfied prior to get fully engaged and be contributing to the communities (Table 16). According to Beise and Wynekoop (2001), educators must realize that students are struggling to meet deficit needs and that they must provide them with the tools and the pedagogy necessary to meet these needs. Summarized as well in Table 15 are diverse

applications and interpretations of the Maslow's Hierarchy of Needs when applied to the web evolution and to various avatars considerations.

The hierarchy can, for instance, inform about consumer needs and provide directions for future developments of the web in order to satisfy unmet needs. A composite of two analogies made about the evolution of the Web from the perspective of the fulfillment of needs: 1) how web 1.0 and 2.0 technologies address the basic needs (Stolze, 2009) and 2) where Gartner position virtual (web 3.0) technologies at the level of the growth needs (Sarner & Moaz , 2010).

I have found a few cases where Maslow's Hierarchy of Needs were used to describe the avatar needs in Second Life™. In 2009, "Armi" was intrigued by his revenue fluctuations at his virtual shop in Second Life™. He though that perhaps avatars have other consumer needs to satisfy prior to purchasing the type of products he was offering which he illustrated with a hierarchy of needs. Building on Armi's insights, "Duzan" (2009) used the hierarchy of needs to conceive an "in-world" business model in Second Life™. In these two cases, the bloggers were sharing insights about avatars hierarchy of consumer needs and the possible implication for "in-world" business. Ensslin (2001) wished to better understand the avatar needs; she is interested in exploring Second Life ™ as a platform for developing new architectural concepts. As a result, Ensslin decided to explore the main differences between human (first life) and avatar needs (in Second Life). To that end, she surveyed 41 avatars in 2008 to identify what were the most important needs for them. She has identified that avatar needs could be aggregated in four categories: aesthetic, communicative, material and emotional. On that basis, she proposed to revisit Maslow's Hierarchy of Needs to better reflect her comprehension of their needs. The four upper levels were derived from the results of her interviews whereas the two more basic levels were added to represent the cyber-physical needs and heuristic creative needs. One can argue

that these two first levels are not avatar needs, if an individual has neither the computer-network capacity nor the curiosity to register and avatar and explore, avatar's needs do not exist. She does acknowledge this aspect, but considers the four upper levels as being exclusively avatar needs in that there were needs not being influenced by the users they represented. This is reflected in her methodology as well; she does not provide information on demographics of avatars (interviewed users), nor does she question how well the population of interviewed avatars provide an adequate representative sample of avatars-users.

In these previous cases, the needs of avatars were considered from the perspective of consumerism. Avatars' motivations to learn are different from their motivation as consumers. However, they can be observed from a Maslow's Hierarchy of Needs point of view. Johnson and Levine (2008) share very interesting insights about their observation of learners' behaviors as seen under the lens of Maslow's Hierarchy of Needs. Here again, one can challenge the relevance of the first basic level of needs as being more a threshold for avatar needs to exist. This hierarchy is coming closer to what I envision. However, for me, the avatar's needs and user's needs overlap. One way to visualize what the avatar's needs might be is to imagine what your needs would be if you were to begin tomorrow to live life as an avatar. What are the physiological needs of a new born avatar? It would certainly include kinesthetic, visual, and auditory needs to start with. How to walk, run, jump, fly, sit, control sight and hear, listen, talk, etc.? Unless the lower levels of new born avatars needs are met, the user needs to achieve his/her purpose as virtual world users (e.g. giving a presentation is Second Life) will remain hazardous.

I would argue the consideration of the hierarchy of both avatars' needs and learners' needs is necessary to inform program design and delivery as well as content and context.

However, when considering user needs to inform the design, Maslow's Hierarchy of Needs would play a role similar to or complementary to Vella and Torrance' approaches. The primary reason for integrating Maslow's Hierarchy of Need would be more to inform on the content of the program, specifically to identify the avatar skills necessary to effectively achieve the users' learning goals.

Selected Bibliography

Coombs, G. (2010). Using Second Life for teaching management of creativity and innovation. In C. Wankel (Ed.), *Cutting-Edge social media approaches to business education: Teaching with LinkedIn, Facebook, Twitter, Second Life, and Blogs* (pp. 142-157). Charlotte, NC: Information Age Publishing, Inc.

Dewey, J. (1938). *Experience & education*. New York, NY: Touchtone.

Vella, J. K. (1997). *How do they know they know: Evaluating adult learning*. San Francisco, CA: Jossey-Bass.

Vella, J. K. (2004). *Dialogue education at work : a case book* (1st ed.). San Francisco, CA: Jossey-Bass.

Vella, J. K. (2007). *On teaching and learning: Putting the principles and practices of dialogue education into action*. San Francisco, CA: Jossey-Bass.

Wankel, C. (2009). Management education using social media. *Organization Management Journal, 6*(4), 251-262. doi: 10.1057/omj.2009.34

Wood, N. T. (2010). Real lessons in virtual worlds: Using virtual world technology to educate and train business students. In C. Wankel (Ed.), *Cutting-edge social media approaches to business education: Teaching with LinkedIn, Facebook, Twitter, Second Life, and blogs* (pp. 195-216). Charlotte, NC: Information Age Publishing, Inc.

SECTION THREE: PROCESS PLAN

Introduction

As previously stated, the following challenge is at the core of the proposed project. How to create a training program to facilitate an early exploration of Second Life™ by adult learners and professionals to:

1) expose basic level learners to a range of benefits user-created social virtual worlds might offer, and

2) provide opportunities to make informed decisions as to whether or not it is personally worthwhile to the learner to further explore and begin to experiment with it.

Among other challenges that I am contemplating professionally, I see the following as being potentially addressed, as well, by the products that I am proposing to prototype during the course of this project.

- What might be the first product I need to develop if I aspire to "expanding access to creative thinking via 'VIE-learning' and 'VIE-teaming'"?

- How can I explore with other creativity professionals the possibility of creating venues that would fill the gap between exchanging on web 2.0 (e.g. via Facebook) and the energizing experience of exchanges face to face when attending conferences or annual meetings? (The underlying value proposal here is if we cannot be everywhere together, can we be there together?)

- How can I help to build a critical mass of creativity professionals to contribute to developing new ways to bridge the 21st century technology with 21st century skills such as creativity and creative leadership?

I have a personal interest in the main, as well as in the first of the three additional challenges as stated above. The final products are tools that I believe are essential to my soon to be established business. The last two other challenges reflects my perceived need for finding new ways to create synergies for collaboration and co-creation among our geographically dispersed Diaspora.

In all four cases, the problem is heuristic in nature. We can propose to approach them now, proactively, from a creative leadership perspective, or wait and eventually have to quickly react and adapt. Considering where virtual worlds currently are, according to Gartner Hype cycle, I believe that the timing is good for a proactive approach. If seen under the lens of the type of problem, I am trying to apply creative leadership to seize opportunities (Puccio, *et al.*, 2011). As quoted by Karl Kapp and Tony O'Driscoll (2010), "Bill Gates, founder of Microsoft, is credited with noting that the danger with information revolution is that we will overestimate the short-term implications and underestimate the long –term impact" (p. 25).   I am naturally future oriented and truly prefer envisioning what might be and getting prepared for it, rather than having to react to predicaments. It is a matter of personality and preferences.

With respect to ownership, I am the immediate client for the products I wish to prototype during the course of this master project. The testing of these prototypes is beyond the timeline and scope of the current project. During the course of summer 2012, I see myself completing the prototypes of the remaining modules of the proposed program and recruiting at least two cohorts of 6-8 brave adults to test the prototypes during fall 2012. Then, I expect to fine tune the program and modules to begin their use it professionally in 2013. Depending on the uniqueness and added value of the experience, I might consider submitting a proposal for a presentation at the Virtual Worlds – Best Practices in Education (VWBPE) in spring 2013 conference.

As mentioned earlier, I am proposing to integrate elements from humanistic and adult learning theories, the Torrance Incubation Model with relevant learning archetypes of the nascent field of cybergogy to developt of a program framework intended to facilitate early experimentation with, and exploration of the opportunities that 3D immersive social virtual worlds such as Second Life™ might offer to adult learners and professionals. Generally speaking, it will necessitate a fair amount of reading, analysis and integration to conceive the program framework and the prototype for the first module. Also, it will involve an extensive hands-on development in Second Life™. I will be working from home, accessing most information online or via libraries and will build at my own virtual estate in Second Life™.

This project will not involve any formal application of CPS skills with groups. Such approach might be considered later during the testing phase of the prototypes e.g. how might I improve …?. During the development phase, I see myself guided essentially by the approach of the Thinking Skills Model of Creative Problem Solving (Puccio, Murdock & Mance, 2007) and by having to constantly reassess the situation. I will, however, on a few critical occasions tap into the collective intelligence to get external input, notably to get a sense of what are the perceptions regarding the barriers to simply just giving virtual worlds a try. Whereas I read and heard a lot about the value of keeping a journal, I never did. I believe that in this situation I have a great opportunity to try it seriously. I expect to see it unfolding as a very informative piece, at least from a personal point of view, to reflect on my processes, thoughts and emotions as they occur.

I see myself interacting frequently with my two external sounding board partners and colleagues, François-Bernard Malo (ISCS, Buffalo State alumni) and Beverly G. McCarter

(Certificate in Virtual Worlds, University of Washington alumni). They both bring a very

complementary perspective.

Project Process Plan

Table 16

Project Process Plan and Timeline

Process Plan		
Steps	Time Range	Hours * = estimates
Get external input on perceptions of barriers to entry in SL • Get perceptions using online brainstorming board • Seek perceptions from non SL users • Seek perceptions from SL users • Highlight / cluster – identify key categories of barriers • Prepare short narrative on barriers (appendix no barriers)	January 24 – March 18	12 *
Develop concept paper (CP) • Clarify my project goal, search pertinent literature, find, identify an approach for adult education • Draft project description and plan, • Review project product expectations for feasibility within timeframe • Prepare first draft of CP, get comments Sounding Board Partners (SBP), submit official draft CP • Review, edit, and submit final CP	January 5 - February 17	104
Prepare narrative (section 2 of Master Project writing (MPw) • Digging deeper the four grounding frameworks (Dialogue Education, TIM, cybergogy for learning in 3D, hierarchy of needs) • Looking twice and listening for smells, notably see connections between the frameworks • Cutting holes to see through, get in deep water…summarize, focus on specific information, being overwhelmed by complexity and deeply absorbed • Write ideas for learning tasks, imagery, 3D builds as they come • Draft section 2 and get comments from SBP • Review Draft of section 2	February 18-March 4	77
Assemble first three section of MPw • Prepare overall document with front pages • Insert section 1 and 3 of CP • Prepare process plan (see CP for initial workplan-timeline) • Update references section • Submit Drat of MPw (sections 1-3)	February 28-March 5	12
Develop program framework • Sketch program plan (Target: 1 preparatory module and 5 program modules) • Develop 3D-visual program framework in Second Life • Document	March 7- 11	35 *

Process Plan		
Steps	Time Range	Hours * = estimates
Create / build the learning environment / context in Second Life • Places for the grounding frameworks • Welcome and "classroom place" • Sandbox • Signs, walking path etc • Invite SBP for feedback • Document	March 13-18	40 *
Develop the specific learning task-based plan for the following modules • Preparatory module – prior to the program • 1st module of program • Document	March 19-25	30 *
Create / 3D build (context) and 3D resources (learning material) • Preparatory module and module 1 • Guided tour to SBP for feedback • Document • Have guided tour with 3-5 selected individuals for feedback • Document	March 26-April 1	60 *
Draft MPw (sections 4-6 and appendices) • Prepare draft • Get SBP feedback • Submit draft MPw by April 13	April 2-9	50 *
Begin preparing presentation	April 10-13	10 *
Away in Italy (CREA) and Germany	April 15-30	
Last week for final fine-tuning ,,, • Work out necessary editing of full MPw • Finalize presentation	May 2- 6	30 *
Very last week • Submit MPw final approved and presentation May 7 • Prepare for commencement • Flight to Toronto or Buffalo dates TBD • Commencement & Celebrate • Upload on Digital Commons (target May 10, no later than May 11	May 7-12	Total Hours: 420

SECTION FOUR: RESULTS

Overview of Resulting Products

Within the parameters and timeline of the proposed Master project, my goal was to conceive and realize the prototype of the two following products:

1. a 3D visual framework for a learning program to facilitate entry into, and an early exploration of Second Life™ (SL) by adult learners, professionals and educators; and

2. a first module of the learning program (including specific goals, objectives, scenarios, activities, assessment criteria and supporting 3D training facilities and learning material).

The prototypes are expected to provide the foundation for the creation of a training program, "a humanistic and creativity driven approach to avatar training", to facilitate entry into, and an early exploration of SL. I wish to complete the program development during the coming summer, so that it can be tested by the end of 2012. Specifically, participants to this humanistic and creativity driven approach to avatar training would 1) examine and practice the hierarchy of skills necessary to make a presentation in SL, 2) develop and practice creativity skills, and 3) experience new ways to learning in a rich 3D immersive social virtual world (3DiSVW). As outcomes for the program, it is expected that participants would then be able 1) to make presentations in SL, which is a concrete way to grasp low hanging fruit, such as participating in meetings, conferences or community forums held in SL and 2) to safely explore SL so that they can make an informed decision as to whether or not SL could be worthwhile or offer meaningful opportunities for them.

The first product resulting from my work is a "framework for a humanistic and creativity driven approach to avatar training" which integrates elements of the following four learning frameworks: 1) Dialogue Education, a framework for adult learning; 2) Torrance Incubation

Model, which can be used to weave creativity skills training into other learning contents; 3) Maslow's Hierarchy of Needs, to inform the hierarchy of avatar training needs; and 4) Scopes' Cybergogy of Learning Archetypes and Learning Domains (Maslow, 1943; Scopes 2009, 2011a, 2011b; Torrance & Safter, 1990, 1999; Vella, 2001, 2002). The second product is the declination of this framework for the initially proposed program with the following specific learning goals – being able to make a presentation in, and safely explore, Second Life™, and practice the following four creativity skills: keep open; be aware of emotions, let humor flow and use it; and get glimpses of the future. The third product consists in examples of learning tasks for the first module (scenarios and 3D materials). Articulation of the entire first module to include all the learning material, objectives and assessment mechanism could not be completed within timeframe of the project.   The place and settings, such as the classroom, meeting rooms, sandbox, habitats and student homes for the entire program have been built (See Island map and Photo album, Section 7, appendices C & D).

My original proposal did not include the development of a general framework or model for a humanistic and creativity driven approach for avatar training. My intention was to develop a program framework for the targeted goals i.e. making a presentation in, and facilitating early exploration of Second Life™ (SL). When developing my Concept Paper, I had a fairly clear understanding of the context and rationale for my project ("who, why, and so that") (See Section 7, Appendix F).   I must acknowledge, however, that I had only a highly intuitive sense of why I should try to integrate those four frameworks and only a vague vision on how to proceed. I had observed what new-comers in SL were doing and how their discovery and learning journey appeared to follow a path that I thought could be described with fulfilling a "hierarchy of needs"; I knew that beyond creating a SL skills development program: I wanted to weave in creativity

skills training; my clientele would be adults; and I wanted to take advantage of the affordance of SL. This is why I proposed to integrate the following frameworks: Maslow Hierarchy of Needs, Torrance Incubation Model, Dialogue Education, and new 3D learning archetypes.

Doing the literature review, notably to deepen my understanding of those frameworks, was both pleasant and painful. On one side, I was amazed by the connections I could see between the frameworks and comforted by the sense of coherence I felt, but on another side, I was totally overwhelmed by the complexity and the considerable volume of new concepts I needed to grasp, make sense of, deconstruct, and reconstruct into a coherent whole. For a moment I thought I would not achieve it and the intense period of reading and writing had almost drained all my energy. I decided at that time to take a break of the rational effort and let my imagination go on about what I could begin to build on the island.

Knowing that Jane Vella was retired, has a house in North Carolina, enjoys kayaking and is learning piano, fed my visual imagination for the beginning to build the context. I began with digging (terra-forming) a lake and a place nearby for a chalet, and stopped. I then switched to creating the Torrance Hall mainly because I had already the idea to create a building inspired by the rectangular prism representation of the Torrance Incubation Model. I needed to work on something less complex, more visual and aesthetic, and to spend time on less mentally demanding activities. I spent time in trying to imagine Torrance's office, wondering what he liked, what sort of furniture he might have had around him, looking at photos of him…

I took a break from rational content by getting immersed in imagining and creating the context and the environment. It was the right thing to do. I liked what I was beginning to see shaping as I was building on the island and was, at the same time, rebuilding my energy. I ended up spending a considerable amount of time in building a 3D place for each of the four

frameworks and, as I was doing this, I was deeply immersed into each of them but at a less conscious level. For each framework I prepared a little presentation as a way to reflect on those elements that I wanted to integrate (See Section 7, Appendix B). And one day, I woke up with a clear image of how they would fit together. From this sort of illumination, I created a framework that I feel has the potential to have a broader range of applicability. From this model it was then easier to draw what a framework for the targeted program might be and to begin designing learning activities for the first module to illustrate how the learning tasks could be designed.

Description of Products

A Framework for a Humanistic and Creativity Driven Approach to Avatar Training

To support my description, I use the slides I made for presenting it at the Torrance Hall. The presentation begins with the illustration that represents the geometry of the elements integrated in the framework (Figure 2). I like it so much that I used it as well to creating unique "beach towels" at my island in Second Life™ (grins).

The proposed framework for avatar training integrates four frameworks: 1) Dialogue Education; Torrance Incubation Model (TIM); Maslow Hierarchy of Needs, and Scopes Cybergogy of learning archetypes and learning domains. In essence, the description of the framework consists of presenting the building blocks taken from four grounding frameworks, and explaining how I see them fitting together. I use color coding to ease keeping track of the origin of the building blocks. I use pale green for Dialogue Education, ocher for TIM, the rainbow sequenced colours for needs levels and violet for elements related to Scopes Cybergogy.

The twelve principles for Dialogue Education form the foundation of the proposed learning framework. These principles, in their original definition, should be underlying the overall approach for a humanistic approach to avatar training (Figure 3).
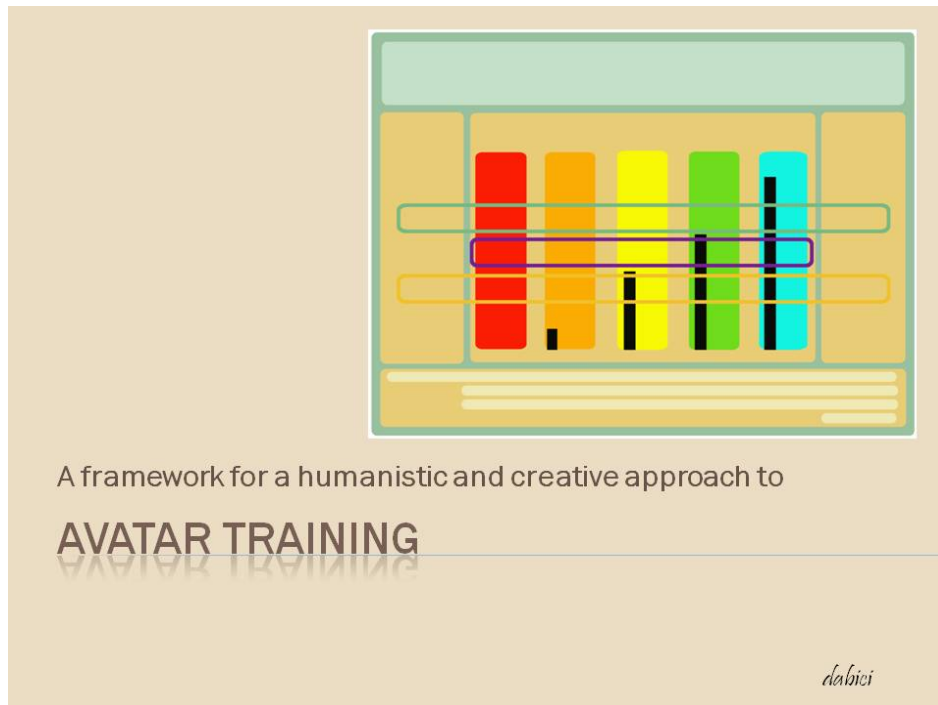

Figure 2. Graphical representation of the proposed framework for avatar training

From Vella's work I also adopt her eight step approach to planning (who, why, so that, where, when, what, what for, and how). I particularly like the differentiation she makes between the outcome level (so that) (the impact expected when the learning get transferred into an individual's life or at workplace), from the achievement based objective (what for) which is the result of the learning as experienced during the program (Figure 4).
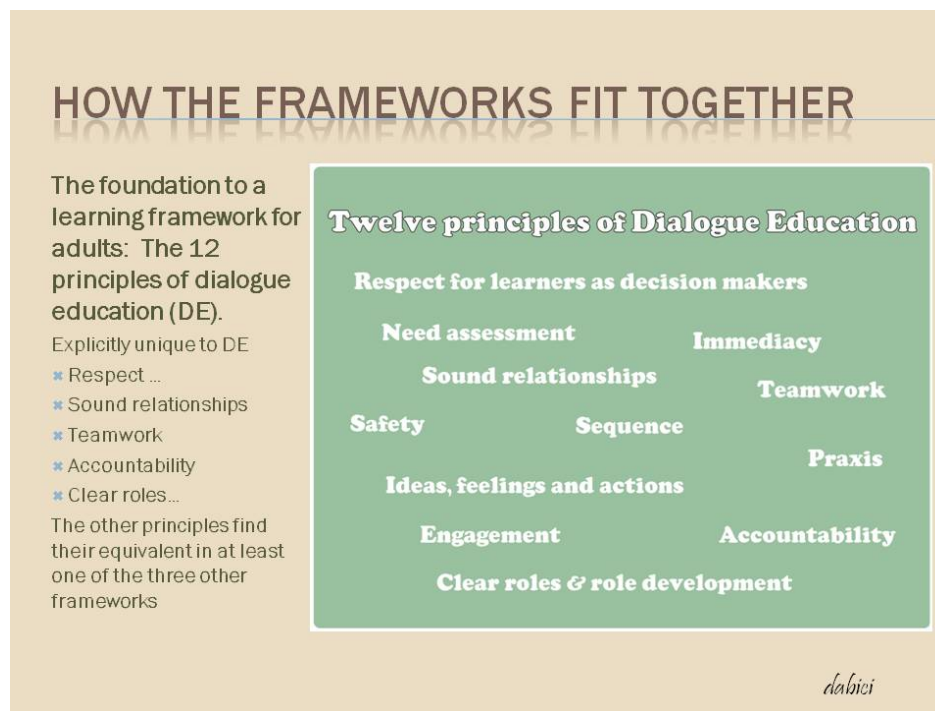
Figure 3. The twelve principles of Dialogue Education used as foundation principles
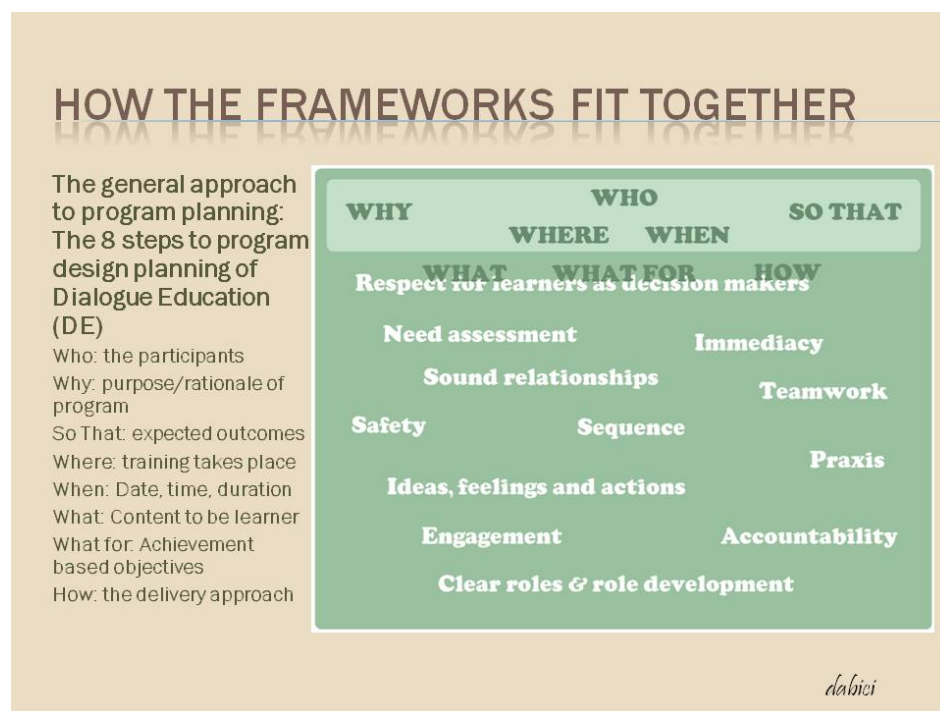

Figure 4. The eight steps to planning of Dialogue Education to guide avatar training planning

The three stages approach of the Torrance Incubation Model (TIM) is retained as the motivational structure for the framework. The three stages approach parallels the application of the 4Is of Vella but at the program scale. Stage 1, prior to the training, connects with the learners context and needs and uses induction strategies to give purpose and raise motivation and "appetite" for the coming learning program. Stage 2, the formal instruction is dedicated to deepening expectations by acquiring, and making preliminary implementation, of new knowledge, attitudes and skills, using both input and implementation tasks. Stage 3, toward the end of, or immediately after, the program, is where the learner get engaged in integrating and extending the learning into his /her personal or professional life (Figure 5).
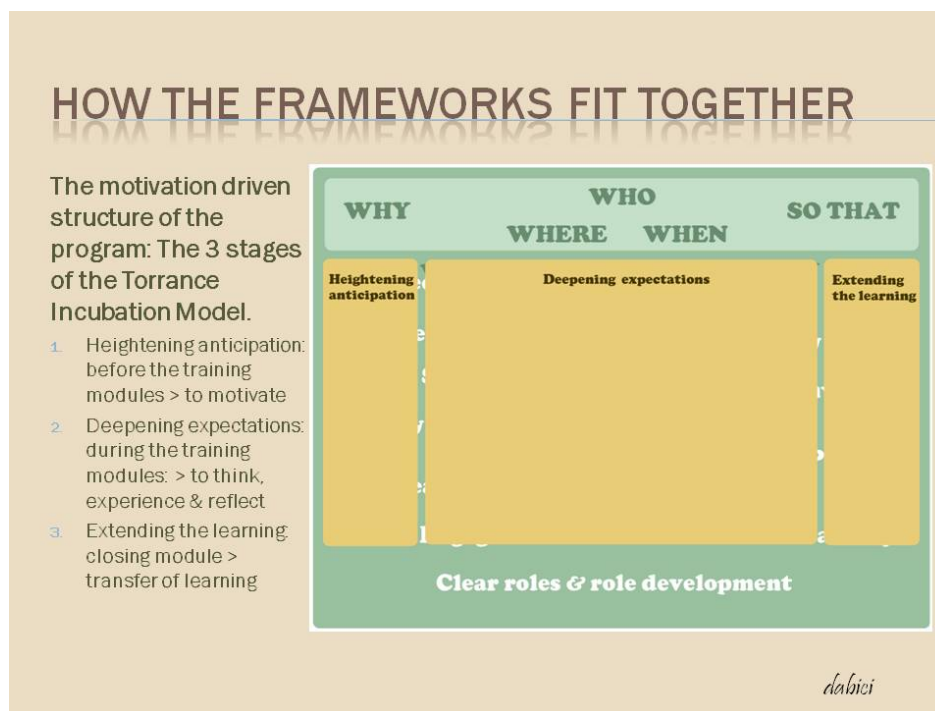

Figure 5. Torrance's three stages as the motivational architecture to avatar training

The possibility to weave in creativity skills training is also included into the framework. While it is not necessarily essential to develop and implement an avatar training program, it is a crucial element to sustain my vision. My ultimate goal is not to deliver SL skills development programs but to use SL as a platform for the delivery of creativity training to geographically dispersed teams or communities. In the framework, this possibility is represented by the lower ocher bar that cut across the entire program (Figure 6). Whereas I cannot ignore the need to provide platform training to potential clients prior to getting into more complex creativity process training, I cannot miss the opportunity to weave into SL training some creativity skills practice.
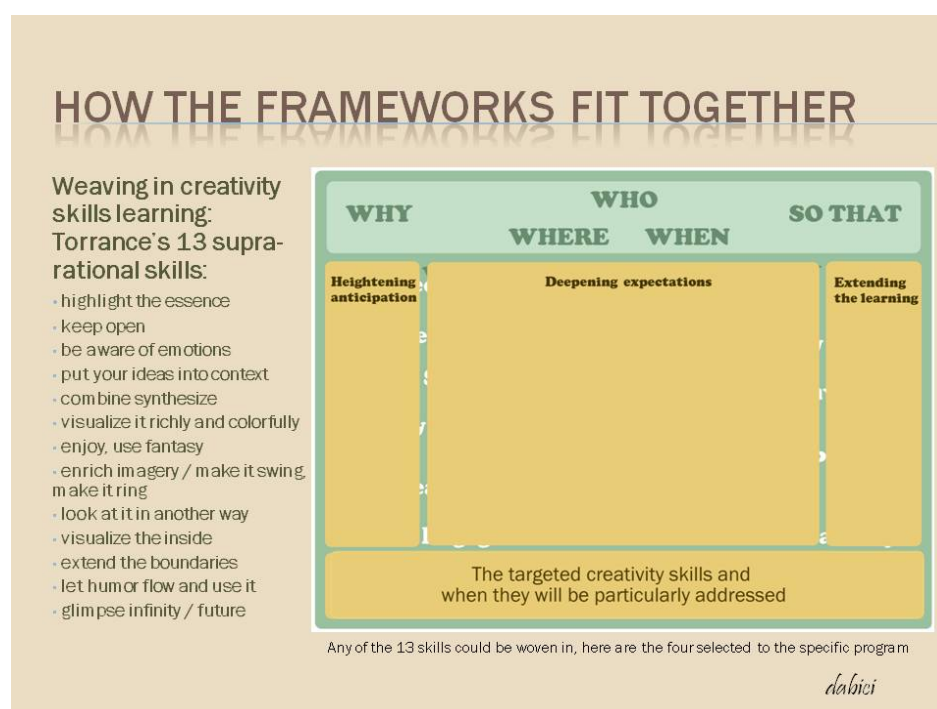

Figure 6. Torrance's thirteen creativity skills that can be woven in an avatar training program

The Maslow's Hierarchy of Needs is used to identify and sequence the learning content according to physiological, safety, love & belonging, esteem and self actualization needs. These

needs are a mix of user and avatar needs. While the user needs are linked to the purpose ("why" and "so that" for the training), the avatar needs are related to the avatar/platform skills that a user has to develop in order to satisfy his /her needs. The avatar and platform needs are more at the level of ("what" and "what for"). The content of a training program would then be informed by the given purpose for the program, the avatar / platform skills necessary to achieving the given purpose, and by the state of knowledge and experience of learners in using 3D platforms.
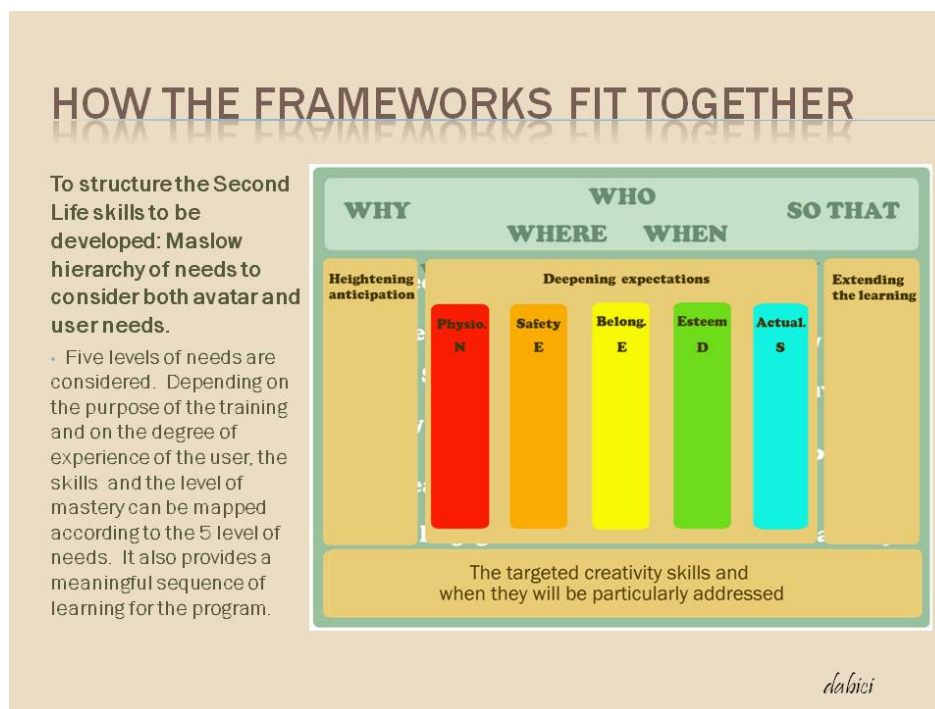
Figure 7. Satisfying a hierarchy of avatar training needs as the basis to defining achievement based objectives for avatar training

My sense is that whatever the overall learning content might be, the targeted skills, knowledge, and attitudes elements could always be grouped along the five level of needs. These five levels are illustrated as five vertical bars (the rainbow sequenced colors, often used in the pyramidal representation of the Maslow's Hierarchy of Needs) (Figure 7). Such grouping can

also help framing questions to explore what the skill development needs might be for the given purpose of an avatar training program. For instance, if the goal is to create a program to learn the skills necessary to organize, hold and manage events and event sites such as conferences – conference sites in Second Life, examples of questions guided by the needs levels might include considerations as follows: "What might be the physiological needs of participating avatars?"; "What are the safety and security requirements?"; "Do we need to support social networking?"; "What are training needs of conference presenters so they can perform at a level that would not undermine their credibility?"; and, "What are the esteem and actualization considerations from the point of view of participants and the organization?" These questions could inform the hierarchy of training needs for this particular program. This grouping of skills development needs might as well help to sequence the overall training program.
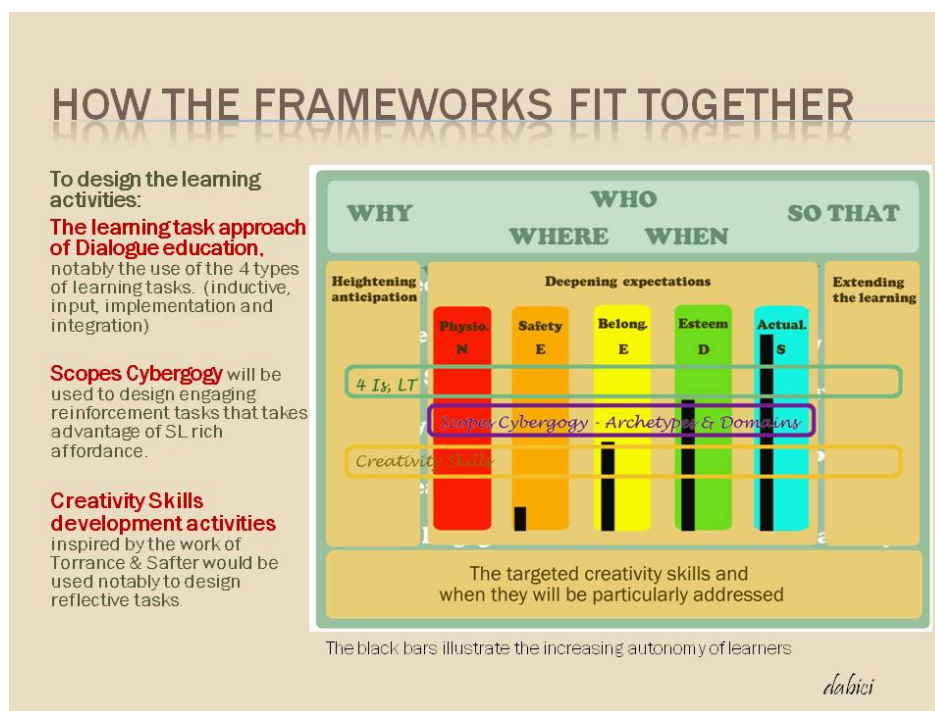

Figure 8. Guidance for the design of learning tasks: Dialogue Education; Torrance Incubation Model; and Scopes' Cybergogy of learning archetypes and domains

Finally, the "how", i.e. the design of the learning activities would be guided by the design considerations for learning tasks (LT) as described and typified in Dialogue Education. Learning tasks type might include inductive, input, implementation and integration tasks. Such tasks are not limited to the stage 2 of program. Creativity skills development strategies also can be used to design activities aiming at developing selected creativity skills and be woven into the program as they fit. Finally, Scopes Cybergogy of learning archetypes and learning domains would be ideal to designing reinforcement tasks. Reinforcement tasks are designed to offer learners the possibility to apply the new content in different and more integrative ways. The three sources of guidance for the design of the learning tasks and activities are graphically represented by three elliptic horizontal frames cutting across the program (Figure 8). Another graphic element introduced in figure 8 is the set the black vertical bars. They represent the expected growing autonomy of learners in relation to the program purpose, as they acquire the new content, skills and attitudes, in the course of the program. The autonomy is not necessarily linked to the levels of the hierarchy of training needs; they simply remind that as the training occurs, over time the autonomy of learners is expected to grow.

Prototype of an Avatar Training Program on Presenting in and, Exploring, Second Life ™

This product is the prototype of the program framework as proposed in the concept paper (Section 7, Appendix F). It illustrates as well how the more general framework described previously can be applied to designing a program for a specific purpose.

The first step to designing the program is to answer the first three planning questions of the Vella's eight step approach to planning: "who" would participate to the program, "why" a learning program is considered, the context, the situation that makes it necessary, and "so that"

i.e. the outcomes, the change that is expected from the transfer of the learning. Upfront, as part

of the current project proposal, arbitrary decisions were made with respect to the targeted

clientele, program goals and expected outcomes (Figure 9).
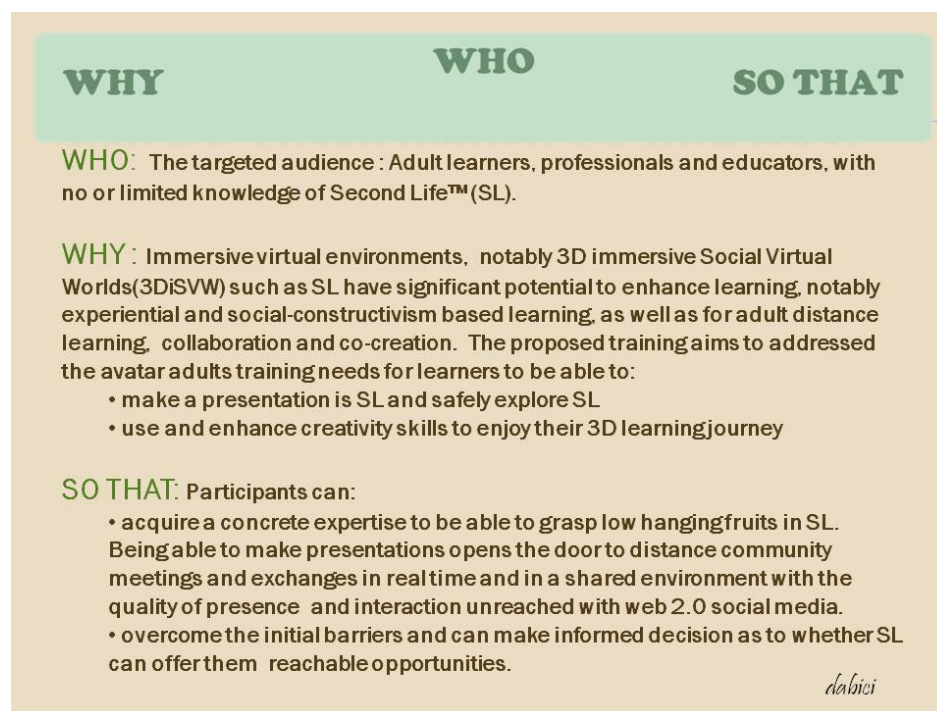
Figure 9. Targeted audience, rationale and expected outcomes for the proposed program

Whereas arbitrary and pre-defined in appearance, these decisions were informed by my

experience with respect to the barriers as they are perceived or experienced by potential users of,

and new comers in Second Life™. My own perception of the nature of the barriers to entry in,

and early exploration of Second Life, was also confirmed by the input I gained from tapping into

collective intelligence using online brainstorming boards (See Section 7, Appendix A). In

essence, it is interesting to look at those barriers from the perspectives of the grounding

principles of Dialogue Education (Figure 10).   The typographic illustration on the slide was

created by generating a text with all virtual sticky notes which were submitted via online

brainstorming boards and by feeding the resulting text in a "word cloud" application.
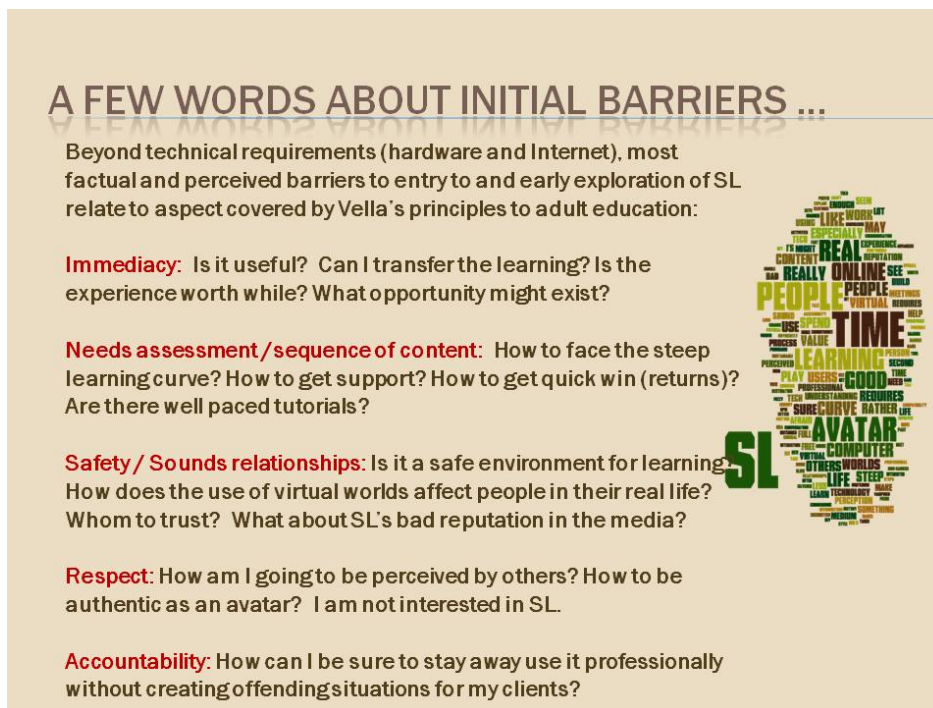
Figure 10. Synthesis of key barriers to SL in relation to principles for Dialogue Education

At this stage of development, I envision that the timeframe and duration for the three

stages of the program could be as follows. Stage 1 would begin about four to five weeks prior to

formal instructions and would require about two to three hours from the individual participants.

The formal instructions would be given in five modules, each of a duration of about two hours.

Ideally the five 2-hour program modules should be delivered over a period extending from a

minimum of 10 days and to a   maximum of five weeks. Distributing the delivery of the program

over a longer period is not likely to be efficient and to compress it into a too shorter period may

represent too steep a learning curve. The third stage would follow within two or three weeks

after the formal instructions (Figure 11). The home location for the learning program would be

at my private island. This is where the participants could set their home base and have access to

a private sandbox, a place where they are given permission to practice, for the entire duration of

the program on 24 hours a day and 7 days a week basis. Access to the island is automatically

controlled; it offers a safe environment for learning, practicing and networking with other

participants. As the course progresses, the relative amount of time spent elsewhere in Second

Life would grow as indicated here by the growing black bars.   This is coherent with the

exploration component of the training program.   The exploration autonomy is expected to grow.
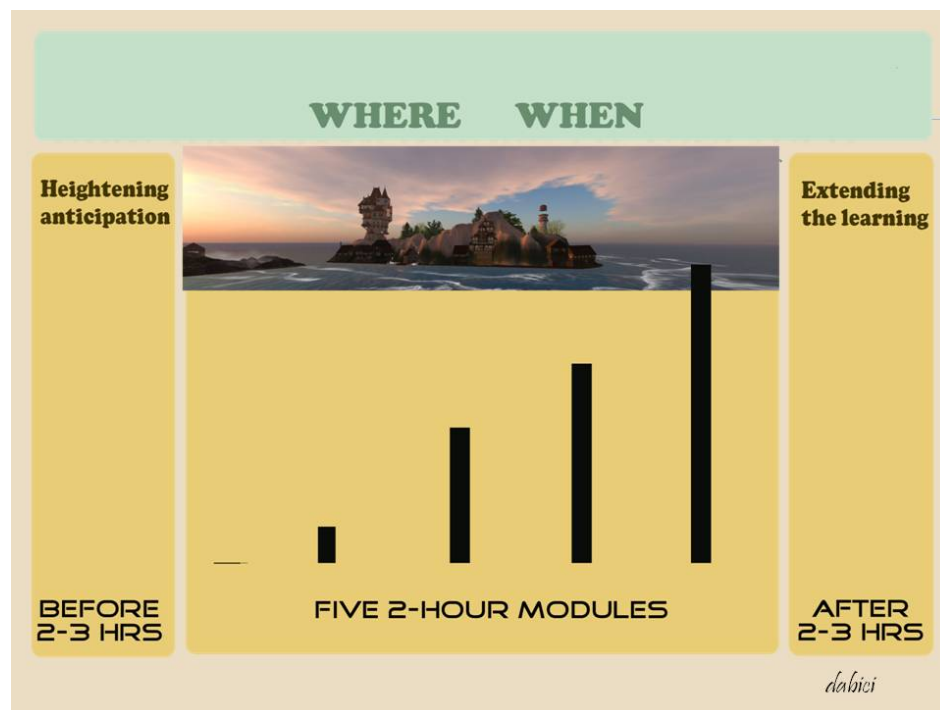

Figure 11. Location and timeframe for the program

The program would be built in three stages as per the Torrance Incubation Model (TIM).

Figure 12 shows the goals associated to the three stages, added to the motivational goal of TIM

three stages, as well as the goals associated to the selected creativity skills and their range of application over the course of the program.
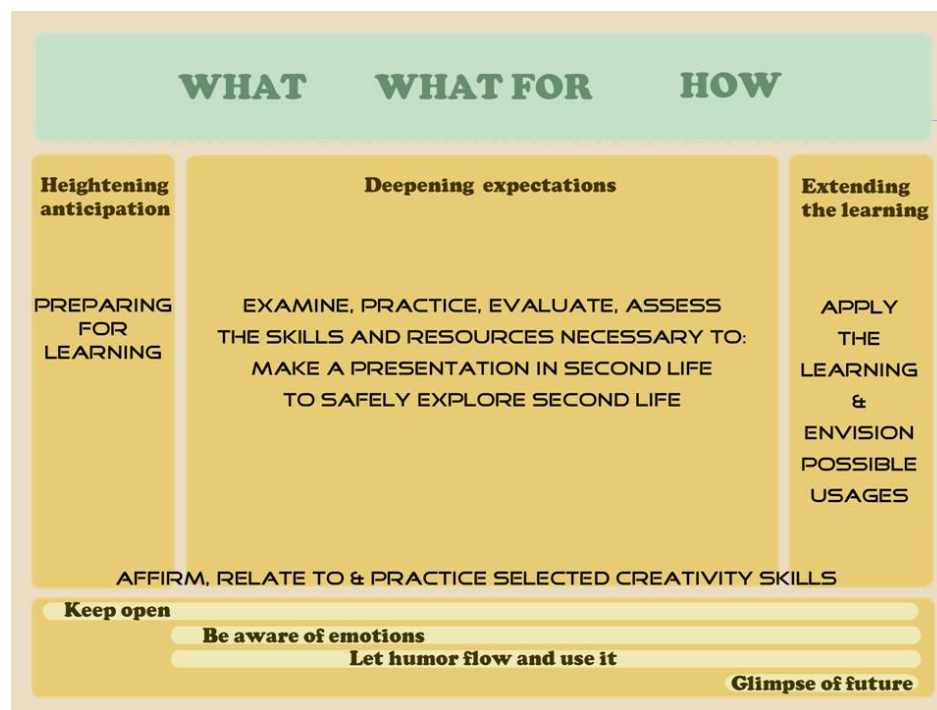
Figure 12. Goals for each stage of the program and for the selected creativity skills

The first stage which occurs prior to formal instructions includes a sequence of five steps (Figure 13). The first step is simply checking for accessibility. Hardware and network requirements for accessing SL represent a key barrier. If the program is planned for a formal group, these requirements should be checked earlier in the process. Inclusivity should take precedence over training a few. The following 3 steps involve bilateral exchanges between the individual learner and the instructor.   The learning needs and resources assessment would be done when the learner meets on site, one to one, with the instructor. The needs assessment will be an occasion to check not only for the learners' interests and past experiences with the

platform, but also, their experience in making presentations. While the content of the program is mostly defined by the overall program purpose, flexibility exists to tailor the exploratory tasks to better fit with learners' interests. Finally, an opportunity to meet with other participants prior to formal learning is built in. It is important to facilitate interactions between participants as early as possible.
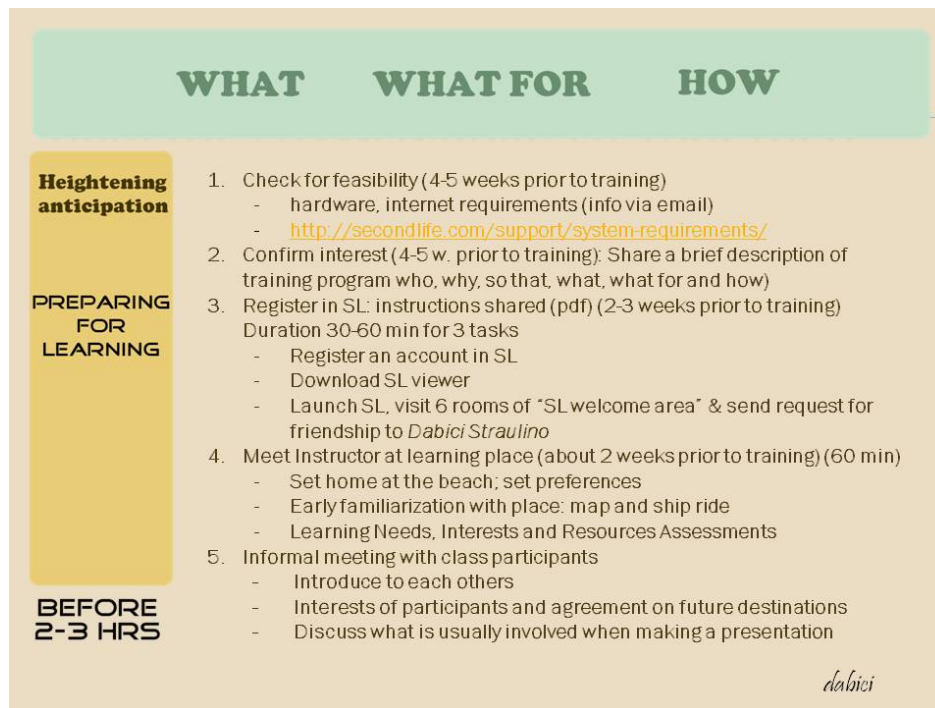
Figure 13. The five tasks involved in getting prepared for the proposed avatar training program

Considering the purpose ("why and so-that") of the proposed program, I have identified the hierarchy of skills development needs (what content). In this particular case, the training needs grouped in five needs level would structurally correspond to the five learning modules. Module 1 would be dealing primarily with developing skills to satisfy the physiological needs, the second module to satisfy the safety needs, and so on. A mind map of the hierarchy of avatar training

needs was developed (Figure 15). The color of the mind map clouds refer to the level of needs and in this case, to the learning modules (Figures 14 & 15).
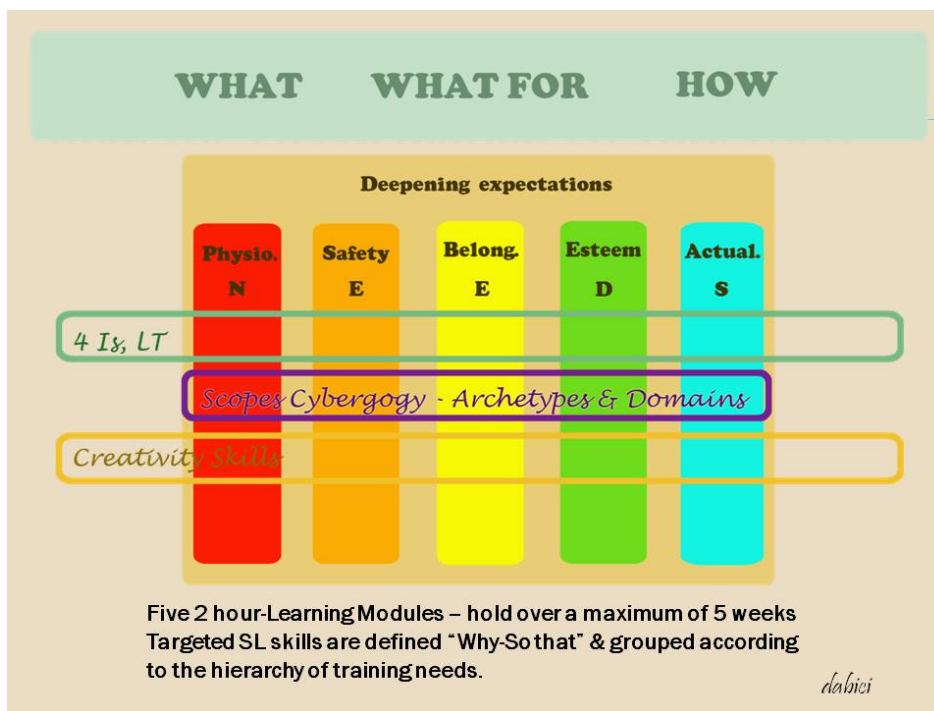
Figure 14. Stage 2 of the program with five modules, each related to a level of skill needs

Prototype for the First Training Module

The first training modules is targeting the skills necessary to address and satisfy the physiological needs in order to progress toward the ability to make a presentation in, and to safely explore, Second Life™ (Figure 16).

The avatar physiological needs can be grouped in four broad categories of physiological needs: needs to move, to see, to hear / read, to touch, and interact with objects. The skills to learn and practice are the learning content elements (the "what") while the needs would correspond to the achievement based objectives (the "what for") (Figure 17). For instance, an avatar must know and practice how to walk, jump, fly, ride vehicles, use teleport, and get into

position to satisfy the movement needs when exploring SL and while making a presentation.

Both figures 16 and 17 cover the content elements of the first training module to be learned in

order to satisfy the physiological needs (move, see, touch and hear) associated with making a

presentation in, or when exploring, SL.   In figure 17, the connection is made with the planning

process by associating the content and the needs to the "what" and "what for" respectively.

Figure 15. Mind map of the hierarchy of avatar training needs for the proposed program
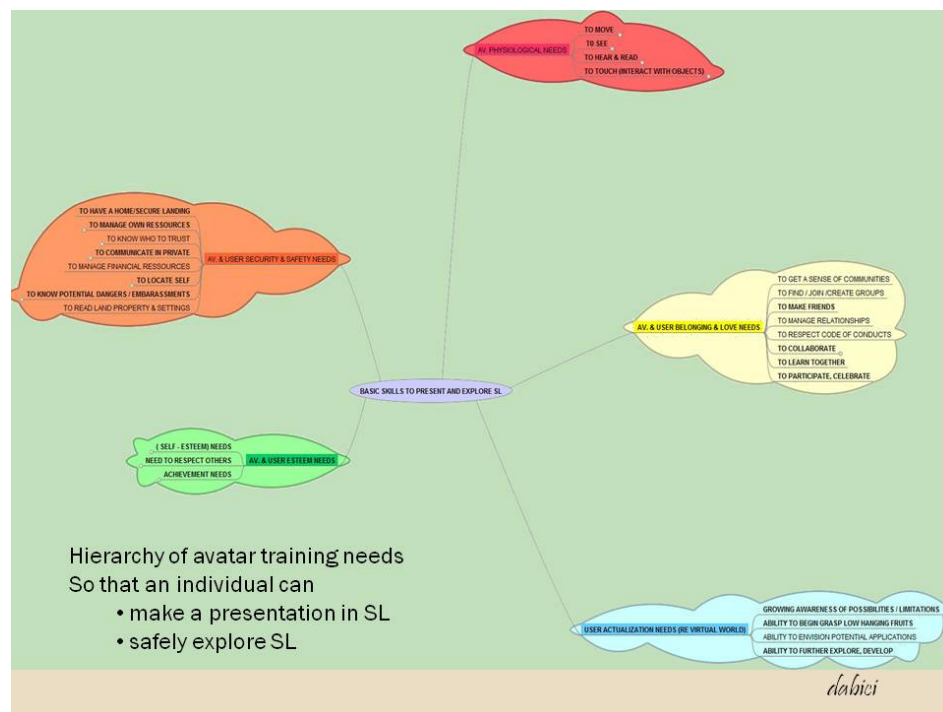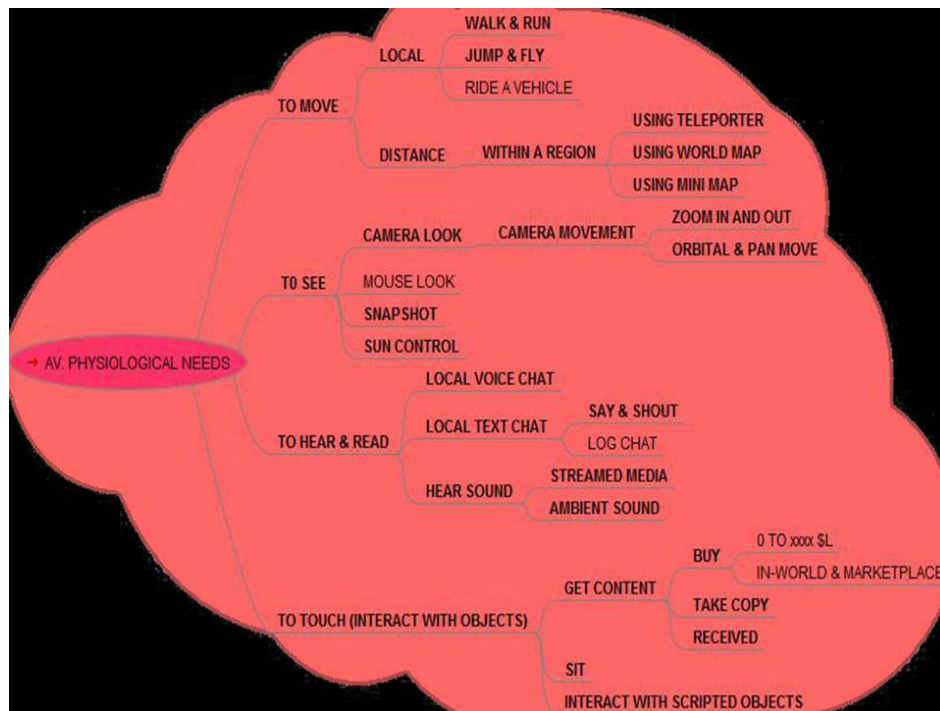
Figure 16. Mind map cloud for the skills necessary to satisfy avatar physiological needs
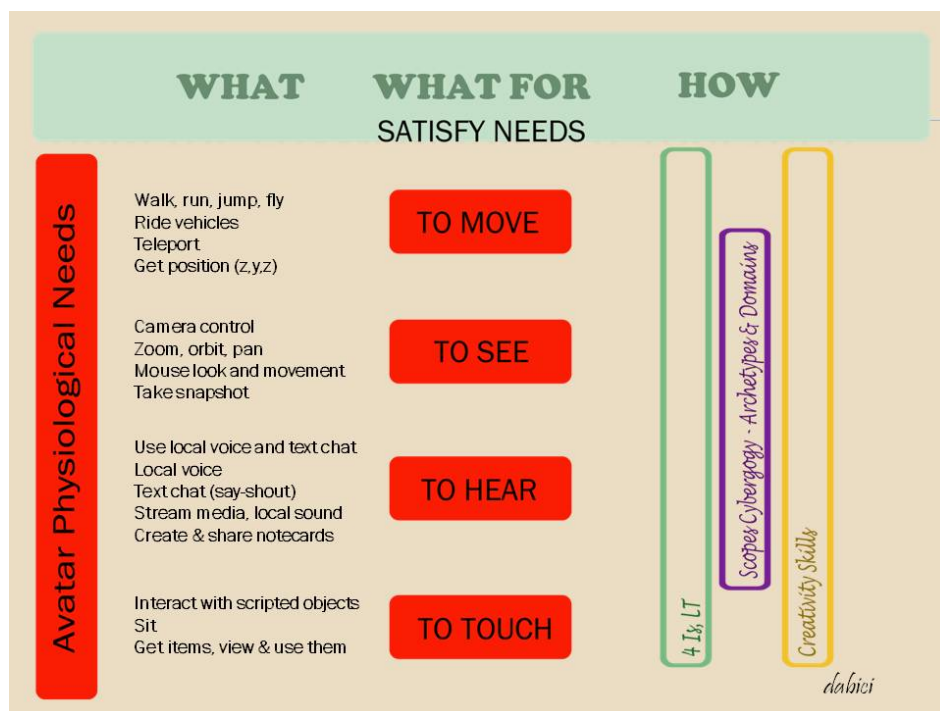

Figure 17. The skills ("what") and the needs ("what for") of the first program module

My original goal was to have completed the prototype of the first training module. I must acknowledge that I had underestimated the time needed to understand the grounding frameworks and to figure out how they could mesh together and to create all the tasks, 3D builds, and material for the first module. I did however develop the scenarios, build, and develop the material for three different tasks for the purpose of illustrating different approaches to the "how". Those three tasks would have to be preceded by mini tutorials (mini input tasks) where learners will have tried the targeted functionalities step by step, along with the instructor.

The first example is related to movement needs. It is about understanding and exercising how to jump over obstacles (Figure 18). To go through the exercise, the learners would need to know how to use arrow keys to walk and control direction, and to use PgUp key to jump but not fly. To go over the obstacles they have to use a combination of keys. They must also control how they touch the PgUp key, if hit more than once or hold a little, the avatar flies. Going successfully through the silent corridor is being able to jump over three increasingly wider obstacles, without colliding with the obstacles. The obstacles are scripted to emit sounds on collision. The task is to figure out how to use a combination of keys to jump and to experiment with them. In small groups they can discuss their findings and encourage each other to try again and develop their keyboard dexterity so that their avatar moves and jumps with some elegance. This is useful to know when exploring, especially where flying is not allowed and also when doing a presentation where the presentation stage is too high or if the stairway does not have the right steps dimensions to be "walk able". Learners received the instructions by touching a little info-pyramid at the entry of the corridor. Upon touch an instruction panel appears just above the pyramid. It is not a difficult task if it is preceded with basic walk and jump exercises. This

being said, the first challenge of the new avatar is concerned with dexterity – proper and fine use

of the keyboard and mouse in order to move and control the camera (their sight).

Figure 18. Task: how to use a combination of keys to jump over obstacles

The second example proposes an individual reflexive activity about being aware of

emotions, one of the four targeted creativity skills. This task is adapted from an activity

suggested by Torrance & Safter (1999, p. 135) to provide practice in emotional awareness. It is

very convenient for the first module of the proposed training program as it is also an opportunity

to practice camera control, to sit quietly, look around, and become aware of surrounding sounds

and the environment.   This is deliberately becoming aware of the richness of 3D immersive

environments, feeling the sense of being there, immersed. The goal is to become aware on one's

own emotions individually. We can expect both positive and negative emotions as well as some

discomfort. Practicing awareness of emotions is quite important when getting involve in rich 3D

immersive environments as they are powerful platforms to explore the emotional dimensions.

For this task, I created a diversity of habitats on the island, cosy reflective places where people

can sit quietly and enjoy immersion. In addition, it is an opportunity for an early exploration of

the island.

Figure 19. Task: How to get immersed and practice emotional awareness

The third example of task illustrates the application of Cybergogy archetypes for creating a

scenario of more complex tasks that represents an opportunity to reinforce the learning

experience by providing new ways and context to apply the new skills (Figure 20). For example,

the proposed tasks can be described as a mission to make an inventory of the fauna of the island.

Learners must work as a team to explore the island, discover animals in various habitats, take

pictures and note the location of the animal. There are many animals on the island, in all

habitats, from bees in the garden to whales in the ocean. The scenario for this task is the

application of the peregrination archetype, and exploration and adventure frame and sub-frame described by Scopes (2011a). This task is an opportunity to practice all new skills related to movement, sight, hearing sounds, taking pictures and local orientation. In addition, it is a first opportunity for collaboration and a lot of shared fun.

Figure 20. Task: How does the animal biodiversity of the island looks like: A safari-photo, no animals will be killed, all avatars will survive!

The three products previously described are prototypes. There is still much work to be done to bring them to the stage of testing, which is planned to occur during the coming fall. At this stage of progress, their assessment can only be limited. The true assessment would be if learners indeed achieve the learning goals. Meanwhile, during this early development, I invited five colleagues to come and visit the learning place and for a presentation on the resulting prototypes, using the slides used in the current description. Visitors were invited to provide feedback (See Section 7, Appendix E).

SECTION FIVE: KEY LEARNINGS

Introduction

I must begin with acknowledging how much I learned to appreciate the process design of the Master Project in Creative Studies (CRS-690) even, if at few moments, I felt framed into a process which was not quite natural to me. I like to think of it both as a master project in creative studies and as a creative study of a master project. I appreciated tremendously the insistence on having to propose a project about which we were passionate, as well as the openness of instructors to accepting proposals in various domains, including topics like mine. It could have been judged too eccentric or too ambitious. I knew that my proposal was unusual and ambitious but it was the kind of challenge I wanted to set for myself, a meaningful and a challenging one. I greatly appreciated the opportunity to be allowed to pursue what I wanted to do. In doing so, they respected me as a learner and a decision maker.

I see "the learnings" as the true outcomes of the Master Project. Much of it unfolds from taking the time to reflect and being aware of our emotions as we go through it. This is where the "creative study of a master project" comes to live. The "learnings" can be linked to three dimensions: context, process and content. The product belongs to the master project in creative study. Mel Rhodes was definitively very smart! (See Rhodes, 1961).

Context Learnings

The design of CRS-690 exemplifies the application of Ekvall's climate dimensions to individual learning situations. The design creates the conditions to allow for the following dimensions to thrive: freedom, challenge, trust, openness, idea support, risk taking and debate, notably with our sounding board partners (Ekvall, 1996). Whereas Ekvall's climate dimensions

together measure the degree to which a context is conducive to creativity, innovation and change. However, they do not give indications with respect to actionable factors likely to support or not the creative climate dimensions. The nature of the factors and their degree of influence vary depending on the work and learning contexts, the processes in place, the people involved and the expected products and outcomes. Despite these sources of variation, I believe it is important to share, on the basis of my own experience, what I consider to be some of the factors supporting Ekvall's creative climate dimensions in the context of the Master Project (CRS-690).

For instance, I appreciated the emphasis given upfront to the importance of proposing a project we love; we were definitively challenged to define our own challenge, one that we love. The freedom to set one's own appropriate challenge is a critical foundation to intrinsic motivation, the only motivation that is truly sustainable. For the project, the freedom to set a motivating challenge would not have been possible without a genuine openness and idea support from the part of the supervisor who played a facilitative role; it requires, from the part of the supervisor, good listening skills and a great ability to discern and respect our degree of passion. In the current context, I see the trust and risk taking dimensions as shared responsibility. From the part of the learner, trust in the process must exist as well as the readiness to take and assume the risks associated with the proposed challenge. From the part of the supervisor, the challenge is to balance the trust in the learner's ability to set an adequate challenge and the risk associated with achieving it within the parameters and timeframe of the Master Project process. It requires both intuition and a solid experience to provide the appropriate level of guidance. The Concept Paper stage is critical to set for idea time, notably when preparing the project plan and timeline; this is primarily a learner's responsibility. It is important to plan for idea and incubation time and to balance ideas and time in order to have enough freedom to make it fun and playful. It is a

crucial stage to frame our challenge and make a first critical look at its feasibility within the given timeframe. As such, it supports both the trust and risk taking dimensions and a solid basis for the dialogue necessary to support the shared accountability for these dimensions.

Creativity is complex and there is no single recipe for it. The context, the person, the product and the process are all intertwined like the climate dimensions themselves. My perception on the factors supporting the creative climate dimensions are mine and the perceptions of others might differ. However, I believe it is important to gather information on what works or not for participants so that the key fostering factors of the context and process be recognized and maintained.

Process Learnings

The most important part of the process, to my point of view, was preparing the Concept Paper. I spent a considerable amount of time to frame my thinking until I was able share it appropriately. It was important to me to situate this project both with respect to my philosophy, vision and mission, and in the greater context of our increasingly complex and changing world. But most importantly, I had to be able to visualize clearly what could be done and if it could be done within the given timeframe. Preparing the plan and detailed timeline was a powerful reality check. My first draft proposal died at this reality check step. I also constantly had to remember that it was not about writing a thesis, which I had experienced twice already at the master and doctorate degree levels. Here the process is as important as the content and the author or creator is both the subject, as decision maker, and is part of the object of learning and discovery. The time taken to clarify and refine my concept, to support it with a strong contextual piece, and to revise the extent of expected results until I felt it could be done within the given timeframe, was

my best investment in time and effort. It paid off as I could include considerable portions of it in the present writing with only minor changes.

The other crucial part of my project was the review of the pertinent literature. The contextual piece of the Concept Paper was itself supported by an extensive literature review. I took the liberty to approach the review of the pertinent literature in a non-conventional way, in a way that would better support my needs for the proposed challenge. I needed to learn about the four frameworks that I wanted to integrate at a level of understanding that makes integration possible. I needed to dig deeper into each of them, make sense of them, understand them, see connections between them, relate to them, and feel congruence in them. I am an extremely slow reader and have developed over my life ways to compensate for it; reading, for me, is a process that involves paying attention to, and decoding, the writing; making connections with what I know; taking hand written notes and structuring the new content in my mind; or sometimes using mind maps. I never really learned to read, I only read to learn. If I would not be curious and addicted to learning, I would not read. This approach to reading is very useful when tackling challenges that require a considerable amount of new learnings and reflections. However, as reading is not my preferred way to acquire new information, it is highly demanding on my energy. I had not planned well for it in my timeline; I did not plan for a good week doing nothing after completing reading-learning about the frameworks. I almost fried my brain… The salvation came from the fact that I could entirely change my modus of operation in getting immersed at my 3D-virtual island is Second Life, imagining and realizing the context for the coming content, but only once the literature review was completed.

My key learning, from a process perspective, was that the overall process for the Master Project suits me well; I could reuse it as a way to approach other projects. However, I need more

flexibility to manage time and the type of milestones so I can alternate between reading or analytical work and trying to do something with it or creating something out of it. Looking back, I realize that the emotional challenge I had during the course of my master's project was due to the difficulty to alternate small chunks of cognitive efforts with small action steps within the calendar of deliverables. The fatigue resulting from an intense cognitive effort with little other distractions represented the highest risk of failure for me. For future projects, I would need to plan for the flexibility or to adjust my goals when such flexibility it not possible. My energy was so low when I completed the writing of the review of pertinent literature that I asked myself "why am I designing such a challenge for myself?" The answer is found clearly in what I once wrote about what is motivates me (Section 1, p. 15). It is simply the type of challenge that motivates me; I now simply have to be more astute in planning and negotiating for incubation time and a more learning by doing approach to realization.

One of the key strengths of my process is to have fairly well described the two product prototypes I wanted to develop within the parameters of the project and to have internalized the timeline and the profound desire to get it done. It helped me to chart the journey and stay focused. I did not change my objective to create the more general framework, it just happened. More than ever before I realized how strong a preference it is for me to get a sense of, or to visualize, the big or whole picture before getting into implementation. I need it for guidance, to ensure congruence. This might be reflecting my FourSight™ "integrator" profile. It is also driven by an intense internal desire to making thing less complex and easier to retain, explain, and reproduce. When I realized that what I was putting together had the potential to have broader range applicability beyond a specific program framework, I felt an immense satisfaction with a great energy bonus, which was very welcomed as the clock was ticking

Learning and creating are profound drivers in my life. In the course of experimenting with virtual worlds I notably became aware of talents that could change the course of my professional life. For example, I like and I am good at creating aesthetically pleasing and inspiring environments. I guess I could have been a good architect. There are capabilities in ourselves that we might never have become aware of unless we are exposed to, or faced with, situations, places or challenges that make us realize it. Learning, working hard and creating is not enough to grow. Much is in the attitude, willingness and readiness to try new things and tackle new challenges, to play with new ideas, to wonder what one can do with it, and to reflect on it to sometimes discover the unexpected. Hence the importance to keep open, play and use humor, get glimpses of infinity, and stay aware of emotions.

From a creativity process perspective, my key learning was to realize that although I appreciate and value the creative problem solving (CPS) process and the tools to facilitate group creativity, I could hardly see a natural fit for me as I was doing my project. I have used some tools such as brainstorming, highlighting, card sorting and mind mapping, but could not find an added value of forcing myself to deliberately use a creative problem solving approach. I was feeling somehow some discomfort about it. And one day, when I was at the lowest level of my energy, filling almost mechanically the summary tables on the stages and strategy of the Torrance Incubation Model (TIM), I got a powerful "aha"! I was naturally applying the strategies as described by Torrance. I felt good to think about the fact that if I was feeling overwhelmed, it was just a normal impression one can experience when getting deeper and deeper. Then I thought that TIM was probably fitting my situation well since the biggest aspect of my challenge involved deep and intense learning. As the type of personal challenge I like to

tackle generally involves learning new content or experimenting with new situations, I now know that TIM is my friend and a great friend for personal challenges.

One of my personal learning goals was to practice journaling. I did take notes for a while but stopped doing it when I was too overwhelmed with reading, analyzing and writing. Some of it proved to be interesting reflections and notes, so I might give it a try again. It has value, but it is by no means natural and, so far, I still do not get a return on my investment. In general, my process seems to follow quite closely what was originally planned, time and process wise, except since mid-March when I began to build and began to cut corners.

Content Learnings

My two major gains with respect to content learning is particularly a deeper understanding of Torrance Incubation Model (TIM) and the inspiring approach to adult learning of Dialogue Education. As such, my two major content learnings are about processes. Everything is connected!

Like most adults, I learn better by doing. Having to integrate four frameworks forced me to get a deeper understanding than the one necessary to discuss each of them individually. Beyond getting a deeper understanding, an accrued effort was necessary to compare them to identify their similarities and differences and to check for congruence. This was a second level of deepening and I envision more deepening to come as I will further develop the program and test the prototypes. I also learn better when I have a significant purpose and when I feel congruence between what I have learned and my own values. My purpose for the choice of both TIM and Dialogue Education was clear and the more I was deepening into TIM and Dialogue Education, the more I found comfort and reassurance in my choice and the more I wished to

learn more about them. What I learned about these two frameworks in the context of this project will also be applicable to other teaching and learning projects, in other contexts. For the further development of the program, I will need to deepen as well the blended taxonomy for Cyvergogy as proposed by Scopes (2011b). It is essential to define appropriate learning goals and outcomes as they relate to the four domains and to design activities and built in assessment tools accordingly.

Another aspect that can be related to content learnings was to realize how much what one already knows, notably with respect to Second Life skills, needs to be reviewed, when one wished to explain it others. This is particularly true for basic skills when one has long forgotten what steps needed to be considered.

Some unexpected marginal learnings include the discovery of free useful online tools such as FreeMind (a free mind map tool); Scrumblr (a free online scrumb board that can be used as a brainstorming board); and Wordle (a free word cloud application). I learned to use EndNote for managing references. I also learned that "Word" does not like the plural of learning. "Grin".

Learning and Creativity

As we see more and more linkages between leadership and creativity, I see more and more connections between creativity and learning. I certainly feel valuable to look at learning by examining it from a system perspective involving the learners, the process, the expected product and the context. As time passed, I tend to see more value in process learning rather than on content learning. I see it as a crucial foundation for autonomy and flexibility which I feel necessary to face or initiate change. This makes me curious about the linkages that must exist between learning and leadership.   Something I should begin to explore.

SECTION SIX: CONCLUSIONS

New Learnings about Creativity

What do I know now about creativity that I did not know when I began this project? This is a difficult question. What is "knowing" and what is "learning"? Somehow, being aware, or having an intuitive sense, of something, is also "knowing".

I read in early January the little but dense and profound book of John Dewey (1938) entitled "Experience and Education". I took some notes in my journal, including "a must read again", something I rarely do, I mean reading again. In this book, he is searching for a philosophy of education based on a philosophy of experience. He is delineating principles that are essential to significant and valuable educative experience. Continuity and interactivity are two of these principles. Significant experiences shall build on previous ones and contribute to preparing for the next ones. Experience must involved interactivity with others, objects, and surroundings. More or less, without applying new content, we do not know it really. I do not think I learned something new about creativity, I think that everything I did was about experiencing further with creativity. The following two excerpts from Dewey illustrate well my views about knowing, learning and experiencing.

> The two principles of continuity and interaction are not separate from each other. They intercept and unite. They are, so to speak, the longitudinal and lateral aspects of experience. Different situations succeed one another. But because of the principle of continuity something is carried over from the earlier to the later ones. As an individual passes from one situation to another, his world, his environment, expands or contracts. He does not find himself living in another world but in a different part or aspect of one and same world. What he has learned in the way of knowledge and skill in one situation

becomes an instrument of understanding and dealing effectively with the situations which

follow. The process goes on as long as life and learning continue. (Dewey, 1938, p. 44)

We always live at the time we live and not at some other time, and only by extracting at

each present time the full meaning of each present experience are we prepared for doing

the same thing in the future. This is the only preparation in the long run that amounts to

anything. (Dewey, 1938, p. 49)

I do not think there is anything related to creativity in my project that I was not factually

aware of, or of which I had not an intuitive understanding. What is new is the accrued personal

experience, one that builds on my previous experience and one that lays the foundation for future

one. Much of the accrued benefit results from practicing emotional awareness, reflexivity and

being true to me. Experiencing the "aha" on how to mesh the frameworks together as a result of

getting immersed in building on the island and less consciously dealing with the cognitive

challenge of integrating them is not a new knowledge, but it is definitively the first time I

experienced it with such a level of conscious awareness. I now have a certain sense on how I

could perhaps apply it deliberately, which is, of course, something new.

Next Steps

I envision very busy and exciting work and development ahead. During the summer, I see

myself completing the development of the program, optimizing the 3D builds and structures by

integrating "holodeck" technologies, and promoting the training program in development to

recruit at least 2 cohorts of 6-8 people to test the program prototype during the fall. I see myself

testing and refining the program in the course of fall 2012 with the aim to begin offering the

program in 2013 in both French and English.

References

Anderson, C. (2010, February 10). Learning theories and Second Life. Retrieved February 3, 2012, from http://www.cathyandersonblog.com/?235

Andragogy. Retrieved February 23, 2012 from Wikipedia, the free encyclopedia website: http://en.wikipedia.org/wiki/Andragogy

Armi's hierarchy of avatar needs. (2009, July 5). Retrieved from January 18, 2012, http://www.secondeffects.com/2009_07_01_archive.html

Bell, M.W. (2007). Definition and taxonomy of virtual worlds. Retrieved October 15, 2010, from http://www.slideshare.net/storygeek/definition-of-virtual-worlds

Bell, M.V. (2008). Toward a definition of 'virtual worlds'. *Journal of Virtual World Research 1*(1), 1-5.

Beise, C., & Wynekoop, J. (2001). *A hierarchy of needs for a virtual class*. Paper presented at the International Acdemy for Information Management (IAIM) Annual Conference: International Conference on Informatics Education & Research (ICIER) New Orleans, LA. http://www.eric.ed.gov

Caropreso, E. (2011). *Using the Torrance incubation model (TIM) to enhance instruction and support creative problem solving*. Paper presented at the Watson School of Education AIG Mini-conference. www.uncw.edu/ed/aig/documents/AIGMiniCon_TIM-Creativity.ppt

Cascio, J., Paffendorf, J., & Smart, J. (2007). *Metaverse Roadmap: Pathways to the 3D web*. Retrieved from http://www.metaverseroadmap.org/overview/

Charest, N. (2009, January, 22). *Letter of Intent*. Unpublished item of the application package to the Certificate in Creativity and Change Leadership, Buffalo, NY: International Center for Studies in creativity, Buffalo State College.

Charest, N. (2009). *Creativity and the creative person: At the dawn of a new autotelic journey.*
Unpublished CRS 559 creativity paper assignment, Buffalo, NY: International Center for
Studies in Creativity, Buffalo State College.

Charest, N. (2010). *My philosophy, vision, strategic plan: A situation update*. Unpublished CRS
635 final paper, Buffalo, NY: International Center for Studies in Creativity, Buffalo State
College.

Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety: Experiencing flow in work and play*
(25th anniversary ed.). San Francisco, CA: Jossey-Bass Publishers.

Csikszentmihalyi, M. (1996). *Creativity: Flow and psychology of discovery and invention*. New
York, NY: Harper Collins Publishers Inc.

Davis, G. A. (2004). *Creativity is forever* (5th ed.). Dubuque, Iowa: Kendall/Hunt Pub.

De Bono, E. (2008). *Creativity workout : 62 exercises to unlock your most creative ideas*.
Berkeley, CA: Ulysses Press.

Deutschmann, M., & Molka-Danielsen, J. (2009). Future directions for learning in virtual
worlds. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the
virtual world of Second Life* (pp. 185-189). Trondheim, Norway: Tapir Academic Press.

Dewey, J. (1938). *Experience & education*. New York, NY: Touchtone.

Dialogue Education. Retrieved February 22, 2012, from Wikipedia, the free encyclopedia
website: http://en.wikipedia.org/wiki/Dialogue_education

Dusanwriter. (2009, July 13). World Business Models and Second Life. Retrieved January 19,
2012, from http://dusanwriter.com/index.php/2009/07/13/in-world-business-models-and-second-
life/

Edelman. (2008). Public engagement in the conversation age. Retrieved from

http://edelmaneditions.com/wp-content/uploads/2010/11/edelman-public-engagement-in-the-

conversation-age-2008.pdf

Ekvall, G. (1996). Organizational climate for creativity and innovation. *European Journal of

Work and Organizational Psychology, 5*(1), 105-123.

Ensslin, A. (2011). Avatar needs and remediation of architecture in Second Life. In A. Ensslin &

E. J. Muse (Eds.), *Creating Second Lives: Community, identity and spatiality as

constructions of the virtual* (pp. 169-189). New York'NY: Taylor & Francis.

Flew, T. (2004). Creativity, the 'new humanism' and cultural studies. *Continuum, 18*(2), 161-

178. doi: 10.1080/1030431042000214979

Frommer, D. (2011, August, 10). It's "Garner hype cycle" time again. Retrieved from

http://www.splatf.com/2011/08/gartner-hype-cycle-2011/

Gibson, M. (2004). Introduction—the new humanism. *Continuum, 18*(2), 155-159. doi:

10.1080/1030431042000214960

Gordon, W. J. J. (1961). *Synectics: The development of creative capacity* (1st ed.). New York,

NY: Harper.

Goetzman, D. (2011). Creative learning events or "Same old, same old"?: It is a choice! It is a

process. *Dialogue Education: Tips & tools*. Retrieved February 22, 2012, from

http://issuu.com/dialogueeducation/docs/creative-learning-events/1

Gu, N., Gul, L. F., Williams, A., & Nakapan, W. (2009). Second Life - a context for design

learning. In C. Wankel & J. Kingsley (Eds.), *Higher education in virtual worlds: Teaching

and learning in Seconf Life* (pp. 159-180). Bingley, UK: Emerald.

Heiphetz, A., & Woodill, G. (2010). *Training and collaboration with virtual worlds : How to

create cost-saving, efficient and engaging programs*. New York, NY: McGraw-Hill.

Hinrichs, R. (2011). Introduction: Thinking in 3D. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning: Cutting-edge technologies in higher education* (pp. xiii-xxxi). Bingley, IK: Emerald.

Hinrichs, R., & Wankel, C. (Eds.). (2011). *Transforming virtual world learning: Cutting -edge technologies in higher education*. Bingley, UK: Emerald.

Huitt, W. G. (2007a). Maslow's Hierarchy of Needs. *Educatiuonal Psychology Interactive*. Retrieved from http://edpsycinteractive.org/topics/regsys/maslow.html

Huitt, W. G. (2007b). *Success in the conceptual age: Another paradigm shift*. Paper presented at the 32nd Annual Meeting of the Georgia Educational Research Association, Savannah, GA. Retrieved from http://www.edpsycinteractive.org/papers/conceptual-age.pdf

Humanism. (n.d.). In *Learning Theories Knowledgebase*. Retrieved January 25, 2012 from http://www.learning-theories.com/humanism.html

Hype cycle. (n.d.). In *Wikipedia*. Retrieved January 22, 2012, from http://en.wikipedia.org/wiki/Hype_cycle

Isaksen, S. G., Stead-Dorval, K. B., & Treffinger, D. J. (2011). *Creative approaches to problem solving : a framework for innovation and change* (3rd ed.). Los Angeles, CA: Sage.

Johnson, L. F., & Levine, A. H. (2008). Virtual worlds: Inherently immersive, highly social learning spaces. *Theory into Practice, 47*(2), 161-170. doi: 10.1080/00405840801992397

Kapp, K. M. (2011, December 15). Gamification, virtual worlds and the Gartner hype cycle. Retrieved from http://www.kaplaneduneering.com/kappnotes/index.php/2011/12/gamification-virtual-worlds-and-the-gartner-hype-cycle/

Kapp, K.M., & O'Driscoll, T. (2007). Escaping flatlands: The emergence of 3D synchronous learning. Guild Research 360 Report on Synchronous Learning Systems, 111-153.

Kapp, K. M., & O'Driscoll, T. (2010). *Learning in 3D: Adding a new dimension to enterprise learning and collaboration*. San Francisco, CA: Pfeiffer.

Keller-Mathers, S., & Murdock, M.C. (2009). Torrance incubation model of teaching and learning. Unpublished Instructional Model, Buffalo, NY: International Center for Studies in Creativity.

Learning theory (education). Retrieved February 23, 2012 from Wikipedia, the free encyclopedia website: http://en.wikipedia.org/wiki/Learning_theory_%28education%29

Lumsdaine, E., & Lumsdaine, M. (1995). *Creative problem solving : thinking skills for a changing world*. New York: McGraw-Hill.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370-396. Retrieved from http://psychclassics.yorku.ca/Maslow/motivation.htm

Maslow, A. H., & Frager, R. (1987). *Motivation and personality* (3rd ed.). New York, NY: Harper and Row.

Maslow's hierarchy: Planning adult learning to meet diverse learner needs. *The distance education Instructional Designer Project*. Retrieved February 4, 2012, from http://www.umsl.edu/services/ctl/DEID/destination2adultlearning/maslow.pdf

McKeown, L. (2009). Action learning in a virtual world. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 91-102). Trondheim, Norway: Tapir Academic Press.

Millar, G. W. (1995). *E. Paul Torrance, the creativity man: An authorized biography*. Norwood, NJ: Ablex Publishing Corporation.

Millar, G. W. (2010). *The power of creativity: Results of 50-year follow-up to the Torrance longitudinal study of creative behavior*. Bensenville, IL: Scholastic Testing Service, Inc.

Miller, B., Vehar, J., & Firestien, R. (2001). *Creativity unbound: An introduction to the creative process*. Williamsville, NY: Innovation Resources, Inc.

Molka-Danielsen, J. (2009). The new learning and teaching environment. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 13-25). Trondheim, Norway: Tapir Academic Press.

Murdock, M. C., & Keller-Mathers, S. (2008). Teaching and learning creativity with the Torrance incubation model: A research and practice update. *The International Journal of creativity & Problem Solving, 18*(2), 11-33.

Norwood, G. (2009, January 5). Maslow's hierarchy of needs. Retrieved from http://www.deepermind.com/20maslow.htm

Osborn, A. F. (1948). *Your creative power: how to use imagination*. New York: C. Scribner's Sons.

Paradigms. Retrieved February 24, 2012, from http://www.learning-theories.com/paradigms

Parson, V., & Bignell, S. (2011). Using problem-based learning within 3D virtual worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning: Cutting-edge technologies in higher education* (pp. 241-261). Bingley, UK: Emerald.

Pastor, E. (2010, June). '*SenceMaking' for 'ChangeMaking'*. Conference presented at the Icograda's Straight to Business Conference, Madrid, Spain. Retrieved from http://www.issuu.com/humantific/docs/humantific_2010

Peachey, A., & Childs, M. (Eds.). (2011). *Reinventing ourselves: Contemporary concepts of identity in virtual worlds*. New York, NY: Springer.

Peachey, A., Gillen, J., Livingstone, D., & Smith-Robbins, S. (Eds.). (2010). *Researching learning in virtual worlds* (1st ed.). New York, NY: Springer.

Piirto, J. (2004). *Understanding creativity*. Scottsdale, AZ: Great Potential Press.

Pink, D. H. (2005). *A whole new mind: Moving from the information age to the conceptual age*. New York, NY: Riverhead Books.

Pollard, A. (2008). *Making the most of ourselves in the 21st century: Evidence-informed principles from the teaching and learning research programme*. UK Government's foresight project: Mental capital and wellbeing. London, UK: Government Office of Science. http://www.foresight.gov.uk/

Prince, G. M. (1992). The operational mechanism of synectics. In S. J. Parnes (Ed.), *Source book for creative problem solving* (pp. 168-177). Hadley, MA: Creative Education Foundation Press.

Puccio, G. J., Mance, M., & Murdock, M. (2011). *Creative leadership: Skills that drive change* (2nd ed.). Thousand Oaks, CA: SAGE.

Puccio, G. J., Murdock, M., & Mance, M. (2007). *Creative leadership: skills that drive change*. Thousand Oaks, Calif.: SAGE Publications.

Robinson, K. (2001). *Out of our minds: Learning to be creative*. Chichester, UK: Capstone Publishing Limited.

Runco, M. A., Millar, G., Acar, S., & Cramond, B. (2010). Torrance Tests of Creative Thinking as Predictors of Personal and Public Achievement: A Fifty-Year Follow-Up. *Creativity Research Journal, 22*(4), 361-368. doi: 10.1080/10400419.2010.523393

Reichmann, J. (2004). Andragogy, history, meaning, context, function. Retrieved from http://www.uni-bamberg.de/fileadmin/andragogik/08/andragogik/andragogy/index.htm

Rhodes, M. (1961). An analysis of creativity. *The Phi Delta Kappan, 42*(7), 305-310.

Rogers, E. M. (2003). *Diffusion of innovations* (5 ed.). New York, NY: Free Press.

Sarner, A., & Maoz, M. (2010). Social CRM: The Next generation of customer innovation. *Gartner Webinar*. Retrieved February 2, 2012, 2012, from

http://www.gartner.com/it/content/1462300/1462333/dec_15_socialcrmthenext_genofcustomer_asar ner_mmaoz.pdf

Shaughnessy, M. F. (1998). An Interview with E. Paul Torrance: About Creativity. [Article].
Educational Psychology Review, 10(4), 441-452.

Scopes, L. (2009). *Learning archetypes as tools of cybergogy for a 3D educational landscape: A structure for e-teaching in Second Life.* Master thesis, University of Southampton, Southampton, UK. Retrieved from http://eprints.soton.ac.uk/66169

Scopes, L. (2011a). A cybergogy of learning archetypes and learning domains: Practical pedagogy for 3D immersive virtual worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning* (pp. 3-28). Bingley, UK: Emerald.

Scopes, L. (2011b). *Blended taxonomy of learning domains.* From Scopes installation in Second Life (ARCHI21) http://maps.secondlife.com/secondlife/ARCHI21/211/54/23

Segal, M. (2001). *Creativity and personality type: Tools for understanding and inspiring the many voices of creativity.* Huntington Beach, CA: Telos.

Smith, K. K. (1999). Humanistic orientations to learning. Retrieved from http://www.infed.org/biblio/learning-humanistic.htm

Sparrow, J. L. V., Blevins, S. J., & Brenner, A. M. (2011). Faculty development for and in virtual worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning: Cutting-edge technologies in higher education* (pp. 47-65). Bingley, UK: Emerald.

Spence, J. (2008). Demographics of virtual worlds. *Journal of Virtual Worlds Research, 1*(2), 1-44.

Stolze, J. (2009). Why Web 2.0 is exactly what we wanted. Retrieved January 19, 2012, from http://www.virtualhappiness.org/2009/01/why-web20-is-exactly-what-we-wanted/

Torrance, E. P. (1987). Teaching for creativity. In S. Isaksen (Ed.), *Frontiers of creativity research: Beyond the basics* (pp. 189-215). Buffalo,NY: Bearly Limited.

Torrance, E. P. (1995). *Why fly? A philosophy of creativity*. Norwood, NJ: Ablex Publishing Corporation.

Torrance, E. P., & Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.

Torrance, E. P., & Safter, H. T. (1999). *Making the creative leap beyond...* Amherst, MA: Creative Education Foundation Press.

The Eight Steps of Design. Retrieved February 22, 2012, from

http://globalearning.com/download/8-Steps-of-Design.pdf

Uccellani, V. Steps of design: A reflection and an example. Retrieved February 22, 2012, from

http://www.globalearning.com/pdf/steps-of-design-valerie-uccellani.pdf

University of Florida, IFAS. . Maslow's hierarchy: Planning adult learning to meet diverse learner needs. *The distance education Instructional Designer Project*. Retrieved February 4, 2012, from http://www.umsl.edu/services/ctl/DEID/destination2adultlearning/maslow.pdf

Vella, J. K. (2001). *Taking learning to task:creative strategies for teaching adults*. San Francisco, CA: Jossey-Bass.

Vella, J. K. (2002). *Learning to listen, learning to teach: The power of dialogue in educating adults* (Rev. ed.). San Francisco, CA: Jossey-Bass.

West, M. A. (1990). The social psychology of innovation in groups. In M. A. West & J. L. Farr (Eds.), *Innovation and creativity at work: psychological and organizational strategy* (pp. 309-333). Chichester, UK: Wiley.

West, M. (1997). *Developing creativity in organizations*. Leicester, UK: British Psychological Society.

West, M. A. (2000). Reflexivity, revolution and innovation in workteams. In M. M. Beyerlein, D. A. Johnson & S. T. Beyerlein (Eds.), *Product development teams* (pp. 1-29). Stanford, CT: JAI Press.

Wood, N. T. (2010). Real lessons in virtual worlds: Using virttual world technology to educate and train business students. In C. Wankel (Ed.), *Cutting-edge social media approchaes to business education: Teaching with LinkedIn, Facebook, Twitter, Second Life, and blogs* (pp. 195-216). Charlotte, NC: Information Age Publishing, Inc.

SECTION SEVEN: APPENDICES

Appendix A: Summary of external input on barriers to exploration and usage of Second Life

Appendix B: A series of presentation prepared on the four grounding frameworks

Appendix C: The island map as of April 12, 2012

Appendix D: Photo Album: Souvenirs from *Orbis incogniti*

Appendix E : Feedback

Appendix F : Concept paper

APPENDIX A

Summary of External Input on Barriers to Exploration and Usage of Second Life

External Input on the Barriers to SL

To get a fresh external look of what others, mainly non-users of Second Life, consider to be barriers to exploration and usage of Second Life, I have invited colleagues from the Master Project class and alumni (Creative Studies and University of Washington) to brainstorm, using an online, easy to use, brainstorming board.
Included in this appendix are:

- An example of a brainstorm board (with a preliminary grouping of results)
- An example of the context provided in support to the invitation to brainstorm
- All contributions in categories informed by the principles of Dialogue Education
- All Input on barriers from a "Wordle" perspective: A virtual finger print!

Example of a Brainstorm Board
Targeted group: Graduate Students enrolled in CRS-690, Spring 2012
Brainstorming was done online using Scrumblr, a free scrum board tool that can be used as well for brainstorming (www.scrumblr.ca).
Method:
1) A board was created, with the question to consider for input written at the top of the board. To ease usage, four little sticky notes were providing instructions to participants on how to generate and write the notes. There was no division drawn on the board, simply the following question: *What might be all possible barriers to exploring the opportunities that Second Life could offer to extend your professional life?*
2) 37 ideas were offered. I reviewed them and did a first grouping. The board offer a simple option to create column and title column, this works well to do some grouping as the notes can be moved to the appropriate column (group).
3) The board has as well a little sticky dot function. I did use the sticky notes to show how I see my project addressing the barriers.
   a. Red: fall directly into the purposes-goals of my project
   b. Orange: will to a certain extent be considered
   c. Yellow: matter of perception – most can easily be seen from a different perspective (would be great topics for open discussion)
   d. Blue: barriers for which we must have ways to go around
   e. Grey-violet: non actionable

Preliminary Results:
G1: barriers related to learning to use the technology and troubleshooting
- The process may seen fuzzy, an introduction of the process and outcomes for using the tool might be helpful;

- People need start up mentor
- Tutorials are too fast they don't explain Q
- Tech problem with sound and camera
- Need for quick wins, progress in small steps
- Can I really be sure I'm having a private conversation?
- I am not confident I could get help in a timely manner.

G2: barriers related to what opportunity there might be
- A change of physical environment is good for the soul and
- I don't see an application for it in my work? What is in there for me?
- Nobody has ever told me about opportunities.
- Not enough of my peers are involved to make it worthwhile.

G3: barriers related to concerns regarding interpersonal relationships
- May discourage people from talking in person
- If people are busy online, less time for real interaction
- It's risky to meet online, especially hiding behind an avatar
- People behave differently online than in person
- Harder to build solid sustainable relationships
- I's rather spend my time networking with real people

G4: barriers no personal appeal for it or other personal priorities
- I am not really interested in virtual worlds
- Virtual worlds can be slow, I'm impatient
- Hm sound like it will take a lot of my time☺
- I's rather gain other computer skills or learn other programs
- I don't find Second Life interesting
- SL requires more time on the computer when I,s rather spend less
- There are more convenient ways to extend my professional life?

G5: barriers related to needs for a sense of self
- Takes long to build an avatar
- Need to know more avatar in real life to personalize it
- Less room for personal style

G6: barriers related to people adaptability or generations
- Since some generations may not use this, you may not have full participation
- The workforce contains several and some will adapt, while others will be afraid

G7: barriers related to perceptions about game & play
- Second Life perceived as play not work
- SL can be seen as play and corporations do not see the value in play. They often view it as a waste of time.
- I don't see the overall goal, seem only like a game

G8: platform limitations (limitations very likely seen when comparing VW to face to face interactions)
- Too easy to multi task while online instead of really engaging
- Non verbal communication is lost online
- Virtual experiences are not tactile or kinesthetic
- Virtual lunch meetings are not very appetizing

- What to do during power outage?

The board shows sticky notes organized under category headers:

INTERPERSONAL RELATIONS
- May discourage people from talking in person
- If people are busy online, less time from real interaction
- It's risky to meet people online, especially hiding behind an avitar
- People behave differntly online than in person
- Harder to build solid, sustainable relationships
- I'd rather spend my time networking with real people

GENERATION—NOT FOR ALL
- Since some generations may not use this, you may not have full participation
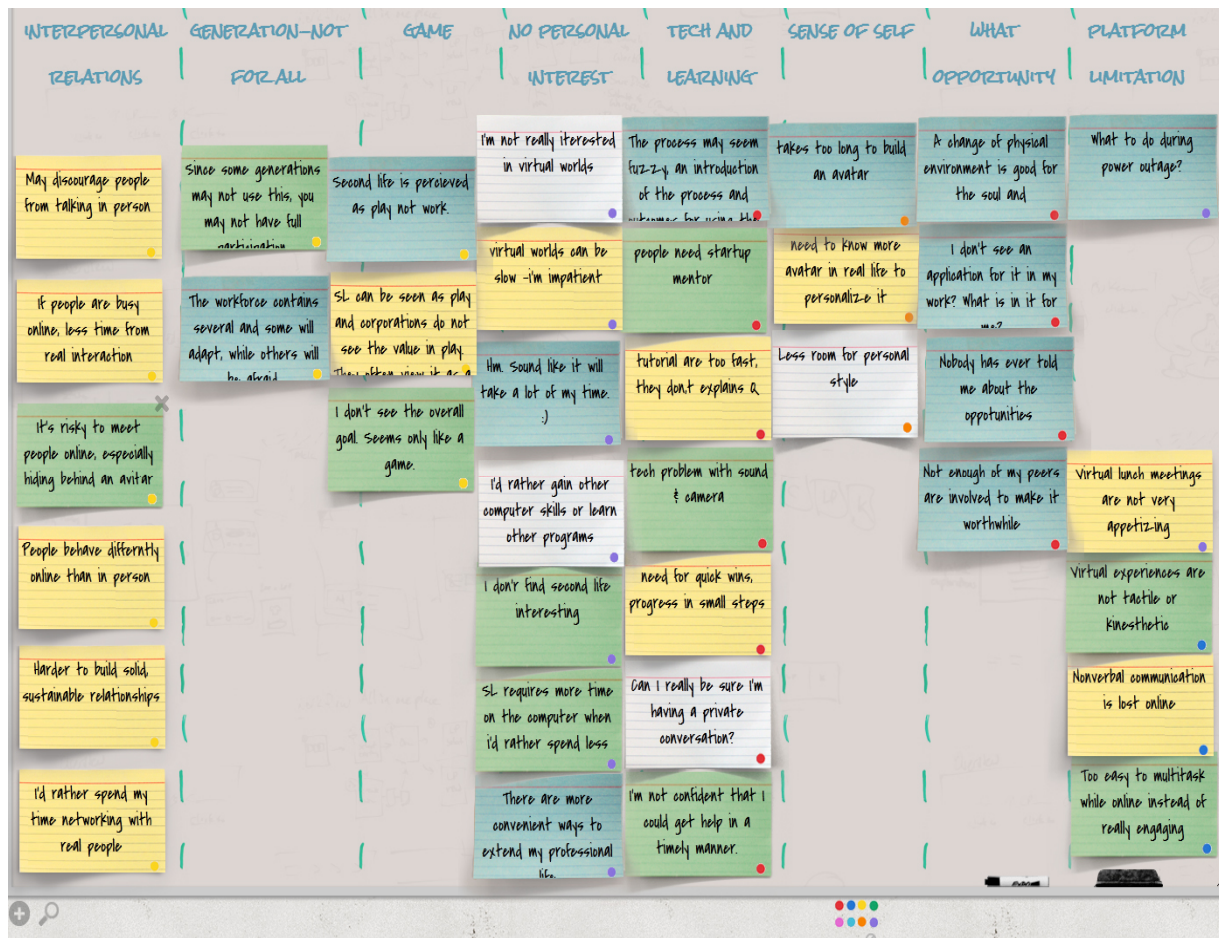- The workforce contains several and some will adapt, while others will be afraid

GAME
- Second life is percieved as play not work.
- SL can be seen as play and corporations do not see the value in play. They often view it as a...
- I don't see the overall goal seems only like a game.

NO PERSONAL INTEREST
- I'm not really iterested in virtual worlds
- virtual worlds can be slow -i'm impatient
- Hm. Sound like it will take a lot of my time. :)
- I'd rather gain other computer skills or learn other programs
- I don'r find second life interesting
- SL requires more time on the computer when i'd rather spend less
- There are more convenient ways to extend my professional life.

TECH AND LEARNING
- The process may seem fuzz-y, an introduction of the process and outcomes for using the...
- people need startup mentor
- tutorial are too fast, they dont explains a
- tech problem with sound & camera
- need for quick wins, progress in small steps
- Can I really be sure I'm having a private conversation?
- I'm not confident that i could get help in a timely manner.

SENSE OF SELF
- takes too long to build an avatar
- need to know more avatar in real life to personalize it
- Less room for personal style

WHAT OPPORTUNITY
- A change of physical environment is good for the soul and
- I don't see an application for it in my work? What is in it for me?
- Nobody has ever told me about the oppotunities
- Not enough of my peers are involved to make it worthwhile

PLATFORM LIMITATION
- What to do during power outage?
- Virtual lunch meetings are not very appetizing
- Virtual experiences are not tactile or kinesthetic
- Nonverbal communication is lost online
- Too easy to multitask while online instead of really engaging

Example of the Context Provided in Support to the Invitation to Brainstorm

Tapping to your collective intelligence: WMBA barriers to explore and use Second Life for adult professionnals ?

About your perceptions with respect to barriers to using Second Life as a platform for sharing, learning, and collaborating.

WHY: I wish to get a better picture of barriers to try, explore and use Second Life (SL) by adults professionals, including by creativity professionals. (Context: I am currently doing my master project (CRS-690; see below for more info).

WHAT: I am looking to identify what are the barriers (perceived or real) to explore Second Life (a 3D immersive social virtual world) as a platform for sharing, learning and collaborating.

From WHOM: I am interested to hear both from experienced and non-experienced individuals boldly defined as follows:

• Experienced individuals: have spent 15 hours or more in Second Life.
• Non-experienced individuals: individuals who never been in Second Life; people who have registered an avatar and have spent less than 15 hours in Second Life.
…. As you can see, it is pretty inclusive – input from everyone is welcomed!

HOW: Virtual sticky notes on an online scrum board (Scrumblr) that I am using here as a brainstorming board.
• The board is EXTREMELY easy to use, I have put the instructions (6 sticky notes) on the boards themselves – you do not need to be computer savvy. Note: my experience is though that scrumblr works better with Firefox
• The question statement is: What might be all (WMBA) barriers to explore the opportunities that Second Life might offer to creativity professionals.
• Two distinct boards to differentiate the views from experienced and non-experienced individuals.
o Experienced : who spent already at least 15 hours in SL
http://scrumblr.ca/NC_SL_EXP

o Non-Experienced: who do not have an SL avatar or have spent less than 15 hours in SL
http://scrumblr.ca/NC_NONEXP_SL

• Reminder: the more opinions the better (the sticky notes can be piled up if board appears full; defer judgement and redundancy is not an issue, builds on others etc.

WHEN: The boards are sat, ready for your input.
Timeframe for your input: March 7 to 18, 2012.

POTENTIAL:
• For me, to get the perceptions from creativity alumni
• For you, the immense satisfaction of helping a colleague
• For you, discovering Scrumblr (free and easy) if you do not know it already. http://scrumblr.ca/

MORE ABOUT THE CONTEXT: MY CURRENT MASTER PROJECT:

Within the parameters and timeline of the proposed Master project, my goal is to conceive and realize the prototypes of the two following products which will lay the foundation to a humanistic approach to avatar training:
1) a 3D visual framework for a learning program to facilitate entry in, and early exploration of Second Life™ by adult learners and professionals so they can envision the opportunities offered by this platform for training, networking, collaboration and co-creation. The framework would be integrating humanism, adult and creativity learning theories and take into account both adult learners and avatar training needs.
2) a first module of the learning program (including the specific goals, objectives, scenarios, activities, assessment criteria, supporting 3D training facilities and learning material).

My middle term goal is to offer creativity training and facilitation to geographically dispersed teams using 3D immersive social virtual worlds (3DiSVW), such as Second Life, as platform for delivery. To me, virtual worlds are not an end, only a venue but a rich and promising one. An important challenge, when using new cutting-edge technologies as a venue for training services, is the need to offer platform training prior to using it for the specific training services. Another challenge is to develop new ways for learning and teaching so to take full advantage of the affordance of the new technologies. To that end and with my middle term goal in mind, I propose to integrate the four learning and teaching framework for the design of the avatar training program: Torrance Incubation Model, Dialogue Education, Maslow's Hierarchy of Needs, and the new archetype-based cybergogy for learning in 3D.

My sense is that 21st century 3DiVSW technologies could provide a dynamic place to initiate, nurture and advance a global dialogue on ways to bring creativity and change leadership to bear in our increasingly complex and rapidly changing world.

There are a number of low hanging fruit that we could all take advantage of. Just imagine what it would mean to be able to meet together in a shared common place, in real time, to discuss and share insights on the latest books we read, the latest experience we had, the upcoming challenge we face? Imagine that you can feel the sense of presence,

space, and scale, that you enjoy the death of distance, the capability to practice, gain enriched experience, collaborate and co-create. Just imagine

All Contributions in Categories Informed by the Principles of Dialogue Education

IMMEDIACY: The learning experience must be perceived as useful, with potential to transfer and apply the new knowledge, skills and attitudes in own personal and professional life.   Motivation to learning, readiness to invest time and effort in learning depends highly on perception an individual might have regarding the purposefulness of the learning goals.

- Need for quick wins, progress in small steps
- I don't see an application for it in my work? What is in there for me?
- Nobody has ever told me about opportunities.
- Not enough of my peers are involved to make it worthwhile.
- The process may seem fuzzy, an introduction of the process and outcomes for using the tool might be helpful;
- Lack of motivation to spend time learning, value not apparent
- Perception that SL will not survive
- Experience is not worth the effort
- Heavy media coverage about service being over-hyped
- Understanding the value of using an avatar or 3D technology
- Hearing/sharing live music, reading of stories, camaraderie's with people of like mind
- Past the learning curve and technology meeting in real time across globe share knowledge in real time
- Get something for switching to virtual worlds
- See enough content that makes it valuable
- SL can be seen as play and corporations do not see the value in play. They often view it as a waste of time.
- I don't see the overall goal, seem only like a game

NEEDS ASSESSMENT / SEQUENCE OF CONTENT & REINFORCEMENT / PRAXIS:

Learning to navigate and use Second Life (SL) is usually not an end but a mean to achieve other personal or professional goals.   The level of SL skills mastery that is needed varies according to the expected usage. In most cases, when using new technologies, there are basic skills to be learned and practiced which is often experienced as a steep learning curve and this even more in absence of guidance and support.

Steep learning curve:
- Time to master SL navigation
- Understanding how to easily make content in 3d
- Steep learning curve
- Steep learning curve to learn to navigate SL
- Cumbersome
- Serious time commitment to become functional users
- Steep learning curve to interface – especially for non-gamers
- Hm sound like it will take a lot of my time☺
- How to sit down pick something up
- Ability to maneuver avatar with arrow keys can be intimidating

- Not knowing special key strokes to move avatar

Need for guidance:
- People need start up mentor
- I am not confident I could get help in a timely manner.
- Tutorials are too fast they don't explain Q
- "Not" having experienced SL users available to help
- No friends and without groups or buddy system; who do you talk to
- Not especially welcoming to new users – unless they are lucky or pre-connected with others SLers or community

SAFETY: Safe environment and trust is essential to effective learning. Any fear concerning potential risks and negative impacts (perceived or real) would naturally forms an important obstacle to be addressed. The barriers mentioned below relate to perceived risks related to addiction potential, lost social ability, risk to privacy, morality, safety and credibility.
- May discourage people from talking in person
- If people are busy online, less time for real interaction
- People behave differently online than in person
- What to do when someone turns you into a 40 feet tall pencils
- It's risky to meet online, especially hiding behind an avatar
- Can I really be sure I'm having a private conversation?
- Harder to build solid sustainable relationships
- Bad lingering reputation that SL is all "about sex"
- Perception SL is a destination for sexual encounters
- Bad reputation SL is all about vampires and werewolves
- Experience defines by the medium in an intrusive way
- Adult content in SL – I'm held responsible for what the student might encounter
- Too adult – pre K12 teachers and librarians can't apply it
- People are afraid how they will be perceived by others (gamers, tekkies)
- Second Life perceived as play not work
- Perceptions of SL/VW as frivolous

RESPECT / ENGAGEMENT / LEARNERS NEED (FOR AUTHENTICITY): Achieving a sense of self, somehow feeling well represented by one's own avatar, is essential to engagement in learning and further use of 3D immersive environments.

- Takes long to build an avatar
- Need to know more avatar in real life to personalize it
- Less room for personal style
- Money – SL is free but looking good free requires a lot of time
- Requires avatar, can't just be self
- Professional: there is a serious lack of professional clothing in SL

RESPECT OF LEARNERS AS DECISION MAKERS: Unless people perceive it as worthwhile, as having advantages over other approaches, they are unlikely to voluntarily put virtual worlds on their priority list. Lack of awareness about the platform and its potential applications, it is however difficult to make an informed decision.

- I am not really interested in virtual worlds
- Virtual worlds can be slow, I'm impatient
- I's rather gain other computer skills or learn other programs
- I don't find Second Life interesting
- SL requires more time on the computer when I,s rather spend less
- There are more convenient ways to extend my professional life?
- Real life activities like meetings are surreal
- People prefer "real life" contacts
- I's rather spend my time networking with real people

NEEDS & RESSOURCES ASSESSMENT / RESPECT FOR LEARNERS: The implementation of virtual worlds in a work or learning context (mandatory or not) forces us to consider barriers that could limit access to the platform. This could include technological barriers, considerations related to compatibility, adequacy, security, feasibility and participants' diversity of needs.

- Graphics / SL requires a really good computer and getting stuck is not fun
- Full accessibility is not possible with mobile devices
- Requires advanced hardware for full use
- Tech problem with sound and camera
- Other technologies better for learning applications
- Too easy to multi task while online instead of really engaging
- Non verbal communication is lost online
- Virtual experiences are not tactile or kinesthetic
- What to do during power outage?
- Cost
- People are not good with computers
- People are not equipped with good computer
- Making sure that user's tech at home is able to use SL
- SL's history of tech glitches
- Which SL viewer will be used? (Tech compatibility)
- Difficulty of connecting with the medium
- Since some generations may not use this, you may not have full participation
- The workforce contains several and some will adapt, while others will be afraid

Other barriers
- Most events in SL happens 6PM SLT (Pacific Time) or later. That's hard on east coasters who work
- A change of physical environment is good for the soul (*not sure about interpretation*)
- Virtual lunch meetings are not very appetizing

- People don't buy the idea
- People are conservative

All Input on Barriers from a "Wordle" Perspective: A Virtual Finger Print!
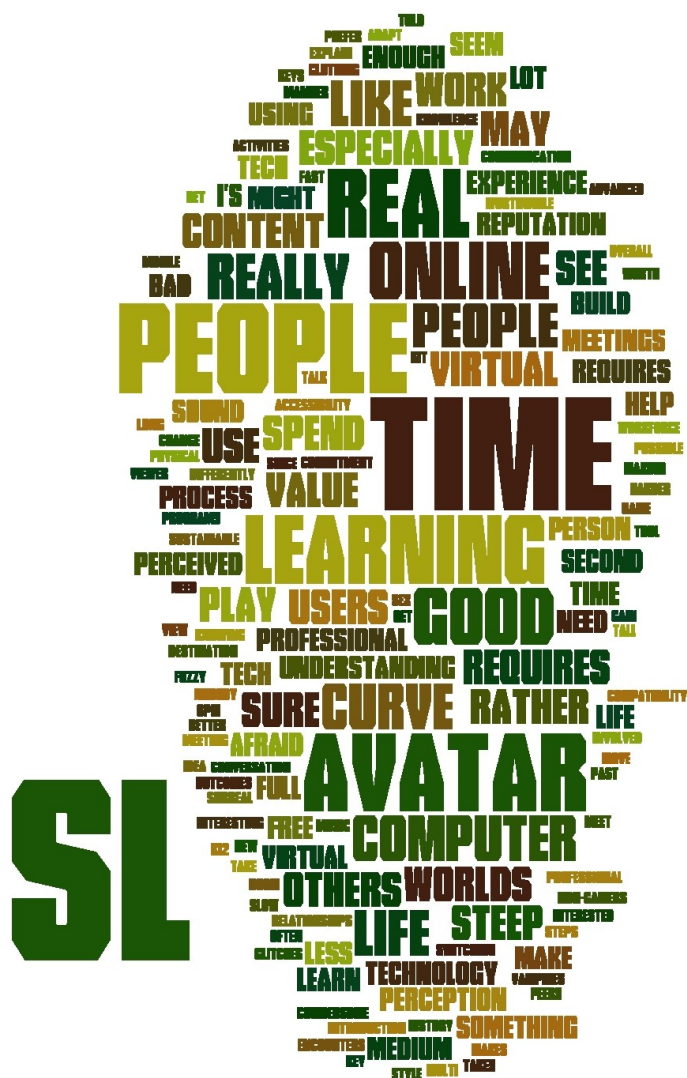
Created with Wordle: http://www.wordle.net

APPENDIX B

Presentations on each Grounding Frameworks

Assembled here are the presentations on each framework as they can be seen at their respective places at *Orbis Incogniti*, my learning island. They present elements of each framework as well as some other considerations, including my current state of reflection on and understanding of them. The purpose of having these presentations at their respective places is an opportunity to engage the dialogue about them and get others views as they see them integrated in a framework for avatar training. I expect them evolving with time. The present versions are as they stand on April 10, 2012. The four following presentations are included in this appendix:

- Principles for Dialogue Education (Vella's Villa)

- Torrance Incubation Model (Torrance Hall)

- Hierarchy of Avatar Needs (Place Maslow)

- Scopes Cybergogy of Learning Archetypes and Learning Domains (Scope Cybersphere)

Principles for Dialogue Education

Vella's Villa

State of reflections on
How they might be declined for a
Humanistic and Creative Approach to Avatar Training
In a 3D immersive social virtual world (3DiSVW) such as Second Life

PRINCIPLES FOR DIALOGUE EDUCATION

POWER OF DIALOGUE & ADULTS EDUCATION

- **Dialogue Education** (**DE**), first described by Jane Vella in 1980.
- Practical and concrete approach to design and facilitate adult learning programs.
- It draws on various adult learning theories (Paulo Freire, Kurt Lewin, Malcolm Knowles, Benjamin Bloom).
- **Dialogue**: the overarching principle, essential to communicating and understanding.
- The approach has shown to work across cultures and to be applicable for designing adult learning in various domains.

POWER OF DIALOGUE & ADULTS EDUCATION

Learning Tasks (LT)

× **Definition**
  + A learning task is an open question put to members of a small group, who have been given all the resources they need to respond.

× **Foundation**
  + Open questions form the foundation for dialogue. Open questions open the door to critical thinking, reflection and creativity.

× **Four types of LT:**
  + 4 Is: Inductive, Input, Implementation, and Integration LT.

POWER OF DIALOGUE & ADULTS EDUCATION

Assumptions in Dialogue Education (Vella 2001, p. 2-6)

× "Learners arrive with the capacity to do the work involved in learning".
× "Learners learn when they are actively engaged – cognitively, emotionally, and physically".
× "New content can be presented through learning tasks"
× "Learning tasks promote accountability."

Twelve Principles to support the dialogue

× Twelve principles and practices for effective adult learning support the dialogue; they were first published in 1994 and adapted for non immersive on-line context in 2007 (Vella, 2002, 2008).

POWER OF DIALOGUE & ADULTS EDUCATION

Needs Assessment

× The Learning Needs and Resources Assessment (LNRA) does not form the course but informs the design for learning.

× LNRA is a way to begin the dialogue long before the learning events and to assess "who needs what as defined by whom".

× LNRA helps to get a sense of
  + Learners expectations, desires, fears for the training
  + Learners competencies in the field
  + Learners' context and motivations
  + Learners' skills and interest relevant to the upcoming training

× LNRA is continuous (not limited to a survey prior to training).

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Needs Assessment

× Goal for the training is twofold and pre-defined: Learning basic SL skills
  + To be able to make a presentation in SL (so that they can grasp low hanging fruits);
  + To be able to safely explore SL (so that they can assess what SL might offer to them).

× The targeted audience is as well pre-defined:
  + Newcomers to SL, people who never registered an avatar, or had one once but never really explore on their own, or had limited experience, less than 10 hours spent in SL.

× The sequence of basic avatar skills to be developed are informed by:
  + The above mentioned goal (presentation, exploration);
  + The barriers as perceived, or experienced, by newcomers; and
  + Maslow hierarchy of needs (notably the "avatar needs").

× The above, despite predetermined, leave ample place in the approach to content (notably in the choice of destinations for explorations and on deciding on the relative emphasis on the needed skills), so that the experience is made worthwhile and transferable to the personal context of the participants.   Survey of interests, competencies, needs is essential.

POWER OF DIALOGUE & ADULTS EDUCATION

Safety

- ✖ Safe and trustworthy environment and process are crucial to effective learning.
- ✖ Safety begins with the teacher's behavior and before the learning event…
- ✖ Foundation for trust implies:
  - ✦ Congruent design, feasibility and relevance of objectives.
  - ✦ Adequate sequence of activities.
- ✖ Grounding beliefs
  - ✦ Humor, play, spontaneity and creativity are welcomed;
  - ✦ Open questions, no one right answer; dissent is not disrespected;
  - ✦ Diversity of learning styles is a given.

…AS INTEGRATED TO ADULT-AVATAR TRAINING

Safety

- ✖ Safety in context, content and process is crucial – Dialogue Education;
- ✖ Safety – the second level of needs according to Maslow;
- ✖ Safety – a recurring theme when discussing barriers to entry and early exploration of SL.
- ✖ What is planned to support safety:
  - ✦ Training Island is private Island, with code of conduct & controlled access;
  - ✦ First two modules of the training will entirely occur at the private island;
  - ✦ Students will be allowed to set their home at the training island for the entire duration of training;
  - ✦ Safety aspects will be the object of an entire module;
  - ✦ Students will have an opportunity to meet informally prior to the training;
  - ✦ Sequence of content is important and would be adjusted if needed;
  - ✦ All efforts will be made to keep the atmosphere playful and relaxed.

POWER OF DIALOGUE & ADULTS EDUCATION

Sound Relationships

- Begins with relationships between teacher & learner and extends to among learners;
- Sound relationships
  - Imply respect & interest for the perspective and context of others;
  - Involve empathy for struggle in learning;
  - Build on truth, congruence, openness, clarity of roles and directions, inclusiveness, open communication and humility.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Sounds Relationships

- Relationships teacher-learner begins long before the training (communication about the training possibility, during the needs assessments, and through the guidance for the learning tasks to be accomplished before the training).
- Relationships among learners will begin with informal meeting prior to the beginning of the training and will be supported and nurtured during the training notably via the work in small groups.
- Places and time is planned for reflection and social activities.
- The island would be accessible to learners 24/7 during training period.
- Teachers open hours will be posted – if additional guidance is needed.
- The modulation of the training content would take into accounts learners needs and all will be involved when having to make choices, selections

POWER OF DIALOGUE & ADULTS EDUCATION

Sequence of content & reinforcement

- Time to learn, time to reflect, time for practical application.
- DE is based on learning tasks; adequate sequence of tasks is crucial; easy to difficult, simple to complex, group to solo.
- In DE: the learning must take place during the event; it needs more time than traditional teaching.
- Reinforcement – applying the new skills, knowledge and attitudes (SKAs) in new, diverse and creative ways.
- Risk of preparing too much content for the time is high
- Adequacy of sequence and reinforcement is key to sustaining motivation.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Sequence of content & reinforcement

- The overall sequence is informed by Maslow hierarchy of avatar needs, the goals, the barriers as perceived and experienced by newcomers and by the LNRA.
- Flexibility would be needed in order to balance tasks and allocated times throughout the training; it is not expected that every participant or every group will have the same needs and acquire the skills at the same rate. Adjustments will likely be necessary.
- Providing a diversity of tasks and new ways to apply the new content will be a continuous creative challenge. The archetype structure to learning in a 3DiSVW offers a solid foundation to imagine new ways for reinforcement.
- Open communication, observation and reflection are key to inform on potential needs that might necessitate an adjustment of sequence.

POWER OF DIALOGUE & ADULTS EDUCATION

Praxis

- ✖ Praxis = Action + Reflection; learning by doing w. reflection
- ✖ Praxis involves the interplay of inductive and deductive forms of learning, it is not simply practice.
- ✖ Praxis builds on 4 types of learning tasks:
  - ✚ Inductive: to connect w. learners knowledge, experience and context
  - ✚ Input: to examine new content (concepts, skills, attitudes)
  - ✚ Implementation: to invite learners to do something w. the new content
  - ✚ Integration: to invite integration of the new learning into their lives

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Praxis

- ✖ Key to systematically design with the 4 types of learning tasks in mind.
- ✖ It is about reflection and action and action and reflection.
- ✖ Learning must occur during the training. No mandatory homework.
- ✖ Tasks are designed in such a way that learners can experience and know if they know, so that the teachers know if they know.
- ✖ Learners will however have access to their learning place anytime during the training period if they need or wish to.
- ✖ Open questions are used to facilitate inductive, deductive and integrating tasks, as well as for the input tasks.
- ✖ Diversity of tasks is a fundamental consideration.

POWER OF DIALOGUE & ADULTS EDUCATION

Respect for learners as decision makers

- ✖ Respect for learners as **subject,** not the object.
- ✖ Teachers and learners are subjects in dialogue about the object.
- ✖ Content is an open system, open to critical analysis, to challenge, to modification and additions.
- ✖ Open questions are essential to an honest dialogue and co-learning.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Respect for learners as decision makers

- ✖ Honest and open dialogue on the content and orientations commence with the needs assessments and continue throughout the training
- ✖ The purpose of the training, as explicitly stated, is not to create Slers or to acquire SL skills for the sake of it; the purpose is to facilitate entry and exploration of a new platform by adult learners so they can further explore, and assess for themselves if this platform might offer opportunities to their own personal and professional life. SL as a potential means, not an end.
- ✖ The training should provide the basis to make an inform decision as to whether there is something worthwhile for them in SL.

POWER OF DIALOGUE & ADULTS EDUCATION

Ideas, Feelings, Actions

- Substantive learning involves the whole person (mind, heart and muscle)
- Cognitive, affective & psychomotor aspects guide design
- Diversity of tasks respect the diversity of learning styles

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Ideas, Feelings, Actions

- 3DiSVW have enormous potential to creating a diversity of learning tasks that can involve the whole person; it is where they have an definitive advantage over traditional approaches to distance training.
- This is true as long as the design aims at really taking advantage of the affordance of the platform. This is the greatest creative challenge to instructors and the most demanding one in terms of new skills development for instructors.
- In all means, all effort should be made to avoid replicating classroom settings with passive learners listening to formal presentations.
- Not only the design of the learning tasks contribute to the whole person involvement, the design of the context, the space, the place is crucial.
- The ultimate goal is to create a shared meaningful real and effective learning experience; the platform is virtual but the experience is real.

POWER OF DIALOGUE & ADULTS EDUCATION

Immediacy

- Immediacy is informed by the LNRA – it must be relevant to the life and context of learners.
- Learning experience must be perceived as useful, worthwhile.
- The learning must be transferable and make possible the re-creation of content in other contexts.
- Learning that is meaningful to learners generates the energy necessary to sustained engagement.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Immediacy

- Immediacy is at the core of the proposed training program, since the emergence of the concept. The goal is clear and explicit as well as the purpose.
- The approach is conceived in such a way that flexibility is built in for immediacy with respect to exploration journey as well as in the thematic and format of learners presentations so that they be exposed to meaningful content and can envision how the new learning could be applicable in their life and professional contexts.
- The needs assessment will provide the basis to informing the design but it is expected, as the learners get exposure to the possibilities of the platform, that they might see or envision new ways to apply it to their contexts.

POWER OF DIALOGUE & ADULTS EDUCATION

Clear roles and role development

- × Dialogue Education implies new roles for teachers and learners.
- × DE is learning-centered, not teacher, not learner-centered.
- × Teachers and learners are both subjects and their object is learning for which they shared responsibility.
- × Their new roles must be explicitly and clearly stated; clarity of roles is both "a matter of heart & the heart of matter"
- × Ambiguity of roles in a learning team augments the risk of conflict and failures.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Clear roles and role development

- × Clarification of roles will begin with the promotion of the training program, continues during the LNRA and the informal meeting with all participants prior to the training.
- × It is important for all participants to get a sense of the approach, the new roles for teachers and learners in a dialogue education approach and the respective expectations.
- × This has to be clarified upfront and well understood as for most people, it might be different of any training they have experienced before.

POWER OF DIALOGUE & ADULTS EDUCATION

Teamwork

- In DE, teamwork is both a principle and a process.
- Work in small groups helps creating a safe environment where individual can affirm their voice.
- Key is to design for shared responsibility and inclusion.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Teamwork

- Each learner is responsible for their personal learning but also carry a responsibility for engaging in teamwork; learners are expected to commit to teamwork and collaboration.
- The learning tasks will involved individuals, small groups as well as whole group participations.
- Training cohorts will be limited to 10 participants with 6-8 participants considered as ideal. Small groups would be 2-4 people groups.
- The advantages that 3DiSVW can offer over other online distance learning technologies is the possibility for collaboration and co-creation in real time and in a shared context. Teamwork must therefore not only be implemented as a process but also be facilitated and encouraged.

POWER OF DIALOGUE & ADULTS EDUCATION

Engagement

- DE aims at engaging learners – physically, mentally, and emotionally.
- Learners must be engaged at the level of criticism and construction of the theory.
- Adults cannot be engaged if they are simply expected to accept, repeat and obey
- To that end, learning tasks always include a reflection on new input.
- It is essential for students to make the learning their learning.

...AS INTEGRATED TO ADULT-AVATAR TRAINING

Engagement

- I am a strong believer in the potential of 3DiSVW with respect to engaging the whole person, cognitively, emotionally and physically (to a certain extent). The challenge is to design both the space and the program to take advantage of that affordance.
- Engagement is congruent with my a humanistic approach to learning.
- It is essential to a learning context where honest and open debate is welcomed.
- Challenges are expected and welcomed in a spirit of continuous improvement.

POWER OF DIALOGUE & ADULTS EDUCATION

Accountability

- ✖ In a learning-centered approach, accountability for learning is shared by teachers and learners.
- ✖ Learning tasks (LT) are at the core of DE.
- ✖ Teachers are accountable to deliver to the learners what is proposed in the learning program.
- ✖ Teachers are accountable for the design, the preparation of the learning material and tasks, for the learning context.
- ✖ Learners are accountable to themselves and their peers for their own learning, they are responsible to struggle with LT.
- ✖ Teachers are in a service learning relationship to learners, and learners are mutually serving each others.

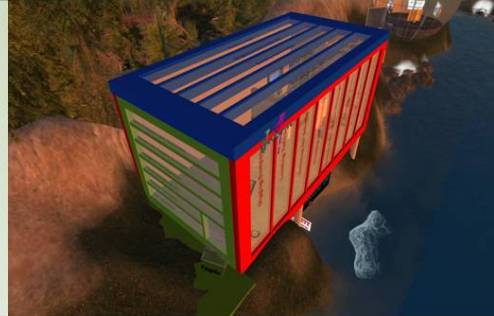## ...AS INTEGRATED TO ADULT-AVATAR TRAINING

Accountability

- ✖ Like the roles, the notion of accountability is to be made explicit.
- ✖ The shared responsibility for learning is crucial and this is even more important when a program is in development.
- ✖ I see myself accountable for the design of the learning and of the context as well as being committed to continuous improvement of the program.

POWER OF DIALOGUE & ADULTS EDUCATION

- Vella, J. (2001). Taking learning to task: Creative strategies for teaching adults. San Francisco, CA: Jossey-Bass.

- Vella, J. (2002). Learning to listen, learning to teach: The power of dialogue in educating adults (Revised Ed.). San Francisco, CA: Jossey-Bass.

- Vella (2008). On teaching and learning: Putting the principles and practices of Dialogue Education into action. San Francisco, CA: Jossey-Bass.

Torrance Incubation Model

Torrance Hall

TORRANCE HALL: TIM'S ARCHITECTURE

- The Torrance Hall's unique architecture is based on the Torrance Incubation Model (TIM).

- The Facilities include the Torrance's office, a small cozy salon, a spacious class & meeting room with dynamic table.

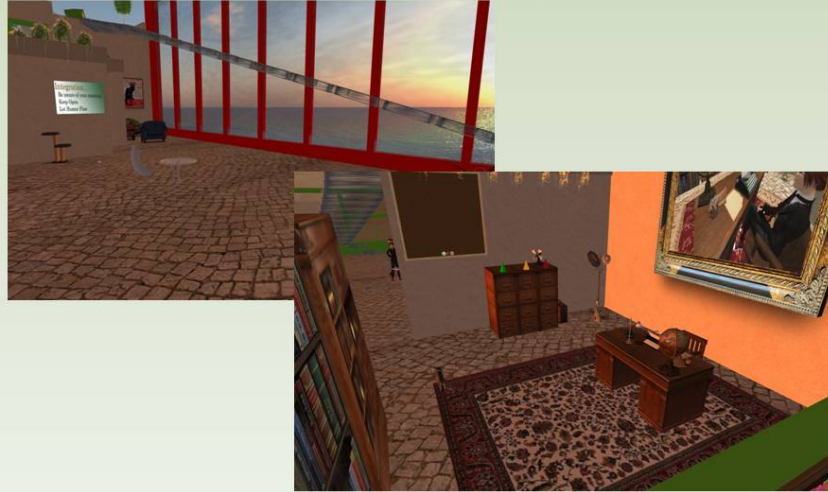- The exterior of the building is explicitly presenting TIM's three stages and their associated strategies.

dabici

TORRANCE HALL: TIM'S ARCHITECTURE

dabici

TORRANCE HALL: TIM'S ARCHITECTURE

dabici

TORRANCE INCUBATION MODEL (TIM)

Torrance Incubation Model
of Teaching and Learning
© 2009 Keller-Mathers, S. & Murdock, M.
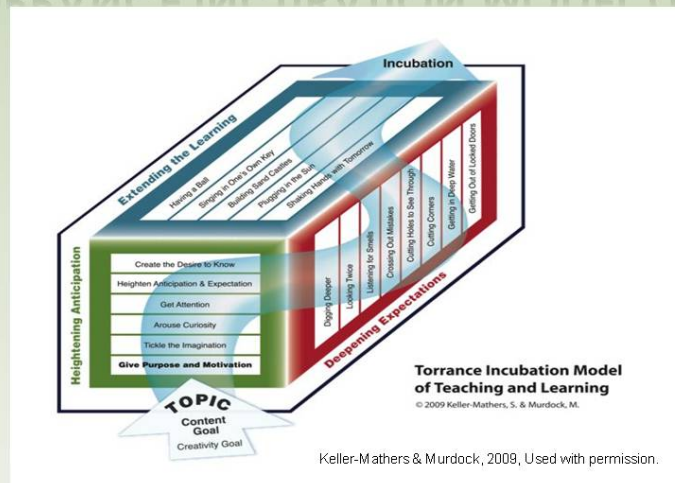
Keller-Mathers & Murdock, 2009, Used with permission.

dabici

TORRANCE INCUBATION MODEL (TIM)

- ✖ TIM is a model for teaching and learning that can be used to develop effective teaching and learning in any subjects, to various audiences or in combination with other methods of instruction (Torrance and Safter, 1999)
- ✖ TIM can also be used to organize and prepare any kind of presentations, workshops, or talks.
- ✖ TIM is a three-stage instructional model to arouse, sustain and extend learning motivation and foster incubation and creativity.
- ✖ TIM uses strategies that can be woven into any learning programs to develop and practice supranational creativity skills.
- ✖ The skills as coined by Torrance and Safter (1990, 1999) are supported by fifty years of longitudinal research(Millar, 2010; Runco, Millar, Acar, & Cramond, 2010)

dabici

TORRANCE INCUBATION MODEL: 1ST STAGE

Stage 1: HEIGHTENING ANTICIPATION (Before formal instructions)
- • Purpose: **Motivating**
- • Aims at motivating the learners and at initiating the engagement process
- • Anticipation is heighten by preparing the learner to make connections between what they are expected to learn and something meaningful to them

- • The six strategies associated with the 1st stage:
  - • Create desire to know
  - • Heighten anticipation / expectation
  - • Get attention
  - • Arouse curiosity
  - • Tickle imagination
  - • Give purpose and motivate

dabici

TORRANCE INCUBATION MODEL: 2ND STAGE

Stage 2: DEEPENING EXPECTATIONS (during formal instructions)
- Purpose: **Thinking, experiencing, reflecting**
- Aims at sustaining motivation and encourage deeper exploration
- Involves alternating between anticipatory and participatory strategies

- Height strategies are associated with the 2nd stage:
  - Digging deeper
  - Looking twice -- Creativity skill: keep open
  - Listening for smells
  - Crossing out mistakes
  - Cutting holes to see through
  - Cutting corners
  - Getting in deep water – Creativity skill: be aware of emotions
  - Getting out of the locked door

dabici

TORRANCE INCUBATION MODEL: 3RD STAGE

Stage 3: EXTENDING THE LEARNING (toward the end of program & after)
- Purpose: **Incubating & transferring**
- Aims at applying and transferring the learning
- Identifying connections, possible uses of the learning with a focus on identifying activities intense enough to sustain engagement beyond formal instructions

- Six strategies are associated with the 3rd stage:
  - Having a ball –Creativity skill: Let humor flow and use it
  - Singing in one's own key
  - Building sand castle
  - Plugging in the sun
  - Shaking hands with tomorrow – Creativity skill: Glimpse infinity

dabici

RECOMMANDED READINGS / SOURCES FROM AND ON E.P. TORRANCE

Keller-Mathers, S., & Murdock, M.C. (2009). Torrance incubation model of teaching and learning. Unpublished Istructional Model, Buffalo, NY: International Center for Studies in Creativity.

Millar, G. W. (1995). *E.PaulTorrance, "The creativity man": An authorized biography.* Norwood, NJ: Ablex.

Murdock, M. C., & Keller-Mathers, S. (2008). Teaching and learning creativity with the Torrance incubation model: A research and practice update. *The International Journal of creativity & Problem Solving, 18*(2), 11-33.

Runco, M. A., Millar, G., Acar, S., & Cramond, B. (2010). Torrance Tests of Creative Thinking as Predictors of Personal and Public Achievement: A Fifty-Year Follow-Up. *Creativity Research Journal, 22*(4), 361-368. doi: 10.1080/10400419.2010.523393

Torrance Center – College of Education, University of Goergia Website : http://www.coe.uga.edu/torrance/about/e-paul-torrance/

Torrance, E.P. (1995). *Why fly? A philosophy of creativity.* Norwood, NJ: Ablex.

Torrance, E.P. (2002). *The manifesto: A guide to developing a creative career.* Westport, CO: Ablex.

Torrance E.P., & Safter, E.T. (1990). *The incubation model of teaching : Getting beyond the aha!* Buffalo, NY. Bearly Limited.

Torrance, E.P., & Safter, H.T. (1999). *Making the creative leap beyond...* Amherst, MA: Creative Education Foundation.

dalici

A Hierarchy of Avatar Training Needs

Place Maslow

Informed by Maslow's Hierarchy of needs

A HIERARCHY OF AVATAR TRAINING

dabici

A HIERARCHY OF AVATAR TRAINING

× Proposal:

+ Maslow Hierarchy of Needs (HoN) can be used to inform on **avatar needs**

+ HoN can provide guidance for avatar training needs, to identify **what** skills need to be learned and the **sequence** of a learning program

dabici

AVATAR'S NEEDS?

- Avatar has needs? What might they be?

- What is an avatar?

- What about the user needs?

dabici

USERS NEEDS & SECOND LIFE

- What might be the motivations for using 3D immersive Social Virtual Worlds (3DiSVW) such as Second Life?

Self-Actualization ?
Esteem ?
Love & Belonging ?
Safety & Security ?
Physiological ?

SECOND LIFE & USERS NEEDS

* A 3D-immersive virtual world
* Social centric world
* Not a game:
  + No narratives or predetermined goals
  + No obvious wins
* User created world
* Is Second Life a reflection of users' diversity of motivations ?

dabici

PERCEPTIONS OF BARRIERS TO USE SL

Most often related to the following considerations

* Immediacy (worthwhile, purposeful, useful ?)

* Learning curve (time, support ?)

* Safety (fear, risks ?)

* Interpersonal relations, communities (real ?)

* Being self, self expression (real, authentic ?)

(notwithstanding having technical considerations
related to hardware and internet access requirements)

What relation exists between barriers, user & avatar needs?
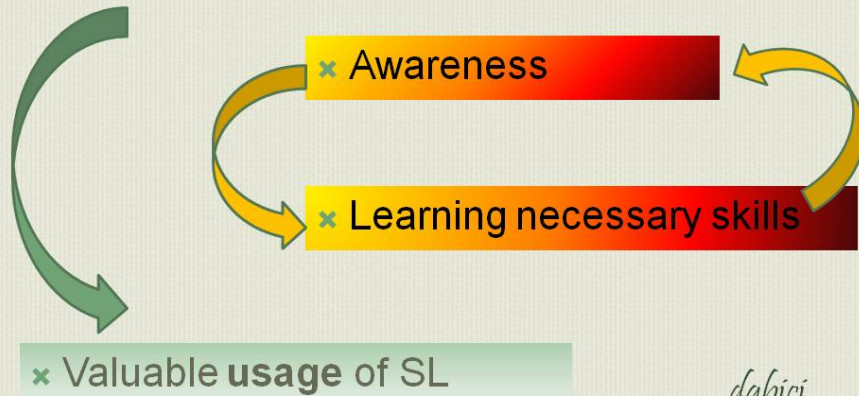
136

AVATAR NEEDS: SL SKILLS NECESSARY TO ACHIEVE THE USER'S NEEDS
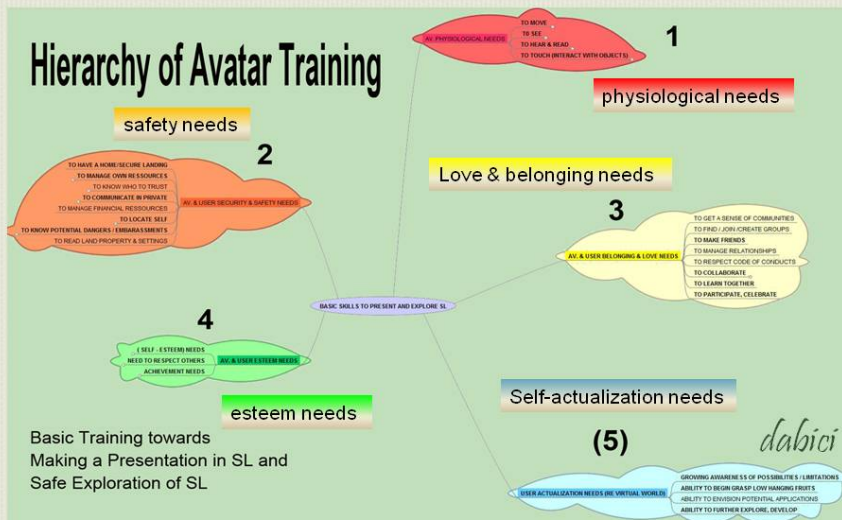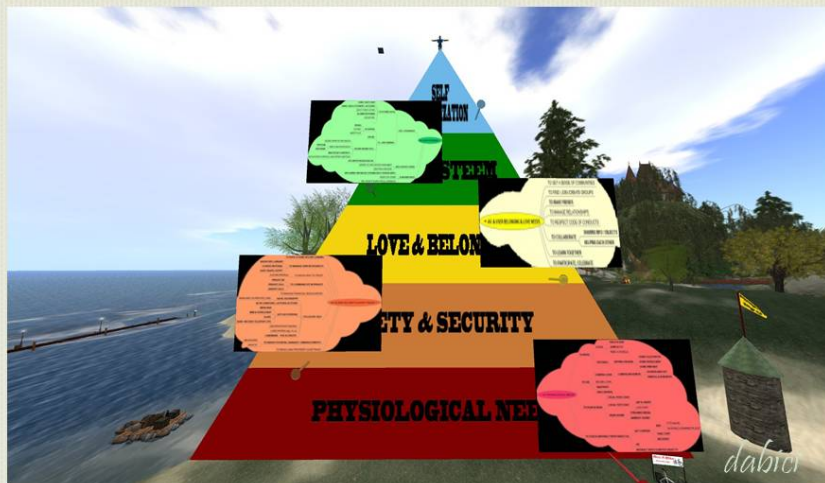
HIERARCHY OF AVATAR TRAINING NEEDS
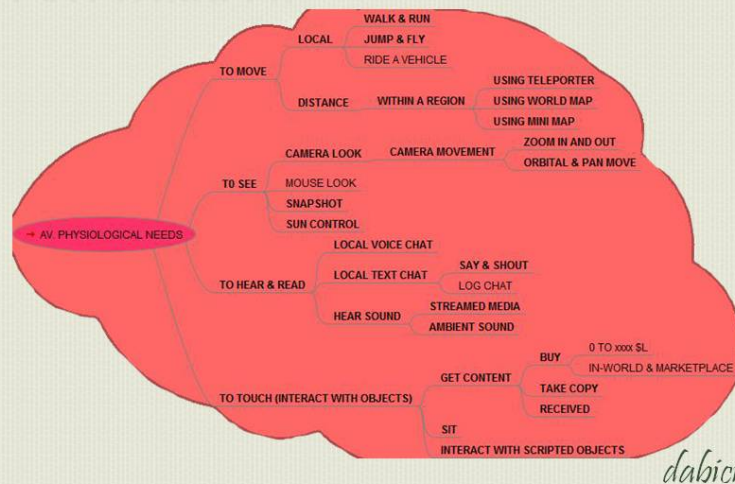
Scopes Cybergogy of Learning Archetypes and Learning Domains

Scopes Cybersphere

NEW APPROACHES TO TEACHING & DESIGNING INSTRUCTIONS

× Beyond mastering the technology, educators and trainers must adapt or entirely transform the way they approach teaching and instructional design

× There is no reason to use virtual worlds if it is to replicate what can better be done in class or what you can do as well with web 1.0 and 2.0 technologies

× However, taking advantage of the singularities of virtual worlds in education and professional development open the door to creating more compelling and comprehensive experiences

× New design archetypes have been proposed by Scopes (2009, 2011a, 2011b) and by Kapp & O'Driscoll (2007, 2010)

A CYBERGOGY OF LEARNING ARCHETYPES & LEARNING DOMAINS

× Beyond categorizing learning archetypes for 3D immersive social virtual worlds (3DiSVW), Scopes proposes a a model of "Cybergogy" that includes a blended taxonomy of learning domains

× Her model includes 5 categories of archetypes which can be declined in frames and sub-frames and a blended taxonomy of four 6-level learning domains

SCOPES' 5 LEARNING ARCHETYPES
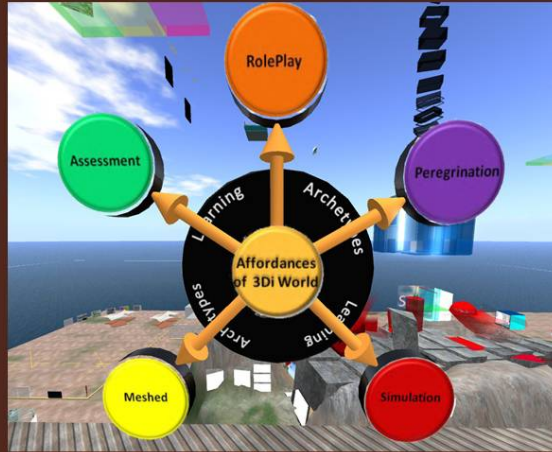
Snapshot taken at ARCHI 21 – created by Lesley Scopes; used with permission

THE 4 LEARNING DOMAINS CONSIDERED BY SCOPES
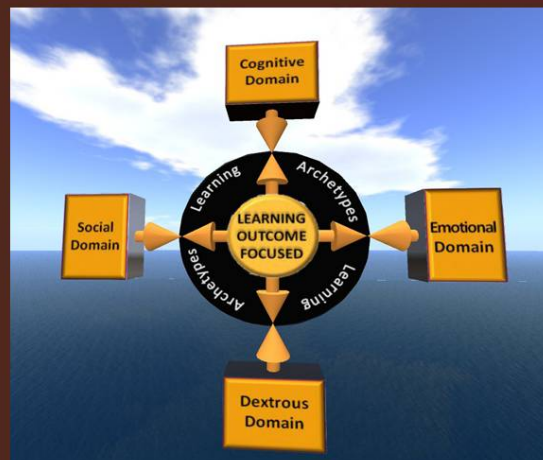
Snapshot taken at ARCHI 21 – created by Lesley Scopes; used with permission

SCOPES'S ARCHETYPES>FRAMES>SUB-FRAMES
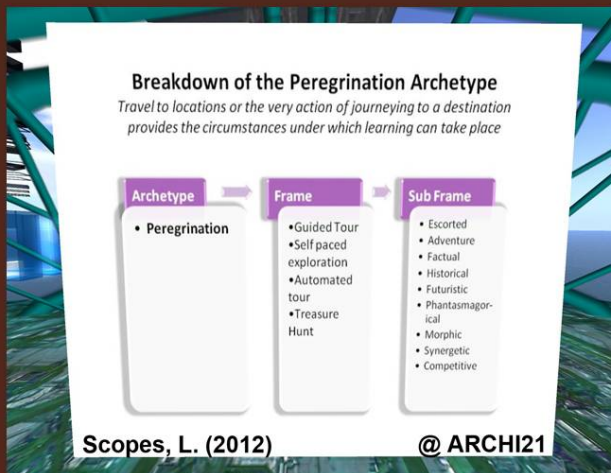
Snapshot taken at ARCHI 21 – created by Lesley Scopes, used with permission

SCOPES BLENDED TAXONOMY OF LEARNING DOMAINS
(REVISED VERSION)
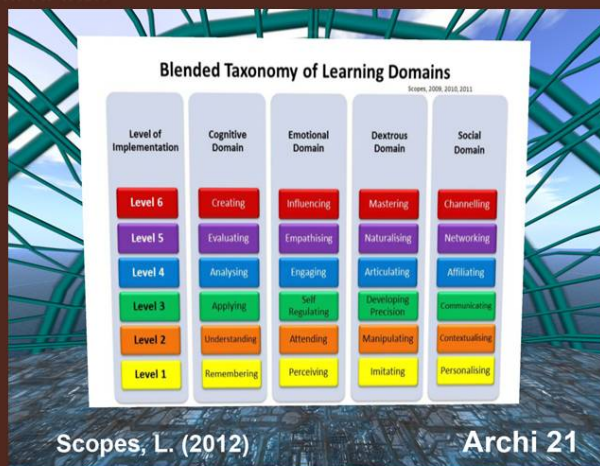
Snapshot taken at ARCHI 21 – created by Lesley Scopes, used with permission

THE CYBERSPHERE FOR SCOPES CYBERGOGY
THE PLACE FOR HER FRAMEWORK WITH LANDMARK TO ARCHI21
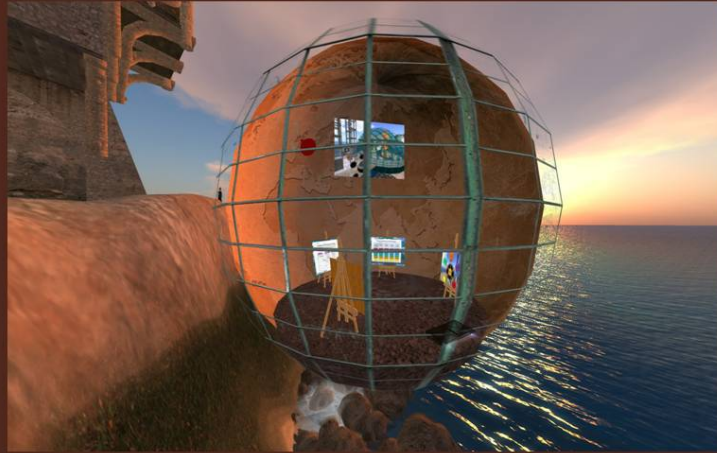
ARCHI 21, CREATED BY LESLEY SCOPES
2011 1ST PLACE WINNER, BEST PRACTICES IN EDUCATION
VIRTUAL WORLD BEST PRACTICES IN EDUCATION (VWBPE)

http://maps.secondlife.com/secondlife/ARCHI21/211/54/23
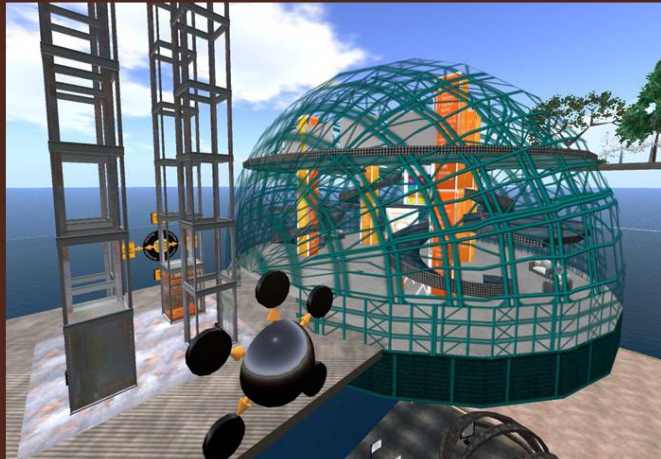
REFERENCES

- Kapp, K.M., & O'Driscoll, T. (2007). Escaping flatlands: The emergence of 3D synchronous learning. Guild Research 360 Report on Synchronous Learning Systems, 111-153.
- Kapp, K. M., & O'Driscoll, T. (2010). *Learning in 3D: Adding a new dimension to enterprise learning and collaboration*. San Francisco, CA: Pfeiffer
- Scopes, L. (2009). *Learning archetypes as tools of cybergogy for a 3D educational landscape: A structure for e-teaching in Second Life*. Master thesis, University of Southampton, Southampton, UK. Retrieved from http://eprints.soton.ac.uk/66169
- Scopes, L. (2011a). A cybergogy of learning archetypes and learning domains: Practical pedagogy for 3D immersive virtual worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning* (pp. 3-28). Bingley, UK: Emerald.
- Scopes, L. (2011b). *Blended taxonomy of learning domains*. From Scopes installation in Second Life (ARCHI21) http://maps.secondlife.com/secondlife/ARCHI21/211/54/23

APPENDIX C

The Island Map as of April 12, 2012

N

Us Born
Beach
Sandbox

Vella's Villa

Place Maslow

Torrance
Hall

E

W
Scopes
Cybersphere

Orbis incogniti

S

dabici

APPENDIC D
Photo Album : Souvenirs from *Orbis incogniti*

Building up the learning place

PHOTO ALBUM

Souvenirs from *Orbis incogniti*

By Nicole Charest, aka *dabici straulino*

dabici

Arriving at *Orbis incogniti* …

dabici

North Beach

South Coast

Private Learning
Island:
Orbis incogniti

N

East Side

West Side
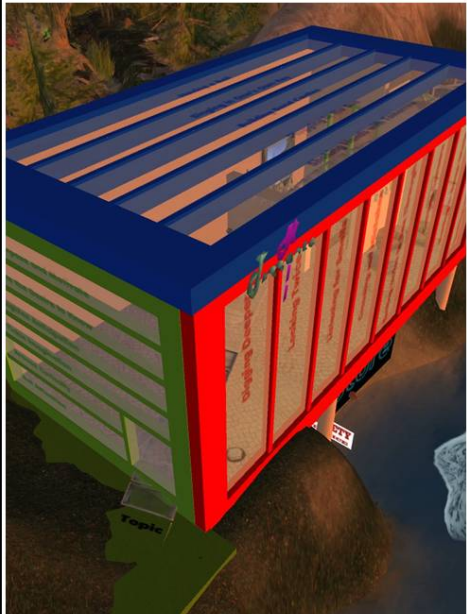
Torrance Hall
  At Orbis incigniti's west coast

• Creativity Classroom
• Sunset Salon
• Torrance Office
• Balcony with view
• Home of Tim and Amigo

Stage 1 Side
Entry to hall

Stage 2 Side
Ocean view

Stage 3 Side
Roof from above
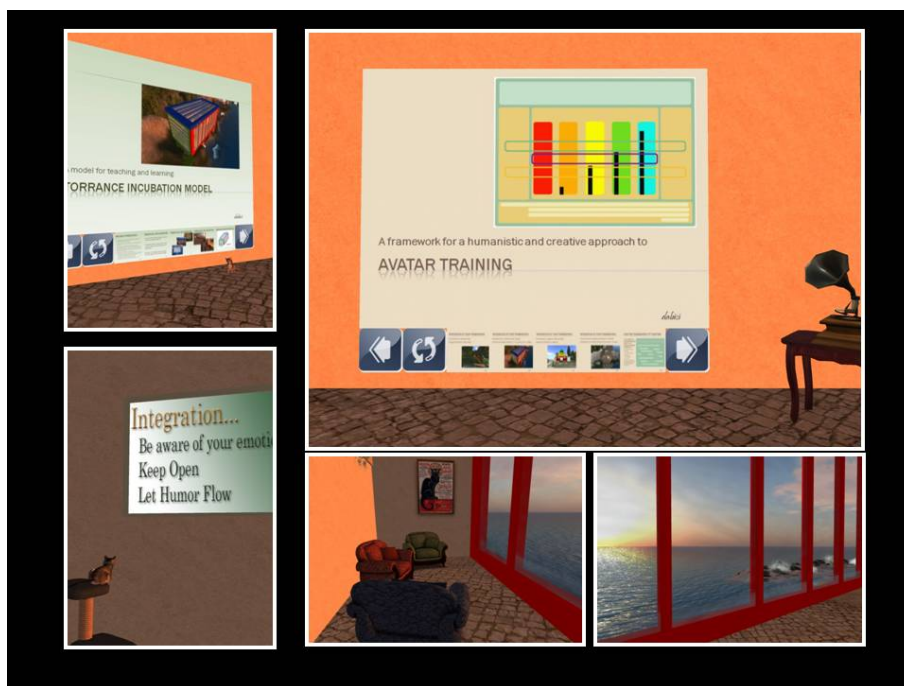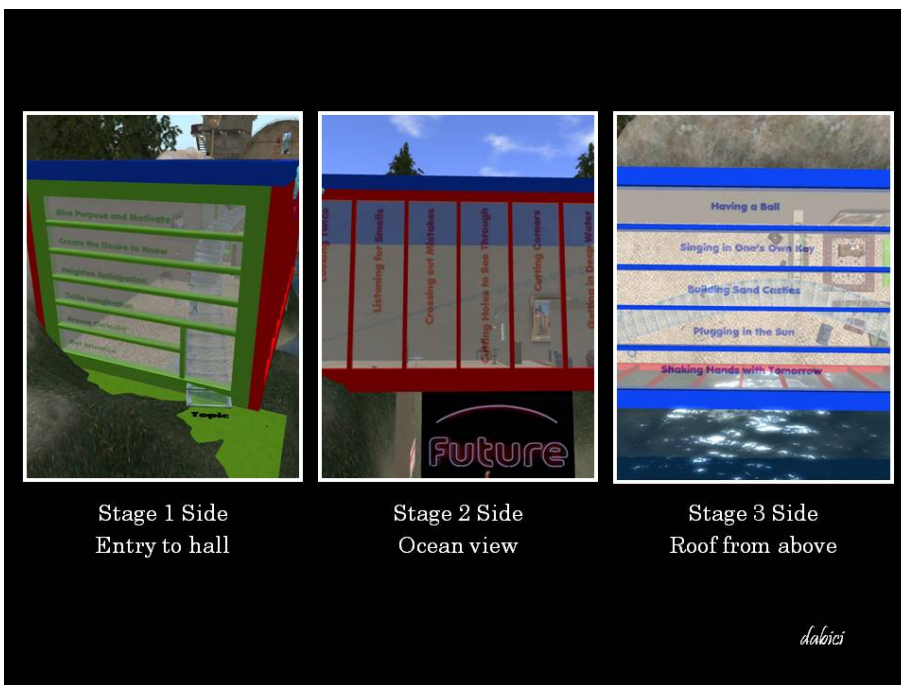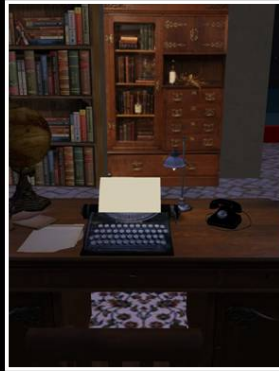
Torrance's Office, late by night
Frame of clues
The secret cabinets with clues to Torrance's Metaphors Hunt

View from Torrance's Office
&
Gifted Fish

Amigo

Tim

dabici

Vella's Villa and Garden

At Vella's Villa, a place to reflect on the twelve principles of Dialogue Education and how they can be integrated in the design of a humanistic and creativity driven approach to avatar training.

The books link to two podcasts with Jane Vella on Safety and Learning Needs and Resource Assessment.

Maslow Hierarchy of Needs
Classic five level pyramidal
representation, at Place
Maslow, near Harbour. *dabici*

Place Maslow

Barrier to SL

Presenting
Hierarchy
of Avatar Training
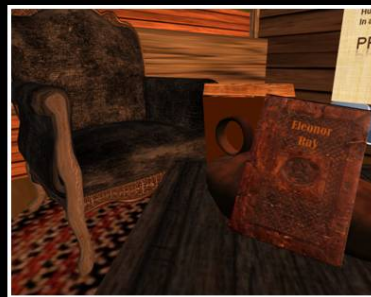
Mind Map Cloud of the Hierarchy of avatar training needs to make a presentation in, and safely explore, Second Life™.

Walking toward Scopes Cyber-sphere over Laser Bridge
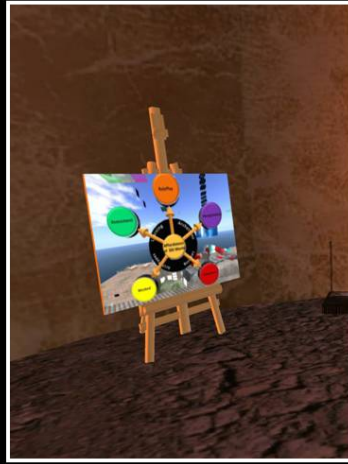
Scopes 5 Learning Archetypes   Scopes 4 Learning Domains

dabici
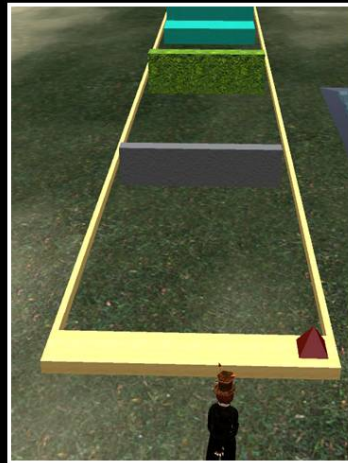
Moving through the   How to walk & jump over
Silence Corridor   obstacle in silence!
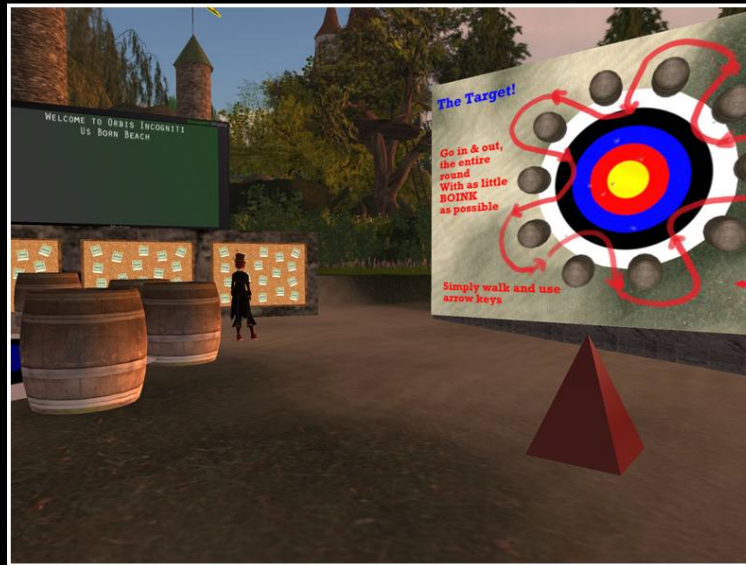
In and out the target without hurting the barrels

The Amazing Maze – remember the path use right angle turns

Click the small dock to get a boat
Right click - select ride
Wait for one passenger to sit
Use arrow keys to navigate
You can use PgDown and PgUp as well
Navigate in the direction of the hot air balloon
Approach the dock, stand (you might get wet)
Fly to get back on dock
Don't touch the very old pirate sitting at boat house

Time to visit the Pirate Dock

Getting to the long dock for the Pirate Drill – in sailboat   dabici

Get your hat
Pirate!
1. Click the crate
2. accept the hat offer
3. open your inventory
(luggage icon)
4. Click Recent Tab
5. See in Object folder
6. hifhlight hat name
7 right click
8. select wear!
Now go on Long Dock,
each of you must
sit on a barrel
near a lamppost

Your Mission Pirate!
Exercise Pirate Drill
3 of you will try
commanding, starting
with the pirate sitting
in front of little yellow
floater. The next two are
sitting near blue and red
floaters. Commanders work
one at a time and use local
chat to command.
Three orders to call, one
at the time: 1 Stand
2. Sit & 3 Stand

Get & wear a pirate hat   Mission – Pirate Drill
                                 Exploring Local Text Chat

At alchemist office

Deck in a tree, Vella's Garden

At campfire in park

At medieval ruin

At the Us Born Beach

At the medieval market

Students Barrel House, Beachside

Reading Mary Poppies
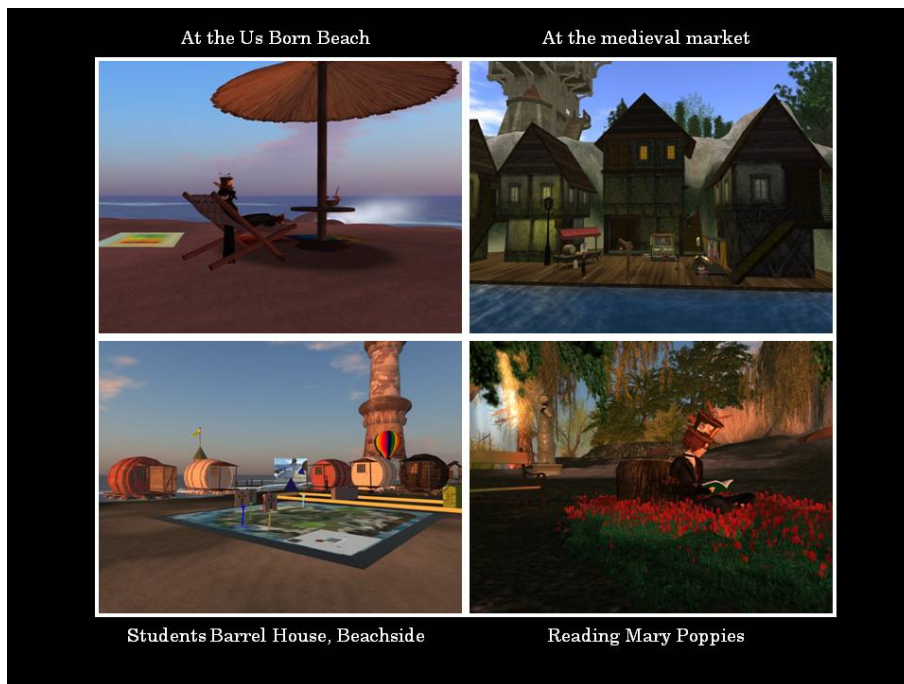
Discovering *Orbis incogniti* fauna biodiversity
Safari - Photo

dabici

Getting in deep water

dabici

The Long Dock by Night

Now, just imagine being there...

dabici

APPENDIX E

Feedback

Feedback on the Presentation of the Program Framework

<u>**Introduction**</u>

My intention, when developing the project proposal, was to present the prototypes to a few selected people within the timeline of the master project. Initially, the intent was primarily to present the prototype of the first program module. It turns out that the results completed within the project timeline include a general framework that integrates the four grounding frameworks, a program framework for the targeted goals and a few examples of possible activities for inclusion in the first module. This means that at this stage of development, what was available for a short presentation were more conceptual in nature than an introduction and trial of the learning activities of the first module.

Despite the fact that I was not in a position to showcase a prototype for the first module, I did organize a one hour one-to-one visit with five colleagues; two of them are alumni in creative studies (International Center for Studies in Creativity, Buffalo State) and three of them are alumni from the certificate in Virtual Worlds (University of Washington). Even if the prototype for the first module was not completed, I figured out that it would be interesting to get feedback on the proposed integrated framework.

I used "POINT", a variant of "PPCO", to structure the feedback. The following pages of the appendix include the feedback form and all feedback received under the four POINT headings: *Pluses*, *Opportunities*, *Issues*, *New Thinking*. Comments showed in green fonts were provided by my creativity colleagues and comments in orange font were those offered by my virtual world's colleagues. I am very thankful for the quality of the comments, some immediately applicable to the presentation of the framework itself and others will be of great help when developing the program modules.

I realize though that there is a need to be more explicit about the concept of ISSUES and NEW THINKING when using the POINT feedback tool. Under issues, we expect expressions of concerns about weak aspects for which new thinking is then suggested for improvement. We look for weaknesses (internal issues) rather than threats (external issues). From an improvement perspective, only internal issues are actionable. I have underlined the issues for which I do not have the leverages or for which I can't take action. All other issues will be considered as I further developed the program modules.

<u>**The Feedback Form I used**</u>

Avatar Training
A Humanistic and Creativity Approach

Nicole Charest proposed within the parameters of her M.Sc. project to develop both the scenarios and the builds in Second Life™ for the following two prototypes:

- Of a framework for a humanistic and creativity approach to avatar training, notably for a learning program for new comers so that they can acquire the Second Life™ (SL) skills necessary to make a presentation in SL and to safely explore SL while practicing Creativity Skills.
- Of the first module of the training program.

She proposes a learning framework that integrates four learning framework: Dialogue Education for adult learning (Jane Vella); Torrance Incubation Model for integrating creativity skills (E. Paul Torrance); Maslow's Hierarchy of Needs to inform on the hierarchy of avatar learning needs (Abraham Maslow); and the Cybergogy of Learning Archetypes and Learning Domains (Lesley Scopes) to take advantages of the affordance of 3D immersive virtual environments such as SL.

You have attended to an introductory guided tour of what has been created so far and agreed to provide feedback. Remember that this is a prototype, the basis on which a broader program will be developed. Your feedback is important, timely and welcomed.

The approach proposed for the feedback is called **POINT** from the FourSight™'s 4 IDEAS tool cards set. It has for components. For each of them, we expect at least three elements. Please be specific, honest and direct. Thank you in advance (Nicole).

Pluses: *What do you like about the idea, work or proposal? What are the positive features?*

_____

_____

_____

_____

_____

Opportunities: *What are the unique features that might turns out in future opportunities? What new doors this new approach might open? Start your comment with "It might …"*

_____

_____

_____

_____

_____

Issues: *Express your concerns about limitations, issues, downsides as open-ended questions. Begin your phrases with the following statement starters: How to…?, "How might…?".*

_____

_____

_____

_____

_____

_____

New **t**hinking: *Review your list of issues. Taking the most important one, generate a half dozen of ideas (or more) on ways to overcome the concern.*

_____

_____

_____

_____

_____

_____

The Feedback Comments Provided

Note: All comments received are listed and grouped under the "POINT" headings: Pluses, Opportunities, Issues, New Thinking

- Green font: comments from creativity alumni; Orange font: comments from Virtual Worlds alumni
- Underlined: issues and new thinking for which I do not have any leverage

PLUSES:

- I think it would be a very useful training, it might be really frustrating trying to figure out how to manage your avatar and other things in SL
- I think you have done a great job integrating all these different models into one framework. One can see that you have processed them through deeply
- The environment you created in SL is inspiring, and demonstrates a truly creative approach
- I liked the idea of linking avatar's needs to Maslow's pyramid, I think it is very true
- Very attractive
- Beautiful graphic
- Great ambiance
- I like the way you have housed the four frameworks in different areas that are in some way representative, as physical spaces, of the frameworks or their theorists. For example, the way the Torrance build represents aspects of his life (his love for cats, his writing desk, etc.). This verisimilitude takes the reader inside the mind of the theorist in ways that a 2D representation cannot. These seemingly insignificant research details are what bring the project to life.
- I think the project itself is a very important one: highlighting the importance of creativity in the 3DLE platform emphasizes the essential educational affordance of these platforms: the opportunity for the learner to be an agent of creation and to even develop the learning environment – an opportunity that is not normally available to learners. This aspect, coupled with the creativity training, provides a great opportunity to take students through a journey of creative expression, and the sharing of that expression.
- Well thought out with the newcomer to Second Life in mind.
- The teleporter map helps with orientation and navigation, providing a concrete, visual overview for those who do not yet have camera skills.
- Lessons prepared for incremental learning. One skill builds upon the previous.
- Creative design. Clever use of theorists' names combined with artistic builds associated with personal facts to help with recall (Villa Vella)
- The proposal is a wonderful blend of known Counseling Psychology principles, Creativity, and Instructional Design methodologies. As a result, the unified whole

addresses more of the human dynamic issues than any of the topics might do by themselves.

- Positive features include a broad overview of the topic for better understanding, fun interactive learning modules to learn the material, and an beautiful build (aesthetics) that encourages one to stay and enjoy.

OPPORTUNITIES:

- I might start looking into what professional possibilities SL may offer to me after your training
- It might turn into a really great business opportunity for you
- I might finally find a possibility of creating new realities
- It might encourage other organizations to use SL for their training programs
- It might encourage the SL developers to create a version for the Ipad/Iphone/Ipod systems
- It might start a new community on SL around 'online training'
- It might represent a new source of revenue for those interested in online training
- To follow on from what I expressed above, it might provide the opportunity for the learner to explore the potential of the 3DLE to become a platform of creative expression, and not just a learning environment. This, to me, would be the ultimate aim: to stimulate and empower creativity students to develop ideas for being creative on this platform, and for sharing these ideas both verbally and through a design process that sees them develop 3D environments.
- Web 2.0 integration. It might provide the opportunity to return and review.
- It might provide Opportunities for synchronous and asynchronous learning.
- It might Exposure the learner to new Ideas, philosophies, approaches. (I've looked up Jane Vella since the tour)
- It might provide an element of fun, the opportunity to explore.
- Your learning module/ build/ design might lead to the opportunity for others to consult with you on designing their learning modules. They will want you to make their learning environments more engaging, fun, and aesthetically pleasing, just like your modules are. Following the example of your module's design can lead to the learner staying longer in the environment, reflecting longer on what they have learned, and more likely to return for more learning. All of this, in turn, helps the learner to embrace new and novel ideas.

ISSUES:

- *How to add a more practical feeling of the future training when you do this kind of tours?*
- How to ensure that the duration of the training is not getting in the way of selling it?
- How to stop the cat into your ears?

- *How to make sure the computer used by the visitors is good enough?*
- How to make sure the users constantly have the newer version of SL?
- How might we encourage the 'traditional trainers' to see the value of online training?
- How might we develop a common language about avatar on SL and other platforms?
- *How to get students to engage actively with the training material, so that it is not just conceptual and passive learning but active and experiential learning?*
- How to integrate the physical environments of the build with the conceptual elements, so that students are experiencing the framework in the environments themselves, and so that the environment acts upon their lived experience of the frameworks?
- How might the students interact with the presentations, so that the presentations are not just static screens, but experiential stations that take them through the developmental journey? Is there a way, for example, for Maslow's pyramid to be represented in such a way that students actually climb towards self-realisation and creative expression as part of their induction to SL?
- *How might activities be interwoven with the presentations, so that the training involved active learning as well as passive learning?*
- How to provide alternate means to connect from place to place without teleport.
- How to assist the learner who is overwhelmed by the many things to do in the environment.
- How to address possible lag. Are there any unnecessary textures or items.
- *How to overcome rigid views of reality where the individual will not even hear the ideas…?*
- How to reproduce this learning module in a variety of platforms to meet the technological issues of different organizations…?

NEW THINKING:

How to add a more practical feeling of the future training when you do this kind of tours?
- Building exercises on the route
- Ask people questions
- Build in some time for exploration
- Do practical demonstration exercise
- Place visual instructions explaining some bits of exercises that would allow to practice some skills all over the place

How to make sure the computer used by the visitors is good enough?
- Create a program that will work on any system (even less powerful ones)
- Create a program that will have different functionalities depending on the system used
- Create a program located on a cloud

- Sign a partnership with a distributor of good quality computers that work well with SL
- Develop a panel where all the proper keys will be placed where they are easier to understand and manage for the users
- Develop a system where you could manage your avatar via voice commands

How to get students to engage actively with the training material, so that it is not just conceptual and passive learning but active and experiential learning?

- When moving from one presentation to another, you could do two activities that would 1) first consolidate the static learning that just occurred by something active, and 2) then anticipate the next presentation in some way by engaging students in a problem-solving or inquiry-based activity.
- Mix the presentations up with activities, so that it's not all static. Get them engaged in activities that illustrate, in an experiential way, the concepts you are trying to teach. Learning by doing.
- You have designed the presentation settings or environments in a way that reflects the theorists. Can you also make them reflect the theories in some way?
- During the presentations, engage students in discussions as well that make them reflect on their own lived experience relating to the theories.

How to get students to engage actively with the training material, so that it is not just conceptual and passive learning but active and experiential learning?

- Establish a means of communication between students or teams of students. (email, wiki, group chat)
- Allow for the expression of feedback within the lesson.
- Keep tasks short, provide opportunities to acknowledge achievement.
- Provide for office hours or review sessions.

How to overcome rigid views of reality where the individual will not even hear the ideas?

- Facilitated discussions where their points are really heard…
- Reward systems for participating … (rewards vary depending on what that particular person responds to…
- "Small steps" activities to help ease the person into expanding their perspectives and views of realityUse peer pressure to get individuals to try the modules … (don't want to appear to be the odd man out)
- Demonstrate potential through documented

APPENDIX F

Concept Paper

Concept Paper– CRS 690:

Avatar Training

A Humanistic and Creativity Driven Approach

Name: Nicole M.T. Charest   **Date Submitted:** FINAL, February 9, 2012

Project Type: **Meet a Product Need and Vision**

Section One: Background to the Project

Purpose and Description of the Project

Within the parameters and timeline of the proposed Master project, my goal is to conceive and realize the prototypes of the two following products:

3) a 3D visual framework for a learning program to facilitate entry in, and early exploration of Second Life™ by adult learners and professionals so they can envision the opportunities offered by this platform for training, networking, collaboration and co-creation. The framework would be integrating humanism, adult and creativity learning theories and take into account both adult learners and avatar training needs.

4) a first module of the learning program (including the specific goals, objectives, scenarios, activities, assessment criteria, supporting 3D training facilities and learning material).

These prototypes will provide the foundation for the creation of the first training product that I wish to offer: "a humanistic and creativity driven approach to avatar training". Prior to addressing the rationale for the selection of the proposed project and situating it in my own professional and motivational schemes, I thought it was important to begin with telling the story of the emergence of the project. The first section covers essentially elements such my encounter with 3D-immersive technologies, the description of the challenge that I wish to address, rationale for the approaches and theories I will apply, and the purpose and scope of the program (audience, overarching goal and specific learning objectives). The second section situates the project in the broader context of our rapidly changing world, the accelerated evolution of technologies with disruptive impacts on the economy, education, workplace and society, and the fascinating challenge of exploring the opportunities that these new technologies might offer to bring to bear creative and change leadership skills crucial in the 21st century.

Toward a first product supporting my vision.

I was introduced two and half year ago to Second Life™; it was one of the venues suggested for holding collaborative meetings with colleagues participating in a distance course. I was immediately intrigued by this new platform integrating rich digital 3D graphics, multimodal communication technologies and a vast array of social and creation tools. I was amazed to discover that every object, building, place and landscape that I was discovering in Second Life™ had been created by its users. I was also seduced by the fact that, despite obvious technological similarities with popular online playing game worlds, Second Life™ was not a game with narrative and close-ended goal, but a shared open-ended canvas. Very early in my exploration journey, I could envision that such technologies could help supporting real time collaboration between participants in distance learning courses or in geographically distributed work teams. In particular, professionally, I was interested in exploring the possibilities to use it to offer services to clients worldwide or to engage in collaboration and co-creation with others, independently of where on Earth they might be located.

This is how and why my exploration began. This is what has given me the energy, patience and passion to take the necessary steps to formally learn about the virtual immersive environments and develop the necessary skills to be able to build a "virtual immersive professional outpost."

Utilisation of virtual worlds by corporations and higher education and public institutions is still in its early days. Like other breakthrough technologies, the penetration and adoption of 3D immersive virtual environments follow social pattern of innovation diffusion (Rogers, 2003). As the body of case studies grows with stories of successful applications of virtual worlds, notably

to challenges where every previous attempt failed, virtual worlds will get progressively beyond

the radars of technology enthusiasts and visionaries (Heiphetz & Woodill, 2010). Numerous and

diverse barriers also contribute to their slow adoption among which technical barriers such as

client hardware and network capability, reliability, scalability, compatibility and security of

platforms, the significant learning curves for users, and a range of negative perceptions. As an

early adopter, I also realized that the market is not there waiting for me. Prior to be able to

deliver a full range of services in creativity and creative leadership in 3D-virtual worlds,

targeting primarily geographically dispersed teams and distributed communities, much more

basic works would have to be done, and this, notwithstanding the need to create entire new ways

and venues to deliver them. I figured out that I would have to begin with investing time and

energy in building awareness and facilitating skills development. It was clear, however, that to

me 3D-immersive virtual worlds and environments are not an end, but potential venues to offer

professional services in creativity and change leadership to adult audiences. Therefore, in

essence, I had to figure out how I could contribute to building awareness and skills in a way that

promotes creative skills, in a way that it can be engaging and meaningful to potential adult users.

This challenge could be articulated as follows: How to create a training program to facilitate an

early exploration of Second Life™ by adult learners and professionals to:

   3) expose at a basic level learners to the range of benefits user-created social virtual worlds
      might offer, and

   4) provide opportunities to make informed decisions as to whether or not it is personally
      worthwhile to the learner to further explore and begin to experiment with it?

   I am therefore proposing to take advantage of the unique learning opportunity offered by

the master project to begin building such a program. I am proposing to develop a "humanistic"

and creative approach to avatar training. In 3D immersive virtual worlds, such as Second Life™, participants are represented by avatars. This is through avatars that users navigate through the world and places and interact with objects and others. The sooner users are able to feel well represented by their avatars, the better disposed they will be to make use of these new technologies and make sense of their experience.

I propose to begin by articulating why avatar training should be approached in terms of needs and how Maslow's Hierarchy of Needs could provide guidance with respect to defining learning paths that respond to the needs and lead to achieving meaningful goals (Maslow, 1943; Maslow & Frager, 1987). I propose then to develop a 3D visual framework for a learning program to facilitate entry in, and early exploration of Second Life™ by adult learners and professionals, so they can envision the opportunities offered by this platform for training and professional development, networking, collaboration and co-creation and, finally, to develop the prototype (i.e. instructions, lesson plans, scenarios and venues in Second Life™).

The assessment of avatar training needs will be anchored in a humanistic perspective of learning. Humanists view learning as a volitional act to fulfill one's own potential (Huitt, 2007; Humanism, 2012; Smith, 1999).   In humanism, learning is learner-centered and intrinsically motivated; the role of the instructor is one of a facilitator. The learning strategies should be personalized and designed to facilitate the engagement of the learners as whole persons with their experiences, combining affective and cognitive skills as well as both logic and intuition. I propose to draw a concept of a hierarchy of needs for avatar training and show how it can inform the direction of a meaningful learning journey that takes into account learners' "real" personal or professional goals and their current proficiency with respect to Second Life™ skills. A humanistic approach to defining the learning path would aim at providing balance between

addressing the "deficiency needs" and facilitating meaningful learning experiences that keep

participants beyond boredom and anxiety (Csikszentmihalyi, 1975). This means that an adequate

learning path would have to integrate basic, intermediary and advanced Second Life™ skills in

such a way that not every skill has to be learned prior to be able to accomplish concrete tasks and

build on small successes. The need and rationale for a humanistic approach to designing an

avatar training program are grounded in the following principles: avatars are extension of real

people with real life goals and needs; avatar training needs are real and relate to the skills that

users must practice, internalize and eventually master so they can take advantage of these new

technologies; and 3D immersive platforms such as Second Life™ can be used to achieve

meaningful and real goals, seize emerging opportunities or create new ones.

A humanistic approach to avatar training could inform the development of customized

learning programs and provide guidance for the content, directions, and overarching principles to

consider when targeting adult learners. The implementation of such approach would, however,

have to be supported by instructional packages describing the learning strategies, scenarios,

activities, assessment processes and 3D venues and objects. This being said, in the context of

this project, it is necessary to make arbitrary decisions upfront with respect to the targeted

audience and the overarching concrete goal for the program. I intend to target the following

audience : adult learners, professionals and educators, with no or limited knowledge of Second

Life ™, and who would like to explore the opportunities that it might offer for distance learning,

networking and collaboration. With this audience in mind, I propose to tackle a familiar task as

overarching goal: making a short presentation in Second Life™. The objective here is to acquire

the skills needed to prepare a presentation and be comfortable to present it is Second Life™, not

to impose a specific topic or audience to participants.

I intend to use the Torrance Incubation Model (TIM)'s approach for guidance to develop and deliver this specific avatar skill development program to the above mentioned targeted audience (Torrance, 1987; Torrance & Safter, 1990, 1999). TIM's three stage approach fits well with a humanistic approach to adult training notably, for the importance given to heightening and sustaining motivation and to facilitate reflective practices. Furthermore, it provides a unique framework to weave into the learning program opportunities to developing and practicing creativity skills. At this stage in my reflection, I intend to target four creativity skills which I believe offer the greatest potential of synergies with both content and context. They are, as coined by Torrance & Safter (1990, 1999) and supported through fifty years of longitudinal research (Millar, 2010): "keep open"; "be aware of emotions"; "let humor flow and use it"; and "get glimpses of the future."

The affordance and the rich immersive qualities of Second Life™ facilitate the learning of new skills (content) in context and offer opportunities for experiential learning, for learning by doing. I expect to identify grounding principles within the program framework to provide guidance when designing and facilitating learning programs for adult learners (Vella, 2002). The design of the learning activities and assessment framework will be framed around learning archetypes of the nascent field of cybergogy (Kapp & O'Driscoll, 2010; Scopes, 2011). In summary, my aim is that participants to such avatar training program would

- learn and practice the hierarchy of skills to make a presentation in Second Life™;

- develop and practice creativity skills;

- experience new ways to learning in a rich 3D immersive social virtual world (3DiSVW); and,

- have the opportunity to explore and feel the seven sensibilities of 3D virtual immersive

    environment as beautifully and efficiently articulated by Tony O' Driscoll in 2007 (Table

    1).

Table 1

The Seven Sensibilities of Virtual Immersive Environments

Sensibilities	Explanation
The Sense of Self	Experiencing an extension of self as avatar into a virtual space.
The Death of Distance	Interacting with others, in real time, in a shared place; geographical barriers made history.
The Power of Presence	Being virtually there; experiencing a genuine sense of presence in a shared context.
The Sense of Space and Scale	Creating entirely new perspectives in taking advantage of virtually unlimited scale and space.
The Capability to Co-Create	Participating actively, new opportunities for generative learning and co-creation in a shared virtual context
The Pervasiveness of Practice	Learning by doing through trial and error and simulations.
The Enrichment of Experience	Creating memorable experiences, for experiential learning (watching, thinking, feeling, doing)
Kapp & O' Driscoll (2010)	http://www.youtube.com/watch?v=O2jY4UkPbAc

In doing so, I invite adult learners to take a familiar goal, i.e. making a presentation, and to transpose it in a strange context, in a social virtual world. The first two objectives will help providing the conditions for participants to make the "strange context" familiar. They will then be able to compare the two contexts, the physical and the 3D virtual environments, with respect to making a presentation in a familiar way, i.e. to see the similarities and the differences and experience the advantages and disadvantages. The last two objectives should then set the stage to progressively make the familiar task strange. With an increasing awareness of the new possibilities offered by these "new worlds", participants could, with time, discover and imagine entirely new ways to present ideas, with new dimensions. The above notions of "making the strange familiar" and the "familiar strange" are inspired by the concepts at the core of the

synectics approach. Synectics is a structured approach to problem solving that deliberately

triggers creative inspiration using analogical and metaphorical thinking tools (Davis, 2004;

Gordon, 1961; Prince, 1968).   During this project, I will not formally apply synectics tools.

However, reflective practices would be supported throughout the delivery of the program so that

participants could make sense of their early exposure to connecting "within" 3D-immersive

social virtual worlds.

Context for my project.

A rapidly changing world.

We are living in an era characterized by increased complexity, accelerated pace of change

and rapid paradigm shifts. Every day, in our personal and professional life, we are witnessing

the pervasive and disruptive impact of the rapid evolution of technologies on economy, society

and education. We are living in an era of change and possibly witnessing a change of era.

> *The trouble with our times is that the future is not what it used to be.*
> Paul Valery

> http://www.quotegarden.com/future.html

While business, education, societies and communities are pressured to adapt rapidly to new

realities and find solutions to new challenges, we also assist to a renewed interest in classic

philosophies. For instance, "thirty years ago, humanisms of all sorts were in retreat and,

*"…*today there appears to be a marked reversal to this trend" (Gibson 2004, p. 155). Factors

such as the enthusiasm for humanist themes in business management and business educational

programs, the rapid turnover of technologies, the increased unpredictability of workplace and

workforce requirements, and the increasing complexity of challenges are contributing to a

renewed interest in humanism leading to the rediscovery of the value of general education by

employers and educators (Gibson, 2004). Business leaders and educational policy makers are now putting more emphasis on the importance of critical thinking, creativity, and a range of generic skills (Flew, 2004). This may lead to believe that this is a rupture with the emphasis on specialization which has dominated the recent decades; it may however pave the way to new and better ways to balance generalist and specialist approaches in education and at workplace so that students and employees develop the skills necessary to collaborate across disciplines (Pastor, 2010). There is an obvious need for developing flexibility and ability to see new connections between apparently distinct domains and situations. In other spheres, humanism is being seen as "an antidote to narrow corporate-centric ways of representing interests in modern society" (Gibson, 2004, p. 156).

As we just began to manage the demands from the information age, we assist to the impact of web 2.0 social technologies on economy, society and education, and to the emergence of the "conversation age"; this conversation is a powerful driver of changes that reach far beyond the realm of the technologies that made them possible (Edelman, 2008; Huitt 2007). And we are at the dawn of the web 3.0 technologies and likely to societal impacts that we can hardly imagine (Kapp & O'Driscoll, 2010; Pink, 2005). The rapid "webvolution" which began in 1993 with the launch of the first Mosaic browser has changed the way we connect, communicate, collaborate, make decision and take action locally and globally: with web 1.0 we connect "to" Internet (accessing and finding information), then with web 2.0 we connect "through" Internet (we interact socially, we share, participate, collaborate and finally with virtual worlds and the emergence of web 3.0 we now have the opportunity to connect "within" (offering new opportunities for immersive learning, collaboration and co-creation in real time and at a global scale) (Kapp & O'Driscoll, 2010).

Changes in the economy and technologies have profound transformational effect on society, economy, workplace and education. We observe a clear shift regarding the desired skills, competencies and attributes necessary to survive, live and prosper in this perpetually changing world (Gibson, 2004; Huitt, 2007; Kapp and O'Driscoll 2010; Pastor, 2010; Puccio, Mance & Murdock, 2011). Attributes, skills and competencies such as emotional literacy, ability to balance empathy and logic, as well as creative and critical thinking, ability to play, ability differentiate and integrate, networking and technology proficiency, highly valued today, were not common language in the workplace and education a decade ago.

We are living in a rapidly changing world. The problems, the workplace, the approach to solution finding are changing. The problems we face are increasingly heuristic and complex and necessitate collaboration across disciplines at multi level in real time and at global scale, the ability to make sense and take action. "What skills and tools are needed to do this work?" (Pastor, 2010). Building on this question, we can also ask what technologies and collaboration platforms are needed to do this work.

New worlds with new challenges and opportunities for the "real" world.

There is no universally agreed upon definition for Virtual Worlds (Bell, 2007, 2008; Cascio, Paffendorf & Smart, 2007; Spense, 2008). According to Cascio, Paffendorf and Smart (2008), we have assisted to the development of a universe of 3D environments and tools that could be described along two orthogonal continua (external –internal and simulation-augmentation) defining four broad categories: "Virtual Worlds", "Mirror Worlds", "Augmented Reality" and "Lifelogging". Virtual worlds are computer mediated and persistent 3D immersive environments that exist on worldwide area network (WAN); these 3D immersive virtual worlds

(3DiVW) are massively multi-users and can accommodate on global scale users represented by avatars with agency, i.e. capable of performing actions (Peachy, Gillen, Livingston & Smith-Robbins, 2010). Virtual worlds can be divided in two large categories, game centric (ex. Massively Multi-players Role Play Games or MMRPG such as World of Warcraft) and social centric virtual worlds such as SecondLife™. In game-centric 3DiVW, most of the activities are built around character power development, story narrative (quest) and reward systems. Social centric worlds are leaving place to wider interpretations regarding their purpose because they are open-ended, and there is no obvious way to "win" (Scopes, 2011). Pure 3DiSVW such as Second Life are open-ended and can be applied to any context as opposed to game-centric worlds (Johnson & Levine, 2008). In 3D-immersive social virtual worlds (3DiSVW) strong social and in-world creation tools have been substituted to the game mechanic at the core of game-centric worlds (Peachy, Gillen, Livingston, Smith-Robbins, 2010). While in game-centric worlds behaviors of participants are typically driven by external motivations in the form of narrative, game goals and reward system, in social-centric world, both internal and external drivers can influence motivation. According to Johnson and Levine (2008) the Maslow Hierarchy of Needs can be illuminating when interpreting the learning behaviors of new entrant to 3DiSVW.

The use of 3DiSVW for corporate business and education is still in its early days of exploration and development; the corpus of case studies and research papers is rapidly growing and shows promising avenues (Heiphetz & Woodhill, 2010; Johnson & Levine, 2009; Hinrichs & Wankel, 2011; Kapp & O'Driscoll, 2010). Advances in application of virtual worlds are expected to profoundly affect the future of employee training and the way we learn as adults. Recent experiences with virtual worlds by large corporations such as Microsoft, IBM, Intel,

Cisco, Michelin and the World Bank unveil the following emerging trends for the application of virtual worlds: to facilitate collaboration among members of geographically dispersed teams, to deliver specific corporate trainings and to support leadership and team building and development (Heiphetz & Woodhill, 2010). Virtual worlds could offer so many benefits that companies willing to stay at the leading edge consider that they must at least support experimenting with them if they do not want to be at serious competitive disadvantage (Heiphetz & Woodill, 2010). In education, the social-centric virtual worlds offer "tremendous potential to increase not only the efficacy of learning, but the joy of learning that all self-directed learners know" (Johnson & Levine, 2008, p. 169).

According to the recent Gartner Hype Cycle, virtual worlds are currently in the middle of the "trough of disillusionment" (Frommer, 2011; Kapp, 2011). Gartner hype cycles are used to characterize the hype and subsequent disillusion that typically occur when new technologies are introduced; Gartner cycle distinguishes the five following phases in the technology maturation cycle: 1) technology trigger, 2) peak of inflated expectations, 3) through disillusionment, 4) slope of enlightenment and 5) plateau of productivity (Hype cycle, 2012). Technologies enter the "through of disillusionment" phase because they fail to meet the early and often inflated expectations; usually, through that phase, technologies do not attract much press attention. However, the press may have stopped following the technologies but some businesses and institutions continue to experiment to better understand the real benefits and practical applications of the new technology. Kapp (2011) challenges somehow the position of virtual worlds in the latest version of Gartner's hype cycle; he argues that many new practical applications of virtual worlds are being enacted and believes that they will quickly leave the "through" phase and begin to move up the "slope of enlightenment".

A number of trends in technology development and in the economy are expected to contribute to foster further development and penetration of virtual worlds. Among the technological trends having the potential to further promote adoption of virtual worlds are: increasing hardware and network capacities, the increasing realism of 3D spaces, avatars and objects, improved tools to customize the creation of working and learning 3D virtual spaces, development of multi virtual worlds with progress toward their interoperability, trend toward distributed sources of content, and convergence of virtual world tools with other existing training technologies (Heiphetz & Woodill, 2011). Worldwide megatrends are also susceptible to foster further experimentation with, and broader adoption of virtual worlds' technologies and applications for collaboration and continuous learning. These trends comprise, but are not limited to, economical pressure, raising cost of energy and environmental consciousness leading to reduction of travel budget, increase complexity and pace of change, as a consequence, the need to tap into, and bring to bear, global collective intelligence in real time.

The future influences the present just as much as the past.
Friedrich Nietzsche

http://www.brainyquote.com/quotes/keywords/future_2.html#ixzz1ku1pcltH

A new virtual outpost for a Diaspora of creativity experts?

Despite this context, I have to admit that ventures and experimentations with virtual worlds to promote discussion about and collaboration on 21st century challenges and issues of interest to creativity experts and creative leaders globally are at best marginal. My sense is that 21st century 3DiVSW technologies could provide a dynamic place to initiate, nurture and advance a global dialogue on ways to bring creativity and change leadership to bear in our increasingly complex and rapidly changing world. Why are we waiting? What are we waiting for? In what ways, can I contribute to creating momentum? Certainly, the program that I will begin to develop within the

course of this master project, would have the potential to facilitate entry of creativity professionals interested in creating a "place" for a Diaspora of creativity experts.

Creativity and Change Leadership Skills.

With respect to developing and applying new creativity skills, I feel that this project will force me to go out of my comfort zone in order to develop the prototype of a learning program framework and the lesson plans, scenarios and 3D venues and material for the first module of the program. I have shown in the past natural talents for teaching. I have however no formal training and expertise with designing and implementing learning strategies. In this new context, it may, however, be seen as an advantage as I do not carry with me a baggage of traditional classroom based practices. I do feel comfortable with pursuing a vision with intent, spanning boundaries, cross-fertilizing, experimenting, and learning from mistakes. I can experiment without to be traumatized by failure as long as I see value, and invest myself with passion in the journey. I also believe that independence of mind and resistance to critic and judgement are essential.

Rationale for Selection of this Project

My decision to apply in January 2009, to the certificate in Creativity and Change Leadership was linked to my profound desire to take a step back and take the time to "define my mid-career and life goals with the motivation to build on my strengths, do activities that I like the most and make a more significant contribution to society and to my community" (Charest, *Letter of Intent*, January 22, 2009, p.1).

In early summer 2009, when preparing the first assignment of the first course it became very obvious that I was beginning an entirely new journey and that to get the most of it, I should free myself from any preset goals and keep my eyes open, stay aware of my emotions and be reflective.

"A good traveler has no fixed plans
and is not intent upon arriving.
A good artist lets his intuition
lead him wherever it wants.
A good scientist has freed himself of concepts
and keeps his mind open to what is."
Lao Tzu (570-490 BC)

http://en.wikiquote.org/wiki/Lao_Tzu

I can only say that it has been a true insightful journey with many turning points and, now looking at it with some distance, surprisingly unfolding in a very coherent thread of personal and professional development.

In early June 2009, for the first time in my life, I was able to articulate clearly what constitutes the nature of my intrinsic motivation:

My motivation resides in the satisfaction to tackle difficult and meaningful challenges as long as they are offering potential for growth. Those challenges are not the destination but only a trajectory of my journey. I like to learn, understand, apply or transfer knowledge. For me, ultimate satisfaction comes from illuminations that contribute to simplification and integration of complex challenges and concepts. (Charest, 2009, p.11)

Prior to fall 2009 session, I had not heard about Second Life™; I had no clue about it and fortunately no preconceived opinion. I simply knew that it was suggested that this platform could be used for meetings with our colleagues during our first online distance course with Dr. John Cabra and registered an avatar on August 25, 2009. Less than half of the members of our cohort registered an avatar. There was overall a limited appeal to try it and the timing could not

have been worse. The creativity assessment course was the first online course for our cohort; the nature of the course and the adaptation to the distance learning platform and tools had steep learning curves, as well. I was lucky to have my colleague and friend, François Bernard Malo, as my sounding board partner for this course. Like me, he was curious and ready to give it a try and we decided to use it for our weekly sounding board partners' meetings. We made a point to always have both serious meeting discussions and some playful exploration at the agenda of our meetings. We were both amazed by the quality of the presence we felt and energized by the feeling of experiencing a new world together, in real time, and … François, was no less real as Frankiki.

I must admit that I enjoyed it immediately but not without being inhabited by the following bottom line questions: what am I doing here and am I wasting my time? Committed to my intention to suspend judgment and to stay open to new discovery, I then decided to explore it further as a learner and to use it to do my last assignment of the 2009 fall course. I then decided to continue my exploration to get a better sense of the opportunity such platform could offer and to see if I can learn how to use it better. I found a short online program offered in Second Life™ by a German high school offering continuous learning programs to adults in Second Life™. I learned the basic skills with them. I was having a growing sense to be in my element, envisioning all possibilities such platform could offer.

This first somehow deeper exploration of Second Life™ helped me to firm my early vision of the potential offered by such a platform.

> *"A rock pile ceases to be a rock pile the moment a single man contemplates it,*
> *bearing with him the image of a cathedral."*
> Antoine de Saint-Exupéry

http://en.wikiquote.org/wiki/Antoine_de_Saint_Exup%C3%A9ry

In my philosophy and vision paper (summer 2010), I wrote: "Where I am aiming to, professionally, can be seen as very surprising; I would not have been able even to suggest such opportunity when I joined the program". I then formulated the following vision statement for my new professional journey: "Virtually sparking new ways to develop and nurture creativity: Expanding access to creative thinking via VIE-learning and VIE-teaming."

In its original version, I was using "v-learning" and "v-teaming". This was not, however, reflecting the powerful difference it makes to learn and collaborate in a 3D immersive environment. The acronym "VIE", as coined by Karl Kapp & O' Driscoll (2010), stands for Virtual Immersive Environment.

> *"All great deeds and all great thoughts have a ridiculous beginning"*
> Albert Camus
>
> http://www.quotationspage.com/quote/39992.html

I described then two strategic strands for potential creativity professional applications using virtual worlds such as Second Life ™ as platform or venue. I see myself creating new ways to offer creativity training and facilitation, at distance, with a particular interest to apply it to geographically distributed teams and community groups. My first actionable step then was to attend a webinar in July 2010 about the Certificate in Virtual Worlds offered by the University of Washington. I applied immediately, began in September 2010 and graduated in June 2011.

Here I am with this project. I am certainly passionate about it. The project is both essential and timely. I also believe that it is time to grow a creativity expert presence and service offering to a broader clientele worldwide. It is also crucial to contribute to the rapidly growing corpus of training expertise in bringing to bear our expertise, to adapt and apply our tools and develop new one. This project is expected to ease the entry and initial exploration of virtual worlds. My goal is not to sell a new platform and I have no mission to convince anyone that this is the way to go. To me, virtual worlds are not an end, only a venue but a rich and promising

one. My goal is to make sure that the decision to use or not these new pervasive technologies is an informed one. There are a number of low hanging fruit that we could all take advantage of. Just imagine what it would mean to be able to meet together in a shared common place, in real time, to discuss and share insights on the latest books we read, the latest experience we had, the upcoming challenge we face? Just imagine presenting at a creativity conference held in Second Life™, or even better, to attend a conference with presentations and panels held simultaneously in a real physical location and in a virtual world with the support of two-way streaming technologies! Just imagine!

"The creation of something new is not accomplished by the intellect but by the play instinct acting from inner necessity. The creative mind plays with the objects it loves."
Carl Jung

Jung, C. (1971). In J. Jacobe (Ed.), C.G. Jung: psychological reflections. A new anthology of his writings 1905-1961. London, England: Routledge and Kegan Paul Publishing.

Section Two: Pertinent Literature and Resources

The integrating nature of my project necessitates the exploration of diverse sources of

literature from classic to recent; from printed material to electronic; and from books, edited

books, peer reviewed journals and reports to magazines, blogs, and wikis. To find pertinent

literature I count primarily on search engines, journal databases and library catalogues (via E.H.

Butler Library), and on the review of references in relevant sources.

In addition to the formal written resources listed thereafter, I will count on broad and large

networks to get external input on issues such as the barriers to entry in Second Life™. These

networks could include, but are not limited to, University of Washington, Avalumni (Alumni of

the Certificate in Virtual Worlds); ISCS alumni, colleagues of the current master project course,

LinkedIn Second Life users network, Second Life Community Forums, friends of my first and

"second" life using online 2D social platforms or collaborative tools such as brainstorming

boards. I can count on the support and feedback from two closed alumni colleagues and my

husband.   I will as well identify a small group of 4 to 6 people who will be offered a guided tour

of the prototyped installations in Second Life™.

The literature and information relevant to supporting my project would generally fit under

the following themes:

Torrance Incubation Model (TIM)

Maslow Hierarchy of Needs & humanistic approaches (theory and applications)

Motivation, creativity, change

Teaching / learning / distance courses (in virtual & 3D immersive environments)

Education, continuous learning & adult learning

General guidance for my own creative process

Future studies, foresight, trends

I have already collected, read or at least scanned the following references supporting the above-mentioned mentioned themes. With the exception of the last theme (future studies, foresight and trends), I feel fairly well equipped with the documents assembled so far.

Torrance Incubation Model

Caropreso, E. (2011). *Using the Torrance incubation model (TIM) to enhance instruction and support creative problem solving*. Paper presented at the Watson School of Education AIG Mini-conference. Retrieved from uncw.edu/ed/aig/documents/AIGMiniCon_TIM-Creativity.ppt

Isaksen, S. G. (Ed.). (1987). *Frontiers of creativity research : Beyond the basics*. Buffalo, NY: Bearly Ltd.

Millar, G. W. (1995). *E. Paul Torrance: The creativity man*. Norwood, NJ: Ablex Publishing Corporation.

Millar, G. W. (2010). *The power of creativity: Results of 50-year follow-up to the Torrance longitudinal study of creative behavior*. Bensenville, IL: Scholastic Testing Service, Inc.

Murdock, M. C., & Keller-Mathers, S. (2008). Teaching and learning creativity with the Torrance incubation model: A research and practice update. *The International Journal of Creativity & Problem Solving, 18*(2), 11-33.

Torrance, E. P. (1987). Teaching for creativity. In S. Isaksen (Ed.), *Frontiers of creativity research: Beyond the basics* (pp. 189-215). Buffalo,NY: Bearly Limited.

Torrance, E. P. (1995). *Why fly? A philosophy of creativity*. Norwood, NJ: Ablex Publishing Corporation.

Torrance, E. P., & Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.

Torrance, E. P., & Safter, H. T. (1999). *Making the creative leap beyond...* Amherst, MA: Creative Education Foundation Press.

Worwood, M. (2011). Torrance incubation model of creative teaching and learning (TIM). *Tech Digital: Teaching creativity using digital media and movie making*. Retrieved from http://www.teachdigital.org/wp-content/uploads/2011/05/TIM_PROJECT_Model_DM3_01.

Maslow's Hierarchy of Needs & Humanistic Theory and Applications

Beise, C., & Wynekoop, J. (2001). *A hierarchy of needs for a virtual class*. Paper presented at the International Academy for Information Management (IAIM) Annual Conference: International Conference on Informatics Education & Research (ICIER) New Orleans, LA. Retrieved from ERIC database. (ED474087)

Ensslin, A. (2011). Avatar needs and remediation of architecture in Second Life. In A. Ensslin & E. J. Muse (Eds.), *Creating Second Lives: Community, identity and spatiality as constructions of the virtual* (pp. 169-189). New York, NY: Taylor & Francis.

Experiential Learning (Kolb). (n.d.). In *Learning Theories Knowledgebase*. Retrieved January 25, 2012, from http://www.learning-theories.com/experiential-learning-kolb.html

Flew, T. (2004). Creativity, the 'new humanism' and cultural studies. *Continuum, 18*(2), 161-178. doi: 10.1080/1030431042000214979

Gibson, M. (2004). Introduction—the new humanism. *Continuum, 18*(2), 155-159. doi: 10.1080/1030431042000214960

Huitt, W. G. (2007a). Maslow's Hierarchy of Needs. In *Educational Psychology Interactive*.

    Retrieved from http://www.edpsycinteractive.org/topics/conation/maslow.html

Huitt, W. G. (2007b). *Success in the conceptual age: Another paradigm shift*. Paper presented at

    the 32nd Annual Meeting of the Georgia Educational Research Association, Savannah,

    GA. Retrieved from http://www.edpsycinteractive.org/papers/conceptual-age.pdf

Humanism. (n.d.). In *Learning Theories Knowledgebase*. Retrieved January 25, 2012 from

    http://www.learning-theories.com/humanism.html

Maslow's Hierarchy of Needs. (n.d.). In *Learning Theories Knowledgebase*. Retrieved January

    25, 2012, from http://www.learning-theories.com/maslows-hierarchy-of-needs.html

Maslow's Hierarchy of Needs. (n.d.). In *Wikipedia*. Retrieved January 25, 2012, from

    http://en.wikipedia.org/wiki/Maslow's_hierarchy_of_needs

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370-396.

    Retrieved from http://psychclassics.yorku.ca/Maslow/motivation.htm

Maslow, A. H. (1999). *Toward a psychology of being* (3rd ed.). New York, NY: J. Wiley &

    Sons.

Maslow, A. H., & Frager, R. (1987). *Motivation and personality* (3rd ed.). New York, NY:

    Harper and Row.

Smith, K. K. (1999). Humanistic orientations to learning. Retrieved from

    http://www.infed.org/biblio/learning-humanistic.htm

Sun, K.-T., & Wang, C.-H. (2011). Architecture of an e-learning platform deriving from Maslow

    hierarchy of needs and technologic ideas. *Advanced in Information Sciences and Service

    Sciences, 3*(5), 236-242.

Motivation, Creativity, Change, Technology Change

Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what to do. *California Management Review, 40*(1), 39-58.

Beghetto, R. A., & Kaufman, J. C. (Eds.). (2010). *Nurturing creativity in the classroom.* New York, NY: Cambridge University Press.

Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety: Experiencing flow in work and play* (25th anniversary ed.). San Francisco, CA: Jossey-Bass Publishers.

Csikszentmihalyi, M. (1990). *Flow : The psychology of optimal experience* (1st ed.). New York, NY: Harper & Row.

Gordon, W. J. J. (1961). *Synectics: The development of creative capacity* (1st ed.). New York, NY: Harper.

Pettey, C. (2007, April 24). Gartner says 80% of active Internet users will have a 'second life' in the virtual worlds by the end of 2011. Retrieved from http://www.gartner.com/it/page.jsp?id=503861

Pastor, E. (2010, June). '*SenceMaking' for 'ChangeMaking'*. Conference presented at the Icograda's Straight to Business Conference, Madrid, Spain. Retrieved from http://www.issuu.com/humantific/docs/humantific_2010

Pink, D. H. (2005). *A whole new mind: Moving from the information age to the conceptual age*. New York, NY: Riverhead Books.

Rogers, E. M. (2003). *Diffusion of innovations* (5 ed.). New York, NY: Free Press.

Torrance, E. P. (1983). The importance of falling in love with something. *The Creative Child and Adult Quarterly, 8*(2), 72-78.

Second Life™ Competencies

Hodge, E., Collins, S., & Giordano, T. (2011). *The virtual worlds handbook: How to use Second Life and other 3D virtual environments*. Sudbury, MA: Jones and Bartlett Publishers.

Moore, D., Thome, M., & Haigh, K. Z. (2008). *Scripting your world: The official guide to Second Life scripting*. Indianapolis, IN: Wiley Publishing, Inc.

Robbins, S., & Bell, M. (2008). *Second Life for dummies: Here is your passport to the Second Life of your dreams!* Indianapolis, IN: Wiley Publishing, Inc.

Rymaszewski, M., Au, W. J., Ondrejka, C., Platel, R., Van Gorden, S., Cézanne, J., . . . Rossignol, J. (2008). *Second life:The official guide* (2nd ed.). Indianapolis, IN.: Wiley Publishing, Inc.

Weber, A., Rufer-Bach, K., & Platel, R. (2008). *Creating your world: The official guide to advanced content creation for Second Life*. Indianapolis, IN: Wiley Publishing, Inc.

Teaching & Learning in Virtual & 3D Immersive Environments

Atkins, C., & Caukill, M. (2009). Serious fun and serious learning: The challenge of Second Life. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 79-90). Trondheim, Norway: Tapir Academic Press.

Bell, M.W. (2007). Definition and taxonomy of virtual worlds. Retrieved October 15, 2010, from http://www.slideshare.net/storygeek/definition-of-virtual-worlds

Bell, M.V. (2008). Toward a definition of 'virtual worlds'. *Journal of Virtual World Research 1*(1), 1-5.

Cascio, J., Paffendorf, J., & Smart, J. (2007). *Metaverse Roadmap: Pathways to the 3D web*. Retrieved from http://www.metaverseroadmap.org/overview/

Deutschmann, M. (2009). Instructional design, teacher practice and learner autonomy. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 27-43). Trondheim, Norway: Tapic Academic Press.

Deutschmann, M., & Molka-Danielsen, J. (2009). Future directions for learning in virtual worlds. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 185-189). Trondheim, Norway: Tapir Academic Press.

Dudeney, G., & Ramsay, H. (2009). Overcoming the entry barriers to Second Life in higher education. In C. Wankel & J. Kingsley (Eds.), *Higher education in virtual worlds: Teaching and learning in Second Life* (pp. 11-28). Bingley, UK: Emerald.

Ensslin, A., & Muse, E. J. (Eds.). (2011). *Creating second lives: Community, identity, and spatiality as constructions of the virtual*. New York, NY: Routledge.

Heiphetz, A., & Woodill, G. (2010). *Training and collaboration with virtual worlds : How to create cost-saving, efficient and engaging programs*. New York, NY: McGraw-Hill.

Hinrichs, R. (2011). Thinking in 3D. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning* (pp. xiii-xxxi). Bingley, UK: Emerald.

Hinrichs, R., & Wankel, C. (Eds.). (2011). *Transforming virtual world learning: Cutting -edge technologies in higher education*. Bingley, UK: Emerald.

Johnson, L. F., & Levine, A. H. (2008). Virtual Worlds: Inherently immersive, highly social learning spaces. *Theory into Practice, 47*(2), 161-170. doi: 10.1080/00405840801992397

Kapp, K. M., & O'Driscoll, T. (2010). *Learning in 3D: Adding a new dimension to enterprise learning and collaboration*. San Francisco, CA: Pfeiffer.

Love, E., Ross, S. C., & Wilhelm, W. (2009). Opportunities and challenges for business education in Second Life. In C. Wankel & J. Kingsley (Eds.), *Higher education in virtual worlds: Teaching and learning in Second Life* (pp. 65-82). Bingley, UK: Emerald.

McKeown, L. (2009). Action learning in a virtual world. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 91-102). Trondheim, Norway: Tapir Academic Press.

Molka-Danielsen, J. (2009). The new learning and teaching environment. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 13-25). Trondheim, Norway: Tapir Academic Press.

Molka-Danielsen, J., & Deutschmann, M. (Eds.). (2009). *Learning and teaching in the virtual world of Second Life*. Trondheim, Norway: Tapic Academic Press.

Monteith, M., & Smith, J. (2001). Learning in a Virtual Campus: The Pedagogical Implications of Students' Experiences. *Innovations in Education and Teaching International, 38*(2), 119-132. doi: 10.1080/13558000010030176

Moschini, E. (2010). The Second Life Researcher Toolkit: An exploration of inworlds tools, methods and approaches for researching educational projects in Second Life. In A. Peachey, J. Gillen, D. Livingstone & S. Smith-Robbins (Eds.), *Researching learning in virtual worlds* (pp. 31-51). London, UK: Springer.

Peachey, A., Gillen, J., Livingstone, D., & Smith-Robbins, S. (Eds.). (2010). *Researching learning in virtual worlds* (1st ed.). New York, NY: Springer.

Peachey, A., & Childs, M. (Eds.). (2011). *Reinventing ourselves: Contemporary concepts of identity in virtual worlds*. New York, NY: Springer.

Richardson, D., & Molka-Danielsen, J. (2009). Assessing student performance. In J. Molka-Danielsen & M. Deutschmann (Eds.), *Learning and teaching in the virtual world of Second Life* (pp. 45-60). Trondheim, Norway: Tapir Academic Press.

Savin-Baden, M. (2010). *A practical guide to using Second Life in higher education*. Maidenhead, UK: McGraw Hill, Open University Press.

Scopes, L. (2011). A cybergogy of learning archetypes and learning domains: Pratical pedagogy for 3D immersive virtual worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning* (pp. 3-28). Bingley, UK: Emerald.

Sherman, K. M. (2011). An imagined community of avatars: A theoretical interrogation of Second Life as nation through the lens of Benedict Anderson's imagined communities. In A. Ensslin & E. J. Muse (Eds.), *Creating second lives: Community, identity and spatiality as constructions of the virtual* (pp. 32-53). New York, NY: Routledge.

Spence, J. (2008). Demographics of virtual worlds. *Journal of Virtual Worlds Research, 1*(2), 1-44.

Wankel, C., & Kingsley, J. (Eds.). (2009). *Higher education in virtual worlds: Teaching and learning in Second Life*. Bingley, UK: Emerald.

Worwood, M. (May, 2011). Creative education in the digital age (integrating technology). Retrieved from www.teachdigital.org/2011/05/creative-education-in-the-digital-age/

Education, Continuous Learning and Adult Learning

Bullock, I., Davis, M., Lockey, A., & Mackway-Jones, K. (Eds.). (2008). *Pocket guide to teaching for medical instructors* (2nd ed.). Malden, MA: Blackwell-Publishing.

Madsen, S. R., & Wilson, I. (2006). *The influence of Maslow's humanistic views on an employee's motivation to learn*. Paper presented at the Mountain Plains Management Conference, Orem, UT. Retrieved from http://works.bepress.com/susan_madsen/83

Raya, M. J., & Fernández, J. M. P. (2002). Learner autonomy and new technologies. *Educational Media International, 39*(1), 61-68. doi: 10.1080/09523980210131240

Rogers, C. R. (1969). *Freedom to learn: A view of what education might become*. Columbus, OH: C. E. Merrill Pub. Co.

Vella, J. K. (2002). *Learning to listen, learning to teach: The power of dialogue in educating adults* (Rev. ed.). San Francisco, CA: Jossey-Bass.

General Guidance for my own Creative Process

Charest, N. (2009, January, 22). *Letter of Intent*. Unpublished item of the application package to the Certificate in Creativity and Change Leadership, Buffalo, NY: International Center for Studies in creativity, Buffalo State College.

Charest, N. (2009). *Creativity and the creative person: At the dawn of a new autotelic journey.* Unpublished CRS 559 creativity paper assignment, Buffalo, NY: International Center for Studies in Creativity, Buffalo State College.

Charest, N. (2010). *My philosophy, vision, strategic plan: A situation update*. Unpublished CRS 635 final paper, Buffalo, NY: International Center for Studies in Creativity, Buffalo State College.

Puccio, G. J., Mance, M., & Murdock, M. (2011). *Creative leadership: Skills that drive change* (2nd ed.). Thousand Oaks, CA: SAGE.

Future Studies, Foresight, Trends

Edelman. (2008). *Public engagement in the conversation age*. Retrieved from

http://edelmaneditions.com/wp-content/uploads/2010/11/edelman-public-engagement-in-the-

conversation-age-2008.pdf

Frommer, D. (2011, August, 10). It's "Garner hype cycle" time again. Retrieved from

http://www.splatf.com/2011/08/gartner-hype-cycle-2011/Hype cycle. (n.d.). In *Wikipedia*.

Retrieved January 22, 2012 from http://en.wikipedia.org/wiki/Hype_cycle

Hype cycle. (n.d.). In *Wikipedia*. Retrieved January 22, 2012, from

http://en.wikipedia.org/wiki/Hype_cycle

Kapp, K. M. (2011, December 15). Gamification, virtual worlds and the Gartner hype cycle.

Retrieved from http://www.kaplaneduneering.com/kappnotes/index.php/2011/12/gamification-

virtual-worlds-and-the-gartner-hype-cycle/

Smart, J., Cascio, J., & Paffendorf, J. (2007). *Metaverse roadmap overview*. A. S. Foundation

(Series Ed.). Retrieved from

http://www.metaverseroadmap.org/MetaverseRoadmapOverview.pdf

Smith-Robbins, S. (2011, December 19). Are virtual worlds (still) relevant in education? In

eLearn Magazine. Retrieved from http://elearnmag.acm.org/featured.cfm?aid+207879

Worwood, M. (2010, July 27). Will you consider using virtual worlds in your classroom

environment? Retrieved from http://www.teachdigital.org/2010/07/how/

Section Three: Process Plan

How Do You Plan to Achieve Your Goals and Outcomes?

As previously stated, the following challenge is at the core of the proposed project. How to create a training program to facilitate an early exploration of Second Life™ by adult learners and professionals to:

5) expose at a basic level learners to the range of benefits user-created social virtual worlds might offer, and

6) provide opportunities to make informed decisions as to whether or not it is personally worthwhile to the learner to further explore and begin to experiment with it?

Among other challenges that I am contemplating professionally, I see the following as being potentially addressed as well by the products that I am proposing to prototype during the course of this project.

- What might be the first product I need to develop if I aspire to "expanding access to creative thinking via 'VIE-learning' and 'VIE-teaming'"?

- How can I explore with other creativity professionals the possibility of creating venues that would fill the gap between exchanging in web 2.0 (e.g. via Facebook) and the energizing experience of exchanges face to face when attending conferences or annual meetings? (The underlying value proposal here is if we cannot be everywhere together, can we be there together?)

- How can I help to build a critic mass of creativity professionals to contribute to developing new ways to bridge the 21st century technology with 21st century skills such as creativity and creative leadership?

I am having a first best personal interest in the main as well as in the first of the three additional challenges as stated above. The final products are tools that I believe are essential to my soon to be established business. The last two other challenges reflects my perceived need for finding new ways to create synergies for collaboration and co-creation among our geographically dispersed Diaspora.

In all four cases, the problem is heuristic in nature. We can propose to approach them now, proactively, from a creative leadership perspective, or wait to eventually have to quickly react and adapt. Considering of where virtual worlds are, according to Gartner Hype cycle, I believe that the timing is good for a proactive approach. If seen under the lens of the type of problem, I am trying to apply creative leadership to seize opportunities (Puccio, *et al.*, 2011). As quoted by Karl Kapp and Tony O'Driscoll (2010), "Bill Gates, founder of Microsoft, is credited with noting that the danger with information revolution is that we will overestimate the short-term implications and underestimate the long –term impact" (p. 25). I am naturally future oriented and truly prefer envisioning what might be and getting prepared for it, rather than having to react to predicaments. It is a matter of personality and preferences.

With respect to ownership, I am the immediate client for the products I wish to prototype during the course of this master project. The testing of these prototypes is beyond the timeline and scope of the current project. During the course of summer 2012, I see myself completing the prototypes of the remaining modules of the proposed program and recruiting at least two cohorts of 6-8 brave adults to test the prototypes during fall 2012. I expect then to fine tune the program and modules to begin to use it professionally in 2013. Depending on the uniqueness and added value of the experience, I might as well consider submitting a proposal for a presentation at the Virtual Worlds – Best Practices in Education (VWBPE) in spring 2013 conference.

As mentioned earlier, I am proposing to integrate approaches, principles and design elements from humanistic and adult learning theories and the Torrance Incubation Model for creativity teaching and learning with relevant learning archetypes of the nascent field of cybergogy to the development of a program framework and the prototype of the first module of this program intended to facilitate early experimentation with, and exploration of the opportunities that 3D immersive social virtual worlds such as Second Life™ might offer to adult learners and professionals. Generally speaking it will necessitate a fair amount of reading, analysis and integration to conceive the program framework and the prototype for the first module. It will as well involve an extensive hands-on development in Second Life™. I will be working from home, accessing most information online or via libraries and will build at my own virtual estate in Second Life™.

This project will not involve any formal application of CPS skills with groups. Such approach might be considered later during the testing phase of the prototypes e.g. how might I improve …?. During the development phase, I see myself guided essentially by the approach of the Thinking Skills Model and having to constantly reassess the situation. I will, however, at a few critical occasions tap into the collective intelligence to get external input, notably to get a sense of what are the perceptions regarding the barriers to simply just giving virtual worlds a try. Whereas I read and heard a lot about the value of keeping a journal, I never did. I believe that I am having here a great opportunity to try it a seriously. I expect to see it unfolding as a very informative piece, at least from a personal point of view, to reflect on my processes, thoughts and emotions as they occur.

I see myself interacting frequently with my two external sounding board partners and colleagues, François-Bernard Malo (ISCS, Buffalo State alumni) and Beverly G. McCarter

(Certificate in Virtual Worlds, University of Washington alumni). They both bring a very complementary perspective.

Project Timeline

W	What Activities- Steps	E. H r	Deliverables Milestones	By when? Week days							To whom icons
(Note 1: CP : Concept Paper; DR : Draft; HoN: Hierarchy of Needs; SBP: Sounding Board Partner; SMT: Section Master Text; TIM: Torrance Incubation Model) – (Note 2: mandatory deadlines are highlighted in red)											
1 Feb 6 - 12	1. Read grounding theories (Gregory, 2011; Maslow, 1987; Scopes, 2011; Torrance & Safter (1990 a 1999); Vella (2002). 2. From the above, extract the grounding principles for guidance in the design of learning program 3. Prepare narratives for inclusion in section of master text (SMT) 2 (from activity 1) and for inclusion in SMT 1 (from activity 2) 4. Prepare final Concept Paper (CP)	50	- Draft (DR) narratives for inclusion in SMT 1 & 2 (✦, ✫) - DR of CP (🗎)	M 6 🗎	Tu 7	W 8	Th 9	F 10	Su 11	Sa 12 ✦ ✫	✦: Bev ✫: François 🗎: Sue ✸: Class
2 Feb 13-19	1. Get external input on the barriers to give a try to an early exploration of SL (use online brainstorming) 2. Highlight and group input obtained, prepare a narrative to be included in SMT 1 3. Clarify my choice of Second Life for such project (prepare a one pager annex) 4. Begin to elaborate a glossary of acronyms and SL Jargon annex.	30	- DR annex on barriers for inclusion in S 1 (✦) - DR annex on rationale for choosing Second Life for this project (✦) - Preliminary DR of glossary - Final	M 13 🗎	Tu 14 ❤	W 15	Th 16	F 17 🏷	Sa 18	Su 19 ✦	✦: Bev 🗎: Sue 🏷 :Email update to Sue

W	What Activities- Steps	E.H r	Deliverables Milestones	By when? Week days							To whom icons

(Note 1: CP : Concept Paper; DR : Draft; HoN: Hierarchy of Needs; SBP: Sounding Board Partner; SMT: Section Master Text; TIM: Torrance Incubation Model) – (Note 2: mandatory deadlines are highlighted in red)

W	What Activities- Steps	E.H r	Deliverables Milestones	M	Tu	W	Th	F	Sa	Su	To whom icons
			revised CP (▢)								
3 Feb 20-26	1. Adopt a master project review –read and prepare review 2. Draft a thinking piece on how the Hierarchy of Needs (HoN) of Maslow can apply to guiding the development of meaningful avatar training curriculum for inclusion in SMT 1 3. If needed, final revisions to CP	30	- Final reviewed CP posted to class ⚶ - DR of Thinking Piece on Guidance from Maslow HoN (◆,✮)	M 20	Tu 21	W 22	Th 23	F 24 [⚶] ◆ ✮	Sa 25	Su 26	◆: Bev ✮: François ▢: Sue ⚶: Class
4 Feb 27 Mar 4	1. Assemble sections 1,2 and 3 of SMT 2. Participate to ANGEL discussion re CPs (Get clarification) 3. Participate to ANGEL discussion re Adopt Project Review 4. Review comments and make necessary changes to SMT 1-3	40	- Adopt a Master Project Review to class ⚶ Monday - DR of SMT 1 to 3 for review (◆,✮) - Angel Discussion on Adopt Project ⚶ Friday	M 27 [⚶]	Tu 28	W 29	Th 1 ◆ ✮	F 2 [⚶] ✍▢	Sa 3	Su 4	◆: Bev ✮: François ▢: Sue ⚶: Class ✍ :Email update to Sue
5 Mar 5-11	1. DR a flow chart SL skills development as per a hierarchy of avatar needs and competency goal of being able to present in SL. 2. Design the overall framework skeleton / template for the learning program including program goals, objectives, and templates for lessons plans	25	- DR of SMT 1-3 ▢ Monday - DR of framework skeleton and of flow chart for comments (◆,✮)	M 5 [■]	Tu 6	W 7	Th 8 ◆ ✮ ▢	F 9	Sa 10	Su 11	◆: Bev ✮: François ▢: Sue ⚶: Class
6 Mar 12-18	1. DR of pre-program activities to heighten anticipation (TIM phase 1) 2. DR detailed lessons plan for 1st learning module	50	- Send DR lesson plan for comments to ◆	M 12	Tu 13	W 14	Th 15 ✮	F 16 ✍ ◆	Sa 17	Su 18	◆: Bev ✮: François ▢: Sue

W	What Activities- Steps	E.Hr	Deliverables Milestones	By when? Week days							To whom icons
(Note 1: CP : Concept Paper; DR : Draft; HoN: Hierarchy of Needs; SBP: Sounding Board Partner; SMT: Section Master Text; TIM: Torrance Incubation Model) – (Note 2: mandatory deadlines are highlighted in red)											
	corresponding to the basic 'physiological' needs of avatars 3. Begin program build in-world (TIM classroom and Program Sandbox)		- Send draft of approach to TIM phase 1 for comments ✯								⚛: Class 🗐 :Email update to Sue
7 Mar 19-25	1. DR Scenario for First Module and identify all info requirements, all materials needed & assemble existing material and create specific objects needed 2. Begin to build holodeck set (build – learning objects) for Module 1	40	- Send DR scenario for learning module 1 comments ✦ - Arrange Skype meeting with Sue (TBD)	M 19	Tu 20	W 21	Th 22	F 23 ✦	Sa 24	Su 25	✦: Bev 🗆: Sue ⚛: Class Skype with Sue
8 Mar 26 Apr 1	1. Complete build for learning module 1 2. Organize guided tour for SBP 3. Test build and make adjustments, fine tune 4. Document build elements and functionalities (snapshots- info content, functionalities) (for illustration in Master project and for presentation)	50	- Everything ready for Module 1 - Have Guiding Tour of Build and module approach in SL, - individually with ✦ & ✯ (date, time TBD)	M 26	Tu 27	W 28	TH 29	F 30 🗐	Sa 31	Su 1	✦: Bev ✯: François 🗆: Sue ⚛: Class 🗐 :Email update to Sue
9 Apr 2-8	1. Have guided tour with selected individuals (3-5) for feedback – prepare a summary of feedback (for annexing to Master Project) 2. Draft section 4-5-6	50	- DR of SMT 3 to 6 to SBP - Narrative summary of feedbacks, insights, improveme	M 2	Tu 3	W 4	Th 5 ✦ ✯	F 6	Sa 7	Su 8	✦: Bev ✯: François 🗆: Sue ⚛: Class

W	What Activities- Steps	E. H r	Deliverables Milestones	By when? Week days							To whom icons
(Note 1: CP : Concept Paper; DR : Draft; HoN: Hierarchy of Needs; SBP: Sounding Board Partner; SMT: Section Master Text; TIM: Torrance Incubation Model) – (Note 2: mandatory deadlines are highlighted in red)											
			nt to be made, lessons learned from.								
10 Apr 11-15	1. Begin to prepare presentation – format will be powerpoint (venue for presentation TBD)	15	- DR of SMT to 6 🗅	M 9 🟥	Tu 10	W 11	Th 12 ✍🗅	F 13	Sa 14	Su 15	✍🗅 :Em ail update to Sue
11 Apr 16-22	1. Departure Sunday 15 to Munich and then at CREA from April 18 to 22	?	- figure out time windows for necessary work and interaction with Sue -	M 16	Tu 17	W 18	Th 19	F 20	Sa 21	Su 22	Likely using Skype
12 Apr 23-30	1. From Italy back to Germany – a week family vacation 23 to 30 2. Work on final assemblage of all sections and annex	?	- figure out time windows for necessary work and interaction with Sue - complete project in final 🗅	M 23 🟥	Tu 24	W 25	Th 26	F 27	Sa 28	Su 29	Likely using Skype and An Gel
13 Apr 30	1. Necessary revision of full Master Project package 2. Finalize presentation and	? 20	- DR full presentation for comments	M 30	Tu 1	W 2	Th 3 ✦ ☆	F 4	Sa 5	Su 6	✦: Bev ☆: François 🗅: Sue

W	What Activities- Steps	E.Hr	Deliverables Milestones	By when? Week days							To whom icons
				(Note 1: CP : Concept Paper; DR : Draft; HoN: Hierarchy of Needs; SBP: Sounding Board Partner; SMT: Section Master Text; TIM: Torrance Incubation Model) – (Note 2: mandatory deadlines are highlighted in red)							
May 6	clarify venue		(✦ ✲)								✲: Class
14 May 7-12	1. Submit presentation, 2. Submit Final approved Project 3. Load project to Digital Commons 4. Travel to Toronto-Buffalo on	? 20	- Present ☐ - Final Appro. Project ☐ - Depart. for Toronto ✈ - Last Date for upload Digital Comm. ⚓ - !Commencement! 🏛	M 7 ☐	Tu 8	W 9	Th 10	F1 11 ⚓ ✈	Sa 12 🏛	Su 🕊 🏞 🏕 🚲 ♫	☐: Sue

Section Four: Tangible Products or Outcomes?

Tangible Product Resulting Directly from my Project

The tangible deliverables achievable within the timeline and parameters of this project have been introduced at the beginning of the first section of the present document. A project presentation will also be prepared.

They are the foundation leading the training program framework to facilitate an early exploration of Second Life by adult learners and professionals so they get the basic exposure to the range of benefits user-created social virtual worlds might offer and, make an informed decision as to whether or not it is worthwhile for them to further explore and experiment with it. The program would propose a humanistic approach to avatar training inspired by Maslow Hierarchy of Needs and integrate:

Acquisition and mastering of essential Second Life™ skills;

Application of creativity skills to reflective practices;

Early guided exploration of selected sites and resources in Second Life™;

Early exposure to new approaches to creating learning experience that takes advantage of

the affordance of rich 3D immersive social virtual worlds;

The project presentation will as well be used to promote the learning program in

development, notably when recruiting brave and curious minds for testing the prototype.

Next Steps Beyond the Scope of the Project

- Completing the instructional package for the remaining modules (summer 2012)

- Recruiting two cohorts of 6-8 brave adults to test pilot the overall program

- Fine-tuning the program and translate the material in French (training offer available in both French and English), and possibly submit presentation proposal to Virtual World Best Practices in Education (spring 2013).

Section Five: Learning

Personal Learning Goals

The first two are likely to be the most demanding because they require either a change in behavior or ability to learn on task and immediately apply the new learning.

- Adopt journaling practice to document the project, accomplishments and reflections on the process. I see it as an essential practice but so far, I have never been able to stick to it.

- Learn to create a 3D-visual instructional design framework that integrates principles and practices from humanism, creativity and adult learning theories with the archetype structure for designing 3D immersive learning activities.

The following two goals are more "disciplinary" in nature to avoid getting side tracked.

- Practice to stay focus on objectives, stick to the plan, keep within the scope.

- Include time to reflect on the process and make necessary adjustments to balance scope and quality and complete everything in due time.

Criteria To Measure The Effectiveness of My Achievement?

When considering criteria for effectiveness of my achievement, I would tend to differentiate the assessment of the process from the assessment of the product and consider separately the effectiveness in achieving my personal learning goals and the products. With respect to the tangible products, I would tend as well to differentiate the criteria applicable to the master project deliverables, the prototypes, from those applicable to the ultimate product.

With respect to the personal learning goals, I intent to refer back the personal goals stated previously to do my own self assessment.

Assessing the effectiveness of the process

I am considering the master project course as a process. In this regard, for assessing my achievement against the process, I would consider if:

- I went through the process in a timely manner, respecting the milestones.

- I successfully complete the prototypes (deliverable) to the level described.

- I timely address possible required adjustments to project.

- I learn something new about process that I can transfer to other situations.

Assessing the effectiveness of products

I propose to use, for guidance, the "logical synthesis" of criteria for analyzing creative products developed by Besemer & Treffinger (1992). In their studies, they reviewed the criteria used in various circumstances for assessing the "the creativeness" of products. Their synthesis retains fourteen criteria grouped under three categories: resolution, novelty, and elaboration & synthesis. The three categories or dimensions can briefly be described as follows:

- novelty: the degree or extent of newness;

- resolution: the degree to which the products address the challenge; and

- elaboration & synthesis: the degree to which the product integrate diverse elements into a coherent whole.

The criteria as defined by Besemer & Treffinger (1992) are presented in Table 2.

Table 2

Definitions of the criteria for assessing the "creativeness" of products

Novelty	Resolution	Elaboration & Synthesis
Germinal: The product is likely to suggest additional future creative products.	Adequate: The product answers enough of the needs of the problematic situation.	Attractive: The product commands the attention of the viewer, listener, or user.
Original: The product is unusual or infrequently seen is a universe of products made by people with similar experience and training.	Appropriate: The product solution fits or applies to the problematic solution.	Complex: The product or solution contains many elements at one or more levels.
Transformational: The product is so revolutionary that it forces a shift in the way that reality is perceived by users, listeners or viewers.	Logical: The product or solution follows the accepted and understood rules for the discipline.	Elegant: The solution is expressed in a refined, understated way.
	Useful: The product has clear practical applications.	Expressive: The product is presented in a communicative, understandable manner.
	Valuable: The product is judge worthy by users, listeners, or viewers because it fills a financial, physical, social or psychological need.	Organic: The product has a sense of wholeness about it.
		Well crafted: The product has been worked and reworked with care to develop it to its highest possible level for the point in time.

Extracted from Besemer & Treffinger's Table 1 (1992, p. 64)

From Table 2, it is possible to identify criteria applicable to assessing the prototypes created within the parameters of this master project; these criteria could include: germinal, original, adequate, appropriate, logical, attractiveness, complex, and elegant. For the products to be completed beyond the scope of the project, all criteria as defined in Table 2 could apply.

Within the scope of the master project, criteria could be used only from the perspective of viewers or listeners; the prototypes will not be tested by learners before fall 2012. Beyond the

scope of the master project, during the testing phase of all program modules, every criteria presented in Table 2 could be used from the lens of users, as well as from the viewers and listeners' perspective. The criteria as synthesised by Besemer and Treffinger (1992) provide a good foundation for an independent assessment of the "creativeness" of a product. However, with respect to assessing the ultimate products, I do tend to believe that the opinion of the users with respect to the effectiveness of the program would prime over a broader look at its creativeness. Generally, I expect that considerations of users would primarily be along the usefulness and possibly the aesthetic of the program rather than its novelty.

Users are expected to primarily consider criteria linked to the learning objective of the program along those stated in section 1 (p.8) of the current concept paper. To that end, specific sets of assessment criteria against goals and objectives of the learning modules will be elaborated during the development of the prototypes. The prototype of the first module will illustrate how such specific learning criteria will be weaved in.

From my own view, ultimately, the learning program would be seen as effective if it has successfully contribute to facilitating entry an early exploration of Second Life™ by adult learners and professionals.

<p style="text-align:center">Welcome to these new brave worlds!</p>

Dabici Straulino, my alter-ego in Second Life™!

References

Bell, M.W. (2007). Definition and taxonomy of virtual worlds. Retrieved October 15, 2010, from http://www.slideshare.net/storygeek/definition-of-virtual-worlds

Bell, M.V. (2008). Toward a definition of 'virtual worlds'. *Journal of Virtual World Research 1*(1), 1-5.

Besemer, S. P., & Treffinger, D. J. (2007). Analysis of creative products: Review and synthesis. In G. J. Puccio & M. C. Murdock (Eds.), *Creativity assessment: Reading and ressources* (pp. 59-76). Hadley, MA: The Creative Education Foundation Press.

Cascio, J., Paffendorf, J., & Smart, J. (2007). *Metaverse Roadmap: Pathways to the 3D web*. Retrieved from http://www.metaverseroadmap.org/overview/

Charest, N. (2009, January, 22). *Letter of Intent*. Unpublished item of the application package to the Certificate in Creativity and Change Leadership, Buffalo, NY: International Center for Studies in creativity, Buffalo State College.

Charest, N. (2009). *Creativity and the creative person: At the dawn of a new autotelic journey.* Unpublished CRS 559 creativity paper assignment, Buffalo, NY: International Center for Studies in Creativity, Buffalo State College.

Charest, N. (2010). *My philosophy, vision, strategic plan: A situation update*. Unpublished CRS 635 final paper, Buffalo, NY: International Center for Studies in Creativity, Buffalo State College.

Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety: Experiencing flow in work and play* (25th anniversary ed.). San Francisco, CA: Jossey-Bass Publishers.

Davis, G. A. (2004). *Creativity is forever* (5th ed.). Dubuque, Iowa: Kendall/Hunt Pub.

Edelman. (2008). Public engagement in the conversation age. Retrieved from

> http://edelmaneditions.com/wp-content/uploads/2010/11/edelman-public-engagement-in-the-
> conversation-age-2008.pdf

Flew, T. (2004). Creativity, the 'new humanism' and cultural studies. *Continuum, 18*(2), 161-

> 178. doi: 10.1080/1030431042000214979

Frommer, D. (2011, August, 10). It's "Garner hype cycle" time again. Retrieved from

> http://www.splatf.com/2011/08/gartner-hype-cycle-2011/Hype cycle. (n.d.). In *Wikipedia*.
> Retrieved January 22, 2012 from http://en.wikipedia.org/wiki/Hype_cycle

Gibson, M. (2004). Introduction—the new humanism. *Continuum, 18*(2), 155-159. doi:

> 10.1080/1030431042000214960

Gordon, W. J. J. (1961). *Synectics: The development of creative capacity* ([1st ed.). New York,

> NY: Harper.

Heiphetz, A., & Woodill, G. (2010). *Training and collaboration with virtual worlds : How to

> create cost-saving, efficient and engaging programs*. New York, NY: McGraw-Hill.

Hinrichs, R., & Wankel, C. (Eds.). (2011). *Transforming virtual world learning: Cutting -edge

> technologies in higher education*. Bingley, UK: Emerald.

Huitt, W. G. (2007). *Success in the conceptual age: Another paradigm shift*. Paper presented at

> the 32nd Annual Meeting of the Georgia Educational Research Association, Savannah,
> GA. Retrieved from http://www.edpsycinteractive.org/papers/conceptual-age.pdf

Humanism. (n.d.). In *Learning Theories Knowledgebase*. Retrieved January 25, 2012 from

> http://www.learning-theories.com/humanism.html

Hype cycle. (n.d.). In *Wikipedia*. Retrieved January 22, 2012, from

> http://en.wikipedia.org/wiki/Hype_cycle

Johnson, L. F., & Levine, A. H. (2008). Virtual Worlds: Inherently immersive, highly social learning spaces. *Theory into Practice, 47*(2), 161-170. doi: 10.1080/00405840801992397

Kapp, K. M. (2011, December 15). Gamification, virtual worlds and the Gartner hype cycle. Retrieved from http://www.kaplaneduneering.com/kappnotes/index.php/2011/12/gamification-virtual-worlds-and-the-gartner-hype-cycle/

Kapp, K. M., & O'Driscoll, T. (2010). *Learning in 3D: Adding a new dimension to enterprise learning and collaboration*. San Francisco, CA: Pfeiffer.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370-396. Retrieved from http://psychclassics.yorku.ca/Maslow/motivation.htm

Maslow, A. H., & Frager, R. (1987). *Motivation and personality* (3rd ed.). New York, NY: Harper and Row.

Millar, G. W. (2010). *The power of creativity: Results of 50-year follow-up to the Torrance longitudinal study of creative behavior*. Bensenville, IL: Scholastic Testing Service, Inc.

Pastor, E. (2010, June). '*SenceMaking' for 'ChangeMaking'*. Conference presented at the Icograda's Straight to Business Conference, Madrid, Spain. Retrieved from http://www.issuu.com/humantific/docs/humantific_2010

Peachey, A., & Childs, M. (Eds.). (2011). *Reinventing ourselves: Contemporary concepts of identity in virtual worlds*. New York, NY: Springer.

Pink, D. H. (2005). *A whole new mind: Moving from the information age to the conceptual age*. New York, NY: Riverhead Books.

Prince, G. M. (1992). The operational mechanism of synectics. In S. J. Parnes (Ed.), *Source book for creative problem solving* (pp. 168-177). Hadley, MA: Creative Education Foundation Press.

Puccio, G. J., Mance, M., & Murdock, M. (2011). *Creative leadership: Skills that drive change* (2nd ed.). Thousand Oaks, CA: SAGE.

Rogers, E. M. (2003). *Diffusion of innovations* (5 ed.). New York, NY: Free Press.

Scopes, L. (2011). A cybergogy of learning archetypes and learning domains: Pratical pedagogy for 3D immersive virtual worlds. In R. Hinrichs & C. Wankel (Eds.), *Transforming virtual world learning* (pp. 3-28). Bingley, UK: Emerald.

Smith, K. K. (1999). Humanistic orientations to learning. Retrieved from http://www.infed.org/biblio/learning-humanistic.htm

Spence, J. (2008). Demographics of virtual worlds. *Journal of Virtual Worlds Research, 1*(2), 1-44.

Torrance, E. P. (1987). Teaching for creativity. In S. Isaksen (Ed.), *Frontiers of creativity research: Beyond the basics* (pp. 189-215). Buffalo,NY: Bearly Limited.

Torrance, E. P., & Safter, H. T. (1990). *The incubation model of teaching: Getting beyond the aha!* Buffalo, NY: Bearly Limited.

Torrance, E. P., & Safter, H. T. (1999). *Making the creative leap beyond...* Amherst, MA: Creative Education Foundation Press.

Vella, J. K. (2002). *Learning to listen, learning to teach: The power of dialogue in educating adults* (Rev. ed.). San Francisco, CA: Jossey-Bass.