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Avatar Therapy

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An 'avatar' in the context of computerised virtual realities is a graphical representation of someone, usually a human form. As bandwidth increases and software becomes more sophisticated, what used to be considered a radical and futuristic method of delivering therapeutic services (Goss & Anthony 2002) is now very much a reality. Where face-to-face therapy was considered a traditional method of service delivery, in 2011 even text-based service delivery via email and chat has become more mainstream more quickly than anticipated, and the growth of VoIP (Voice over Internet Protocol) and video services is also apparent. Avatar Therapy is something that professionals may be less aware of, but the body of writing about it is growing and we eagerly anticipate research programmes about it. The Online Therapy Institute (www.onlinetherapyinstitute.com) is already writing courses about how to deliver therapy using virtual environments, ensuring that future and current professionals are aware of the benefits and pitfalls, and how to ensure safe and ethical delivery of therapy using distance methods of technology-assisted therapy. In this article, we hope to demystify the concept of using avatars and virtual environments to assist our clients in their journeys towards better mental health.

What is Avatar Therapy?

Virtual Reality offers endless opportunities, limited only by imagination. Originally popular for the gaming community, who meet as avatars in Massively Multiplayer Online (MMO) platform games such as World of Warcraft to battle each other and in-game enemies, it morphed into a social and, increasingly, business community with the surge in popularity of Second Life (http://secondlife.com/), as one example. Daniel (2008) cites an online strategy analysis that predicts up to one billion participants in non-gaming virtual worlds by 2018. Just as we adapted to technological communication methods such as e-mail, chat, texting and videoconferencing, it was only a matter of time before we adapted to communicating virtually. Indeed, the difference between 'real' and 'virtual' realities is becoming blurred and, increasingly, academics are discussing the perception of the individual of the environment they are in as being the 'reality' (Blascovich & Bailenson 2011). Therefore, if a person seated at a laptop is immersed in Second Life, it is the perception of that 'virtual' space as real that defines what is actually real to that person at that time.

The concepts of virtual reality and avatar therapy have historical overlaps. When virtual environments are used successfully in treating phobias, for example: the client is immersed in an environment s/he fears by wearing headsets/visors, haptic body gloves and, often, in the case of treating a fear of heights, standing on a vibrating platform that simulates a lift rising. Another good example for treatment of fear of flying is sitting in a vibrating aircraft seat and being immersed in a virtual aeroplane. In these more traditional uses of virtual environments, the representation of the self is experienced first-hand, and from within.

Entire rooms also exist that simulate reality, much like 3D funfair rides or IMAX films (Riva 2010). Another use of virtual representations of the self is through photographic 3D representations, creating a manipulable photograph of the self that can be adjusted to simulate movements and emotional facial contortions.

Although these may be considered using or 'being' an avatar to represent the self, in the context of this article we are looking at instances where a person creates (or chooses) an avatar which they then control using a keyboard, with no actual physical sensation (although plug-in hardware does exist that can simulate physical experiences, for example sexual stimulation devices). As professional mental health practitioners with a presence in Second Life (offices, a conference centre and therapy rooms), we designed our avatars to be as close representations of ourselves in reality as possible, within the limits of the clothing and style choices that were available to us. Clients who have a presence in Second Life, or other virtual environments, may choose whatever part of their psyche they choose to represent, from aardvarks to muscle-bound sexual warriors. This in itself provides a dynamic way of exploring one's psyche or that of the client and, with careful management and titrating of emotions, many life scenarios can be explored, such as childhood trauma, creating new visions for the future, and enacting endings of current situations. In the inaugural edition of the Institute's bi-monthly magazine *TILT (Therapeutic Innovations in Light of Technology—www.onlinetherapymagazine.com)*, we wrote the fictional story of Alice, who uses the virtual environment and her avatar of herself as a young girl to address the sexual abuse she experienced in reality, first as self-help and finally educating and including her face-to-face therapist (Nagel & Anthony 2010). By using her avatar self, Alice was able to create a safe space to explore her feelings around the abuse and reframe it.

So what does avatar therapy look like? Taking the virtual environment of Second Life as an example (which is not without its issues of confidentiality due to lack of encryption technology), the client as avatar and the therapist as avatar meet in a virtual location. This could look like anything depending on what the therapist has created—a calming office with mood lighting, a beachside location with lapping waves and seals gently playing, a dynamic play room with beanbags to sit on. There is a concept known as a Skybox 'inworld' (the phrase used to describe being in Second Life), which is a more private space held notionally far above the public ground level, so that passers-by do not happen across it on their inworld travels, making it more appropriate for therapeutic work. Once client and therapist are together, they can use the keyboard to type to each other, with the text appearing above their heads or in a chat room-style window on their respective screens. This is not the only option; voice can also be used in virtual environments, creating a cross between a telephone call and an in-person session. Virtual creations—such as vision boards, whiteboards for art therapy, and virtual pebbles

for working on relationships and family dynamics—are also available. Wilson (2010) also points out that multiple avatars could be created to be in the room, to represent sub-personalities or family members, although this level of work is not simple to create, or indeed to manage, technically and emotionally. Using virtual environments to conduct therapy need not be limited to replicating the traditional 50-minute hour in a consulting room, however. Outdoor therapies, such as Wilderness Therapy or Adventure-based Therapy are increasingly popular methods of real-world therapeutic intervention, and such environments are particularly suited to avatar therapy when their virtual replications are so easily created.

We will now go on to discuss the specifics of Avatar Therapy, considering how and where it is being used, what skills are necessary for conducting it, and some future innovations that the concept of Avatar Therapy may lead to.

How and where is Avatar Therapy being used?

Avatar therapy is already being used successfully, and the more prominent projects will be discussed here. The first is a second pilot program with Dick Dillon leading these pilots at Preferred Family Healthcare, Inc. in Missouri, United States. The first pilot focused on delivering substance abuse counselling to rural adolescents and was funded by a $300,000 grant from the Missouri Foundation for Health. The outcome studies from that project revealed that clients were three times as likely to complete the virtual treatment program as the face-to-face program. Outcomes were 'as good as or better than' outcomes in physical (brick and mortar) treatment centres (Korolov 2010). The second project is currently in progress with funding from the Center for Substance Abuse and Mental Health Services Administration (SAMHSA), within the US Department of Health and Human Services totalling $865,000. Their first pilot took place in the virtual world known as Second Life; the second pilot is operated via a private Open Sim

grid through ReactionGrid, a company that provides technology and consulting services for organizations who want to conduct virtual services in a more secure and stable environment than Second Life provides. In the case of Preferred Family Healthcare, the client information is held on the organisation's private server, keeping clinical services compliant with state and federal privacy and security laws.

Avatar therapy is also being conducted as part of a project at the Center for BrainHealth at the University of Texas at Dallas, founded by Sandra Bond Chapman. The Center is developing a unique program for adults with autism and Asperger's using a virtual reality environment designed to facilitate and motivate social change in the individuals. The Center for BrainHealth used Second Life initially, but they are now building their own virtual-world solution to continue the research. This new environment will include avatars with more expressive abilities. Preliminary results indicate significant increase in areas of social perception, prosody, and emotion recognition skills (Bond-Chapman 2011). In an interview with Dr Chapman in 2009, she stated that skills developed within a virtual world are transferable to real-world scenarios (Nagel 2009). This concept appears to be further illustrated by research being conducted at the Virtual Human Interaction Lab at Stanford University headed up by Jeremy Bailenson. Bailenson suggests that distinctions in real and virtual worlds are becoming more blurred and perhaps even interchangeable. His research indicates that behaviours learned in a virtual world carry over to face-to-face interactions, particularly when the avatar closely resembles the person the avatar represents (PBS 2009).

Virtual Iraq is another project developed by Albert 'Skip' Rizzo, Associate Director for Medical Virtual Reality at the Institute for Creative Technologies, University of Southern California. The program uses sight, sound and smells to evoke and subdue painful memories (Halpern 2008). Dr Rizzo conceptualised *Virtual Iraq* from *Full*

Spectrum Warrior, a popular video game. This intervention involves wearing a set of goggles. While this is different from maneuvering an avatar in a virtual world like Second Life or a game like World of Warcraft, the client is viewing other avatars and landscape in a virtual world setting and this process is facilitated. The US military is leading the way in the use of virtual reality/virtual world interventions with 40 veteran hospitals using virtual reality interventions to treat PTSD.

Gaming remains a popular form of entertainment and leisure and more and more therapeutic games are being designed to capture clients' attention in settings that are 'fun' and appealing. Much like Dick Dillon's project at Preferred Family Health, capturing the attention of teenagers by using a virtual-world setting, therapeutic games offer interventions that are solution-focused and often self-paced. Similar work was developed by Trinity College, Dublin, Ireland by Mark Matthews and David Coyle (2010), using a platform problem-solving, solution-focused game called Personal Investigator to engage adolescents in therapy.

With the popularity of gaming, some helping professionals are even considering offering help within the game itself. People who immerse themselves in virtual worlds for long periods of time, to the extent that real world obligations are neglected and dysfunctional relationships form with others in the game, may benefit from such therapy (Beaumont 2009). Gaming is receiving a more positive attitude with regard to its therapeutic potential, particularly through the work of Mike Langlois at www.gamertherapist.com, who offers an overview (Langlois 2011).

More and more virtual world options are becoming available for mental health practitioners who want to work with clients directly within a virtual world setting. Of utmost importance is client confidentiality so working within an environment that is maintained on a practitioner-owned server or a web-based encrypted environment are the two best options. As stated, ReactionGrid (www.reactiongrid.com) offers server-based options while InWorld Solutions (www.inworldsolutions.com) offers a web-based encrypted platform.

Necessary skills for the therapist

One of the most important attitudes the helping professional must embrace when working in virtual environments is the concept that relationships can be formed in virtual-world environments and that those relationships are real (Anthony 2001). Understanding cyber-culture means understanding how people interact online and in virtual worlds and realising that just as a therapist's cultural competency is called to task when working with people from other countries, so it does when working with individuals who are immersed in virtual worlds and live a mixed reality of real-life interactions and virtual-life interactions (Nagel 2010). Using teaching tools such as the documentary, Life 2.0, now available for purchase by universities and colleges, helps to bring experiences within virtual worlds such as Second Life to the forefront.

Every day, across all corners of the globe, millions of users log onto Second Life, a virtual online world populated by real-life-like avatars. Life 2.0 follows a group of people whose lives are dramatically consumed by the virtual world of Second Life. They reside in this new reality, where inhabitants assume alternate personas in the form of avatars—with digital alter egos that can be sculpted and manipulated on a whim. More than an examination of a hot new technology, Life 2.0 is an intimate, character-based drama about people who look to a virtual world in search of something they are missing in their real lives. The results are unexpected and often disturbing: reshaping relationships, identities, and ultimately the very notion of reality. (Spingarn-Koff 2010)

As we can see from the reality of the impact on lives/relationships within Second Life from the viewing of Life 2.0, nothing is virtual at all and actually everything is real (Nagel & Anthony 2010). Once the therapist believes that people experience inworld relationships as real, and is able to respond empathically to a virtual world persona, and not only to the person behind the persona, deeper therapeutic relationships can be formed.

Along with cyber-culture competency, practitioners working in virtual worlds must have a rudimentary knowledge base about delivering therapy at a distance. Delivering therapy through text-based interventions such as e-mail, forums and chat as well as audio and videoconferencing is important preparatory experience, because work in virtual worlds often includes other forms of conversation as well. Understanding the use of blended technologies and multimedia platforms is vital so that the practitioner can move fluidly between technologies and methods of delivery, according to the needs of the client. Using more than one platform or technology at once may sometimes be advantageous.

Once the practitioner has had his or her own experience in a virtual world, the concept of 'disinhibition' becomes clear. Suler (2004) states about disinhibition:

It's well known that people say and do things in cyberspace that they wouldn't ordinarily say or do in the face-to-face world. They loosen up, feel more uninhibited, express themselves more openly. Researchers call this the 'disinhibition effect'. It's a double-edged sword. Sometimes people share very personal things about themselves. They reveal secret emotions, fears, wishes. Or they show unusual acts of kindness and generosity. We may call this benign disinhibition.

On the other hand, the disinhibition effect may not be so benign. Out spills rude language and harsh criticisms, anger, hatred, even threats. Or people explore the dark underworld of the internet, places of pornography and violence, places they would never visit in the real world. We might call this toxic disinhibition.

On the benign side, the disinhibition indicates an attempt to understand and explore oneself, to work through problems and find new ways of being. And sometimes, in toxic disinhibition, it is simply a blind catharsis, an acting out of unsavoury needs and wishes without any personal growth at all.

To some extent, most of us feel less inhibited when interacting online. The disinhibition effect can be experienced at varying levels, and on a continuum. Both the therapist and the client may experience disinhibition, and since disinhibition can further heighten transference and countertransference, particularly in virtual world settings, a strong foothold on the theory is recommended.

We also recommend that practitioners who work within virtual worlds also have studied trauma theory or have a background in working with clients who have experienced trauma, so that basic support and intervention strategies used with survivors of trauma can be used with clients within a virtual world (inworld). Because of this concept of disinhibition and because of the intensity of interactions and transferred behaviours from real world experience to virtual-world experience and back to real-world experience, a 3D environment can trigger past trauma more readily. A trigger that occurs inworld can be handled within the therapeutic milieu and help the client move forward. A trigger may also cause the client retraumatisation, which is why the practitioner must understand how to titrate emotions properly, especially since, due to disinhibition, clients will be more inclined to self-disclose and be opened up to feelings of vulnerability. This idea of titrating emotions is not new to trauma work; the therapist is often guiding the client through traumatic recovery of events and leading the client to a place of resolve, providing containment and closure (Steele & Colrain 1990). Regardless of what the client's presenting issue may be, depending on historical events in the client's background, he or she may experience flashbacks or become abreactive within the virtual-world therapy session. Knowing how to pace the client and provide containment is paramount to a successful outcome.

A Look to the Future

We now have the ability to incorporate artificial intelligence into the avatar therapy process. While this is not futuristic, mainstreaming this technology as a cost-effective option for practitioners is not yet a practical reality. Still, it is important to look at the possibilities. Avatars allow people to express identities as literal or metaphorical representations of self; the inner child or the shadow as examples. With advances in technology and artificial intelligence, we now have the ability to simulate scenarios, manipulating outcomes and reframing experiences. Artificially intelligent avatars help a client heal from trauma, create a new ending to a dilemma, or work out unfinished business with a deceased loved one. This psychotherapy approach is known as Innovative Avatar Therapy Simulation (IATS) (Nagel & Anthony 2010). IATS allows reframing, new outcomes and new endings to stories to be simulated by creating new landscapes and using artificially intelligent avatars. Once the simulation is complete, the experience becomes real and the client experiences an imprint that has a healing effect.

It is not impossible to imagine a future where technology allows us, through the use of holograms, to 'be' with the client remotely but with a full physical presence. In trainings, the present authors tell how we used to joke about the possibility of therapists and clients being face-to-face via hologram technology. We don't joke about it anymore, we see it as an actual possibility—maybe not in our lifetimes, but a possibility.

Technology allows us methods of offering therapeutic services that are really limited only by our imaginations. It's a very exciting time to be in the profession. ◆

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