



Volume 13 Issue 4
13/2015
tamarajournal.com

Embodiment, Engagement and The Strength Virtual Communities: Avatars of Second Life in Decay

Aleksandra Przegalińska

Kozminski University, Poland
aprzegalinska@kozminski.edu.pl

Keywords

Second Life

Virtual reality

RPG communities

Etnography

Embodiment

Identity

Abstract

Second Life is the one of strongest currently known type of cultural, collectively negotiated constructions of virtual reality, and despite its old age (12 years), it is still a platform for interactions for a small but consolidated group of residents. In this paper I will make an attempt to discuss how certain Second Life communities remain strong despite the mediums overall decay. I will mainly focus at the relationships of the members of these successful communities with their avatars putting forward two categories: embodiment and engagement. To support my argument I will focus on case-studies of three significant and dynamical and fantasy communities in Second Life: Goreans, Furrries and Tinies. As I will try to show, there are several relevant conclusions emerging from the ethnographic research conducted for the purpose of this article. First of all, avatars created within such communities also share particular common traits: they possess features that allow for stronger narrative and/or embodied identification. Secondly, „strong” communities usually put a lot of emphasis on managing communication and interaction among their members.

Introduction

My aim is to investigate how a particular kind of avatar identities can fuel vividness of community despite the virtual worlds' overall decay. I will make an attempt to understand what consitutes a strong virtual presence. For that purpose I will use two important categories: embodiment and engagement. As Second Life is already a very well documented space I will focus mainly on its current situation, describing communities that still exists there, and - to a certain extent - on its future.

I will argue that two distinctive factors play a crucial role in understanding what being in Second Life in particular, and in Virtual Reality in general actually means: the first one can be located on the level of particular avatar and consists in strong identification with the character, both in an embodied and narrative way. The second one is related to relationship with other avatars within the community: common goals, intensive collaboration and produsage, and creating bonds of engagement. I will also try to show how these two levels: individual identification and interactions with others intersect and enforce each other.

The purpose of this text is also to challenge some views on virtual reality and virtual games that have been spreading widely for the past decade. Particularly, I would like to argue against still pervasive Baudrillard's approach to virtual reality as hyperreality that is indistinguishable from reality (1981). Many claim that Baudrillardian narration on virtual reality is long forgotten, but it does occupy a strongly position, particularly in the public discourse concerning virtual worlds. I argue here that such strong communities do not serve pure escapism into simulation.

On a theoretical level I will be arguing for understanding virtual reality as embodied, extended and situated layer of reality, or in other words: the so called „X reality” (Coleman 2011), rather than a realm strictly divided from what we dub „real”. My claim is that the below investigated Second Life communities, despite embracing role-playing rules, still fulfill very well Second Life's mission of envisaging life rather than a games.

The article unfolds as follows: first I am presenting a fairly broad, but necessary for further considerations, introduction to the world of Second Life. I am focusing mainly on Second Life's specificities as a non-quest game, a platform of open collaboration and community building process. Further on, I'm moving to individual avatar level to show strategies of avatar building. In the next steps, I am presenting an ethnographic study of three strong avatar communities (Furries, Tinies and Goreans). My methodology here is based on virtual ethnography. It includes mainly participant observation and some in-depth interviews with group members. Then I am showing common features of these communities and their avatars. I am arguing that these avatars and communities build a particular kind of long-lasting virtual experience that has very little to do with escapist explanations of why people occupy virtual game spaces.

Second life: a world in decline

Second Life is an online virtual world developed by Philip Rosedale and Linden Lab in 2004. For a new type of social medium, it is certainly quite old. It has reached its popularity peak between 2007-2009 (Coleman 2011: 11). During the winter of 2006 there were 200 000 users of Second Life, but by 2008 over 7 million people had visited the virtual world (ibid: 12). From 2010 onwards, its audience was slowly declining to about 1 million regular users in late 2014. With this number of members Second Life still exists, however its founder, Philip Rosedale, is currently making attempts to develop a new platform for virtual worlds called High Fidelity1. High Fidelity should become a highly immersive game that gives the experience that the virtual world lacked. In High Fidelity, when one puts on wearable glasses, he or she can perceive the world from his or her avatar's point of view. Nonetheless, High Fidelity is still a startup that, in many ways, reiterates Second Life's core values and ideas.

Second Life was developed when the economic and cultural rubble of the dot-com crash was still all around. Many users and experts at that time were ready to believe that a new electronic medium— the “metaverse”— could transform personal and business life in improbable ways. The media frenzy helped Second Life draw in hundreds of thousands of individual users and major corporations. People formed friendships, businesses, and extramarital relationships on Second Life. Defense contractor Northrup Grumman used it for meetings and training sessions on bomb-disposal robots. Nonetheless, few years later the excitement faded, mostly among corporate residents, because companies could not find a proper business model for their Second Life operations. The simulated world was apt to unexpectedly slow to a crawl, and its system for building new objects was very sophisticated. It took long to learn how this virtual world functioned, and such shortcomings drove people away. “We did our best and got to a million people and made half a billion dollars” – said Rosedale on an interview with MIT Technology Review2 in 2014 – “but you had to have an immense amount of time and skill to get into it.”

Philip Rosedale himself still logs into Second Life, and so does 1 million other users each month. Despite strong external competition and poor graphics, Second Life - contrary to other older types of social media that lost the competition with more innovative ones and eventually closed down – is still alive and enjoys a faithful consolidated community of users. Linden Lab remains profitable and thus does not close the world down. External observers call it no a virtual community in decay, the Second Life community itself however does not feel that way and, interestingly enough, does not wish to migrate to new formats.

¹ See also: <https://highfidelity.io/>

² See also: <http://www.technologyreview.com/article/408074/second-earth/>

As a „social media dinosaur”, Second Life is still definitely worth studying. For instance, one can ask what patterns of behavior are prevalent in such small, consolidated and mature virtual community. Which groups are still strongly represented? What kind of bonds do the users and their avatars form? What keeps the community away from establishing new groups and migrating to newer social media platforms? In answering some of these questions, my choice of Goreans, Furrries and Tinies was a conscious one. They are the most vivid ones, and seem to be mostly oriented towards building alternative identities and, at the same time, present most sophisticated codes of conduct. Also, they gather users who have an immense amount of time and skill and in exchange enjoy a full, rewarding experience of Second Life.

Community building in Second Life

Second Life may serve various purposes: social networking, education, expression of creativity, work solutions, as well as politics and diplomacy and practicing religion. Virtual embassies of many countries still operate in Second Life. The Maldives was the first country to open an embassy in Second Life, located on Second Life's Diplomacy Island³, where visitors were able to talk face-to-face with a computer-generated ambassador about visas and trade issues.

Obviously, Second Life has a significant contribution as far as online private life is concerned. Relationships formed in Second Life have been taken from the virtual dimension to the real-world. Booperkit Moseley and Shukran Fahid⁴ were most probably the first couple to meet in Second Life and then married in real life. Booperkit travelled to America to meet Shukran and he returned to England with her after one week. Some couples meet online, form friendships, and eventually move to finding one another in the real world. Nonetheless, most of them decide to have their weddings on Second Life and further on, simultaneously live real and virtual lives.

Relationships in Second Life have an added dimension compared to other social media, because avatars give a feeling of proximity making the voyeur experience more intense than simply a textual encounter. The complexities of those encounters depend on the engagement levels of the people behind the avatars, whether they are engaging disassociatively (purely for entertainment purposes), augmentatively (engaging for a real life purpose) or immersively (as if the avatar was them), which is the most interesting strategy for this particular research, and most common in RPG communities of Second Life.

Especially at the peak of its popularity, Second Life used to be perceived as a semi-professional platform. Major tech corporations have tried to use the world to market products or services to its tech-savvy audience. For example, IBM purchased 12 islands within Second Life for virtual training and simulations of key businesses processes. Musicians, podcasters, and news organizations (including CNET, Reuters or NPR), all established a presence within Second Life. The platform has experienced de-professionalization for the past few years. Nonetheless, residents of Second Life are still able to create virtual objects and other content. Virtual goods include buildings, vehicles, devices of all kinds, animations, clothing, skin, hair, jewelry, and works of art. Services can be broken up into the following six categories: building, texturing, scripting, animating, art direction, and the position of producer/project funder). Second Life's currency - L\$ (linden dollars) can be purchased using US dollars and other currencies on the LindeX exchange provided by Linden Lab, independent brokers or other resident users. Profits are derived from selling virtual goods, renting land, and a broad range of services. Second Life also quickly became profitable due to the selling and renting virtual real estate. 2006 also saw first virtual, but real-world millionaire: Ailin Graef, better known in Second Life as Anshe Chung who converted an initial investment of \$9.95 USD into over one million dollars over the course of two and a half years.

Religious organizations have also begun to open virtual meeting places within Second Life. In early 2007, LiveChurch.tv, a Christian church headquartered in Oklahoma, and with eleven campuses in the USA, created Experience Island and opened its twelfth campus in Second Life. The First Unitarian Universalist Congregation of Second Life⁵ was established in 2006, and services have been held regularly making the FUUCSL Congregation one of the longest-running active congregations there. The Egyptian-owned news website Islam Online has purchased land in Second Life to allow

³ See also: <http://archive1.diplomacy.edu/DiplomacyIsland/default.asp>

⁴ See also: <https://my.secondlife.com/booperkit.moseley>

⁵ See also: www.fuucsl.org

Muslims and non-Muslims alike to perform the ritual of Hajj in virtual reality form, obtaining experience before actually making the pilgrimage to Mecca in person.

Obviously enough, Second Life also offers several groups that cater to the needs and interests of humanists, atheists, and agnostics. One of the most active groups is Second Life's Humanism that has been holding weekly discussion meetings inside Second Life every Sunday since 2006. They are held until now.

The non-quest game

Linden Lab often claimed that Second Life's goal was to compliment people's daily activities as a platform where part of the users' lives happen. Michael Heim in the classical *Metaphysics of Virtual Reality* (1994) describes six different concepts that accompany cultural construction of virtual reality:

- simulation (that manifests itself in its realism and three-dimensionality),
- virtual interaction (manifested in the ability to engage in the environment and other agents),
- artificiality (that refers to Jean Baudrillard's concept of our world being saturated by simulacra),
- immersion (that equals the use of hardware to stimulate sensory experience), telepresence
- a feeling of presence in a remote place, but also control of a remote robot agent,
- body-immersion (kinesthetic tracking of body movement by a computer).

Obviously, not all examples of virtual reality fulfill those seven conditions. Those that possess all the features are characterized as "strong", and those that don't as "weak". In the context of this classification, Second Life that fulfills at least five of these conditions, is one of the strongest currently known types of virtual reality. Not only simulation, but also body immersion, and a wide scope of possible virtual interactions offer a complex virtual experience.

Users' virtual representations: avatars, may take any form users choose (human, animal, vegetable, mineral, or a combination thereof). They may also choose more abstract forms, given that almost every aspect of an avatar is customizable. Nonetheless, many users choose to resemble themselves as they are in real life, rather than come up with a more unusual form. Another frequent choice is operating one avatar that resembles the real person and another that takes an entirely different shape. Each Second Life resident may have multiple accounts, and thus just appear to be multiple residents (a person's multiple accounts are referred to as alts).

As mentioned above, the culture of Second Life consists of many activities and behaviors that are also present in real life. Avatars can travel via walking, running, vehicular access, flying, or teleportation. Because Second Life is a vast virtual world, teleportation is used when avatars wish to travel instantly and efficiently. Once they reach their destination, they may travel in more conventional means at various speeds. As far as interactions are concerned, avatars can communicate via local chat, group chat, instant messaging (known as IM), and voice (public, private and group). Chatting is mainly used for localized public conversations between two or more avatars, and is visible to any avatar within a given distance. IMs are used for private conversations, either between two avatars, or among the members of a group, or even between objects and avatars.

As the rules of Second Life do not foresee establishing any default goals for members, the world is fully open to user participation (Bruns 2008: 299). It does not share game mechanics with other MMOS such as *World of Warcraft* or even *The Sims*. Instead, it allows for the gradual formation of social structures through player engagement: a form of communal evaluation between peers, as well as the more explicit communal policing of content created within the game, ensuring for example that content created within the game, ensuring for example that content created by players in the game does not negatively affect others' participation in the world.

Role playing in Second Life

As I already mentioned, Second Life is largely based on the rule of extending reality. This realistic extension is mostly manifested in habituation, livability, and dwelling of its residents (Heim 1998: 46). According to Michael Rymaszewski (2007: 217-239), most popular businesses in Second Life are: journalism, security, dancer/stripper, builder/landscaper, shop attendant, model/photomodel, clothing designer, animator, greeter, event host/DJ, texturer and scripter. Nonetheless, many destinations within Second Life are dedicated to those who enjoy role-playing. Some of these are targeted for adults, but there are also many which focus on other themes, such as fantasy, history, and science-fiction. Role-playing communities do not align themselves fully with those rules and habits. Partially, because of the fact that most RPG's in Second Life are literal translations of existing pen-and-paper RPG's and thus require different scenery and different codes of conduct. Also, it seems that – aside from networked communication – the concepts of artificiality, immersion and tele-

presence are significantly strengthened in comparison with other groups that do not put so much impact on a thorough change of identity. RPG usually implies the awareness of possessing multiple identities and choosing one that fits best.

RPGs are highly social games, relying on verbal skills. Added pleasure that those groups offer are abilities related to embodiment, such as dressing up one's avatar as their role-played character and develop a piece of narration related to its origins to increase the immersion in the fantasy world. Many of these types of worlds have very specific sets of rules that each avatar that visits it is expected to follow. Such rules can include things such as a dress code, a code of behavior, and world guidelines. As role-playing communities are very immersive and tend to play long and build complex narrations, if these rules are not followed, the avatar can be booted from the world by a game administrator. One example is a historical role-playing sim, the 1920 Berlin Project where visitors were required to dress accurately as part of the history based immersive experience. Sims may incorporate rules that have less to do with thematic realism, and more to do with adhering to community guidelines.

Another example is "The Realm of Valahari". This particular world takes place in a fantasy medieval setting. In order to exist within that world, your avatar must be dressed in fantasy or medieval attire. In case your avatar does not already own such clothing, the world provides clothing shops for you in an area which you visit before you actually enter the world. However, none of these clothing shops provide free items; all of them cost Linden Dollars. Within the world, everyone is also expected to maintain the role-playing atmosphere. Anyone who is using "regular" or "everyday" language tends to be frowned upon and seen as an outsider by the other members of the Realm. "Regular" language is to be kept in private chat windows, so that the fantasy or medieval atmosphere is not polluted by it.

Avatar-identification

By using the concepts of engagement and embodiment I embed this paper in broad extended cognition paradigm, stemming from cybernetics and arguing for embodied, embedded, enacted and extended approach to how we cognite and act within the world (Wiener 1988, Bandura 1989, Clark & Chalmers 1998, Varela, 1991; Gallagher, 2004; Thompson 2007; De Jaegher & Di Paolo, 2007). Extended cognition is the view that mental processes and mind extend beyond the body to include aspects of the environment in which an organism is embedded and the organism's interaction with that environment. Cognition goes here beyond the manipulation of symbols to include the emergence of order and structure evolving from active engagement with the world. Mental processes are (1) embodied involving more than the brain, including a more general involvement of bodily structures and processes, (2) embedded functioning only in a related external environment, (3) enacted involving not only neural processes, but also things an organism does, and (4) extended into the organism's environment. The paradigm is also because of its interdisciplinarity that allows for connecting various layers of analysis: the social, the individual and the intrapersonal, channeling intersections between social sciences analyses and philosophical reflection.

The book *The Embodied Mind* (Varela, Thompson and Rosch 1991) was an attempt to re-direct the cognitive sciences by infusing them with the phenomenological perspective developed in the work of Maurice Merleau-Ponty (1945). Varela, Thompson and Rosch argued that the standard division between pre-given, external features of the world and internal symbolic representations should be dropped, as it is unable to accommodate the feedback from embodied actions to cognition via the actions of a situated cognitive agent. The fundamental differences between their perspective and classical views lies in the answers to the questions of what cognition is, how it works, and when a system functions adequately. Interestingly enough, technological development allows to see many of the classical mind-body dilemmas in a different light and supports embodied, embedded, enacted and extended approaches.

The concept of avatar preceded computer mediated communication. In Sanskrit, avatar means „to descend” (Coleman 2011: 44). Currently, instead of god descending into mortal guise, we find people mediated by a computer network represented by figures composed of animation and automation. The new virtual reality full of such figures is no longer the cyberspace that is a pure information space with the urge to leave the corporeal body behind, but a space of „additional bodies that marks the mergence of World Wide Web” (Coleman ibid.: 44).

In the context of this newly understood cyberspace, there are many potential angles of analyzing human-avatar identification mechanisms. Some scholars (Newman 2002) argue that in playing computer games, identification with the character has little to do with character's appearance. Instead, they claim that the most relevant „engine” of identification is the capacity to which the player considers him or herself to „be” the character. This capacity is the level of engagement, immersion and sense of presence experienced by the player. Even if we define capacity as the sum of capabilities available

for the character and the appearance as the representational qualities (Tronstad, in: Corneliussen & Walker Rettberg 2008: 249), we still do not know how to separate capacity from appearance in computer games.

Appearance, however, is closely related to perception: how we perceive a character and how it appears. Thus, everything that is included in our perception, is also included in the appearance. In this case, the „appearance” cannot be reduced to „physical appearance” but must include all kinds of symbolic labels attached to the character, such as name, gender, level of affiliation. Consequently, appearance cannot be treated as something static, but fundamentally connected to performance, which, in turn, is partly determined by capacity.

In most virtual environments, such as Second Life, the Sims or World of Warcraft, there are at least two distinctive ways of „being” in the world: non-role-playing and role-playing. I agree with Tronstad (2008) that there is a great difference in how the relationship between capacity and appearance occurs in role play compared to when the character is not role-played.

Tronstad puts forward that there are different ways of understanding „identification”. On one hand, identification with one’s character may be understood as the player entering a state where he or she has an experience of „being” the character. On the other, identification can mean experiencing what the character experiences, but without the feeling of being identic. Tronstad argues that one of them can be called „sameness identity” linked with whereas the other is „empathic identity”. In order to understand the difference between them, one needs to introduce two other notions: „emotional contagion” and „perspective talking”.

„Emotional contagion” is the affective phenomenon that, for instance, makes us laugh when we witness other people laughing, even if we don’t share their reason for laughing and don’t know what they’re laughing at. The other end of continuum is „perspective talking”. The reason why true empathy can be found only in the middle of that continuum is that empathy requires a consciousness of the other with whom one emotionally identifies different from oneself. Empathy is a dynamic phenomenon. It has both an embodied aspect related to emotional contagion, and a narrative aspect closer to perspective talking (Vaage 2006: 32-33).

Vaage distinguishes embodied empathy and imaginative/ narrative empathy:

„Empathy is a dynamic phenomenon. It has both an embodied aspect related to emotional contagion and a narrative aspect closer to perspective taking. Empathy may start through both perspective taking and emotional contagion, but without some element of narrative empathy, we only experience contagion. Conversely, we only experience perspective taking if we do not have some degree of matching bodily feeling. To some degree both embodied and narrative elements are needed for an experience to be empathy” (Vaage 2006: 32-33)”.

According to Vaage, empathy may cause different types of engagement from the spectator: „fictional engagement”, „aesthetic experience”, „aesthetic appreciation”, and „self-reflection”. A scene may elicit all these forms of engagement in the spectator/ player, but usually not all of them at the same time. As Tronstad argues (2008), fictional engagement „is described as being successful if the spectator gets the feeling of being transported to the fictional world”, in other words: immersion (or transportation). Aesthetic experience is described as „sensuous feelings of engagement in the fictional world that are no longer strictly narrative or fictional. In Second Life, as in other games of its kind, it is the moment of intense interaction with the game mechanics, where the player is completely absorbed (flow). Aesthetic appreciation, on the other hand, concerns the more detached judgement of the aesthetic techniques where self-reflection occurs when the player’s focus is turned toward him or herself and how he/she would have reacted if he/ she were in a similar situation. Fictional engagement may lead to aesthetic experience, which again may lead to aesthetic appreciation or self-reflection, all elicited by empathic engagement.

Now, role-playing is to construct and develop a coherent identity for the character, in interaction with other players, the gameworld and its mythology (Tronstad 2008: 256). Roleplaying actualizes the narrative/imaginative form of empathy. Whereas in the regular game identification is often accomplished through embodied empathy in which the player experiences a kind of physical and bodily connection to the character (ibid.).

Paul Ricoeur’s concept of „narrative identity” is useful to understand how a character identity is developed in a RP-game (Ricoeur 1991a, 1991b). As Ricoeur claims, our identity rests on the stories of our lives more than on actual experiences. In our appropriation of a life story, in which we both construct and discover of identity, certain experiences we have had will count significant and be included, while others are seen as unimportant and are easily forgotten.

Now, when it comes to embodied, such environments as Second Life offer new ways to ‘embody’ a set of identities outside one’s own physical being, where the virtual avatar acts a tool through which identity can be shaped. The process of building identity can be understood as “distributed into the context composed by other entities, cognitive artifacts, and relationships” (Perkins 1993). It seems that many experiences in Second Life express more than one embodied action. It may be one of the reasons why bodily experiences of various users are often described as so compelling. According to Embodied Research Group’s⁶ classification there are five categories of embodied actions that are only possible in the virtual world:

1. Change of basic body structure and avatar appearance (e.g. from a human to an animal, a robot, etc.);
2. Change of avatar's gender and hence modify the gender expectations of others;
3. Change and/or multiply of virtual identity (e.g. have several different avatar bodies)
4. Change or modification of the major parts of the environment;
5. Examining the world from a viewpoint that is semi-independent from our avatar's position;

Both narrative and embodied identification are present in Second Life, however can intersect and reinforce only in communities that are highly performative and emphasize role playing as a communication strategy. However, dominant views in the philosophy of mind and cognitive science have considered the body as peripheral to understanding the nature of mind and cognition. In the avatar-user identification we clearly see embodied cognition as an important mechanism. Cognition is embodied when it is deeply dependent upon features of the physical body of an agent, that is, when aspects of the agent's body beyond the brain play a significant causal or physically constitutive role in cognitive processing.

Furries

The furry fandom has a major presence in Second Life, with multiple areas devoted to providing accommodation, entertainment and creative services specifically for members of this community⁷. The furry fandom is a subculture interested in fictional anthropomorphic animal characters with human personalities and characteristics. Examples of anthropomorphic attributes include exhibiting human intelligence and facial expressions, the ability to speak, walk on two legs, and wear clothes. Furry fandom is also used to refer to the community of people who gather on the Internet and at furry conventions. Its important feature is that it started as an online community that later on moved to the real world. Also, it is a community that intensively seeks online platforms where they could fully enjoy their embodiments and rituals.

Second Life proved to be the best one for them. This arose out of the fact that the avatars, humanoid objects representing the user, are very customizable and the world's disposition for allowing users to create anything has made the concept of a virtual fursuit possible. In fact, many furries of Second Life don't like to be considered to be wearing fursuits. Instead, they act as if the fur were their real body. These consist of a variety of body parts, which are attached to the user's avatar (such as tails, wings, legs, etc). Some furry Second Life residents have even made complete sets that resemble mythical beasts such as dragons, complete with scripted flame effects. Such avatar add-ons can be sold by their creators, who retain the ability to control distribution of their objects as part of their copyright, enforced by inbuilt copy restrictions. Some choose to give works away for free, for apparently altruistic purposes.

Role playing in Furries community does not require narration. In this sense, it is a particular RPG community that aligns itself with general rules – to mirror and enhance reality rather than get away from it. As animal-human hybrids, furries feel connection with a particular animal: real or fantastic. They often change and modify their avatars. Despite this inclination to a more situated approach, they usually stress that a furry avatar is a social choice to represent certain values, both in Second life and in real life. According to David S. Jones and Ian Whitmarsh (2010), they are also an example of “posthuman monstrosities” that challenge our ontological categories of nature/ culture and human/ animal. In this sense, Second Life allowed the members of this particular community to find new configurations of Self that go beyond such boundaries. Furries mainly use their Second Life avatars for immersive purposes, there is however an augmentative aspect to it, when they decide to transfer some of their Second Life practices to real life.

Goreans

⁶ See also: <http://embodiedresearch.blogspot.com/>

⁷ See also: <http://secondlife.com/destination/furry-hangout>

Goreans are one of the biggest role playing communities in Second Life⁸. This community is strongly related to the subculture around the John Norman Gor novels (1966, 1968, 1986, 2013, 2016). These novels feature an arboreal counter planet to Earth, with elements drawn from antiquity and fantasy. The culture of Gor focuses on either tribal or a city-state society with a caste structure that includes priests and slavery. Gor is based on transferring the world described by John Norman to Second Life and adhering the virtual environment to its strict code of conduct. In that context, they reject the idea of isolated scenes and need environments where they can develop long narrations. Concepts of servitude and slavery typically play a key role in Gorean dynamics in real life practices. However, Norman himself recommended the use of symbolic substitutes, such as the sound of claps as a substitute for whippings and other physical punishments. Instead of real life substitutes, many Goreans chose Second Life as home for enacting such kind of practices that allows them to avoid physical harm, but also to build an environment that would strongly mirror the lifeworld described by Norman.

The Goreans' occupations are formed and informed by their caste. The caste system establishes the Gorean identity as strongly as homeland. Castes in Gor also define how the members of the caste are expected to behave. Each caste is associated with a particular color (black for the Assassins, white for the Initiates) or set of colors (White and Gold for the Merchants, Yellow and Blue for the Slavers). One color (purple) is not associated with a particular caste, but with the function of Ubar (dictator elected to rule a City during wartime). Because of the Gorean's work ethic and pride in caste, all castes are essentially equal. There is little social mobility because of this caste pride and identity. A Gorean regards the welfare of their caste higher than their own, but in return, the caste provides welfare and charity when a caste member is in need. The way in which many living Goreans reflect the Gorean morality, in their professions, is to establish a code for their profession that they follow. This, combined with striving for excellence in their profession, is a reflection of the caste system.

Part of what Norman indicates as natural order, is that males have a predisposition to be more dominant, and females have a predisposition to be submissive. Norman indicates that with changes in society brought on by industrialization and feminism human instincts have become confused and suppressed. In the Gorean society it is not believed that males are more intelligent or have more wisdom than females, but are considered physically stronger and significantly bigger. There are many roles that can be enacted in Second Life's Gor that mirror Norman's ideas. One can be a Kajira (slave girl), a Free Woman, a Mistress or Master (who owns slaves) a Free Man, a Panther (a savage free woman) or a Male Slave. However, in Second Life, male dominance is a generality, not an absolute. Women on Gor can attain the highest ranks of power on Gor, becoming the absolute rulers of Gorean cities. It is noted that in the Gor novels Norman wrote of at least four Gorean cities that were ruled by women. Gorean women can own property, operate a business, and control family life in a Gorean household. Goreans are a rather isolated society where trust and privacy of the members play an extremely important role. Thus, users who wish to visit the Gorean land in Second Life are required to respect the RPG rules and to be as unobtrusive as possible. Goreans represent normative type of avatars. As mentioned before, also on a bodily level, both males and females are obliged to strive for perfection. Thus, bodies in the Gor community are highly gendered and very sophisticatedly created. It requires a lot of time and resources to create a Gorean warrior, as well as a Kajira. Thus, once a warrior or a slave is created, it is rarely a subject to change. Goreans rarely perform an experimental approach towards their avatars and usually prefer to use the same avatar during the course of their stay in SL in order to be properly recognized by other members of their community. Identification with their avatar is not relevant, since the avatar need not to resemble his/her "real" user, but rather the ideal figure from John Norman's epic stories. Goreans do not use SL for purely dissociative purposes, the game is not a way to relax and escape daily lives routines. Most Goreans spend long hours in Second Life meticulously developing their characters and engaging in narrations. Some of them decide for the augmentative strategy that they want to combine with real life experiences. This, however, frequently fails, as not many people wish to engage in Gorean order in real life to that extent as in SL. The strategy surely is highly immersive and perceived by members of the Gor community as "part of lives they always wanted to live"⁹.

⁸ See also: <http://www.gor-sl.com/>

⁹ See also: <http://www.gor-sl.com/>

Tinies of Raglan Shire

Tinies are smaller-than-normal avatars usually found in the form of cute creatures and other pint-sized marvels. Tinies is a brand name that became synonymous with a more general product due to its popularity. Many residents make and sell Tiny avatars under their own brand names. Kage Seraph was the first person to figure out the secret to making tiny avatars: by using an animation overrider and a custom animation set that folded the avatar's limbs in on themselves, and covering the resulting shape with prims, it was possible to make an avatar much smaller than normal slider adjustments would allow. The concept wasn't entirely new. Second Life's residents had long been using animations to fit avatars into unusual prim bodies (often based around a sphere and/or the avatar curled up into a tight ball). However, this was the first iteration on the idea that could walk, sit, dance and perform other gestures required for a fully animated creation.

The release of Tinies in mid 2005 was enormously successful and sparked a massive fad that spread through most of Second Life (largely based on "cuteness factor" as well as the novelty of the small avatars). The market was soon flooded with a wide assortment of tiny outfits, accessories, houses, furniture, and animations. Many popular Second Life locations such as Neualtenburg put up special areas for tiny avatars to shop and play. In April of 2007 Raglan Shire¹⁰, the first of what would become a cluster of sims catering to Tiny centric creativity came into being. The Sim featured a large tree city filled with various Tiny themed wares made by many creative avatars on the grounds as well as in the trees themselves on the various platforms. Besides the many places to buy tiny themed items of all types as well as tiny avatars, Raglan Shire also began to host fun and interesting activities and events for not just tiny folk, but anyone of kind disposition. Events like Tiny Sumo Tournaments, Art Walks, Football matches against other sim communities, A tiny talent show featuring over a dozen acts, classes, a medieval festival that raised well over \$100,000 LS for charity, performances (musical & non-musical) at the Raglan Stage by various talent from about the grid.

Community oriented, the Friends of Raglan Shire group has slowly and steadily grown to 850 plus members and is primarily focused on encouraging creativity, friendship and silliness. The Tiny community has truly shown themselves to be a warm place for visitors, many of who have visited and enjoyed themselves so much that they have become a member of the family regardless if they themselves wear tiny avatars. Everyone was welcome to share ideas and collaborate and throughout 2007 the Tinies and the Raglan Shire community continued to grow.

Almost immediately due to the friendly nature of the tiny Raglan community, expansion began. First was the Artisan Village on a quarter sim of Athen Shire. A Sim connected to Raglan Shire along Raglan Shires southern border, The Artisan Village offered a series of cottages for members of the community to live in. Later on in September of 2007, expansion carried over to another sim. Heron Shire is a sim connected to the West border of Raglan Shire and as fall approached, The Raglan Shire Wharf (on Heron Shire) was built and new shops sprang up. In March of 2008, the Raglan Galaxy Sim was unveiled and connected to the Raglan Cluster of sims. Raglan Galaxy features a large "Tiny International Space Station" which features several large habitats, apartment pods, and other areas of interest including a Zero Gravity habitat where tiny avatars donated special helmets and floated with other residents through the large habitat as well as the Cosmos Theater Dome where large events were hosted.

Brief presentation of tinies history and presence in Second Life reveals how oriented they are on collaborative knowledge production. It is not a type of narrative fantasy (which was the case of Gor community), but involves creating personas embedded in mythology, legends and fairy tales. Their avatars shaped like tiny toy animals - rabbits, bears, ferrets, and cats are especially popular - and just have outrageous amounts of fun being small. Tiny communities, such as the already mentioned Raglan Shire, are considered being free of the drama of everyday life. Their community is strictly PG-rated and constantly engages in special events. They hold regular festivals to celebrate holidays, gather together to watch movies, play games such as Primtionary - a take on Pictionary where the players must use their building skills to deliver clues. They regularly invade "biggie" areas in mass¹¹, partying along with their larger counterparts in the name of Waffles, preferably on a stick. Tinies are also involved in various activities, all of which are somehow connected with the so-called "cute factor" that relates to all significant community activities such as cooking, breeding other (smaller) animals, building a pet cemetery, or playing instruments. Thus, Tinies are also one of the rare examples of a Second Life-born innovative culture created for entertainment reasons that does not involve sexual activities and is not oriented

¹⁰ See also: <http://raglanshire.com/>

¹¹ „Biggie” is the Tiny name for regular SL residents.

towards erotic relationships. Creating a tiny self is a very creative approach to one's representation in the virtual world, since there are many codes invented and used only by this group.

Embodiment and engagement

Already from the brief examples given above we can derive Second Life fulfills its role as an expanded reality where real life activities can be both simulated and enhanced. It can also be a space completely detached from real life activities. Taking into account the scope of activities, avatars are virtual representations of users, but they are not limited to what the user can do with them. In is rather the other way around: avatars offer a wide range of possibilities that are very often unexplored in real life, but it does not necessarily mean that they are completely detached from real life, as Baudrillard would claim. Looking closely more closely at the place avatars occupy within larger scheme of possible human representations. Whereas the concept of "identity" is in itself very challenging and hard to define, "embodied identity" is even more troublesome. It is a complex term that has a long history within philosophy, psychology and sociology, its specific meaning being contingent on the particular discipline. The term continues to be contested, particularly within psychology and philosophy, where notions of the mind-body split are still debated. Perhaps of most value to multimodality theory is the conception of the embodied self in phenomenology, especially in Merleau-Ponty's *Phenomenology of perception* (2002). Here the body is seen as the center of identity, inseparable from sensory experience and perception. Embodiment may also refer to how the body and its interactive processes, such as perception or cultural acquisition through the senses, aid, enhance or interfere with the development of the human functioning. Within the context of multimodality the emphasis is on the relationship between physical experience, and multimodal resources, media practices and social spaces. This relationship is an interdependent one where meaning making is grounded in physical experience, through bodily form, gaze, gesture, body posture, facial expression, movement, which shapes the kind of interaction with the environment. Equally, media spaces and social practices are produced through the human body in its material form, the nature of the practices being, in large part, contingent on the forms, practices, and plasticity of the human body. A person can also embody an identity (as the phenomenological approach proposes), or a particular set of identities, by the way one moves, interacts, communicates and perceives. Nick Lee (2006) wrote that our insistence on embodiment in virtual environments structured social interactions in these worlds in ways that we might not consciously be aware of. Thus, the concept of virtual embodiment derives from our ability to separate "embodiment as performance" from "embodiment as (proprioceptive) sensation". In today's world, our experience of direct bodily sensation (called "proprioception") is mostly the result of our encounter with the physical world, although certain technologies currently under development contain the potential of modifying this state of play. On the other hand, our embodied experience of the world also includes the ways in which our actions bring about changes in our understanding of our emotional makeup and our behaviors.

In her research from 2000 „More than just a Pretty Face: Affordances of Embodiment”, Justine Cassel argues that embodied agent provides better communication only if human conversation accompanies it. The design goal is not to replace face-to-face interaction with a computer-mediated communication, but to make simulation of face-to-face way more satisfying. This proves that we are moving more into the realm of extension than pure replacement that Baudrillard world have surely argued for. Mediation is embedded in our daily life, but „the point of greatest transformation is not human and computer relations, but human-to-human engagement” (Coleman *ibid*: 30). It seems that Second Life was aiming at that from the very start.

Since the 1950 high point of cybernetics we have already begun, as a culture, to practice an animated exchange with machines that was neither human communication nor entirely mechanical. Currently, real-time processes, the experience of a synchronous or live network connection, present an important addition to our tools of expression. VOIP, IM< SMS, computer game engines, and locative media enable synchronous exchanges. X reality platforms are increasingly pervasive. Face-to-face encounters remain central to our lives, but networked media increasingly augments them. Cooperation has become one of the most powerful signs of the changes wrought by networked media (Benkler 2004). However, there is no clear equation between participation and online activity. We can participate by being present to each other (Coleman *ibid*: 33).

In terms of technical affordances networked media simulate presence (virtual reality very much so) - the sense of being here that does not rely fully on a physical instantiation. We can argue here for lived, bodily experience with our experience of being filtered through an avatar. We now have more platforms from which to reach each other, not merely look at something. And in this sense, user is actually not a term that applies, because it is the opposite of agency: self-determinant action (Chun 2006), agency that can be defined as working across platforms and geographies of the virtual

and the real. The way we currently engage highly immersive media in a symbiotic relationship turns the user into an agent, in a broader sense than only Latourian part of a network (Coleman *ibid*: 38).

The cases of Furrries, Tinies and Goreans they are not players framed by someone else's design. They are not objects overcome by enveloping apparatus of simulation like the one depicted in *The Matrix* (Wachowski & Wachowski 1999), clearly inspired by Baudrillard's ideas. Their engagement with accelerated mediation is far less dramatic and far more engaging (ascribing agency) at the same time.

Within the described communities of Second Life, we are dealing with complex issues of multiple identities (real and virtual, virtual and its alts), performative virtual bodies that are not only physical representation allowing for virtual movement, but also symbols of beliefs and ideas. If we act within virtual spaces, especially in a way that is mediated by a virtual body equipped by particular sense of membership, narration and sense of place within a consolidated community, we may have a variety of embodied experiences. More generally, virtual worlds feed societal fantasies developed within the mind/body discourse of transcending the deficiencies of human flesh. In Second Life virtual bodies represent a tendency of the technology to reflect the culture in which it exists as well as being seen as a means of transcending the "real" body and "real" life. If one divides the virtual bodies in SL into two categories: regular and fantastic (such as Goreans, Tinies or Furrries), the aspect of transcendence becomes even clearer, since the "fantastic avatars" break the linkages with the real world on several levels. In fact, they are about becoming someone else within oneself.

Sherry Turkle (1994) believed¹² that the role identity plays in RPGs is extremely complicated, because such communities provide room for individuals to express unexplored parts of themselves. Identities in cyberspace are co-constructed, situated, not stable, occasioned, volatile and indexed, thus embodiment with one or plural avatars is only one of the elements in play when negotiating identity and "positioning". One can subsequently change it, lead narration around it and re-describe it, rewrite it again and again. In a more loosely structured game each player creates a character or several characters specifying their genders and other physical attributes.

Turkle argued that medium such as Second Life offers possibilities for projecting both conscious and unconscious aspects of the self, which suggests an analogy between MUDs and psychotherapeutic milieu (1994: 163). Whereas the embodied self is always bound to time and space (Merleau-Ponty 2002), in Second Life one has to deal with an entirely different nature of the "body", space and time.

Thus, the attempt to consider the virtual body as an extension of the "real mind" comes from a theoretical development of the idea that body is a representational medium of the mind. On a more practical level, referring again to Embodied Research Group (2010) we can list some of the effects or impacts of virtual embodiment: generating a sense of physical and/or social empowerment, acquiring new movements and postures via the engagement of mirror neurons, motor imagery and mental practice, modifying the way of understanding and entering into social engagements, changing the access information in the real world, distracting from or endanger our own physical survival. Other would include: overcoming phobias and other emotional barriers to certain forms of behavior, but also – on a more negative note – exacerbating access to and use of inappropriate behavior (e.g. certain forms of grief), exacerbating tensions or strengthening power inequalities between social groups in real life.

As Turkle claimed in *Constructions and Reconstructions of Self in Virtual Reality: Playing in the MUDs*, engagement with computational technology facilitates a series of 'second chances' for adults to work and rework unresolved personal issues and more generally, to think through questions about the nature of self, including questions about definitions of life, intentionality, and intelligence" (1994:159). Indeed, the medium enables the self to explore a social context as well as to reflect on its own nature and powers.

One could argue than on the philosophical level, virtual reality reinforces Cartesian duality by replacing the body with a body image, a creation of mind (for all objects in virtual reality are a product of mind). As such, it is clear continuation of the rationalist dream of disembodied mind, part of the long Western tradition of denial of the body.

¹² Sherry Turkle went through a significant change in her ideas concerning the impact of Internet and virtual reality on our social and organizational life. Whereas in *Life on the Screen* (1995) she discussed she suggested that assuming different personal identities in a MUD (a computer fantasy game) may be therapeutic, in *Alone Together: Why We Expect More from Technology and Less from Each Other* (2011) she spoke about the need to limit the use of popular technological devices because of their negative and isolating effects.

“Virtual technologies encourage belief that they constitute a transcendence machine within which the imaginative self might escape its privatized physical anchor and live in an iconography of pleasure (Hillis, 1999: 172).”

This is, however, just one way of looking at the virtual body, and, as mentioned before, Merlau-Ponty’s philosophy certainly shares some different insights. A more psychological point of view, rooted into Cartesian belief of cogito ergo sum stands for a disembodied self, essentially different from the body and other material extended in space. Obviously, such “posthuman technologies” are challenging the boundaries that the Cartesian duality created both between the mind and the body and between the Self and the environment. A more phenomenological approach calls for understanding virtual life as an expansion of embodied mind schemata. In this way, avatars may in the future become “more tangible” extensions of self. Devoting time to VR can be the expression of the need of transgression: the desire of transcendence and the search for the “essential copy” (Biocca & Levy 1995: 7, Biocca 2006). Hillis (1999: 172-175) argues that while virtual reality is “factual,” in the sense that it is experienced sensually, it is, as he argued, socially produced, even though it attempts to “masquerade as brute fact” (1994: 52). On the other hand Biocca (2006: 173) claims that “with the invention of virtual reality we are beginning to reach a stage of meta-physical maturity such that we can see through (...) the trick of the alleged materialistic thickness”. However, looking at VR as extension and augmentation rather than a hypermedium is of vital importance. Kevin Kelly discusses the augmented Self as a „symbiotic relationship with technology” (2010: 37). In Kelly’s assessment technology has domesticated us and we are „coevolving” with it. In fact, Rosedale’s new idea of High Fidelity, or Oculus rift¹³, is calling for a developing a theoretical framework that allows for thinking about computers and virtual environments based on centrality of the progressive or full embodiment of the Self into the computer interface.

Conclusions

In the last decade a number of supposedly universally accessible computer-generated worlds have been developed and then ‘inhabited’ by geographically dispersed computer users who can communicate and animate a virtual graphical presence, as avatars, to others in the environment. Second Life was one of the most prominent cases of this shift. For more than a decade the space of Second Life allowed for creating engaging, strong virtual communities and practices of users in their avatar embodiments. As Lévy (1998) has argued, the virtual is not a fantasy world in marked contrast to the real world. To the contrary, even the examples above show that actualization of particular virtual embodiments is the kind of realization of the escape from reality that is strongly anchored in very real mechanisms of identification and collaboration. We ought to be cautious about claims that one can transcend the body online. Avatars are clearly (ac)cultured and socialized: virtual embodiment and materiality is socially constructed.

We may ask however, what actions might we take to enhance the positive benefits of the virtual embodiment and collaboration? Should we increase the range of movements and animations available or used within the virtual world or, for example, develop more augmented reality events ensuring a stronger transfer of benefits from virtual experience to real life. This remains to be cleared in the future research. Perhaps High Fidelity and other new immersive environments will be a phenomenon worth studying with this critical perspective in mind. A great deal of work remains to be done to conceptualize identification with avatars, and virtual agents in general as they progress to become more and more sophisticated, both on the level of sensual and bodily experiences and on the level of communication. It is likely that there are certain dangers to virtual embodiment that will grow exponentially once such immersive devices take over, for instance exacerbating tensions or strengthening power inequalities between social groups in real life.

References

- Ashe, B., Taylor, M. and Dubouloz, C. The process of change: Listening to transformation in meaning perspectives in adults in arthritis health education groups, *Revue canadienne d’ergothérapie*, Volume 72(5), 2005: 280-288.
- Bandura, A. Human Agency in Social Cognitive Theory, in: *American Psychologist* 1989/44/9: 1175-1184.

¹³ Oculus Rift is a new virtual reality headset that allows players to step inside their favorite games and completely immerse themselves in the virtual world. See also: www.oculus.com

- Bainbridge, W. Transavatars, in: More, M. & Vita-More, N. (eds). *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, New York (Wiley-Blackwell) 2013: 91.
- Baudrillard, J. *Simulation and Simulacra*, Detroit (University of Michigan Press), 1994.
- Baudrillard J. *Why Hasn't Everything Already Disappeared?*, Chicago (University of Chicago Press) 2009.
- Biocca, F., Levy, M. *Communication in the Age of Virtual Reality*, New York (Lawrence Erlbaum Associates) 1995.
- Biocca, F., *The Cyborg's Dilemma: Progressive Embodiment in Virtual Environment*, [in:] *Journal of Computer-Mediated Communication*, Vol. 3/2/2006, doi: 10.1111/j.1083-6101.1997.tb00070.x
- Bly, B. M., Rumelhart, D.E. (eds.). *Cognitive Science*. San Diego/London/Boston (Academic Press), 1999.
- Boden, M. *The Creative Mind. Myths and Mechanisms*. New York (Basic Books), 1990.
- Bruns, A. *Blogs, Wikipedia, Second Life and Beyond*. New York (Peter Lang) 2008.
- Cassel, J. Bickmore, T. Hannes, V. *More Than Just a Pretty Face: Affordances of Embodiment*, in: *Proceedings of the Fifth International Conference on Intelligent User Interfaces*, ACM 2000: 52.
- Chalmers, D., Clark, A. *The Extended Mind*, in: Chalmers, D. (ed.) *PHILOSOPHY OF MIND: CLASSICAL AND CONTEMPORARY READINGS*. Oxford (Oxford University Press) 2002.
- Coleman, B. *Hello Avatar: Rise of the Networked Generation*. Cambridge, MA (The MIT Press), 2011.
- Corneliussen, H.G., Rettberg, J.W. (ed). *Digital Culture, Play, and Identity: A World of Warcraft Reader*, Cambridge MA (The MIT Press) 2008.
- Crosson F.J, Sayre K. (ed.). *Philosophy and Cybernetics*, London (University of Notre Dame Press), 1967.
- De Jaegher, H., & Di Paolo, E. (2007), *Participatory sense-making, w: Phenomenology and the Cognitive Sciences*.
- Deleuze, G., Guattari, F. *A Thousand Plateaus*. London/ New York (Continuum), 2004.
- Dreyfus, H.L. *What Computers Still Can't Do. A Critique of Artificial Reason*, Cambridge (The MIT Press), 1997.
- Dennett, D. C. *Information, Technology, and the Virtues of Ignorance* [in:] *Daedalus* Vol. 115, No. 3/1986: 135-153.
- Di Paolo, E. *Autopoiesis, adaptivity, teleology, agency*, in: *Phenomenol. Cogn. Sci.* 2005/4, 429–452. doi: 10.1007/s11097-005-9002-y
- Di Paolo, E., Rohde, M., and De Jaegher, H. *Horizons for the enactive mind: values, social interaction and play*, in: *Enaction: Towards a New Paradigm for Cognitive Science*, eds J. Stewart, O. Gapenne, and E. Di Paolo. Cambridge: MIT Press, 2010: 33–87.
- Gallagher, S. *How the Body Shapes the Mind*, Oxford (Oxford University Press/Clarendon Press) 2005.
- Gallagher, S. *Philosophical conceptions of the self: implications for cognitive science*, in: *Trends in Cognitive Sciences*, 2004/4 (1): 14-21.
- Gallagher, S., & Hutto, D. *Primary interaction and narrative practice*, in: Zlatev, J., Racine, T., Sinha, C., Itkonen, E. *The Shared Mind: Perspectives on Intersubjectivity*, Amsterdam: John Benjamins, 2008: 17–38.
- Gilbert, N. Doran, J. *Simulating societies. The computer simulation of social phenomena*. London (UCL Press), 1994.
- Halpern, O. *Dreams for Our Perceptual Present: Temporality, Storage, and Interactivity in Cybernetics* [in:] *Configurations* (The John Hopkins University Press), No. 13/2005, p. 283-319.
- Heim, M., *Metaphysics of Virtual Reality*, Oxford (Oxford University Press) 1993.
- Hillis, K., *Digital Sensations: Space, Identity, and Embodiment in Virtual Reality*, Minnesota (University of Minnesota Press). 1999
- Husbands, P., Holland O., Wheeler, M. (eds.). *The Mechanical Mind in History*. Cambridge, Massachusetts/ London (The MIT Press), 2008.
- Jones, D.S., Whitmarsh, I., *What's the Use of Race?: Modern Governance and the Biology of Difference*, Cambridge MA (The MIT Press) 2010.
- Johnson, M. *The Body in the Mind. The Bodily Basis of Meaning, Imagination, and Reason*. Chicago-Londyn (The Chicago University Press), 1987.
- Kelly, K. *What Technology Wants*. New York (Viking) 2010.
- Latour, B. *Pandora's Hope. Essays on the Reality of Science Studies*. Cambridge, Massachusetts/ London (Harvard University Press), 1999.
- Lee, Nick, http://terranova.blogs.com/terra_nova/2006/08/the_prison_of_e.html
- Manovich, L. *Język nowych mediów*. Warszawa (Wydawnictwa Akademickie i Profesjonalne), 2006.
- Marion, J-L. *In excess. Studies of saturated phenomena*. New York (Fordham University Press), 2002.

- Maturana, H., Varela F., *The Tree of Knowledge: The Biological Roots of Human Understanding*. Boston (Shambhala Press), 1987.
- Merleau-Ponty, M. *Phenomenology of perception*. London/New York (Routledge & Kegan Paul), 2002.
- Merleau-Ponty, M. *Themes from the Lectures at the Collège de France 1952-1960*. Evanston (Northwestern University Press), 1970.
- Mezirow, J., 1978, *Education for perspective transformation: Women's re-entry programs in community colleges*. Teacher's College, Columbia University, New York.
- Mirowski, P. *Machine Dreams. Economics Becomes a Cyborg Science*. Cambridge (Cambridge University Press), 2002.
- Moore, G.E. *Ethics*, London (Oxford University Press), 1966.
- Norman, J. *Priest-Kings of Gor, Hungerford* (Wildside Press) 1968.
- Norman, J. *Renegades of Gor, Hungerford* (Wildside Press) 1986.
- Norman, J. *Rebels of Gor, Hungerford* (Wildside Press) 2013.
- Norman, J. *Plunder of Gor, Hungerford* (Wildside Press) 2016.
- Petitot J., Pachoud B., Roy J-M., Varela F.J. *Naturalizing Phenomenology: Contemporary Issues in Phenomenology and Cognitive Science*. Stanford (Stanford University Press), 1999.
- Pickering, A. *Cyborg History and the WWII Regime* [in:] *Perspectives in Science*, Np. 3/ 1995, p. 1-45.
- Piłat, R., *Umysł jako model świata*. Warszawa (Wydawnictwo IFiS PAN), 2007.
- Rymaszewski, M., *Second Life: The Official Guide*, Indianapolis (Wiley) 2007: 217=39
- Thompson, E. *Mind in Life Biology, w: Phenomenology and the Sciences of Mind*. Harvard (Harvard University Press) 2007.
- Tronstad, R. (2008). *Character Identification in World of Warcraft: The Relationship between Capacity and Appearance*. In H. G. Corneliusen & J. W. Rettberg (Eds.), *Digital Culture, Play, and Identity*, 2008 (Cambridge, Massachusetts: The MIT Press): 249-263.
- Turkle, S. *Constructions and Reconstructions of Self in Virtual Reality: Playing in the MUDs*, retrieved from: <http://www.informaworld.com/smpp/content~db=all~content=a914373732>, 1994.
- Turkle, S. *Life on the Screen*, London (Simon and Schuster) 1995.
- Turkle, S. *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York (Basic Books) 2011.
- Vaage, M.B. *The Empathetic Film Spectator in Analytic Philosophy and Naturalized Phenomenology*, in: *Film and Philosophy*, 2006/10: 21-38
- Vaage, M.B. *Empathy and the Episodic Structure of Engagement in Fiction Film*, in: Anderson J., Anderson, B. *Narration and Spectatorship in Moving Images*, Cambridge (Cambridge Scholar Press) 2007.
- Varela, F.J., Gallagher, S. *Przerysować mapę i przestawić czas: fenomenologia i nauki kognitywne*, in: *AVANT* 2010/01: 77-121
- Varela, F. J., Thompson, E., & Rosch, E. *The Embodied Mind*. Cambridge, MA (The MIT Press) 1991.
- Varela, F. J., *Patterns of life: intertwining identity and cognition*. *Brain Cogn.* 1997/34, 72–87. doi: 10.1006/brcg.
- Wiener, N. *Cybernetics: or the Control and Communication in the Animal and the Machine*. Cambridge (The MIT Press) 1965.
- Whyte, W.H. *The Organization Man*. New York/London (Simon and Shuster), 1956.

Online resources:

- <http://raglanshire.com/> retrieved on 10/30/2015.
- <http://www.gor-sl.com/> retrieved on 10/30/2015.
- <http://secondlife.com/destination/furry-hangout> retrieved on 10/30/2015.
- <http://embodiedresearch.blogspot.com/> retrieved on 10/30/2015.
- <https://my.secondlife.com/booperkit.moseley> retrieved on 10/30/2015.
- <http://oculus.com> retrieved on 10/30/2015.