
Avatar “Appearance Codes” in Internet-Based Virtual Worlds

Victoria McArthur
Interdisciplinary Studies
York University
vickymc@yorku.ca

Abstract

In this paper we describe the use of avatar “appearance codes” for professionals in Internet-Based Virtual Worlds like Second Life. We describe the results of a survey with 37 participants. Of those participants, 45.9% indicated that an avatar appearance that accurately represents your physical appearance is unimportant to professional interactions. We conclude that it is important that emergent company policies governing avatar appearance fit their environment.

Keywords

Avatar, Second Life, virtual reality experiences

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

As various aspects of our youth, personal lives, and our professional lives become entwined with virtual experiences, the rate at which we as a species are “going digital” is increasing exponentially. With the more recent creation of online virtual worlds specifically for children, such as Disney’s Club Penguin (<http://www.clubpenguin.com>), it is clear that virtual worlds are quickly becoming an accepted part of the

human experience. Virtual worlds are becoming a critical place, not only for entertainment, but for professional interactions as well. Internet-based virtual worlds such as Second Life have become a place for community, virtual commerce, and learning.

Second Life differs from other 3D virtual worlds in that its users can conduct monetary business with one another directly through the use of Linden Dollars (L\$), Second Life's own virtual currency. This, in combination with the ability to create virtual objects within Second Life, has led real world companies, such as IBM and Sun Microsystems, to invest in both developing content for and having a presence within this virtual world [1].

Businesses are not the only ones moving into Second Life. Researchers and Instructors have also taken an interest in what Second Life has to offer in the way of distance education, simulation, and role-play [6].

Avatars

Avatars in Second Life are three-dimensional representations of the user, controlled and maintained by the user for the purpose of having agency within the virtual environment. Upon first joining Second Life, users are presented with a finite number of default avatars to choose from. Once deployed in-world, users discover the flexibility of the avatar appearance editor, which allows them to modify a variety of physical features from body thickness to the arc of their eyebrows.

Compared to other avatar creation interfaces in 3D virtual worlds, the avatar appearance editor in Second Life is not only more flexible than most, but also allows for frequent changes. These malleable avatars allow

users to play with how they represent themselves visually in-world and experiment with identity. Those users who interact on a regular basis with avatars who constantly undergo rigorous reshaping could find the lack of a "familiar face" to have a negative impact on their relationship, or it could simply be seen as playful expression.

While a large body of literature examines psychological and technical aspects of the avatar (e.g., [5]), our previous work was the first to investigate the ethics of the appearance and behaviour of avatars created for professional interactions in virtual worlds [3].

Avatar Appearance Codes

The importance of professional appearance in real-world business relations has been established [2]. For this reason it is not uncommon for corporations to employ dress codes. When translated into a 3D virtual world such as Second Life, the company dress code has the potential to evolve into a more general "appearance code".

An informal visit to one of IBM's virtual sites in 2007 revealed that these professionals resembled many of the other inhabitants of this virtual world: one programmer wore fairy wings; another representative wore a tuxedo tailcoat and a top hat. A second visit to the same site 6 months later revealed professionals dressed in business casual pants and IBM shirts.

So what changed? It is possible that the department overseeing operations for that specific project in Second Life created an avatar appearance code, or it is possible the employees simply created the look themselves to show pride in their organization and their

ability to model company shirts. When asked if IBM presently provided its employees with any guidelines for the appearance of employee avatars one employee indicated that the IBM blue shirt was the only mandatory guideline.

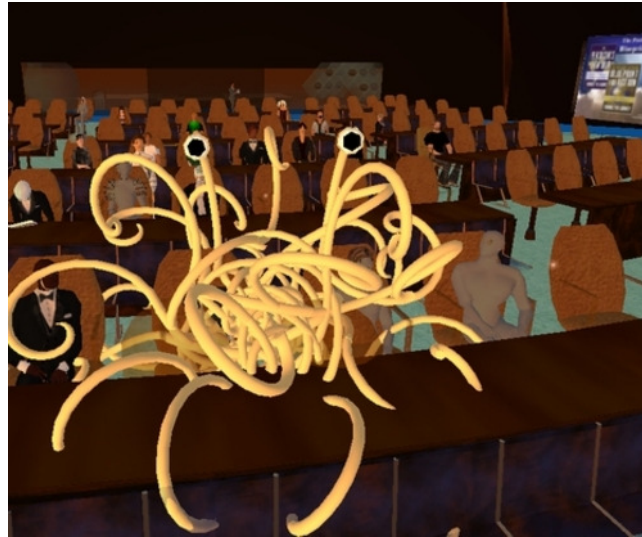


figure 1. The Flying Spaghetti Monster attends a public policy discussion in Second Life. (image courtesy of nwn.blogs.com)

This example raises an important question: how much control should an employer have over the appearance of representatives' avatars, given that they are representing the organization in a 3D virtual environment? For companies that wish to create avatar appearance codes, what should the criteria be based on? It is important to note that, while Goffman's work highlights how we present ourselves in real-world interactions, the social code which governs

representation in Second Life is in its infancy by comparison.

The possibility of avatar appearance codes raises more specific questions as well. For instance, do employees perceive a difference between appearance demands in either environment? This poses two important questions. First, what expectations do employers have on the appearance of company avatars? Second, are the expectations of the employer (should any exist) considered reasonable by the employees? Beyond fairy wings and top hats, users are also able to create non-anthropomorphic avatars, which can range from bipedal cats and dogs to something like the Flying Spaghetti Monster (see figure 1). How we approach and interact with an avatar that does not appear human has become the focal point of recent research [4].

In a world where flying spaghetti monsters attend conferences, it is important that emergent policies fit their environment. The potential disconnect between the rules governing human-to-human interactions in the real-world, and those rules governing interactions mediated by the virtual world is the focus of this research.

Methodology

This data reported in this paper was collected from a survey hosted on SurveyMonkey.

Participants

The survey was posted on the girl_gamers community on Livejournal (www.livejournal.com) and two Second Life mailing lists: the Second Life Research Listserv and SL Educators. Participants were to be currently deployed in-world by real-life organizations for the

purpose of representing that organization in Second Life. 37 participants completed the survey.

Procedure

Participants completed a 20 question survey. Questions asked related to their avatar and issues of professional and private use thereof. Specifically, questions 1 to 7 dealt with their use of Second Life. Questions 8 to 20 dealt exclusively with physical traits of the avatar's appearance relative to those of the user. These questions investigated the participants' perceived importance of avatar appearance in professional interactions conducted within Second Life. Questions 9 to 18 used a 7 point Likert scale with 1 indicating in all cases strong disagreement and 7 indicating strong agreement.

If participants indicated that their company currently has a policy for avatar appearance, they were presented with 5 additional questions regarding this policy. These questions investigated the implementation of the policy, its allowances, and how appropriate the participant felt it was within the context of Second Life.

Results and Discussion

Length of Second Life membership varied greatly among participants, ranging from less than 6 months to 4+ years. Of those surveyed, 27% first joined Second Life either at the organization's request or as a volunteer on behalf of that organization. Approximately 2/3rds of participants reported having 2 or more active Second Life accounts. Participants who answered that they had only 1 active account were asked if they use it for both work and non-work related interaction. All participants in this situation answered 'yes'.

Participants with 2 or more active accounts were asked to explain why they had more than one account. Responses ranged from having spare accounts for running training courses to testing permission problems. However, the most common response was that one account was for professional use and one was for personal use. The number of hours spent in Second Life for both work and non-work related interaction was distributed quite evenly, indicating anywhere from 1 hour or less per week to 10 hours or more.

When asked how often they modify their avatar's appearance, participant responses varied greatly. Some participants indicated that they rarely used the avatar appearance editor. Others admitted to making modifications on a regular basis. The most frequent changes were primarily to clothes, accessories, and sometimes hair. Those who seldom or never modified their avatar's appearance stated that this was due to lack of familiarity with the appearance editor, or an inherent fear of "messing with it." When asked if they feel any anxiety over making drastic changes to their avatar's appearance 29.7% answered 1 (none at all).

Participants were asked how similar they would rate their avatar's physical appearance to their real-life physical appearance when they first joined Second Life and at the time the survey was taken. Answers to these questions ranged from 1 (very dissimilar) to 6, but none of the participants chose 7 (almost identical). These two questions are the only questions in which option 7 on the Likert scale is not indicated by any of the participants.

Table 1. Mean responses to questions 9 - 18. Higher scores represent strong agreement.

Question	Mean	Mode	St. Dev.
9. Do you feel any anxiety over making drastic changes to your avatar's appearance?	3.324324	1	1.986818
10. How similar would you rate your avatar's physical appearance to your physical appearance in real life when you first joined Second Life?	3.162162	1	1.802984
11. How similar would you rate your avatar's physical appearance to your physical appearance in real life at the time this survey was taken?	3.405405	5	1.755301
12. How similar would you rate your avatar's attire to your attire in real life?	3.891892	5	1.577336
13. How similar would you rate your avatar's body build to your body in real life?	3.27027	4	1.835584
14. How similar would you rate your avatar's hair to your hair in real life?	3.27027	1	2.129797
15. How similar would you rate your avatar's skin colour to your skin colour in real life?	4.945946	6	2.107473
16. Do you feel strong business relationships in virtual worlds are dependent on familiar faces?	4.054054	6	1.928528
17. Do you feel disoriented if someone you interact with regularly in Second Life for business purposes changes their avatar appearance frequently?	3.540541	1, 5	1.92346
18. How important do you feel an avatar appearance that most accurately represents your physical appearance is to effective business in virtual worlds?	2.72973	1	2.036455

Do users perceive a technical limitation here, where a Second Life avatar may be molded in our image, but only to a degree? Or, is this a case of users taking advantage of the pliability of Second Life avatars, creating an avatar that mostly resembles their real life appearance, save for one or two physical features they would change in real life if they could.

Question 15, which asked participants how similar they would rate their avatar's skin colour to their skin colour in real life, was the only attribute-focused question which garnered the strongest agreement among participants. About 60% answered either a 6 or 7, both of which suggest that the avatar's skin colour is close or almost identical to the user's.

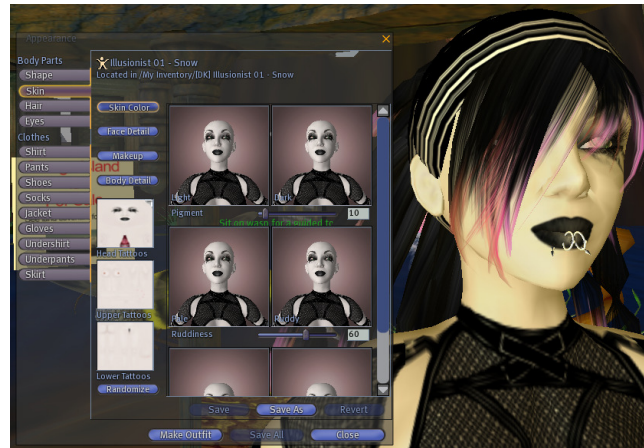


figure 2. Editing skin colour in Second Life. Some skins allow for a range of pigments from light to dark, but custom skins such as the one this avatar is wearing may allow for no change.

At first glance, skin colour modification in the avatar appearance editor appears to be straightforward. The user can click on the 'skin' tab and is presented with a slider that allows them to adjust the lightness or darkness of their skin pigment. This is not so when dealing with custom skins that have been created by other users. As seen in figure 2, the pigment is set to pale on this custom skin, regardless of the slider's position. While it is relatively easy for users to locate new custom skins, many of which are offered for free, it is interesting to note how many users chose to duplicate this aspect of their ethnicity in-world.

Questions 16 – 20 dealt specifically with the effects constantly changing one's avatar's appearance may have on building relationships in-world. When asked if strong business relationships in virtual worlds are

dependent on familiar faces, 27.0% participants indicated a 6 on the Likert scale. Responses to question 17 were bi-modal, with 21.6% participants indicating that they do not feel disoriented at all if someone they interact with regularly in Second Life changes their avatar appearance frequently and 21.6% participants indicating some degree of disorientation with a mode of 5.

Additionally, 45.9% indicated that an avatar appearance that accurately represents your physical appearance is unimportant to professional interactions. But what about the impact differences between avatar appearance and real-life appearance could have on business interactions, specifically those that moved from Second Life to real life? Those participants who felt as though "accurate" representation was important to professional interactions were asked if such a situation could have a negative impact on a professional relationship. Subsequently, 13 participants responded to the open-ended question, with 7 indicating that they felt there would be no negative effect. The remaining responses were mixed, but indicated a possible negative effect, depending on the client's perception and the degree to which the bodies do not match.

For example, one participant stated that, "I do feel more continuity between on-line and off-line interaction when the avatars have a similar appearance to their typist." Another participant suggested, "I think there could be a negative effect, but I feel that my freedom to look however I like in SL is something to stand up for. It is something I would not be willing to compromise for." So while the transition for some may be made easier by utilizing the powerful appearance

editor to match real-life bodies, there seems to be a desire among others to utilize the power of the avatar appearance editor for expression, rather than facsimile.

Companies with Appearance Codes

Questions 21 – 25 were presented only to those participants who answered yes, that the company they work for currently uses an avatar appearance code for professionals deployed in-world. Of the 37 participants, 5 are deployed by organizations that currently use such a code.

Of these 5 participants, 3 indicated that the avatar appearance code was implemented after the company had moved into Second Life. When asked if the policy addresses non-human avatars, all 5 participants indicated yes, with 3 indicating that non-human avatars are allowed. It is interesting to note that none of the policies neglected to address the issue of non-anthropomorphic avatars.

The specifics of each policy varied somewhat. Some policies expect that representative avatars be human with professional or business-casual attire. Others suggested little in the way of specifics, only requiring that avatars be clothed and that representatives use common sense when making decisions regarding their avatar. When asked how much this policy has evolved over the course of its use, all participants indicated that the policy has remained substantively unchanged.

When asked if they feel as though this policy is suitable for Second Life, 2 participants indicated agreement. One participant expressed a lack of personal interest in the existence of the policy, indicating that they simply like to be themselves in-world. The 2 remaining

participants both suggested that the appearance codes were not very suitable for 3D virtual worlds, but had been implemented so as to avoid offending clientele.

Conclusions

How the more formal aspects of real life transfer to virtual reality is very important; we need to understand this, in order to understand the draw to online communities, and what supports their popularity. How companies and organizations decide to conduct business in virtual worlds is also important.

Offence and common sense are the guiding forces behind some of the more relaxed appearance codes discussed in this paper. These guidelines raise new questions: What do the citizens of Second Life take offense to? What common sense applies in this virtual environment? As previously mentioned, the social rules in Second Life are still in their infancy compared to those that are present in real-life. It is important that companies understand the social environment of Second Life before making choices with regard to “dressing for success.”

Future Work

The next goal of this research is to further investigate the relationship between avatar appearance and business interactions in Second Life. Specifically to ask questions that may reveal relationships between these new questions and some of the bi-modal responses observed in the initial survey.

Lastly, we plan to survey citizens of Second Life to determine if they have their own conceptions of professionalism in Second Life. We hope that information gathered in these surveys can assist

organizations in their development of avatar appearance codes for Internet-based virtual worlds.

Acknowledgements

We would like to thank Robert Teather for his assistance with editing, Joanna Robinson for her suggestions and insight, and Kirstie Hawkey for the pen.

References

- [1] Brandon, J. The top 8 Second Life virtual businesses. <http://www.pcadvisor.co.uk/news/index.cfm?newsid=9279>. Accessed Feb 4, 2008.
- [2] Goffman, E. The presentation of self in everyday life. Doubleday, Garden City, NY, USA, 1959.
- [3] McArthur, V. Real ethics in a virtual world. Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI 2008, pp. 3315-3320. New York: ACM
- [4] Morie, J. and Verhuldonck, G. Body/Persona/Action! Emerging Non-anthropomorphic Communication and Interaction in Virtual Worlds. In Proceedings of ACE 2008.
- [5] Rehak, B. Playing at Being: Psychoanalysis and the avatar. The video game theory reader. Routledge, NY, USA, (2003), 103-127.
- [6] <http://sleducation.wikispaces.com/> Accessed Jan 6, 2009.