

Outsiders, Interlopers, and Employee-Identified Avatars

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Abstract

In this paper, we investigate the notions of belonging and community in 3D virtual worlds, and identify the ways in which “belonging” and “not belonging” are constructed and perceived, especially in relation to so-called employee avatars (i.e., avatars that are representative of those who appear in their capacity of corporate employees). We explore the dimension of stigma and discuss the utility of the separate categories of outsiders and interlopers for inhabitant characterization. Our motivation for doing so is to determine the degree to which corporate presence can be mediated through the specific mechanism of employee avatar appearance.

Keywords--- Avatar, Second Life, interloper effect, virtual reality experiences

1. Introduction

Social stigma – understood here to refer to an attribute or behaviour that is socially discrediting – can be as much an issue in 3D virtual worlds as in our physically-embodied world. Our research interest concerns the mechanisms by which social discrediting takes place in 3D virtual worlds. In an encounter, the inhabitants of these worlds form their impressions of one another on the basis of several factors, a primary one being the avatar appearance. Avatar appearance is indeed the primary mode of affording the impressions upon which perceptions of personal attributes by others are based. Disapproval of these attributes can then lead to social stigma.

Many studies have focused on avatar appearance itself, but the works that are particularly relevant in this study are those which specifically focus on the connection between avatar appearance and social cognition. For instance, Neustaedter and Fedorovskaya [14], who employed an approach based on cultural immersion, documented the degree to which social stigma was associated with an inhabitant’s use of the default appearance characteristics in Second Life (SL). An inhabitant’s failure to modify their avatar’s default appearance had the deleterious effect of marking him or her as a “newbie”, thereby making them unappealing as a target for social interaction by the more established and experienced inhabitants.

Interestingly, “newbie-ness” is not inherently socially discrediting, since there are social arenas in which being

perceived as a newbie can be an asset (e.g., assuming a default avatar may allow a veteran user to experience the community in a new way [14]). The analysis of the motivations and mechanisms of avatar customization is a burgeoning area of study (e.g., [15] [4] [14] [19]). Our feeling is that this field of study must be complemented by the parallel investigation into the mechanisms by which social perceptions about the inhabitants of 3D virtual worlds are formed. An aspect of particular interest is the intersection of the social and corporate spheres in 3D virtual worlds.

Another key attribute of many of these social arenas is not only the relatively small degree of corporate or commercial encroachment, but the attitudes espoused toward such encroachment. As the media critic Bob Garfield identifies [2009], most consumers of so-called “old” media (e.g., broadcast TV) are accepting of the tacit agreement that corporate presence and intrusion is the price to be paid for accessing content, whereas, in the zone of new media (and virtual worlds are but one example), this “price” to be paid for content has been resoundingly rejected. A commercial-free zone of content access has come to be viewed as a birthright by some of the new media generation [5].

2. Avatars

Avatars are representations of the user, controlled and maintained by the user for the purpose of having agency within the virtual environment [12]. These representations are most often graphics-based humanoid embodiments, but also can be non-humanoid graphical forms, or textual. Avatars also provide users with a vehicle through which they may explore how they represent themselves visually and experiment with identity [18]. The creation and maintenance of an avatar in a particular virtual world is always mediated by the tools provided in that world, a factor that is known to its inhabitants and that actually plays a role in the formation of social perceptions (as we will discuss further). These are often known as character creation interfaces, or avatar editors. Prior to discussing avatars and avatar construction, we first introduce the concept of employee avatars.

2.1. Employee Avatars

We recognize employee avatars as a special sub-class of personal avatar. Employee avatars are created, piloted, and maintained by a representative of a company or institution

for the purpose of achieving presence within a virtual environment [11]. Furthermore, these avatars serve as representatives of the company or institution while interacting with others within the virtual environment. Internet articles such as *The top 8 Second Life virtual businesses* [3] identify companies with on-line presence in Second Life, such as IBM. Personal avatars, on the other hand, are avatars that are also created, piloted, and maintained by a user to achieve agency within a virtual environment, but for personal use. Employee avatars differ from personal avatars in that they are not intended (at least not solely) for personal use.

Just as some individuals create and maintain multiple email accounts --- oftentimes specific to different personal and business uses, so too do some create and maintain multiple avatars (in the case of Second Life, multiple accounts). We view that latter as representing bifurcations of identity, as made necessary by the constraints of the physical world. It is our feeling that these same constraints have a manifestation for employee avatars at well (e.g., corporate governance is often in effect). Particularly interesting are the instances in which an individual does not bifurcate their on-line identity, despite the multiple purposes the avatars play. We are particularly interested in the effect of this on the embodiment construction of such avatars. In other words, we are interested in whether or not it is common for virtual world users to own and maintain more than one account. If so, what is the rationale behind owning multiple accounts? For those users whose virtual world accounts double as both personal and professional – how is the construction of the avatar’s identity affected, if at all?

Corporate governance is often in place to ensure the maintenance of the company’s ideals by its employees in their communications, especially when representing the company in external communications. (Oftentimes, the same holds true in the not-for-profit sectors.) In the best case scenario, the ideal would be for the company’s desired image to be conveyed, but at the very least, the company’s image should not be negatively affected. It stands to reason then that corporate governance would extend to employee avatars. We refer to such corporate governance as an “appearance code” [11], which is an extension of the notion of a “dress code”. Just as a wardrobe is a dimension of personal expression, so too is one’s avatar, courtesy of the functionality afforded by appearance editors.

With regard to avatar appearance codes, how detailed are these policies and do they match the ideals of the virtual world? If a company wishes to court members of the virtual community, how will their employees be received? If the appearance code is simply a direct mapping of “real life” ideals of professionalism onto virtual world professionals, we hypothesize that an appearance code could have a negative effect. In order to explore this effect more, we look next at how avatars are customized in virtual worlds.

2.2. Avatar Creation/Modification Interfaces

The process of creating and modifying an avatar differs across virtual worlds. In many massively multiplayer online role-playing games (MMORPGs), players create their avatar using a character creation interface [15]. The malleability of these avatars, as well as the ability to make changes to their appearance after the initial character creation phase, differs from game to game.

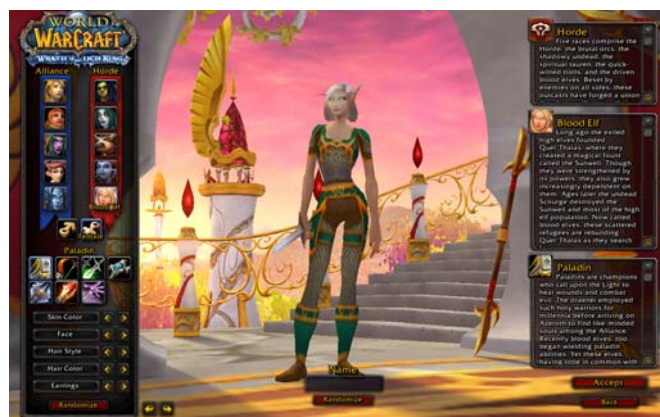


Figure 1. Character creation interface for World of Warcraft

The character creation interface for World of Warcraft (WoW) is presented in **Figure 1**. Once players decide the race and sex of their character they are presented with choices for skin colour, face, hair style, hair colour, and one additional option that is sex and race dependent. For example, male characters may be presented with a finite number of beards as the fifth option while females may be presented with earrings in lieu of facial hair. The only exception to the aforementioned choices is with the Tauren, a race of bovine anthropomorphic creatures for which players can choose horn style and horn colour instead of having these options for hair.

Each of the choices presented for the aforementioned features are not able to be fine tuned. For instance, WoW players can choose one of 10 predefined hair colours for their human character, but they cannot fine tune the shade of this colour. Other character creation interfaces may provide users with the ability to make adjustments to many of these features with widgets in the form of sliders and colour wheels [15]. The aforementioned paper discusses these widgets with respect to the presentation and limitation of visual choices in MMORPGs, suggesting that these interfaces result in the creation of avatars that represent socially exclusive values. Compared to many of the avatar editors in online games, the fidelity of the avatar creation system in Second Life is much higher.

Upon first joining Second Life, users are presented with a 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 thickness of their virtual body to the arc of their eyebrows.



Figure 2. The interface for the avatar appearance editor in Second Life

In addition to the avatar appearance editor, residents of Second Life are able to create or purchase new items for their avatars to wear or use. These items may include hair, clothing, or even a new set of animations. These animations control how the avatar walks, moves, and gestures. Users of Second Life are not limited to human avatars; the use of non-human and non-anthropomorphic avatars is also common in this environment [13].

While a large body of literature examines psychological aspects of the avatar (e.g., [2] [6] [7] [16]), interest in avatar creation interfaces and customization have only become the focus of recent work (e.g., [15] [4]). Works specifically related to our research questions are discussed in the following section.

2.3. Related Work

In *Body and Mind*, Ducheneaut et. al [2009] note a lack of data explaining how and why users customize their avatars, as well as the user ease and satisfaction with existing avatar creation tools [4]. They report on a study investigating these issues through a questionnaire administered to more than one hundred users of three virtual worlds: Maple Story, World of Warcraft, and Second Life.

In their attempt to characterize the motivations for the avatar modification trends they observed, they identified three conceptual factors that they hypothesized were contributing factors: *idealized self*, *standing out*, and *following a trend*. The first conceptual factor is self-explanatory: users may choose to create an avatar that may bear some resemblance to their real-life appearance, but with idealized or desired features. The second factor applied to

users whose choice in avatar reflects a desire to have an unconventional look. The third describes avatars that have been modified to resemble a celebrity or reflect a popular trend in either the real world or the virtual world.

Comparatively, Neustaedter and Fedorovskaya [2008] identify four conceptual factors which they hypothesize are at play in avatar appearance trends: *realistics*, *ideals*, *fantasies*, and *roleplayers* [14]. According to the authors, the first describes users who consider their virtual world life to be an extension of their real world life and therefore choose to create an avatar that most closely resembles themselves. The second is more in line with the *idealized self* described by Ducheneaut et. al. *Fantasies* are described as being users who desire an entirely different life in the virtual world. Lastly, *roleplayers* are described as being users who, like *fantasies*, enter the virtual world to experience life as someone else, but differ from this category in that they do not maintain identity continuity over time. The authors note that avatar appearance editors may or may not meet users' needs depending on which of the four aforementioned factors represent their virtual lives.

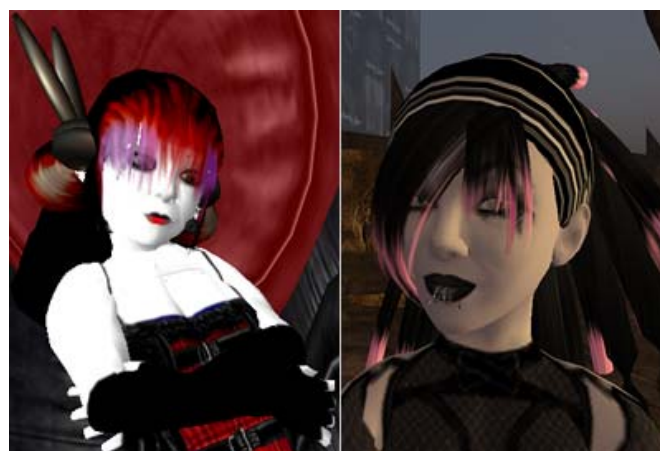


Figure 3. Avatar with default cybergoth attributes (left) compared to specialized personal attributes (right)

A particularly interesting component of Neustaedter and Fedorovskaya's paper is the discussion surrounding the social stigma of default avatars in Second Life. As was mentioned previously, upon joining Second Life, new users are prompted to choose an avatar from one of several default configurations before entering the virtual world. Once in-world, many users learn to customize the appearance of their avatar through use of the appearance editor, as well as potentially buying, acquiring, or making new clothes, hair, animations, for their avatar to wear or use. An illustration of the differences between the appearance of a default avatar and one that has undergone much modification is shown in **Figure 3**.

Once members of the community become familiar with the malleability of Second Life avatars, they are easily able to identify default avatars. The authors note that so-called

veteran users identify users with default avatars as being “newbies.” The effect of this social stigma is twofold: veterans view newbies as lacking in ability and assume that any social interaction with a default avatar will be related to technical issues surrounding the virtual environment. The second effect is that newbies feel the need to modify the appearance of their avatar as quickly as possible so that their avatar signifies “belonging” to the community.

In addition to some of the aforementioned conceptual factors, recent work examining real world professionals deployed within virtual environments points to another possibility for avatar modification trends: real world professionals entering virtual worlds for the sole purpose of representing their employer (e.g., [11] [1]). This is not to say that professionals deployed in-world are not able to create an avatar that is modified under one of the aforementioned motivations (i.e.: idealized self). The degree to which virtual professionalism impacts one’s ability to customize their avatar depends on the guidelines provided in a company’s appearance code. Those who are governed by a strict code may not be able to create an avatar that fits into one of the established categories.

A dissertation by Nick Yee [19] proposed the notion of the Proteus Effect to characterize some of the ways in which an avatar’s modification affects how its user interacts with others in virtual environments. For example, one of the studies presented in this dissertation concludes that participants with taller avatars negotiated more aggressively with others in the virtual environment than participants with shorter avatars. We share Yee’s interest in the malleability of avatars and the effect an avatar’s appearance has on how it is received by others.

2.4. The Pragmatic Dimension of Avatar Construction

The pragmatics of avatar modification has several facets. First, the particular selections made with respect to hair, clothing, and skin each have their own social signals. But in addition, there is a shared understanding among the members of the on-line world as to what these choices entailed --- the technical difficulty or ease or the “monetary” expense¹ of a particular choice. The choices that a user makes have a social signal that extends beyond mere appearance. What is at work here is not only a user’s ability to use an avatar appearance editor in a particular way, but also the shared knowledge about the capabilities of the appearance editor. Since the capabilities of the appearance editor are known within the community, how one customizes their avatar can signal their intentions within the community.

In the case of employee avatars, the actual appearance of the particular avatar, combined with the shared knowledge

¹ By “monetary” expense in this context we are referring to a purchase transacted in Linden Dollars, the currency of Second Life.

about how appearance editing works, can signal to the community that an appearance code has been imposed. For example, clothing with logos are not part of the default repertoire of appearance attributes, so those encountering an avatar who is sporting such an article of clothing will deduce that the encountered user must have made some deliberate additional appearance modifications, either by purchasing the item in-world, or by creating the item themselves.

2.5. Contextual Effects in Social Discrediting

Our hypothesis is that employee avatars that are perceived as being under the sway of corporate governance, via their adherence to an appearance code, are affected by social stigma. We hypothesize that it is not the mere fact that an avatar is an employee avatar that is socially discrediting, but rather the avatar’s adherence to an appearance code that is a key factor. We hypothesize that the overt, visible intrusion of corporate governance into the social milieu of virtual worlds is resented and, moreover, is viewed as a threat and potential disruption to the established social order. Employee avatars that embody this threat are perceived as interlopers.

Within the field of evolutionary biology, a particular phenomenon has been identified with respect to interlopers. In particular, the phenomenon concerns the differences among attributions of sexual interest among different perceivers: if the perceiver is a person who is in a committed relationship with the purported target of the sexual interest, then the degree of sexual interest is perceived as much greater than if the perceiver is outside of the relationship. In commonplace terms, the perception of the threat is heightened for the party which is actually facing the threat, as opposed to a bystander. Therefore, the “interloper effect” refers to the heightened attribution of sexual interest to a potential interloper by a person who is in a committed relationship (compared to the attributions of sexual interest by a person who is not in such a relationship) [17]. In the context of evolutionary biology, the interloper is one who challenges the monogamy of a committed relationship.

An analogous mechanism in virtual worlds can be hypothesized. The basis would be the following: (1) the community members would be identified as the party facing threat, (2) the interloper would be identified as the social pursuant, and (3) the display of sexual interest would instead be identified as the display of corporate presence that threatens the current virtual world’s order.

The interloper effect in virtual worlds, thus, would be a phenomenon concerning a difference between the perceptions of the world’s inhabitants and the perceptions of those observing the world from outside. We do indeed suspect that such an interloper effect does indeed exist in virtual worlds, but are not presenting any work that tests this hypothesis here. We feel that it is an important hypothesis for study because the individuals who are charged with the creation of “appearance code” corporate governance (e.g.,

those with HR affiliations) could very well be the “outside observers” to the virtual worlds. If so, then there very well could be a misalignment between the goals of the “appearance code” and its actual effect once deployed.

3. Research Questions

We hypothesize that employee avatars that are perceived as being under the sway of corporate governance, via their adherence to an appearance code, are affected by social stigma. We further hypothesize that such avatars elicit an interloper effect among the virtual world inhabitants who are not there in a corporate capacity.

4. Methodology

In our current phase of work, we are focusing on emerging policies governing the appearance of employee avatars. The subsequent phase will test our hypothesis about the role of appearance codes on employee avatar perception. Our general approach is to gather empirical evidence concerning the social perception of employee avatars and to do a comparative analysis to identify the role of appearance codes in those perceptions. However, the comparative analysis is predicated on the identification of employee avatars that do not necessarily follow an appearance code. Thus, an additional piece of work is required in order to build an empirical characterization of this specific sub-population. It is this component that is the focus of the work reported here.

This work falls in the zone of virtual ethnography, in the vein of Kozinets ([8], [9], [10]), where we engage the members of a particular web-based community in order to gain insight into the community members’ attitudes and behaviour. The protocol proposed by Kozinets specifically calls for interaction between the ethnographer and the community members. We have done so by engaging community members through the use of an on-line questionnaire that consists of short-answer and Likert-scale questions. The survey was hosted by SurveyMonkey. The participants were recruited in two steps: first, by invitation of two Second Life mailing lists: the Second Life Research Listserv and SL Educators. Then, a second criterion was applied: those who had employee avatars (i.e., they were deployed in-world by real-life organizations for the purpose of representing that organization in Second Life at the time of the survey). Those who met this criterion were invited to participate.

The questionnaire was designed to gather data about the participants own practices concerning avatar creation and modification. Questions 1 – 7 pertained to account logistics (e.g., how long ago participants obtained their first account, how many active accounts they have, etc.). Questions 8 – 15 investigated avatar construction. Specifically, questions 10 – 15 involved direct comparisons between participants and their avatars, using a 7 point Likert scale to indicate

similarity between physical traits. These questions were similar to those comparison questions asked by Ducheneaut et. al [4] in their paper.

Two of the questions in which users were asked to compare their virtual appearance with their appearance in real life both at the onset of account creation and the time the survey was taken. Our interest in exploring this temporal comparison is to explore the relationship between our research questions and the social stigma of default avatars [14].

4.1. Participants

37 participants who were presently deployed in-world by real-life organizations for the purpose of representing that organization in Second Life completed the survey.

4.2. Results and Discussion

Questions 1 – 7 dealt specifically with participant’s account(s) and account usage. In the first question participants were asked how long ago they first joined Second Life. The answer to this question varied greatly among participants, ranging from less than 6 months to 4+ years ago. Participants were then asked if they first joined Second Life for their company – either at the company’s request or as a volunteer. Of those surveyed, 27% first joined Second Life on behalf of their organization. We next asked participants how many active Second Life accounts they have. The number of participants who reported having 2 or more active Second Life accounts was 67.6%. 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 12 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 using these accounts for testing permission problems. However, the most common response was that one account was for professional use and one was for personal use. This was indicated by 48% of the participants. The final questions pertaining specifically to the participants’ account investigated the number of hours spent in Second Life for work and non-work related interaction. Responses to these two questions were distributed quite evenly for both types of interaction, with participants indicating anywhere from 1 hour or less per week to 10 hours or more.

Questions 8 – 15 dealt specifically with participants’ avatars. 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. For these participants, the frequency of these modifications ranged from several times per day to once per month. The most frequent changes were primarily to clothes, accessories, and 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, only 29.7% answered they had no anxiety at all, indicating more than two-thirds of the respondents felt at least some anxiety over changing their avatar's appearance.

Participants were then asked a number of questions comparing their real life appearance with the appearance of their avatar. In these questions, participants were presented with a comparison statement and asked to rank their responses on a 7 point Likert scale in which a response of 1 indicated 'very dissimilar' and a response of 7 indicated 'almost identical.'

In questions 10 and 12, participants asked how similar they would rate their avatar's physical appearance to their real-life physical appearance when they first joined Second Life and then at the time the survey was taken. Answers to these questions were almost uniformly distributed over the possible responses that ranged from 'very dissimilar' to the 6th point on the Likert scale, just one notch below 'almost identical.' The breakdown of responses to these two questions is shown in **Figure 4**. Interestingly, these are the only two questions of comparison in which none of the participants answered 'almost identical'.

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 is motivated to some degree by the *idealized self* as described by Ducheneaut et. al [4]? In the case of those participants who indicated a high level of similarity, they could be intentionally constructing 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.

While the distribution of responses appears to be quite uniform for both questions, the graphs may be a little misleading. Did those participants who chose very dissimilar for question 10 also do so for question 11? If there was any change between responses to these two questions did all participants keep their answers within one or two points of each other? A third possibility is that some participants made drastic changes between the time periods described by these two questions. Those participants who started out at one end of the spectrum and wound up on the other may have displaced each other in the chart. To determine which of the above possibilities were at work, we have created a scatter plot diagram.

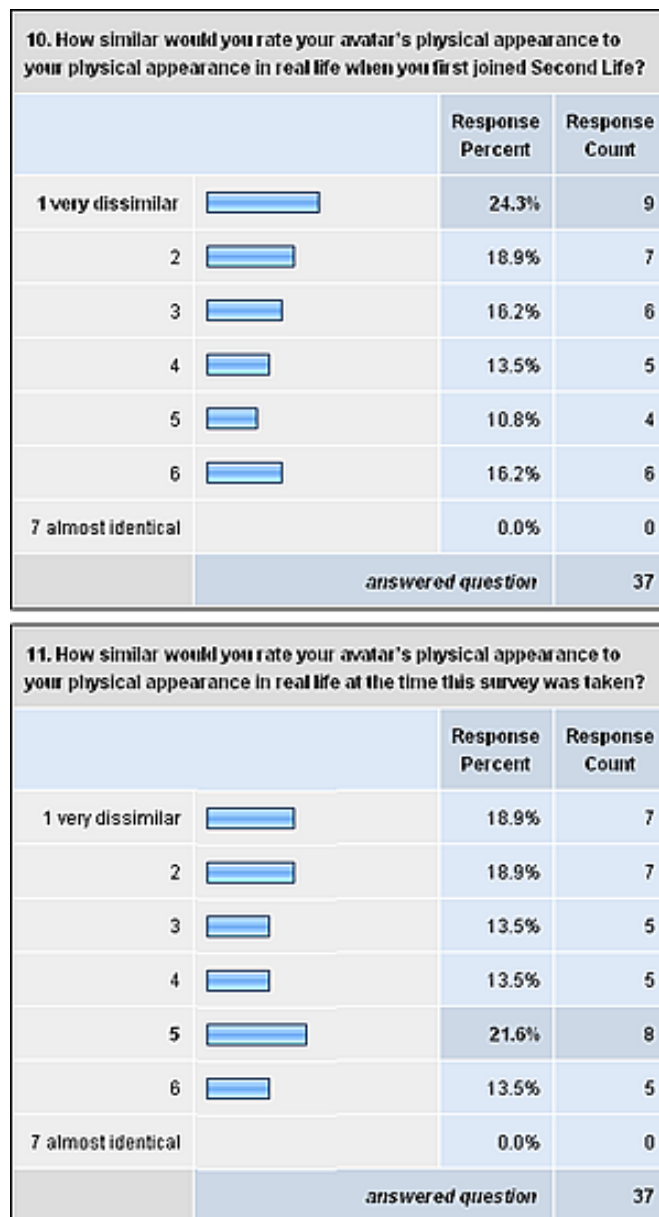


Figure 4. Responses to questions 10 and 11

The scatter plot in Figure 5 represents the shift in participant responses between questions 10 and 11. Numbers along the x axis represent answers given on question 10 and the numbers along with y axis represent responses to question 11. Responses plotted along the dashed line indicate no change in response to either question (e.g.: those who answered '1' very dissimilar for questions 10 and 11). The trend line (solid line) indicates a decrease in similarity over time.

Even with this trend, the analysis shows that all 3 of the aforementioned possibilities are at play; some participants chose the same answer for both questions, some shifted very little, and others displaced each other to make up the difference.

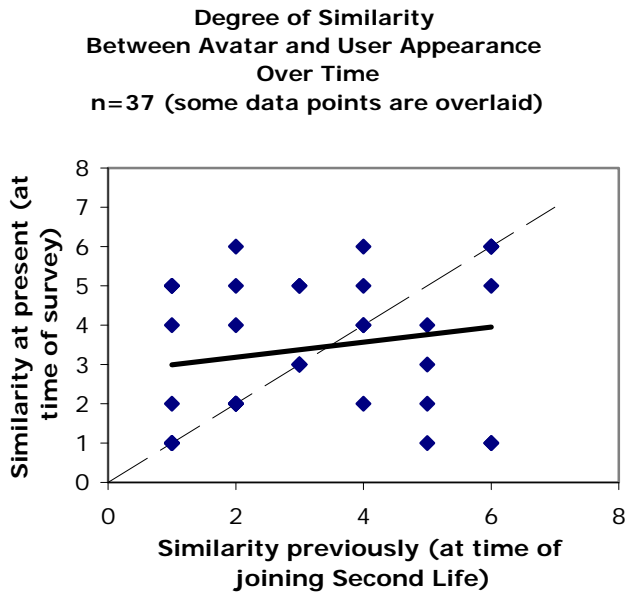


Figure 5. Shift in participant responses between questions 10 and 11

Questions 12, 13, and 14 probed further the basis of comparison between avatar and physical appearance, in terms of attire, body build, and hair. Mean responses to the attire question were quite neutral with 21.6% of participants indicating '3' slightly dissimilar, 21.6% indicating '4' slightly similar, and 24.3% indicating '5' somewhat similar. Responses to the question comparing body build followed a bimodal distribution with 24.3% of participants indicating '1' very dissimilar and 29.7% of participants indicating '4' slightly similar. In response to the 'hair' question, 32.4% of participants indicated '1' very dissimilar, with the rest of the responses being uniformly distributed among the other possible responses. This result is congruent with the findings of Ducheneaut et. al [4] in which the authors reported avatar hair to be a high impact feature in avatar customization.

Question 15, which asked participants how similar they would rate their avatar's skin colour to their skin colour in real life, was the attribute that garnered the strongest answer similarity among participants. 32.4% indicated a '6' highly similar and 27.0% indicated 'almost identical'.

It is interesting to note how many users chose to duplicate this aspect of their ethnicity in-world, even though it is very easy to modify skin colour. Skin colour modification in the avatar appearance editor is 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. It is relatively easy for users to locate new custom skins, many of which are offered for free. However, the modification of skin colour for custom skins (i.e., skins that have been created by other users) is not always possible. This result is consistent with those reported by Ducheneaut et. al [4] for users of Second Life.

5. Conclusions and Future Work

In this paper, we investigated the notions of belonging and community in 3D virtual worlds, and identified the ways in which "belonging" and "not belonging" are constructed and perceived by the users of these environments. We then discussed the appearance of virtual world professionals in the form of employee avatars and discussed the concept of the avatar appearance code – a policy that governs the appearance of an employee avatar to some degree in order to ensure that the company's image is maintained in the virtual world.

We conducted a study to determine the ways in which virtual world professionals are using the avatar interface to represent themselves in-world. The results of our survey are the first step in determining how professionals are utilizing avatar creation and modification interfaces when representing themselves in Second Life. Interestingly, many of the trends noted in related work are also reflected in the results of this survey.

The next goal of this research is to further investigate the relationship between avatar appearance and issues of otherness and the interloper. In particular, if an interloper effect does exist in virtual worlds, what kind of negative impact does this have on our interactions in virtual worlds? More specifically, if professionals deployed in-world are bound by avatar appearance codes, will they be perceived as other, interloper, or will they be considered part of the community?

In order to continue this research, we plan to survey citizens of Second Life to determine if they have their own conceptions of professionalism and interlopers in Second Life. Most importantly, what kind of threat do interlopers have with regard to the online community? Is it the possible pollution of the virtual world's ideals? We hope that information gathered in these surveys can assist researchers with the ongoing study of avatar interactions in 3D virtual worlds. We also hope this data will assist organizations in their development of avatar appearance codes for these environments.

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