

Avatars in social media: Balancing accuracy, playfulness and embodied messages

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Received 9 May 2008; received in revised form 6 August 2008; accepted 11 August 2008

Communicated by S. Wiedenbeck

Available online 14 August 2008

Abstract

This paper examines how users negotiate their self-presentation via an avatar used in social media. Twenty participants customised an avatar while thinking aloud. An analysis of this verbal data revealed three motivating factors that drive self-presentation: (1) avatars were used to accurately reflect their owners' offline self; participants chose to display stable self-attributes or idealised their avatar by concealing or emphasising attributes aligned to imagined social roles, (2) the diversity of customisation options was exploited by some participants who broke free from the social rules governing self-presentation offline; others used the avatar's appearance to emotionally provoke and engage the avatar viewer and finally, (3) avatars were used as proxies; participants designed their online self in order to convey a message to a significant other.

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Keywords: Avatars; Social media; Self-presentation; Identity

1. Introduction

Increasingly, social system designers are introducing avatars as the new forum for identity construction in online environments, a feature users have welcomed with enthusiasm. Following Yahoo's launch of Yahoo! Avatars, 7 million users personalised an avatar for display within their profiles e.g. Yahoo! 360°, Yahoo! Answers, Yahoo! Messenger (Hemp, 2006). Likewise, four million users created an avatar after the facility (called 'weemee') was introduced to the chat system 'Windows Live Messenger'.¹ This rapid uptake of avatars is not surprising; while avatars maintain users' privacy, they give expressive freedom over

an otherwise static online identity. In an illustrative example, V-Chat, a virtual chat-room, allowed users to either design their own avatar, which was particularly time demanding, or to select from already-made options. In general, V-Chat users spurned the latter option, instead taking the time to create unique representations so that they "didn't look like others" (Cheng et al., 2002).

Avatars are malleable objects as users are given the ability to choose diverse customisation combinations. Motivated by this fluid property of avatars, HCI researchers have examined the social implications of avatars by considering how users manage self-presentation through this new medium and to what extent an avatar's appearance can shape online communication (e.g. Bers et al., 2001; Axelsson, 2002; Taylor, 2002; Nowak and Rauh, 2005). This prior work has traditionally taken place in virtual environments where users' avatars serve as online embodiments for navigating three-dimensional spaces. Though members may forge friendships over time, at the onset they communicate with previously unknown others.

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¹Retrieved from <http://www.weeworld.com/about/partner.aspx?partner=22> on 31/03/08.

More recently, avatars have been implanted in social media environments. Unlike the strangers one encounters in other online environments, users of social media predominantly interact with offline contacts such as friends and family: bloggers document their daily lives to keep their family and friends informed (Nardi et al., 2004); users of the social networking site Facebook visit the site to reconnect with old friends or to maintain ongoing friendships (Joinson, 2008). Furthermore, the open text channel available in social media provokes self-reflection that is reminiscent of diary entries: bloggers document their life events (Nardi et al., 2004), use blogging as a form of “catharsis” for working out their emotions (Nardi et al., 2004; Huffaker and Calvert, 2005), or voice their opinions on controversial topics e.g. politics (Nardi et al., 2004). Therefore, in social media, one’s offline social and emotional life is merged with the online sphere.

This unity of offline and online has been found to facilitate more honest constructions of identity and self-presentation, as opposed to the role playing that often takes place in virtual environments or MUDs (e.g. Bruckman, 1993; Turkle, 1995; Taylor, 2002).² To give an example, bloggers frequently report identifying and accurate profile information such as their real name or age (Herring et al., 2004; Huffaker and Calvert, 2005). A similar result has been shown in relation to avatars; users tend to reflect their own appearance when personalising an avatar for display within their blog (Vasalou et al., 2007). This previous work, however, does not reveal the strategies that users draw together to shape a self-representative avatar. The present research addresses this point with a qualitative study that captures the array of self-presentation strategies that users apply when constructing an avatar. By elucidating the “how” behind self-presentation, we gain a more profound theoretical understanding about identity in social media. At the same time, by exposing which customisation choices are significant to users, we extrapolate design recommendations for avatar customisation tools.

We begin by discussing how theories on identity and self-presentation apply to the unique qualities of the avatar medium. Next, we describe the experiment conducted; users were requested to construct an avatar for two social media scenarios. The qualitative “think aloud” methodology used in this work is also motivated. This is followed by an analysis of the results outlining the full spectrum of self-presentation strategies participants used during avatar creation. This paper ends with a general discussion that identifies three motivating factors guiding self-presentation in social media: (1) accurate self-presentation (2) playful

self-presentation and (3) embodied messages. The theoretical implications of these results are extended to the field of online communication, while several practical implications are considered for the design of avatar customisation tools.

2. Background

2.1. Identity and self-presentation

Goffman (1959) considered humans to be actors, constantly following a social script. By using *front*, composed of *setting*, *appearance* and *manner*, an actor idealises his/her self-presentation as s/he conceals or emphasises aspects that correspond to the values governing a particular situation. More specifically, Goffman defined front as the, “expressive equipment of a standard kind intentionally or unwittingly employed by the individual during his performance” (Goffman, 1959, p. 32). The setting is the stage which the actor chooses as a backdrop for his/her performance. A first date is arranged to take place at a restaurant; a work meeting convenes at a conference room. The actor’s appearance is comprised by stable characteristics such as age, gender and race. Other aspects of appearance are malleable such as one’s displayed social standing or recreational activities at a given moment in time. Manner is the expressive signals one intentionally or unintentionally gives off. For instance, a speaker presenting at a seminar, as expected, will display a calm and confident demeanour. Conversely, despite efforts to remain calm, the speaker may give off signals of anxiety. Generally, appearance and manner are expected to align. For example, during a project pitch, the creative director is formally dressed while his/her manner should transmit confidence with the team’s proposal even though the client may momentarily question his/her judgment.

Unlike Goffman’s microscopic analysis of self, Higgins (1987) approached the same concept from a macroscopic view. According to Higgins, there are three self-aspects, perceived either from the actor’s point of view or from an imagined audience’s perspective. The *ideal* self is composed of qualities which the actor or others wish for him/her to possess, while the *ought* self comprises qualities which the actor or others expect him/her to possess due to obligation. The *actual* self is composed of stable qualities the actor or others believe s/he possesses.

Goffman’s and Higgins’ frameworks have been used to answer questions regarding online identity and self-presentation. Aligned to Goffman’s view, Ellison et al. (2006) showed that online daters have a tendency to idealise their self-presentation by controlling the cues they give off. In the wider field of computer-mediated communication, Bargh et al. (2002) found that online users, liberated by anonymity, generally express more actual self-aspects than when they communicate face-to-face. Identity construction in this previous work was limited to either text-based or pictorial representations. Avatars present two distinctive

²The qualitative differences between social media and virtual environments are also understood within Schroeder’s (2002) sociology-inspired framework for virtual environments: an online interaction is uniquely framed within a context and it is characterised by the social roles users are compelled to take. In addition, the technological features of the environment can encourage or discourage certain behaviours by influencing users’ object of focus.

properties, the opportunity for controlled expressivity and the presence of (and possibility for) ambiguity. The remainder of this section elaborates on how these properties may further influence users' self-presentation.

2.2. *Controlled expressivity*

In face-to-face communication, the actor executes the performance in part by using his/her body as a tool, intentionally coordinating appearance and emotion expression (Goffman, 1959). Though expression may constitute an intentional "signal" to others, it is also experienced as a "symptom" in the body that generates it (Hess, 2001). Expressing happiness at a wedding reflects the appropriate social script, while it simultaneously provokes arousal in one's body. At the same time, expression is not under the actor's complete control as it often follows a subjective emotion experience. After a social blunder, the experience of embarrassment is spontaneously (as opposed to strategically) expressed by blushing or by gaze avoidance (Keltner and Buswell, 1997; Tracy and Robins, 2004).

Avatars are a pictorial representation of the body. Symptoms and symbols are not interlocked into one biological system. Because of this, an avatar's signals might be created by its owner to align to his/her intended expression without spontaneously activating the corresponding emotion. When chatting online, one may laugh at another's spelling error privately, but may easily choose not to display the emotion of amusement via his/her avatar. This possibility also opens up more opportunities for misrepresenting oneself, as an untalented actor no longer needs to rely on his/her poor expressive talent, but on the in-built expressivity of the avatar. An avatar may reflect a happy demeanour despite its owner's disgruntled personality. Moreover, online, there is an indefinite time window between the act of identity construction and the actual display of front which offers the user time to reflect on the precise qualities he/she wants to emit (Ellison et al., 2006). These qualities put together can contribute to self-presentation that is exceptionally strategic and tailored to convey precise messages.

2.3. *Ambiguity*

Avatar customisation environments are populated with options of fantasy, e.g. science-fiction costumes, as well as conventional and familiar real-life objects, e.g. jeans and a t-shirt. Often, these contrasting items are equally accessible and prominent in the interface. By contrast, in the physical world, an actor selects a setting for the performance that already exists in the real world, while clothes fit for the occasion are worn. Rarely is the actor confronted with fictitious items for constructing his/her front such as a magic wand or an alien mask. Therefore, unlike the physical world, avatars introduce an element of ambiguity.

Ambiguity and the space it opens up for interpretation has become an important design goal in HCI, especially for

social systems whose purpose is to provoke interpersonal dialogue (Gaver et al., 2003; Boehner and Hancock, 2006). Regarding avatars, the continuum of real and fantasy invites users to reflect on their social roles, reinventing their social preconceptions. For example, an avatar may be used to challenge its owner's traditional family role. This self-reflection can transcend into real life, shaping his/her future encounters with family members (Turkle, 1995; Taylor, 2002). Furthermore, the user can become a designer using the avatar as a tool to provoke the viewer; inconsistencies and metaphors built into the avatar may create a narrative that challenges the viewer's interpretation.

3. *Methods*

The present research strived to understand the entire breadth and diversity of users' self-presentation strategies when creating an avatar for social media. Thus, it was important to have direct access to users' thoughts during the process of customisation. In choosing a methodology, we drew from the field of usability which has recently focused on creating novel methods for user experience design and evaluation (e.g. self-assessment manikin: Bradley and Lang, 1994; experience clips: Isomursu et al., 2007; interviews: Sundstrom et al., 2007; fuzzy logic emotion modelling: Mandryk and Atkins, 2007).

The methods we came across did not allow us to collect qualitative data concurrently to users' interaction with the avatar tool; hence, we borrowed a method traditionally used in usability studies, the concurrent think aloud protocol. The think aloud protocol was suitable for our purposes as it requires users to verbalise their actions and thoughts while using an interface.

3.1. *Participants*

The study was advertised in bulletin boards throughout the University of Geneva. In total, 20 participants took part in the think aloud study, nine of whom were male. Participants were aged between 20 and 40 years old, all were experienced computer participants and none had previous experience with avatars. As the sessions were conducted in French, only fluent French speakers were recruited.

3.2. *Procedure*

An adapted version of the think aloud protocol, tailored for the needs of usability studies, was used to elicit participants' verbalisations (see Boren and Ramey, 2000). When participants first arrived they were given a training task instructing them to think aloud by speaking out their onscreen actions. The facilitator made sure to position himself as the listener who will partake little in the protocol, while the participant was given the role of the expert speaker. During the session, the facilitator reaffirmed his role as the listener by occasionally providing

acknowledgment tokens (e.g. hmm). If the participant was silent for too long, the facilitator prompted him/her. Two observers located in a room adjacent to the lab viewed and recorded the session. The recordings were later used for the qualitative analysis.

The avatar tool used in this study was Yahoo! Avatars (<http://avatars.yahoo.fr>). Yahoo! Avatars gives users control over their avatar's body with variable facial features, eye colour, hairstyle and colour, skin tone, clothes and accessories. In addition to a neutral emotional expression, an avatar's face can be assigned to four different expressions. Furthermore, avatars can be placed against different background locations. Other artefacts are also offered for the purpose of personalisation, such as pets, flags, furniture items, among others. The options offered in Yahoo! Avatars cover a wide spectrum of everyday items, such as pets, hobbies and city locations, as well as fantasy options, such as masks and costumes. Therefore, choosing Yahoo! Avatars ensured that participants' choices were not constrained by the possibly limited options offered by the application. Fig. 1 displays a screenshot of the Yahoo! Avatars customisation tool.

Participants were presented with two scenarios for creating an avatar which depicted events they had most likely encountered in the past i.e. a romantic date and a birthday postcard to a family member. Additionally, the scenarios were built on the grounds of previous research in social media. For example, bloggers often write posts with the purpose to record their life happenings (Herring et al., 2004; Nardi et al., 2004). Even though blogs are frequently targeted to an audience, sometimes writing is a solitary task, a form of "catharsis" for working out one's emotions. Problems that occupy the user in daily life are expressed online in order to resolve and to relieve the source of emotion (Huffaker and Calvert, 2005). To capture these

Table 1

Social media scenarios

<i>Scenario 1:</i> You are going out on a first and much anticipated romantic date. There are many questions you have to plan for. Where should we meet? What should I wear? How friendly should I look? What should I talk about? You decide to display your date online via your Yahoo! avatar
<i>Scenario 2:</i> Your mom's birthday is coming up and you have decided to surprise her with a holiday at a Greek island. You have orchestrated all the details: the perfect season for good weather, delicious local food guaranteed and a quiet hotel room by the seashore. Instead of telling her in person, you want to surprise her by presenting your vacation offer in a more fun and unexpected 'packaging'. You will send a postcard with Yahoo! Avatars

dynamics, the first scenario prompted participants to express a particular life event via their avatar. Furthermore, social media often links participants to familiar offline contacts. For instance, communicating and reconnecting with friends is a motivating factor for using the social networking site Facebook (Joinson, 2008). Similarly, many bloggers' pages serve as a channel for keeping in touch with their loved ones (Nardi et al., 2004). This social capacity of social media was captured by requesting participants to construct a message for a family member. Table 1 displays the two scenarios.

Participants took 8.8 min on average to complete the first task and spent an average of 7.6 min on the second task. The minimum time spent on a task was 3.4 min, while the maximum was 17.45 min. A paired *t*-test on task completion time was non-significant. Therefore, participants spent about equal time on both tasks.

3.3. Qualitative protocol analysis

During the think aloud session, participants' face and voice was recorded, as was their onscreen activity. The two observers of the sessions revisited these recordings to identify moments relevant to participants' chosen self-presentation strategies. The context of the interaction, participants' verbal reports and participants' non-verbal expressions, e.g. smiling, were all consulted when extracting relevant incidents. Usability problems with the interface, e.g. this button does not work, were discarded. This process resulted in a total of 202 incidents which were then transcribed and translated in English. Next, the incidents were grouped by similarity forming four high-level categories of self-presentation strategies. These are: stable self-attributes, idealisation, messages to others and fun. In the next section, we analyse the results by categorising the incidents according to this classification.

4. Results

4.1. Stable self-attributes

Participants expressed a number of stable self-aspects that were not influenced by the two scenarios. These

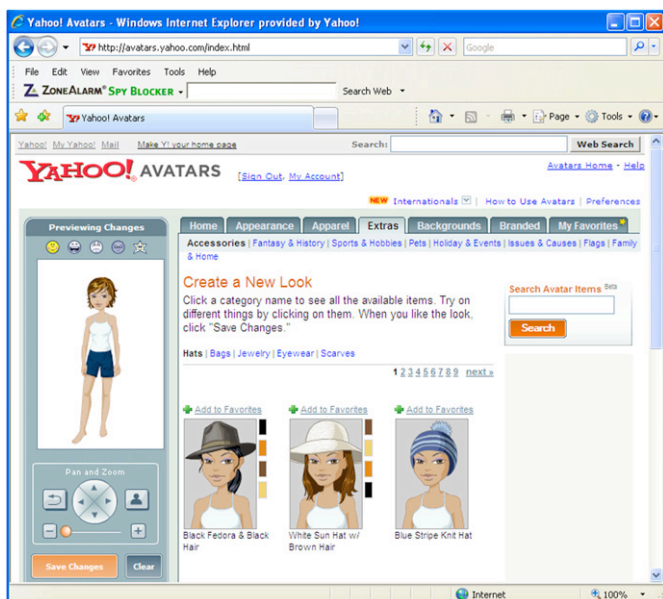


Fig. 1. Yahoo! Avatars customisation tool.

were: (1) personalising a face, (2) fashion statements, (3) values and (4) real life events.

4.1.1. Personalising a face

Yahoo! Avatars provide eight face choices, each of which displays different characteristics. Generally, the accurate reflection of oneself via a face was an important choice, and, thus, one worth the time investing in. Five participants chose a face at the onset, only to revisit the eight faces later, in search of a closer match to their actual visage. Unlike other avatar items that were malleable and context-driven, once chosen, the face remained constant across the two scenarios. When approaching a face, participants either referenced themselves or considered the avatar as an external agent with a character of its own. We consider each strategy separately.

People define themselves in different ways, which in turn can be projected onto their avatar. For example, one's identity can be linked to a particular facial characteristic. A testament to our ability to recognise distinctive features and use them as identity cues are the range of adjectives we use to "classify" people we know e.g. he has an oval face, she has alabaster skin. To that effect, one of our participants, while selecting a face, said:

... well, I do not find eyes which resemble mine... The face does not resemble too much my own (sighs) but it will do...

This participant defined himself by the uniqueness of his almond-shaped eyes. He attributed the lack of resemblance between himself and his avatar to the mismatch in eye shape completing his choice with a feeling of disappointment. Participants following this style looked for defining personal features, such as a particular facial shape or a beard they wore. The feeling resulting from one's inability to accurately represent his/herself was disappointment.

Alternatively, identity may instead be linked to one's understanding of his/her own characteristics. Here, mood and disposition as expressed by the avatar face became more important than the similarity with participants' physical facial features. Although the eight avatar faces available were given numbered labels by Yahoo! designers, some participants assigned them emotional

meaning (see Fig. 2). In the following extract, one of our participants, a Caucasian female, chose an Asian face on the basis of its mood. The avatar was perceived as happy and thus reflected her state of mind, even though it did not accurately represent her own physical appearance.

...faces are different, with different emotions; I will maybe choose a face with a little smile...

In the examples given so far, participants sought to express their own perceived qualities and characteristics through their avatar. Hence, the avatar's face should reflect certain aspects of its owner. However, people often also associate personality traits to a face in the absence of any other cues (Taylor, 2002). For instance, one participant jokingly described the avatars' faces thus:

...one avatar looks rather "well-behaved" (laughs); this one looks like a playboy (laughs)...

In this context, avatar faces were treated as independent agents with a distinct personality and corresponding behaviours. In the above example, the participant's final choice was to choose an avatar face that resembled his own. Thus, one strategy does not preclude another and a few participants vacillated from one strategy to the other.

In addition to the faces available, participants could personalise other facial attributes such as the eye colour, hairstyle and colour, and skin tone. Unlike faces, these additional attributes were only partially enduring. Participants reflected their natural eye and hair colour, rarely revising these two choices. A similar observation was made for the skin tone as well as the hairstyle. For instance, as one participant noted "I will first select the colour of the skin. I have light skin so I will keep it this way." However, during our analysis, we also discovered that skin tone and hairstyle were often malleable features driven by strategic motivations. This particular observation is analysed in-depth in Sections 4.2 and 4.3.

4.1.2. Fashion statements

4.1.2.1. *Clothes express personality.* People have particular ideas when it comes to considering the kind of person they are. One may think of oneself as a mature person, while another may want to project youthfulness.

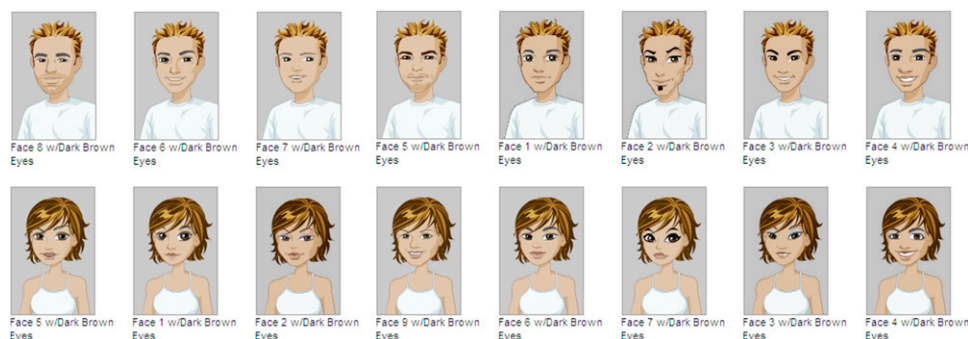


Fig. 2. Male and female avatar faces.

A participant wearing eye wear in real life searched for glasses. He frowned when viewing the options available noting the disparity to his self-image: “No, the glasses look too young.” Another participant was unsuccessful in finding glasses to match his real life glass frame. As he explained, “Here it could be good to vary more, to have various types of glass frames.” In both instances, participants opted out of the eye wear option. In a similar vein, while one participant embraced the designers’ decision to include male jewellery allowing him to reflect a real life piercing, another participant criticised male jewellery as being “too feminine”.

4.1.2.2. Combinations should reflect good taste. Clothes, shoes and accessories were chosen to match in both style and colour. As in real life, when choosing combinations, participants were careful to reflect good taste. Exemplifying this, one of our participants exclaimed in disgust upon trying on a blue Hawaiian shirt and black Hawaiian trousers “Yuck! (laughs) That does not match well.” Another participant who was looking for glasses to match with his outfit said:

...I would like to find something which will correspond well to what I am wearing... Glasses, black frames (searching) therefore I should choose this.

This participant felt compelled to take the most complimentary option. His choice was motivated by style and, thus, glasses that were incongruent with his outfit were not favourable.

4.1.2.3. “Got-to-have” items. “I am a shoe person”; “Earrings are my trademark”. Statements of passion about particular clothing items are expressed all the time. Fashion favourites were sought after when creating online avatars. One participant, a self-reported shoe lover, exclaimed:

Are there shoes? Is my avatar wearing shoes? Can one change the shoes?... Because shoes are important to me. But, there seems to be no such option (sigh).

In Yahoo! Avatars, shoes come automatically with corresponding clothes and are one of the few options that are not customisable. Yet, this participant’s disappointment was echoed throughout the study by eight others who repeatedly searched for ways to customise their shoes. Crucially, a few participants cancelled their clothing options when the corresponding shoes were not to their liking. In a similar vein, some female participants looked for makeup, a male participant searched for a piercing similar to his own.

4.1.3. Values

4.1.3.1. Group affiliations. San Francisco, Venice and Moscow are a few of the worldwide destinations on display. In the following example, a participant first searched for Swiss clothes. He said “doubt that there are Swiss clothes, which is quite a pity!” Shortly after, he

turned his attention to the backgrounds available and searched again with the same purpose: “On the other hand, I have the impression that those are backgrounds so if there is one of Switzerland it could be nice!” This participant wanted to express his cultural belonging via his avatar. When realising there were no Swiss options available, he abandoned his search with disappointment. Another, Mexican participant drew on his cultural upbringing when conveying the surprise holiday to his mom; instead of a Greek island, he chose to display Acapulco.

4.1.3.2. Moral principles. Yahoo! offers a branded items section comprised by clothing and accessories from popular brands, which can be used to dress one’s avatar. This new generation of advertising is inconspicuously embedded in the avatar environment (Hemp, 2006), but it does not come without criticism. While looking at the branded items, five participants expressed their opposition towards advertising and freedom of choice. As one explained:

So, this really makes me think that Yahoo! Avatars can become an advertising tool... prime people to get interested into the branded stuff. That is not something that I like much.

In this instance, participants’ ideological viewpoints negatively affected their self-presentation choices and their trust in Yahoo! As opposed to this negative outlook on online advertising, another participant cast a different view on brand advertising: “brands do not interest me, except if they have Decathlon (his favourite brand).” It is thus possible that inhibitions are bypassed when advertising is personalised with the inclusion of favourite offline brand names.

4.1.3.3. Emotional attachments. Sports fans fervently vouch for their team. Motorcycle riders take yearly group tours to show their solidarity to one another. Hobbies require both a positive emotional bias and time commitment. Yahoo! Avatars provides many choices for showcasing one’s hobbies, which in turn appeared to be welcomed by participants. An ice skater chose an ice ring; a baseball fan dressed up in uniform; a motorcycle rider placed a motorcycle next to his virtual self. A hockey fan who selected a hockey stadium background said “good, they have hockey because I practise it; I adore hockey (laughs). Making this choice shows a little of my personality.” Another object of emotional attachment was animals. Animals require time commitment and constant care, but in return they offer us friendship and companionship. We attribute personality to animals which we learn to accept and love. The importance of this emotional bond was also evident in this study when several participants chose their real life companions as their online companions. As one participant noted “I am looking for a dog that actually looks like my dog which is a Chihuahua.” Another

participant selected a cat when customising her avatar for the birthday scenario as she always takes her cat with her when on holiday.

4.1.4. Real life events

Customisation options present in the site were used to express real life occurrences. For example, a few participants chose darker skin tone to reflect the summer season. Another participant expressed his recent visit to the barber with the corresponding avatar option: “Good, today I went to the hairdresser, therefore, I choose this one: very short brown hair.” Though the study took place during the summer, when attending on a rainy day, one participant chose long pants and a hat to keep himself protected from the weather.

4.2. Idealisation

In Goffman’s (1959) terms, participants idealised their self-presentation by intentionally emphasising or concealing self-attributes. We found three patterns of idealisation: (1) global idealisation, (2) social idealisation and (3) idealisation versus breaking the rules.

4.2.1. Global idealisation

Several participants slightly morphed their avatar to display an “ideal” and more attractive self (Higgins, 1987). For example, avatars were given a darker skin tone expressing their owners’ desire for a more vibrant summer look. One participant acknowledged this embellishment by saying “I will pretend to look more suntanned.” Furthermore, a male participant with a receding hair line in real life started off with the intention to accurately reflect his hairstyle. Instead, he was confronted with hair options at two ends of a spectrum, either a completely bald head or a head with short hair. He negotiated these two possibilities:

Let’s try something with no hair, especially in the forehead. That looks close (while viewing the short hair). Not as much, maybe in a few years from now (laughs) (while viewing the bald head).

Even though this participant’s initial intention was to truthfully depict his appearance, he found himself caught between two extremes: his past self and possibly future self. His final choice depicted an idealised and more youthful appearance, chiefly imposed by the limited hair choices offered within the application.

4.2.2. Social idealisation

4.2.2.1. Romantic partner. In the dating scenario, participants predominantly enacted the role they usually play when impressing a romantic partner. Setting, appearance or manner was altered accordingly. In some extreme cases, all three facets of front were used in concert for the performance. Specifically, many participants chose backgrounds of conventional locations for a romantic meeting e.g. a dinner evening in a terrace, a date at a disco. Others

searched for a setting that depicted particular traits. To give an example, one participant selected a “tranquil” hiking location, just right for getting to know someone new. Participants searched for elegant clothes: several female participants selected evening dresses, while male participants selected suits or formal pants. Other props for building up an attractive self-presentation were used such as jewellery, handbags or makeup. Finally, a few participants selected a happy expression for their avatar, suitable for a romantic evening. Unlike global idealisation which was guided by one’s personal expectations (see Section 4.2.1), in this instance an “ideal” self was oriented to the expectations of a romantic partner.

4.2.2.2. Broadcaster of happy news. In the birthday scenario, a few participants morphed their self-presentation to align to the role of the “happy broadcaster”. A male participant chose a guitar to announce the happy news: “I will choose the avatar with the guitar. I could maybe sing something for my mom; happy birthday, of course!” A female participant took the role of the messenger by dressing her avatar with festive clothes accompanied by a happy emotion expression:

I am supposed to announce the gift so I need to wear something special (chooses a skirt). There we go, warm colours (chooses an orange shirt). Happy, sad, special (browsing through the avatar’s emotions). We will go with happy. It’s perfect.

One participant had browsed through the available emotion expressions, while completing the dating scenario. He said: “special, what is the special emotion? O no! This is lousy, it is a loser’s look... Sad emotion, no not sad... Happy emotion, this is not happy, it is idiotically happy.” However, when personalising the avatar with his mom in mind, he noted “since this is for my mom, I will put up a smile even though I will look stupid.” Though the avatar’s emotions were not aligned to his expressive preferences, when announcing happy news he abandoned his inhibitions and selected a happy expression.

4.2.2.3. Child. While completing the birthday scenario, some participants drew on the role of the child who is obliged to conform to an “ought” self (Higgins, 1987). Specific features in their appearance were concealed to align to their parent’s expectations. For instance, a female participant browsed through several swimming suits before choosing the most conservative “less naked” choice. In the following extract, a participant who had enthusiastically chosen a piercing similar to his own for the date scenario removed the piercing while explaining: “I will take off the piercing; otherwise my mom will tell me that I am ‘scum’ (laughs).”

4.2.3. Idealisation versus breaking the rules

Even though most participants drew on existing social roles during the process of customisation, avatars also

encouraged “breaking the rules” as contrasting items could be easily combined into one composition with as little as one click. A female participant chose “sophisticated” Paris as her destination, while wearing a cowboy outfit she had earlier selected for her date. She hesitated for a moment but then embraced her “inappropriate choice”: “here we go (selected Paris); am I wearing clothing suited for downtown? Not really, actually, (pause) but well, I like Paris, let us go! (laughs).” A male participant who had chosen a “chic” suit purposefully for the date, browsed through backgrounds in search of a romantic location. His final choice was a farm. He noted the incongruence between his idealised appearance and the background: “the farm background is not really aligned to the suit (and thus to the date), but it matches the style of the hat.” Despite setting out to personify the “romantic partner”, this participant was able to quickly and easily dismiss the social conventions he had initially chosen to follow.

4.3. Messages to others

4.3.1. Literal versus symbolic messages

In the birthday scenario, similar to what was observed in the social idealisation strategy (see Section 4.2.2) participants orchestrated setting, appearance and manner during the avatar construction. However, instead of adapting a particular social role oriented towards an imagined audience, all but two participants enacted their “model” beach holiday. Therefore, the avatar’s appearance was manipulated to send a literal message to a particular recipient. Beach backgrounds were taken that were indicative of a Greek island. Avatars were dressed in bathing suits or in light summer garments. Props were used to further highlight the holiday: some participants chose sun glasses; others chose summer hats; and two female participants chose summer handbags. Several participants coloured their skin tone darker to further illustrate the beach holiday, whereas one participant lightened her skin tone to express the fact that she had not yet left for the holiday. Finally, two female participants chose more casual hairstyles suitable for the beach. As one explained: “I would like a haircut for the holidays. The small ponytail is no longer fit. Oh, dreadlocks are good.”

Even though avatars were predominantly used to communicate literal messages, the abundant visual options within the site also led to the construction of some symbolic messages. One participant used imagery to attach information of significance to the message recipient. He said “my mom likes animals a lot and cats in particular.” In orienting his avatar towards another, he searched for a cat companion. Another participant used the background image to construct a metaphor: a black background filled with light bulbs communicated her brilliant holiday idea. Yet, a third participant chose a birthday party background with a cake and gifts to signify the “festive” birthday spirit.

4.3.2. Provoking a reaction

Several participants explicitly morphed their avatar to provoke an emotional reaction from the message recipient. In the following two examples, the sender envisioned the receiver’s response, experiencing positive empathy for the other and assigning even more emotional value to their customisation choice. A participant who had earlier selected a self-representative hairstyle now said “I would like to change the haircut for the beach. I want to find something funny for my mom... Afro hair... This one is funny (smiles).” In a similar vein, a second participant gave his avatar a suit even though his taste in fashion was casual. He explained his mom’s reaction if she were to view his avatar: “She will be proud of the little boy... My avatar is smartly dressed; that will give her a shock (laughs).”

4.4. Fun

Finally, some participants gravitated towards options that were simply fun and entertaining to them personally. One participant chose an amusing hat because it reminded him of “Indiana Jones”. Another participant chose a dog similar to her own which was dressed in a raincoat. Laughingly, she commented twice on her dog’s comical appearance. Many others assigned their avatar an animated emotion because of its entertainment value. In the following example, a participant browsed through the emotions “sad”, “angry” and “special”, in the end selecting the “special” emotion:

Excellent! Yes! (selects the sad emotion) Ohhhh, he is sad, he is very sad (laughs). (selects the angry emotion) This one is angry, not bad. (selects the special emotion) And the special one, yes the special one, it is cool the special one (laughs). Let us zoom into see, do again that little thing you did earlier, yeah, he is cool my guy (laugh)...

5. Discussion

The discussion that follows organises the self-presentation strategies delineated in Section 4 into three motivating factors driving self-presentation: (1) accurate self-presentation, (2) playful self-presentation and (3) embodied messages. We acknowledge that the three motivating factors do not necessarily operate independently; while an avatar user may reflect an accurate self, elements of playful self-presentation may be additionally chosen.

5.1. Accurate self-presentation: mirroring one’s offline self onto an avatar

Participants reflected their actual self (Higgins, 1987) by selecting options aligned to their perceived stable self-attributes. Across both scenarios, avatars’ physical characteristics were chosen carefully to reflect their owners’ appearance. Fashion preferences that guided participants’

appearance in the physical world, also determined their online choices. Moreover, participants drew on a larger framework of stable values when personalising their avatar including cultural affiliations and moral beliefs.

In addition to expressing an actual self, participants idealised their avatar by concealing or emphasising particular self-attributes. First, social roles determined how participants chose to present themselves (Goffman, 1959). When expressing an impending romantic date, many users constructed avatars that looked more attractive, while backgrounds depicted popular romantic destinations. Therefore, an ideal self was prevalent, composed of qualities desired by a romantic partner. When constructing a message for their mom, a few participants projected an ought self (Higgins, 1987) by intentionally creating a more conservative appearance. Some participants also adopted the role of the broadcaster, whose aim was to deliver good news with the display of a happy and festive façade. When participants constructed the birthday surprise, even though the avatar itself constituted the message (see Section 5.3), they drew together all the elements that described a holidaymaker. Second, some participants idealised their avatar with slight improvements they personally desired (Higgins, 1987). Nonetheless, this type of intentional embellishment was not a predominant trend in this study.

As originally proposed in Section 2.2, we found that participants composed their avatar to give off precise messages that intentionally avoided ambiguity. A female participant chose an evening dress, to later notice a non-representative music sheet in the hands of her avatar. She opted for another dress even though it was less congruent to her fashion style. Similarly, a male participant searching for a suit aimed to display elegance without “diluting” his self-image with other attributes: “I will choose this suit as it is more elegant. The other one looks too much like a businessman.” However, even though participants carefully selected options that were aligned to an imagined social role, they tended to be reflective of their stable self-attributes and preferences (see Section 4.1). As a female participant stated: “the first date is important for me. I will try to find a way of dressing nicely, but that also reflects me. I am looking for something that looks like a student. This one may be too young. I would like something pleasant... This one reflects me so I save.” Precise control over one’s idealised self-presentation and the need for self-representative options were competing factors that directed participants’ choices either closer to an actual self or to strategies of idealisation. In an illustrative example, one participant had earlier chosen glasses with a frame similar to his own. When completing the birthday scenario, he looked for sunglasses. He searched in vain for a pair he liked, finally deciding to keep his original eye wear.

Overall, the above conclusion is in line with observational data suggesting that users of social media present themselves accurately (Herring et al., 2004; Vasalou et al., 2007). In this study, accurate self-presentation was built into avatars either in the form of stable self-attributes or in

the form of idealisation. To achieve this, participants welcomed the spectrum of choices made available by Yahoo! designers for setting, appearance and manner. Hobbies, pets and other self-relevant props were all important elements for identity construction (Goffman, 1959). Thus, alongside the control offered over one’s online embodiment, designers of avatar customisation tools should put forward other artefacts that are equally important to identity expression.

Furthermore, when constructing one’s self-presentation, lack of flexibility over one’s options ultimately determined the avatar’s final appearance and, thus, the degree of idealisation the avatar owner expressed. This latter point has some implications for interpersonal communication. Yee and Bailenson (2007) found that participants represented by attractive avatars were more willing to approach members of the opposite gender, as compared to participants represented by less attractive avatars. In a negotiation task, participants with taller avatars were more confident than participants represented by shorter avatars. By preventing or enabling the display of particular avatar attributes, avatar designers exert influence over users’ idealisation, in turn possibly shaping users’ online behaviour (also see Taylor, 2003).

5.2. Playful self-presentation: reinventing oneself and social life

In Section 2.3, it was suggested that some avatar customisation tools present equal availability and prominence of fictitious objects and also objects found in the physical world. This introduces a level of ambiguity that in turn challenges one’s own self-conception, but also one’s social orientation towards another. Aligned to this prediction, we found that the ambiguity fostered in Yahoo! Avatars led to five types of strategies. Participants abandoned their preconception of social correctness and experimented by mixing “inappropriate” choices together. Therefore, social rules that steer one’s self-presentation offline were bent and circumvented online. Participants also used the avatar to build narratives about events taking place in their physical world. As opposed to reporting one’s present state via a textual channel, as offered in most social media platforms, e.g. blogs, social networking applications, participants used the avatar’s body as a means for expressing their ongoing life events. Furthermore, some constructed symbolic and metaphorical messages that invited the viewer’s interpretation. Additionally, participants manipulated their appearance in order to provoke a positive emotional reaction from the avatar viewer. Finally, selections were made that were non-representative of participants’ offline self, but were chosen because of their entertainment value.

As discussed in Section 5.1, many participants aimed to construct a precise self-presentation, as a result criticising the avatar application over its lack of flexibility. However, the presence and diversity of predefined (and thus less

customisable) objects also created a new space for creative self-expression and communication. Participants who exploited the ambiguity afforded by the avatar customisation tool advanced their identity beyond the mere reflection of an offline self. The present result is also in line with observations from virtual environments; to give an illustrative example, in a study reported by Taylor (2002), a female avatar user distanced herself from users she was not familiar with, symbolically, by wearing a witch hat. Hence, even though computational resources may ultimately allow users to shape their online representation with precision, a strong argument can be made in favour of ambiguity and the user engagement it fosters. We thus argue that designers of avatar environments should continue maintaining a predefined palette of diverse customisation options.

5.3. Embodied messages: avatars as proxies

When announcing a surprise holiday gift on the occasion of their mom's birthday, participants enacted their ideal holiday break via their avatar. Beach backgrounds were preferred, while bathing suits and other holiday items were selected. By using front, participants expressed their holiday self in a similar manner to those who engaged in social idealisation. However, in this instance, one's digital representation embodied a literal message towards another.

Researchers and practitioners have previously focused on creating avatars with in-built emotion expressivity in order to enable the exchange of richer emotional content. For example, in the V-Chat virtual environment, users were given the ability to compliment their written messages with static emotional gestures (Cheng et al., 2002). Fabri and Moore, 2005 built a chat messenger which allowed users to change their avatars' facial emotion expression. This kind of approach naturally follows from our intrinsic communicative mechanisms. However, the present result indicates that avatar users can invent new and unconventional communicative gestures such as using the avatar's appearance to embody the message.

Future work could investigate users' communicative intentions in order to reveal what kind of customisation options are needed to support embodied messages. Additionally, further research might examine whether embodied messages influence communication at the interpersonal level. The expression and interpretation of emotions is frequently socially and culturally constructed. A reciprocal emotional exchange can occur in which the sender's emotion expression elicits an emotion in the receiver (Parkinson, 2008). Aligned to this view, Fabri and Moore (2005) found that users chatting online mirrored each others' emotions as expressed via their avatar. In this study, we discovered that senders are happy to give up their need to depict an actual self in favour of reaching out and engaging with another user. Converting one's digital representation into an expressive signal may be perceived by the message recipient as an altruistic gesture. As a

consequence, it is likely that embodied messages facilitate intense emotional exchanges between message sender and receiver, even more so than the exchange of fleeting emotion expressions.

5.4. Limitations

To our knowledge, this study is the first attempt to analyse users' self-presentation strategies when creating avatars for social media. The concurrent format of the think aloud method allowed us access to participants' thoughts in order to gain this fine-grained knowledge. However, this methodological choice also placed participants outside their natural environment and inside the lab; the social media scenarios motivating the avatar creation cannot capture the entire spectrum of participants' intention of use. It is important that future research corroborates and extends our results by ethnographic means. Moreover, even though the facilitator was trained not to interfere during participants' avatar creation, we recognise that the observation methods used in this study may have prevented some participants from verbalising particular, perhaps more embarrassing, self-presentation strategies. Finally, Yahoo! frequently updates the Yahoo! Avatars customisation tool with new selections. As the site grows, users may continue inventing new strategies for self-presentation.

6. Conclusion

The present research set out to investigate how users choose to present themselves via an avatar for social media. Using the concurrent think aloud protocol, three distinct motivating factors in avatar construction were found. First, participants depicted *accurate* self-presentations that were aligned either to an actual self, as expressed by one's perceived stable self-attributes, or to an ideal or ought self, as expressed by strategies of idealisation. Stable self-attributes and idealisations are competing strategies, often resolved by the availability of options within the customisation tool. Avatar designers may want to acknowledge users' need for constructing precise self-representations by offering additional control and flexibility over customisation choices. Further, while creating an accurate self-presentation, participants drew together a collection of objects that depicted setting, appearance and manner. On these grounds, we suggest widening the scope of avatar customisation to include options that are not necessarily attached to the avatar's body but are yet central to users' identity (e.g. pets). Second, ambiguity allowed participants to create *playful* self-presentations. Some participants used the avatar to challenge the social conventions that usually direct self-presentation when offline. Others built narratives into the avatar's body that reflected life events or that directly engaged the viewer. Thus, even though avatar applications may have the future capacity to allow the creation of precise and photorealistic representations,

designers should continue to support ambiguity by additionally providing pre-constructed customisation options. Third, avatars were used to *embody* a message as participants oriented their entire self-presentation to convey a literal message to another user. Therefore, the avatar's body can be converted by the user into an expressive signal. Future research can advance the design of avatar customisation tools by gaining a deeper understanding on the occasions that give rise to embodied messages. However, this result also opens up new questions for online communication. Orienting one's entire body towards another may be perceived by the viewer as an altruistic and generous gesture, in turn facilitating the exchange of highly emotive messages.

In conclusion, the above findings advance the topic of identity in social media by revealing the strategies that users bring together when creating an avatar. Moreover, they suggest several implications for the design of avatar customisation tools and more generally for online communication.

Acknowledgements

We thank Jarmo Laaksolahti (SICS) and Kristina Höök (KTH/SICS) for their constant support during this research. Etienne Roesch (University of Geneva), Sophia Vasalou (University of Cambridge) and Marc Fabri (Leeds Metropolitan) are acknowledged for their comments on an earlier draft of this paper. We are thankful to three anonymous reviewers whose comments improved the paper. Steve Bingeli, Delphine MESSOT and Etienne Roesch assisted with the data collection and the transcriptions. This research was funded by the HUMAINE IST Framework VI Network of Excellence.

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