Avatar Transparency and the Establishment of Trust in Virtual Information Eco-systems

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ABSTRACT
This poster addresses the issue of avatar transparency in virtual worlds, and its relationship to the establishment of trustworthiness. Preliminary analysis of interviews with Second Life® users offers insights on this topic. The authors describe the tension between anonymity and trust in participant contexts, and suggest a framework for describing avatar transparency and trust issues.

Keywords
Avatar, virtual worlds, trust, information problem-solving

INTRODUCTION
When selecting information sources, people inherently make assessments about the trustworthiness of these sources (Hertzum et al, 2002). While the assessment of web information can be a difficult task due to the lack of “quality control mechanisms” (Rieh, 2002), this difficulty is exacerbated in environments in which other people are the main sources of information, yet their identities are ambiguous. As Johnson (1997) states, “trust is difficult to develop in an environment in which one cannot be sure of the identities of the people with whom one is communicating” (p. 62). Current research suggests that online forums can be more influential in decision-making than face-to-face conversations with friends (Steffes & Burgee, 2009). In such environments, not only is assessing the information obtained from other users challenging, the whole eco-system of information problem-solving could consequently be affected.

Information problem-solving is the process of identifying an information need and generating a solution based on new information, including the identification of relevant sources and the selection of the most appropriate sources to address the information problem (Eisenberg 2008). However, if the assessment of information source is hampered by difficulty in determining its trustworthiness, processes that take place before and after this assessment may also be altered. In this poster, we focus on aspects facilitating the establishment and determination of trust in virtual worlds (VWs).

Second Life® (SL) is one of the most popular non-gaming VWs, and is used for education, research, health and politics. A user’s actual (first life, or FL) identity in SL can be ambiguous. We report a preliminary analysis of the practices of establishing trust by long-time SL users in the areas of health and politics. We ground our investigation in the context of a VW in which users serve as trusted sources of information via their avatars, and explore the following questions:

- How can we conceptualize the extent to which SL avatars are explicitly linked with FL and other identifiers?
- What avatar characteristics facilitate their establishment of trust in SL?

TRANSPARENCY AND ANONYMITY IN SECOND LIFE
An examination of the interplay between disclosures of personal identifiers (virtual or not) and the establishment of trust requires an adoption of suitable terminology. As an absolute concept, the term “anonymity” is inappropriate to describe the degree to which an individual reveals personal identifiers. In our work, transparency refers to the quality of being frank, open, or easily seen through or understood—the extent to which an avatar connects SL and other online and offline identities or identifiers. Thus, degrees of transparency assigned to an avatar may be categorized simply as “transparent” to describe the complete integration of SL and other online/offline identities, “opaque” to describe complete anonymity, and “translucent” to describe an intermediate degree of integration.

TRUST IN SOURCES OF INFORMATION
We recognize that the concepts of trust and credibility are closely related; trust in a source affects a person’s assessment of its credibility (Fogg & Tseng, 1999). People routinely seek others they trust to provide or recommend information they seek (Hertzum et al 2002). Marsh & Dibben (2003) suggest that the difficulty in trusting information received by others may be exacerbated online. Sources of highly-sensitive information related to health and politics are routinely accessed online (Levy & Strombeck, 2002; Papacharissi, 2004), where people may benefit from anonymity. Our data suggests that in SL, avatars often serve as primary sources of information, or as referrals to other sources of information. Thus, the establishment of trust in avatars in VWs like SL is made more complex with the inherent lack of transparency in an avatar from the outset—users must choose whether to include information in their profiles that associates their SL avatar with their other identifiers. Therefore, we report how our participants’ representation of virtual self facilitates their establishment of trust, or from the information-seeker’s perspective, determination of source trustworthiness.

METHOD
After extensive preliminary fieldwork, we used a combination of sampling by level of involvement in SL and snowball sampling to identify and select “Leaders” in the areas of health/wellness and politics/policy. We identified them as “Leaders” to recognize that in addition to being very involved in SL activities, they founded groups in SL, organized key events for the groups, and had meaningful contributions to the sustainability of the group. These characteristics relate to dimensions of trust described by Junglas (2007). Thus, our participants are deemed trustworthy sources within SL, and have been effective in establishing trust. Based on...
these initial criteria, we identified 33 residents who were the group Leader or land owner of health or political groups, places, and events. Then, based on the group/events’ size, level of activity, and Leaders’ initial interest, we narrowed our selection to 10 Leaders, 5 per topic area of health/wellness and politics/policy. The complete interviews lasted 90 minutes to 180 minutes total across one or more sessions. We also shadowed 6 of our interview participants during their regular activities in Second Life for 2 to 4 hours each.

Four avatar descriptors were identified: first life name in profile, first life photo in profile, first life group affiliation included in profile, and avatar name associated with first life name in a cursory web search. Each of these descriptors could link the participant to their first life identity. The participant was labeled transparent if one or more of these descriptors made the link. In one case the term translucent seems most suitable, as the participant revealed a unique first name and specific work context—a link could be made with some (perhaps arduous) research. A preliminary interpretive analysis of interview transcripts was conducted to assess how the participants’ characteristics may have contributed to the establishment of trust.

**DISCUSSION**

The interviews covered a wide-range of questions, including participants’ rationale behind their degree of transparency. We provide our preliminary gleanings of this interview data with the caveat that it is a discussion rather than a formal analysis of the data. While one may expect that avatar transparency increases trustworthiness as an information source, our data suggests a more complex relationship between transparency and trustworthiness.

For some, the appeal of SL includes the opportunity for anonymity or control over the degree of transparency, and the adoption of a new or dissimilar identity. Their experiences suggest a tension between anonymity and trustworthiness—or the ease with which they can establish trust. Participants’ reasons for choosing whether to be transparent or opaque included a concern for personal privacy or effectiveness within their roles. It is interesting that at times their reasons were at odds: while one participant cited transparency as essential to increasing effectiveness and credibility, another cited opaqueness—or anonymity—as essential for achieving the same results. This may have been related to the type of work these participants did in SL—the latter was primarily involved in political activism, and we speculate that it probably took this participant longer to establish trust. While it is obvious that the establishment of trust in one’s FL professional work will serve well the establishment of trust in one’s role in SL, particularly when one’s SL work is the same (such as mental health practice), it can also have the opposite effect. For example, being unemployed or working in a bookstore in FL would likely compromise trust in one’s competence as a mental health peer-supporter in SL until evidence of the value of their SL work is established over time. Two of the participants described an initial failure to consider the interplay between transparency and trust, at a regrettable cost; one described a lack of effectiveness in work flow and recognition as a result of failing to integrate online and offline efforts.

The initial work of Fogg & Tseng (1999) begins the work of developing a framework for describing a relationship between avatar transparency and trustworthiness. Given our preliminary interpretation of the interview transcripts and extensive time in SL, profiles begin to emerge that describe this relationship. Profiles describing avatars that have trustworthiness established, but are either transparent or opaque, are based upon the preliminary analysis of our participants; those describing avatars that have no trustworthiness established are based upon our observations after more than 200 hours within SL. A user who creates transparency between FL identity and avatar may enjoy an integration of online and offline work, efforts, history and affiliation, with a rapid establishment of trust. A user who creates opacity between FL identity and avatar (i.e., completely anonymous) may establish trust, but only over time and through a great deal of work and commitment to the community within SL. A user with a transparent relationship between FL and avatar, but with unrelated online and FL associations, will also experience a slow establishment of trustworthiness, if at all, as others may never see the person behind the avatar as qualified. Finally, a user with an opaque relationship between FL and avatar, and has no established trustworthiness, will likely experience difficulty in establishing it. We speculate that opacity may be useful for those uninterested in contributing to an online community (or perhaps more interested in grieving)—many ‘alts’ (i.e., alternate avatars) fall into this category.

**CONCLUSION**

We believe in an ecological virtual information environment: that successful information problem-solving occurs where different factors are in place to support each information behavior. This poster addresses one aspect of this ecology—transparency and trustworthiness, because these directly impact the assessment of information sources. This investigation suggests the need for a framework for understanding the relationship between avatar transparency and trustworthiness in VWs. We foresee expanding the analysis of avatar characteristics and the framework to other behaviors in the information problem-solving process. Such analysis would set the groundwork for developing technology design implications that better support information problem-solving behavior.

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