Trust and Community: Continued Engagement in Second Life

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Abstract

3D social virtual worlds (VWs), like Second Life (SL), have potential as alternative modes for information seeking and socialization. Yet, finding trustworthy social connections for expertise and social support can be challenging in Second Life (SL) where identities are fluid. We explored how long-time SL users established and diffused trust within their communities by vetting each other as trusted information sources. By drawing on the relationship among trust, being highly sought after, social status, and continued engagement in SL, we identify challenges that VWs like SL face, and provide recommendations for social navigation systems to support continued engagement in social virtual worlds.

Keywords: virtual world, trust, community, social navigation, continued engagement

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Introduction

During our 180+ hours of exploration in Second Life® a 3D social virtual world (see box 1), we learned that despite media coverage (Hansen, 2009) about decreased activity in Second Life (SL), a set of long-time users remained highly involved. They contributed key content to SL and were central to sustaining their virtual communities. Belonging to marginalized communities (e.g., multiple sclerosis, transgender, alternative political groups) was one reason these users were continuously involved in SL. For example, those from communities with scarce members more easily found other world-wide members in SL. However, such community membership did not fully explain the continued engagement in SL by a set of long-time SL users. In looking for trustworthy information sources during our exploration, word-of-mouth led us to the same set of long-time users, who were regularly being referred to and sought after for expertise. This led to our research questions:

- How does the interaction among trust, being sought after, and social status contribute to the continued engagement of Second Life (SL) by long-time users?
- How can the design of social navigation systems support virtual world community practices while improving on the challenges that existing practices raise?

These are important research problems. First, 3D social virtual worlds (VWs) have potential as alternative modes of socialization. Yet, the widespread use of social 3D VWs has been slow. Thus, understanding the continued engagement in SL by long-time users can contribute to helping more people from diverse populations find community via virtual worlds. Second, social navigation systems are increasingly important as more people use online tools to socialize, seek trusted domain experts, or meet their activity needs. By understanding the challenges brought forth by the interaction among trust, being sought after, status, and continued engagement in SL, we provide conceptual recommendations for how social navigation systems can better support the continued use and engagement in 3D social VWs like SL.

**Box 1: What is Second Life? A high-level description**
Second Life® (SL) is an immersive 3D social virtual world (social VW), a term used to distinguish SL from VWs that are primarily used for competitive game-play. SL offers social network utilities like a public profile (picture, SL description, optional Real Life description, reference to other SL avatars and websites, group affiliations), public and private text/audio chat.

SL is also a user-built environment (using Linden Scripting Language or LSL). Both objects and avatars in SL are highly customizable with changeable appearance and clothing.

Search and social navigation in SL is currently not well supported. Besides word-of-mouth, users browse avatar profiles which may not help assess trustworthiness (see fig. 1). Integration to external social networks is in its infancy.

Figure 1
Example of avatar profile with expertise information, which in itself is unverifiable
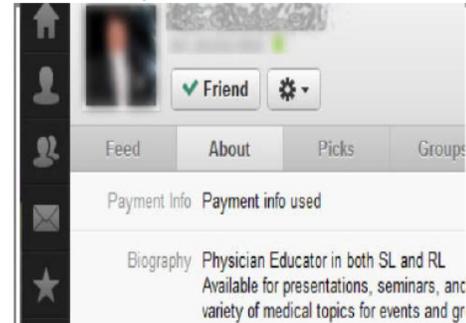
Related Literature

The information research community has been interested in the use of social networks for information seeking (Morris, Teevan & Panovich, 2010) or community membership (Ostrander, 2008), and in ways to improve such experiences through social navigation systems (Terveen & McDonald, 2005). Crucial to the process of assessing information from social networks is trust, or the commitment to an action which depends on the behavior of the trusted party (Golbeck, 2009); e.g., choosing to use the information provided by the trusted party to inform other actions. Trust has been studied in the context of profiles in online social networks (Golbeck). Yet, few have investigated how social navigation systems may help diffuse trust in 3D social virtual worlds like SL, where users can keep their first-life identities private, and in ways that address the sustainability of the virtual community. The research community has also been interested in what contributes to the continuous use of various technologies (Joinson, 2008; Lampe, Wash, Velasquez & Ozkaya, 2010), yet little exists on the continued engagement in VW's like SL. Our study fills these gaps.

Method

We transcribed 10 in-depth semi-structured interviews (120 mins. each) with long-time SL users. We took observation field notes of day-to-day activities over critically-sampled 5 hours, per participant, across 2 weeks. We used the "sensitizing" approach to guide inquiry and analysis, to allow the "immediate world of social experience… to shape and modify" our understandings of the research (Patton, 2002, p.278). This enabled us to view participants holistically, embedded in socio-structural contexts that contributed to continued engagement. Three researchers cross-validated their data analyses using a constant-comparative method, iteratively extracting and validating emerging patterns in the data.

Participants were highly involved long-time users. Most of them contributed valuable content to their communities: producing live shows, creating educational materials, acting as information resources, and providing community support.

Findings

Predispositions Contributing to Continued Engagement

Diverse personal and social predispositions emerged as the factors contributing to the continued engagement in SL by long-time users (see Table 1). Predispositions refer to the conditions which define each user before being exposed to stimuli that can potentially change these conditions. In Table 1, after "post-initial use", the ways in which long-time users gained status leading to their increased engagement

and continued use stood out. For example, a member of a technology community is more likely to hear about SL and be an early user (Initial Use, Social Predisposition in Table 1). After exploring SL for its novelty, long-time users were sought after for advice on their area of expertise either because of the description in their SL profile or the trust established via interpersonal interactions (Post-initial Use, Personal Predisposition). The trustworthiness of these experts is spread throughout the virtual community through word-of-mouth, i.e., recommendations from those who consulted such expertise. As a result, these experts are more likely to be sought after for advice (Post-Initial Use, Social Predisposition). Consequently, they produce more content to help others and in the process develop an increased sense of community, both of which lead them to further increase their level of engagement in SL (Continued Engagement, Personal and Social Predisposition).

Table 1
Personal and social predispositions which interact with each other and contribute to continued engagement in Second Life. Personal predispositions are integral to a person's characteristics. Social predispositions exist via social relations.

Use-stages	Predispositions	
	Personal	**Social**
Initial Use	• background: former gamer • curiosity, fun, novelty • physical constraint: homebound • searching new VWs	• member of tech community • recommended by ties • socially disenfranchised: seeking to socialize
Post-initial Use	• expertise in profile • vested interest (exploring social identity, pleasure of super physical power) • personally valued mission in SL (raising awareness on abuse) • honest practices	• word-of-mouth spread of expertise → trustworthiness • asked for expertise • being recommended and sought after repeatedly → high status • publicity attracting attention

Continued Engagement	• personal gains (social identity, extend FL profession, e.g, therapist)
	• ability to contribute
	• learning
	• contribute to social welfare (e.g., amnesty,
		• community or sense of community:
		  ○ tightly knit community
		  ○ easy access to community resources

A First Life Identity is Not Necessary

Importantly, for long-time SL users with some domain-expertise, being highly sought after did not necessarily depend on linking their first-life identities or expertise to their SL profile information. For example, Eni kept his first life and SL identities separate, and yet was a trusted activist from whom others sought advice: "They wanted to know if I could help them out organizing this [virtual protest]." There were others who thought a connection to first life was not needed to assess trust: "I don't know what their name is, what their real life name is. That's okay." (Eva). For those who did not connect their SL avatars to their first life identities, being sought after depended on the trustworthiness they established through interpersonal interactions and on social recommendations. For example, Win states: "I think we trust people based on our entire experience with them… with M, we're at a point where anything she said to me I would take at face value… and that's based on several years of working together… a lot of alignment… I think that's what creates trust." The interaction between trustworthiness, being recommended/ highly sought after, and status, in increasing degree over time, was crucial to enabling continued engagement (see fig. 2).

Figure 2
Factors contributing to continued engagement interact in increasing degree over time.
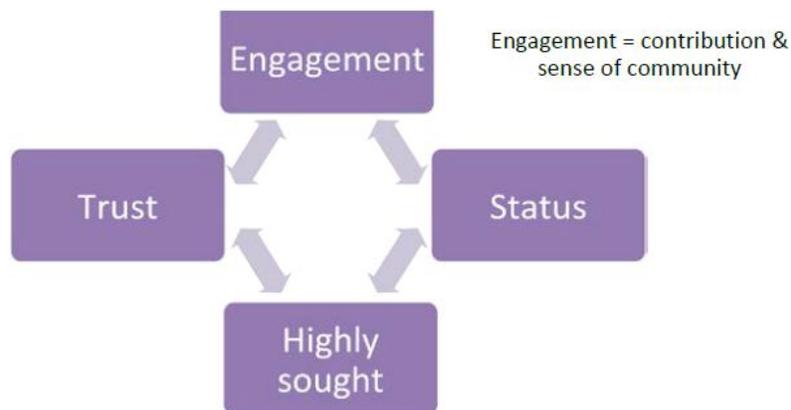
## Community Challenges Faced by Relying on Word-of-Mouth

Word-of-mouth, as the typical mode of finding expertise, can create various problems for a virtual world community. First, although vetting each other as trusted information sources in their communities via word-of-mouth contributed to tightly-knit communities and enabled easy access to community resources, such repeated referrals amongst long-time users may threaten the community's longevity. In the long run, repeat-referrals to the same few puts undue burden on a few long-time users, and disengages them from others they cannot attend to in a timely manner. Second, with repeated referrals to the same few, other less well-known community members with expertise may feel marginalized or undervalued and thus are more likely to leave the community.

Recommendations

Since being highly sought after plays a key role in continued engagement, it is critical for social VWs to support social navigation adequately while not jeopardizing the longevity of the community. Thus, a social navigation system in SL should allow leaders to mitigate or share the burden of leadership and allow community members to broadcast their own expertise. In addition, since interpersonal interactions were critical to diffusing trustworthiness via word-of-mouth, and in increasing our long-time users' level of engagement, a social navigation system in SL would need to provide a way to diffuse trustworthiness in a personal way—with a 'personal touch'. For example, long-time users could bestow status on others by providing a publically viewable endorsement in the system (vetting other community members they trust). Such an endorsement showcases the expertise of other community members, shares the burden of being constantly called upon for expertise, and then the system matches the vetted community members with expertise seekers (see fig. 3). Importantly, a 'personal touch' can be added to these endorsements by enabling expertise seekers to verify such endorsement, in situ, through interactions with others they trust.

Figure 3
Concept diagram of including 'personal touch' in social navigation support in Second Life.
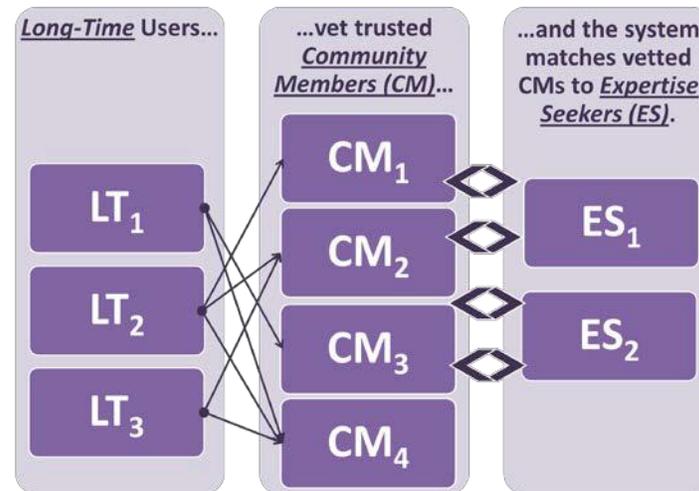
Conclusions

With this study, we contributed in the following ways. We identified unique sets of personal and social predispositions at different use-stages which contributed to long-time users' continued engagement in SL. We described how the interaction among trust, being sought after, and social status, in increasing degree over time, contributed to the continued engagement. We discussed the community longevity challenges faced when long-time users vet each other as the primary trusted information sources, and provided recommendations to support continued engagement by a broader base of users in the community (rather than the same set of long-time users). Our recommendation capitalizes on the importance of interpersonal trust in this community by offering long-time users the opportunity to vet other community members. This differs from other expert recommending systems (for a thorough review, see Terveen & McDonald, 2005). Because 'personal touch' is irreplaceable by an automated system, the recommenda- tions aren't fully system generated but go through a filtering stage by well-trusted community members. Prolonged engagement in data collection showed strong evidence that social validation from trusted community members was particularly important in SL, where identity is fluid and often anonymous. Our conceptual recommendation integrates aspects of that 'personal touch' with social matching for SL.

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