Social Presence in Virtual World Collaboration: An Uncertainty Reduction Perspective Using a Mixed Methods Approach

Shirish C. Srivastava and Shalini Chandra

Abstract

The life-like collaborative potential offered by virtual worlds (VWs) has sparked significant interest for companies to experiment with VWs in order to organize convenient, cost-effective virtual global workplaces. Despite the initial hype, recent years have witnessed a rather stagnant use of VWs for collaboration in organizations. Previous research recognizes that the inherent uncertainties within the VW environment are factors limiting their utilization by businesses. Hence, grounding this research in uncertainty reduction theory (URT), we aim to understand the modalities and mechanisms for mitigating the uncertainties and fostering user trust within VWs so that they can be effectively utilized as a workplace collaboration tool. With this end in view, we propose contextualizing and extending McKnight et al.'s (2002) institutional trust framework to the context of VWs by examining the significant role that social presence has in influencing the efficacy of the institution-based trust-building factors of situational normality and structural assurance in VWs. Using a sequential mixed methods approach (Venkatesh et al. 2013; Venkatesh et al. 2016), this research integrates results from a quantitative study with findings from a qualitative study to arrive at rich and robust inferences and meta-inferences, with the qualitative method first *corroborating* the inferences obtained from the quantitative research and then *complementing* them by identifying boundary conditions that may limit the use of VWs in organizations for workplace collaboration. The results together suggest not only the direct, but also the interactional (complementary and substitutive) influences of social presence on the relationships of the two institutional-trust-building factors to user trust in VWs.

Keywords: Virtual worlds, uncertainty reduction theory, institutional trust, sequential mixed methods

McKnight, D. H., Choudhury, V., and Kacmar, C. 2002. "Developing and Validating Trust Measures for E-Commerce: An Integrative Typology," *Information Systems Research* (13:3), pp. 334-359.

Venkatesh, V., Brown, S. A., and Bala, H. 2013. "Bridging the Qualitative–Quantitative Divide: Guidelines for Conducting Mixed Methods Research in Information Systems," *MIS Quarterly* (37:1), pp. 21-54.

Venkatesh, V., Brown, S. A., and Sullivan, Y. W. 2016. "Guidelines for Conducting Mixed-Methods Research: An Extension and Illustration," *Journal of the Association for Information Systems* (17:7), pp. 435-494.