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Joint Use of Information Technologies : Dyadic Use Mechanisms

Empirical Investigation of Dyadic Use Mechanisms in Online Shopping Context

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Although information technology (IT) use is a major topic in the information systems (IS) field, research investigating IT use operated by two users together and simultaneously, a phenomenon we refer to as *joint IT use*, is lacking in the IS field. Calling for more interest by researchers in the investigation of joint IT use, recent research has empirically demonstrated that this phenomenon is common and important (Tchanou et al., 2020). We address this gap by developing a model of dyadic joint IT use showcasing antecedents of user intention to continue joint IT use. We hypothesize direct and indirect effects of dyadic conflict and its cognitive, affective, and behavioral subdimensions on user intention to continue; we hypothesize that these indirect effects are mediated by effort and time required for users to reach consensus on dyadic decisions. Moreover, our model suggests that dyadic conflict fully mediates the influence of exogeneous constructs including dyad agreement state prior to the joint IT use, user's input device control, and system display sharing (i.e., shared vs separate system interface displays). We conducted an online role-based experiment in an online shopping context, in which participants reported joint IT use mechanisms and outcomes. Our results support our model, suggesting key direct, indirect, and mediating influences of dyadic conflict on user intention to continue joint IT use. Our study contributes by bringing new insights to understanding sources and mechanisms of user behavioral intention in a joint IT use context. This study is an encouraging departure point for future research on joint IT use. We make several recommendations stemming from our findings to IS practitioners, including permitting parallel task performance when display sharing is not compulsory, foreseeing simultaneous or sequential dyad members' input device control when display sharing is compulsory, and designing a joint use mode facilitating pre-task agreement.

Keywords: online experiment, joint IT use, dyadic processes, dyad, display sharing, shared interface, input device control, multiuser human-computer interaction, conflict, online shopping in couple.

References

Tchanou, A. Q.; Leger, P. M.; Senecal, S.; Carmichael, L.; Coursaris, C. K.; Fredette, M.; nd International Conference on Human-Computer Interaction, H., 2nd, Multiuser Human-Computer Interaction Settings: Preliminary Evidence of Online Shopping Platform Use by Couples. In Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 2020; Vol. 12423 LNCS, pp 790-811.