



Post-Acceptance Ubiquitous Information Systems/Pervasive Technologies Usage: An Attachment Theory Perspective

This study proposes that the highly personal nature of tangible ubiquitous information systems/pervasive technologies (UIS/PT), such as smartphones and tablets, significantly differs from the utilitarian nature of traditional devices such as desktop computers in the organizational setting. UIS/PT users often develop multiple dimensions of attachment to their devices not only for their functional properties but also to express their identity and self-concept. UIS/PT usage behaviors therefore diverge from those of traditional information systems (IS), rendering standard IS use theories that focus on rationality and instrumentality inadequate for explaining attachment and identity-expressing behaviors. Recognizing such differences, the study categorizes UIS/PT usage behaviors into three distinct forms: functional routine use (RU), dual-natured infusion use (IU), and non-functional symbolic use (SU). Drawing on relationship-based attachment and identity theories, we develop a research model that conceptualizes mobile functional dependence (MFD) and mobile identity (MI) in assessing users' attachment to their mobile devices and explores how they differentially influence RU, IU, and SU. The model further examines how these attachments are formed by two critical technological antecedents: perceived mobile functional flexibility and perceived mobile symbolism. To test the model, we conducted two longitudinal survey studies, one with 316 mobile service customers in China and one with 183 university students in the United States. With most hypotheses confirmed, study findings elucidate user-device attachment, reveal the differential influence of MFD versus MI across different usage behaviors, and verify their mediating roles of these technological antecedents and usage behaviors in the personal UIS/PT context.

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Dr. Jianhua (Jordan) YU is a Research Assistant Professor in the Department of Management and Marketing at the Hong Kong Polytechnic University. He received his Ph.D. in Information Systems from the City University of Hong Kong. His research interests lie in e-health, particularly AI applications for chronic illness management, sports, mental health areas, and mobile technology design and usage. His research has received support from multiple government research fund agencies, including the Hong Kong Research Grants Council (RGC-GRF) and the National Natural Science Foundation of China (NSFC). His work has appeared in reputable IS journals and conferences, such as IT & People, CIST, EMCIS, and HICSS (Best Conference Paper Nomination). He has served as an associate editor and program committee member for the top IS conference proceedings, such as ICIS and CSWIM, and as a reviewer for journals such as EJIS, and I&M, among others.



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