INTENTIONAL ADOPTION, USAGE AUTOMATICITY, AND ATTITUDINAL DYNAMICS: AN EVOLVING TRIADIC MODEL OF INTERNET BEHAVIORS AND PERCEPTIONS

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Intentional Adoption, Usage Automaticity, and Attitudinal Dynamics: An Evolving Triadic Model of Internet Behaviors and Perceptions

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Abstract

Diverse bodies of theoretical and empirical work have accumulated on the diffusion, use, and impact of the Internet in past decades. However, much academic attention has been invested on users while nonusers' conversion process is under-studied, which is known as *pro-innovation bias* at the diffusion stage. Those studies of Internet use assume that individuals will use the Internet always with rational evaluation of the Internet while automatic/habitual use of the Internet is seldom examined, which is known as *rational bias* at the usage stage. Furthermore, Internet users' attitudes toward the Internet are always considered as antecedents of behaviors while the reverse influence of behavior on attitudes is rarely investigated, which is known as *uni-directional and static bias* at the impact stage.

Based on Bandura's (1986) triadic reciprocality model, a holistic and dynamic conceptual framework is proposed to address these three biases. Three attitudinal constructs -- outcome expectation, effort expectation, and perceived popularity of the Internet -- are included in the framework, which are hypothesized to influence individuals' Internet adoption and use. The influences of attitudes on Internet nonusers' adoption behavior are hypothesized to be mediated by their adoption intention. Two perspectives accounting for automaticity of Internet use are compared: the replacing perspective and the coexisting perspective on automaticity. In consistent with the replacing perspective of automaticity, the influences of attitudes on Internet use are hypothesized to decrease with increased past use, whereas Internet users' attitudes are hypothesized to remain unchanged with increased past use. Internet users' subsequent attitudes are hypothesized to be influenced by their previous using behaviors. Finally, research questions have been proposed concerning the relationship between Internet adoption and usage, use of traditional media, and sociability.

To efficiently test theoretical hypotheses and answer research questions, longitudinal and cross-sectional designs are adopted with a large-scale longitudinal dataset collected in Hong Kong from 2002 to 2005. Diverse statistical methods are employed to deal with different theoretical problems raised in the study.

Internet nonusers' subsequent adoption behaviors are found to be mainly determined by their previous adoption intentions in a panel design. Internet nonusers' adoption intention plays a covariate role, rather than a mediator role, in the attitude-behavior relationships.

The unidimensionality and construct validity of a newly proposed measurement of Internet use, '*Sophistication of Internet Usage*', have been achieved in a confirmatory factor analytical paradigm. Internet users' outcome expectation, effort expectation, and perceived popularity of the Internet exert significant influences on their using behavior. Magnitudes of these influences do not decrease with increased past use, whereas Internet users' attitudes change with increased past use. These demonstrate supports for the coexisting perspective of automaticity over the replacing perspective of automaticity, which can be explained by the instance theory of automaticity (Logan, 1988).

The influence of past Internet use on subsequent attitudes is examined in a panel design, when the influence of prior attitudes on subsequent attitudes and the influence of past use on future use are considered simultaneously. All the hypothesized influences are empirically supported, which are consistent with self-perception theory and belief updating model and provide cross-validating evidences for the coexisting perspective on automaticity.

As for the impact of the Internet on sociability and use of traditional media, Internet users spend significantly less time on traditional media than, and spend the

same amount of time on sociability as, Internet nonusers. Furthermore, Internet adoption moderates the correlation between use of traditional media and sociability.

When the spotlight is turned to Internet users, negative correlations are found to exist between sophistication of Internet usage and use of traditional media, and between sophistication of Internet usage and sociability. However, when the influences of demographic variables are taken into account, these negative correlations disappear.

The contributions of the study lie in that: (1) Internet nonusers' conversion process is exclusively examined with a more valid research design and more powerful statistical methods; (2) a multi-indicator measurement model of Internet use has been proposed and empirically tested; (3) the study argues for the necessity to examine strength-level and mean-level differences simultaneously in accounting for individuals' automaticity of Internet use; (4) the study firstly demonstrates the support for the instance theory of automaticity in the context of Internet use; (5) going beyond the initial adoption and usage stage, the study has shown that Internet users will anchor their attitudes on previous attitudes and adjust their attitudes on previous actions; (6) the generalizability of the findings are more acceptable because they are all based on the data collected in surveys strictly following the random rule. The methodological and theoretical limitations of the study and directions for future research are addressed.

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