Bridging the Digital Divide: Use of Public Internet Kiosks in Mauritius

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ABSTRACT

Subsidized ICT access is often provided in less-developed regions of the world to bridge the digital divide. While such efforts can be helpful, their effectiveness depends on targeted users' willingness to utilize the ICT provided. To better understand the phenomenon from users' perspective, this study examines the factors influencing individual's intention and behavior of using public internet kiosks in Mauritius. Having witnessed rapid growth in ICT recently, Mauritius is an appropriate context for this study. Findings indicate that self efficacy, perceived ease of use, perceived usefulness, subjective norm, and perceived behavioral control are significant in explaining ICT use. Although these factors have been studied in the developed world, their perception and assessment in the developing world differ and deserve more attention. This study adds to the limited empirical research in this part of the world. Implications for research and suggestions for encouraging ICT use in such regions are discussed.

Keywords: Digital Divide, Mauritius, Public Internet Kiosk, Technology Use

INTRODUCTION

Driven by the success of the World Wide Web, information and communications technology (ICT) has been integrated into virtually every aspects of life, redefining the political, economical, social, and work environments. It is widely believed that universal access to ICT will promote economic development, global interaction, and learning that can in turn enhance standards of living and improve social welfare (Dewan & Riggins, 2005). However, a large gap still exists between ICT “haves” and “have-nots” in many parts of the world. “ICT haves” refer to those who can access ICT while “ICT have-nots” are socially disadvantaged individuals who have less opportunity to access and use ICT (Lam & Lee, 2006). The gap between these two groups is commonly termed the “digital divide” and often develops due to historical, geographical, socioeconomic, educational, or behavioral reasons. Digital divide was first acknowledged by the United States (U.S.) Department of Commerce’s National Telecommunications and Information Administration in a study that quantified ICT use by...
various socioeconomic groups (United States Department of Commerce, 1995). It has been an important topic of interest among researchers and practitioners in information system (IS), public administration, and sociology fields (e.g., Lam & Lee, 2006; Sipior et al., 2003), with studies spanning different levels of analysis (i.e., individual, organizational, national), subjects, and methodologies (e.g., case study, survey) (Dewan & Riggins, 2005).

To bridge the digital divide, many researchers and practitioners have recommended the use of internet kiosks known variously as telecenters, information kiosks, internet access points, community technology centers, and cybercafés (Schware, 2007) to provide subsidized or free ICT access to underserved populations. Internet kiosks allow public to access information and services on the internet and they have been set up in various countries. For example, in Nigeria, the Owerri Digital Village was launched in 2001 to provide youths with technology tools and resources for learning (Ugwuegbu, 2003). In India, the Prime Minister’s Office initiated the Warana Wired Village Project to increase efficiency of cooperative societies by providing agricultural, medical, and educational information to 70 villages (Das & Narayanan, 2005). In the developed world as well, the government of Denmark sponsored several public policy projects to increase internet use among the elderly population (Jaeger, 2004). In North America, Canadian libraries provide public internet access that served as the main access point for about 8% of Canadians (Umbach, 2004). Despite substantial investments in internet kiosks around the world, users’ perceptions about them remain unknown and empirical studies that provide more generalizable understanding are few. It is important to study internet kiosks in its own right because unlike personal computers, they are installed at public locations and shared among rather than owned by individual users. Issues such as convenience of location and cost of access are likely to be more prevalent and findings related to personal computers may not always be directly relevant.

This study investigates the individual and situational determinants of individuals’ use of public internet kiosks. Although providing ICT access through internet kiosks is an important and necessary first step to narrow the digital divide, it is not sufficient to alleviate the problem as the benefits of ICT can only be reaped when it is accepted and utilized by targeted users. In addition, initiatives to provide ICT access can only be economically viable and sustainable in the long term if demand is able to generate sufficient revenue to cover the costs of providing the service. Existing individual-level studies in the digital divide context have tended to focus on examining the demographic characteristics of users such as gender, income, and level of education on technology use (e.g., Rice & Katz, 2003). Other studies have investigated the topic less directly by analyzing patterns of use (e.g., Akhter, 2003) and identifying benefits of using ICT (e.g., Locke, 2005). This study expands this body of knowledge by examining the determinants of individuals’ ICT use based on technology acceptance theories and social cognitive theory.

While ICT use has been widely studied in the developed world (e.g., King & He, 2006), the phenomenon is relatively unexplored in developing countries (Dwivedi et al., 2008; Mbarika et al., 2005). Developing countries like Mauritius are likely to face different constraints in ICT use compared to developed countries. For example, poverty, lack of infrastructure, and low information technology (IT) literacy have been found to be significant limitations that hinder the adoption and use of ICT in developing countries (Goodman & Green, 1992). These conditions are less prominent in developed countries and research findings and interventions designed in the developed world may therefore be less directly applicable to developing countries. To better understand ICT use in the developing world, this study examines individuals’ use of public internet kiosks in Mauritius. The kiosks were set up by the Mauritian government with the aim of bridging the digital divide in the country. Determinants related to individuals’ attitudinal and normative
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