

# Mobile Device Use at Festivals: The Role of Habit

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## Abstract

The purpose of the research described in this note was to understand how mobile device daily use affects intention to use a device and device use while at a festival attraction. The research was based on the Unified Theory of the Acceptance and Use of Technology 2, which includes habit as a factor affecting intention and use. Survey data from 403 attendees to a Winter festival in Canada were collected on-site. The results reveal that mobile device use habits formed in daily life do influence intention to use and use at the festival. The results are discussed in relation to habit theory and spill over of technology from daily life to unique leisure / tourism contexts.

**Keywords:** Festivals; Mobile device use; Habit; Unified Theory of the Acceptance and Use of Technology 2; Spill over

## Introduction

Mobile devices (MDs) have become a part of many people's everyday lives. Not only do our MDs keep us connected but they allow us to manage our daily lives and capture moments through pictures and videos. Much of the past technology adoption and use research focused on work and compulsory settings while less attention was given to how MDs are integrated into our free time. Research on MD use in tourism and leisure settings has increased and while much of this work has examined information and communication technology (ICT) during the trip planning phase of tourism experiences, tourism and leisure researchers have begun to examine how this technology influences on-site experiences (Gretzel & Jamal, 2009; MacKay & Vogt, 2012; Pearce & Gretzel, 2012; Wang, Xiang, & Fesenmaier, 2012). To understand the role of MDs in leisure and tourism, research is needed to understand the factors that influence MD use in these contexts to facilitate the creation of valued experiences.

The purpose of this paper is to explore how habit affects MD use in a unique leisure context, the festival.

## **Theory/Issues**

To examine factors influencing technology use in a range of settings Venkatesh, Thong and Xu (2012) proposed the Unified Theory of the Acceptance and Use of Technology 2 (UTAUT2). This model evolved from Diffusion of Innovation Theory, Technology Acceptance Model and the original UTAUT (Davis, Bagozzi, and Warshaw, 1989; Rogers, 1995; Venkatesh, Morris, Davis, & Davis, 2003). The UTAUT2 includes seven constructs that are believed to affect intention to use and use of technology in various life contexts. Hong et al. (2014) note the importance of examining use models in varied contexts when theorizing about information systems. The UTAUT2 has been studied in daily life and pre-trip planning but it has not been explored during leisure and tourism experiences (Martin & Herrero, 2012)

Habit is one variable among many that is believed to influence technology use. When integrating habit into the UTAUT2, Venkatesh (2013) considered the work by Limayem, Hirt, and Cheung (2007) who proposed that habit is “a special kind of mind-set that enhances the perceptual readiness for habit-related cues” (p.709).

Within the leisure tourism context, the spill over of mobile device use from daily life into tourism experiences has been examined (MacKay & Vogt, 2012; Wang et al., 2012). While spill over examines the role of skills, habits and routines, MD use habits themselves have not been examined in depth in visitor settings. While habit has been shown to affect technology use, how this occurs has been debated (Kim, Malhotra, and Narasimhan, 2005; Venkatesh, 2012). Two main perspectives to understand how habit influences use are the habit/automaticity perspective (HAP) and the instant activation perspective (IAP) (Kim et al., 2005). Habit/automaticity perspective (HAP) suggests that stronger habit weakens intentions, which in turn leads to performing the behaviour. Alternatively, IAP proposes that intentions are activated by habit and that the process occurs rapidly. In designing the UTAUT 2, Venkatesh et al. (2012) included habit as a factor affecting both intention to use and use to ensure that the complexity of the role of habit was captured. The habit construct was measured using perception questions rather than simply measuring habit based on frequency of past use (addressing Limayem et al.’s (2007) criticism).

This paper examines how the habit of using our MDs in our daily lives relates to MD use in the festival context. Festivals are found in almost all human cultures (Falassi, 1987) and are seen as a unique time and space outside of our everyday routines where people from a range of backgrounds are united in celebration. The addition of mobile device experiences at festivals is expected to continue to grow (Yeoman, 2012) but we know little about the effects of technology adoption and use on the festival experience. The UTAUT2 has been examined in various settings but there is a lack of research published that has examined this model in specific leisure contexts. This research addresses the question of whether MD use habit affects intention to use and actual use during a festival experience.

## Methods/Procedures

This research is part of a 3-stage 3-year project that examines MD use in a festival context. The data presented here are based on stage 2 and were collected on-site at Festival Du Voyageur, a cultural festival that takes place over 12 days during the winter season in Winnipeg, Manitoba, Canada. This site was selected for convenience, as it is a large festival that has a range of opportunities for MD use. Systematic sampling of festival attendees was undertaken by stationing research assistants at the festival gate and other high traffic areas during the festival and asking every Nth (depending on density of visitors) attendee who passed within a 5' radius to respond to a survey. Participants for the in-person, on-site surveys were festival attendees who were over the age of 16. Research assistants collected data morning, afternoon and evening of sample days of the festival (a sample of week days and weekend dates were selected).

On-site questionnaires were completed by participants using 'Fluid Survey' software on Apple iPad devices. The questionnaire contained questions about MD use during daily life and at the festival and included scale items developed in previous research to examine the UTAUT 2 (Kim, Kim, & Wachter, 2013; Venkatesh et al., 2012). Demographic information was collection to describe respondents.

## Results

In total, 403 people responded to the survey (78% response rate). Most participants were female (60.2%) and the average age of participants was 35 years. Almost all (94%) festival attendees owned or had access to a MD.

To examine habit and MD use, attendees were asked whether they agreed / disagreed (7 point scale) with the following statements: "The use of my MD has become a habit for me"; "I am addicted to using my MD"; and "I must use my MD". A grand mean for habit was created with these items. On average, attendees somewhat agreed that using their MD was a habit ( $M=4.75$ ) in their daily lives. Attendees were asked about their intention to use their MD at the festival as follows: "I intend to continue using a MD in the future at the festival", "I will always try to use a MD at the festival", and "I plan to continue to use a MD frequently at the festival". These items were measured using a Likert-type scale. A grand mean for intention was created with these items and on average attendees were neutral (neither agreeing nor disagreeing) about whether they intended to use their device at the festival ( $M=3.83$ ).

In total 7 questions measured use of a device during the festival and included how frequently they used their device to text, talk, view, post, video, photo, or other and could respond from never to very often (0-5). A grand mean for use was created with these items. The mean response was 3.18, which was within the 'sometimes' range.

Daily life habit was weakly related to an individual's intention to use their MD at the festival. The multiple regression equation accounted for 1.4% (Adjusted  $R^2 = 0.014$ ) of the impact on intention to use. The model was significant as  $F(1, 297) = 5.084$  ( $p = 0.025$ ), and daily habit contributed to 13% of the impact of the model for intention to use a MD at the festival. This indicates that for each unit of increase in daily life habit score the intention score will increase by .098.

Daily life habit was weakly related to an individual's MD use at the festival. The multiple regression equation accounted for 12.1% (Adjusted  $R^2 = 0.121$ ) of the impact on the dependent variable, MD use at the festival. The model was significant as  $F(1, 329) = 46.565$  ( $p = 0.000$ ), and daily habit contributed to 35.2% of the impact of the model for MD use at the festival. This indicates that for each unit of increase in daily life habit score the MD use score at the festival will increase by .203.

Multiple regression analyses were conducted to examine each variable within a mediation model. These analyses found that daily use habit scores were positively associated with MD use scores at the festival ( $\beta = 0.1022$ ,  $t(298) = 3.8005$ ,  $p = 0.0002$ ) and that daily use habit scores were positively associated with intention scores ( $\beta = 0.0972$ ,  $t(298) = 2.227$ ,  $p = 0.0267$ ). These results also demonstrate that the mediator, intention, was positively associated with device use at the festival ( $\beta = 0.1919$ ,  $t(298) = 5.6306$ ,  $p = 0.0000$ ). As both the a- and b-pathways were significant, a mediation analysis was conducted using the bootstrapping method to account for sample bias. Using 5000 bootstrapped samples a 95% confidence interval for the indirect effects was calculated. This confidence interval confirmed the role of intention as a mediating variable, between daily use habit and MD use at the festival ( $\beta = 0.0187$ ; CI = 0.0002 to 0.0095). The results of the direct effect of daily use habit on MD use at the festival was also significant ( $\beta = 0.0835$ ,  $t(298) = 3.23$ ,  $p = 0.0013$ ) and this suggests that the mediator was partial rather than full mediation.

## Discussion

This research demonstrates that MD spill over from daily life into unique leisure contexts is affected by habits formed. The model examined was based on the UTAUT2 (Venkatesh et al., 2012) and considered how habit affects intention and use. These results contribute to understanding the mechanism by which habit influences use. Support is provided for the IAP perspective of automatic processing (Kim et al., 2005) where intentions are triggered even when automatic processing is taking place.

Venkatesh et al. (2012) argue that regardless of how habit impacts intention, cues from the environment are needed to stimulate a habitual behavior. Festivals have been described as a unique space and time outside of our daily routines (Falessi, 1987). Daily life habit impacted use in this unique context suggesting that either the cues that trigger MD use are consistent throughout the contexts of our lives or that the contextual cues were not necessary to trigger use. Further research is needed to understand the role contextual cues play in triggering habits.

This research examined a model of the relation between habit, intention and use and set out to examine the UTAUT2 in a festival context. The model presented by Venkatesh et al. (2012) did include habit as a factor affecting intention and use, but did not consider habit as a moderator between intention and use. The next step in this research is to examine a range of possible models to describe the role habit plays in MD use. In particular, examining habit as a moderator between intention and use will provide stronger evidence in support of either the IAP or HAP perspectives. Festivals often hold special meaning for individuals and communities. Further research needs to examine how the habit of using one's MD impacts the festival experience broadly. It may be that people are comfortable with spill over of MDs into the festival setting

but it is also possible that this habit is interfering with the experiences sought by attending these events.

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