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Mobile device use and non-use in a festival context: the roles of age and gender

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Introduction

The overarching purpose of the research is to gain an in-depth understanding of mobile technology adoption / non-adoption in a festival context. This project begins to address how and why festival attendees use / do not use mobile devices at festivals by examining mobile device use at Festival du Voyageur, in Winnipeg, Manitoba. The Unified Theory of Acceptance and Use of Technology (UTAUT) attempts to explain contributing variables of technology acceptance and use and this field of research suggests several moderating variables that require further research (Straub, 2009; Venkatesh & Davis, 2000). These moderating variables consist of socio-demographic variables such as gender and age, as well as experiential elements such as satisfaction of the experience and voluntariness of use (Straub, 2009; Venkatesh & Davis, 2000). Previous research conducted by Wang and Wang (2010) found no gender differences in Internet adoption, when employing the UTAUT to understand Internet adoption and use. In contrast, other studies observed that gender was a significant variable for predicting the multiple regression model for mobile device use and acceptance (Straub, 2009; Venkatesh & Davis, 2000; Venkatesh, Morris, Davis & Davis, 2003). This conflicting research suggests that technology use and acceptance may vary by gender depending upon the context or type of technology. While older age is typically associated with less technological use, a recent study by Yeoman (2013) purports that the "Baby Boomers will continue to act out fantasies at events and festivals as the trend of an ageless society takes on new meaning and new values develop. Thus, the stereotypical image of old age is no more" (p. 258). Yeoman (2013) continues to extend this thinking to technology adoption and suggests that traditional perceptions on technology use and adoption will need to change within the coming decade.

The mixed results regarding the impact of age and gender on how technology acceptance and use warrant further exploration. Specifically, contextualizing a study in a festival setting this paper will examine socio-demographic variables that have been identified in the literature as possible moderators for technology use or non-use (Straub, 2009; Venkatesh & Davis, 2000). Proposed hypotheses are: HA1: There is a difference between male and female attendees who use and do not use their devices at a festival (men and women do not have an equal probability of using their device); HA2: There is a difference in age between attendees who use and do not use their devices at a festival.

Method

Data collection for Festival du Voyageur in Winnipeg, Manitoba took place on-site during each day that the festival was open to the public (February 13-16 and February 19-22 of 2015) during all hours of the festival. Research assistants systematically sampled visitors on-site by positioning themselves in all of the tents at the site and asking every third attendee who passed within a five-foot radius of the research assistants to participate. In total, 519 attendees were asked to participate in the survey and 403 agreed to participate (response rate of 78%). Research assistants used Apple iPad devices and the FluidSurveys software to administer the survey to attendees. Attendees were asked general descriptive information about themselves and their device use.

Findings

Most of the participants were between ages 18-49 (M=35 yrs) and were female (60.2%). The majority of participants (94%) owned or had access to a mobile device including a

smartphone (78.2%) and / or other device (iPad, a different brand of tablet, cellphone, laptop). Usage was measured with a scale where 1=Never and 5=Very often;, mobile devices were used most often to take photos (M = 3.06 or "sometimes") or text (M = 2.83 or "sometimes") while at the festival. Mobile devices were used "rarely-never" for talking (M = 1.68) and posting content online (M = 1.89), and "rarely-sometimes" for viewing content online (M=2.38) and taking videos (M = 2.01). These same results were found for intention to use a device at the festival for each of the uses listed above.

Only 6% (N=24) of attendees at the festival did not have a device and another 6.5% (N=26) of attendees did not have their device with them at the festival. Of the festival attendees who had their devices with them at the festival 86.9% (N=306) stated that they had already used or intended to use their device at the festival and 13.1% (46) stated that they had not and did not intend to use their device at the festival.

A Pearson's chi-squared test was conducted to examine the relationship between gender and use. There were 17 males and 19 females who did not use their device at the festival and 110 males and 190 females who did use their device at the festival. The χ^2 test statistic was 0.001 (df =1) and it was not significant at p=0.970 ($\propto = 0.05$). Therefore, the null hypothesis is not rejected, as there were no significant differences in the probability of male or female attendees using their devices at the Festival du Voyageur.

The independent *t*-test for age and use or non-use of mobile devices was conducted and it was found that there was a significant difference, where *t*=-3.019 (df = 336) and p=0.003 ($\propto$ = 0.05). Therefore, the null hypothesis is rejected -- there was a difference in age between attendees who use and do not use their devices. Attendees who use their devices at the Festival du Voyageur were significantly younger than attendees who do not use their devices at the festival. The ways in which different age groups use their devices differently will be examined further in the presentation.

Conclusion

This analysis demonstrates that gender was not related to mobile device use and non-use of festival attendees, but that age is an important variable to consider for understanding and predicting mobile device use of Festival du Voyageur attendees. This research improves our understanding of technology acceptance and use in festival contexts and will provide useful insight leading to more expansive technology use and acceptance behavioural modeling using UTAUT as a framework to guide structural equation modeling analyses.

Further, this research plays a role in enhancing understanding of socio-demographic variables for technology acceptance and use. For example, previous research demonstrates that males can be more likely to use technology (Wang & Wang, 2010; Venkatesh et al., 2003), which was not the case in this study. Previous technology adoption research demonstrates that younger people are more likely to adopt and use mobile technologies (Venkatesh et al., 2003). This research demonstrates that this is also the case in this festival context. However, the differences in use or non-use based on age were not as different as may have been expected based on previous research (Venkatesh et al., 2003). As suggested by Yeoman (2013) these findings may be indicative of the fact that mobile device use is becoming more prolific throughout society. Furthering these analyses based on type of use and age groups would provide additional insights into these potential relationships.

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