The Usage and Applications of Mobile Apps

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INRODUCTION

Mobile application, commonly known as "mobile app" is computer programme software (Janssen, n.d.) especially developed for smart phones (Lockergnome.net, 2012). Traditional software programmes are designed to run on computers or laptops. However, these programmes are exclusively created for mobiles as this device has become central to the lives of individuals (Dubreuil & Joubert, 2012). An Ericsson traffic and market report identified that 40% of the world's smartphone users extensively use mobile apps and the Internet when they start their daily routines (Ericsson, 2012). Particularly in the US, app use is very high, as 62% users download them on their phones (nielsen.com, 2011). It was also found that 64% of mobile time is spent on apps (Nielsen.com, 2012). App use was even higher than web consumption by the end of June 2011 (Khan, 2011). It is forecasted that marketers would spend $11.6 billion on mobile campaigns by the end of 2012 (source). Interestingly, the US market alone spent $4.4 billion on app based campaigns (Schonfeld, 2011), an effective use of money, as one-third of US adults own a smart phone (Vasquez, 2011). Beyond the US, app use is taking hold throughout the world. In Australia more than 50% of population uses smart phones, with 94% using them for shopping (Ross, 2012). Similarly, in the UK 95% of individual uses smart phones and 31% of subscribers use their phones for shopping (Dubreuil & Joubert, 2012). Smart phone app use will also likely facilitate the mobile e-commerce, which is predicted to grow at a rate of 55% (compound annual rate) from 2010 to 2015 (eMarketer, 2012).

This revolution will take place because mobile usage facilitates marketers' abilities to engage and retain existing consumers in cost effective ways that increase return on investment (O'Kane, 2013). For example, consumers can be retained easily via mobile phones and their various features such as QR codes and apps. Acquiring new consumers is five times more expensive than retaining existing customers (Murphy & Murphy, 2002). In addition, 90% less cost is incurred when marketing for a repeat purchase compared to the new or first buy (Dhar & Glazer, 2003). App users can use opt in messages via apps and can enhance engagement with brands. In addition, push campaigns that easily attract app users can be developed for mobile apps and can have a significant impact on the enquiries about products and brands (Littman, 2012). Apps can also help in sharing users' activities on social networks (O'Kane, 2013). All of these factors lead to the conclusion that mobile apps significantly contribute in growing mobile ad spending (Vasquez, 2011), primarily for millennial as they aggressively use smart phones, particularly to shop via mobile phones (eMarketer, 2012). In the subsequent sections of this article, we will discuss about usage of mobile apps primarily in messaging, gaming and shopping. We also state role of apps in marketing, neuroscience and how apps are being used as a research instrument,branded

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mobile apps, in-app advertising, challenges and opportunities of mobile apps and future of the discipline.

The mobile app research is new and emerging area of research. After searching extensively on EBSCO we tentatively identify pioneers in this area. These researchers include Mike Ricciuti (Ricciuti, M., 1994) at Oracle and Kevin Railsback (Railsback, K., 2000) at InfoWorld. We also searched at WARC and selected papers recommended by the editors. Eunice Kim (Kim, E., 2013), Jhih-Syuan Lin (Lin, J., 2013) and Yongjun Sung (Sung, Y., 2013) at the University of Texas at Austin and are among leading scholars in this area as they analyzed more than 100 global branded apps and provided important insights on consumer engagement.

USAGE OF MOBILE APPS

Mobile apps are used across all categories of consumption, including travel, health, politics and entertainment (McCabe, 2013). Mobile apps help in both utilitarian and social moments in users' lives, as they use them to accomplish goals, prepare for tasks, and socialize with people. Apps are also used for "me time" that helps users to kill time, relax, play games, and entertain themselves (Draper & Stucky, 2013). Apps can also be used very effectively along with social media, especially Facebook and Twitter. In the same way, apps facilitate users' abilities to obtain detailed information about various issues such as the cheapest price for products, the latest arrivals in goods, and opinions on eating outlets, which are discussed and over social media (Edwards, 2011). App users extensively use mobile apps for generating information about stores (Kumar & Mukherjee, 2013), brands and products. Overall, apps help to extend conversations and create repositories of information by providing easy access to the aforementioned types of information.

In another aspect, apps can be used to educate consumers who use apps by integrating content and utility with their demographics. For example, Nestle developed an energy calculator for Vietnamese consumers who use their app. The app was designed to educate mothers about the daily needs of their children. Companies used the consumption patterns of children in Vietnam, coupled with information about children's needs, to develop the app. This approach helped app users to identify solutions to their specific demographic issues as a result of the useful information provided by Nestle (Ahanonu et al., 2013). In another example, apps used in deal-based and coupon advertisements have been well-received by app users in Singapore.

Historically, SMS was used but was not customized and localized. Apps help to foster understanding user behaviour, deals, and promotions that help brands to become more personalized and localized (Ahanonu et al., 2013). In some instances, mobile apps also assist tourists to enhance their experiences; in Holland, "Layer App" consists of augmented reality via which a tourist can walk through the city before arrival. In addition to its practical benefits, the app also generates enthusiasm and energy among tourists. The apps can be further linked to the social media and special occasion's events of the city, rendering the app more enjoyable and interesting vis a vis its association with social networks (Politiek, Velde & Vink, 2012). Similarly, Hong Kong also uses augmented reality with the mobile apps for visitors and tourists so they can identify their locations and the mega events of the city (Hong Kong Tourism Board, 2011).

Airlines also use apps to further enhance travel experiences that help their customers to manage their journey independently as they generate boarding passes and track their bags (Samy, 2012). Additionally, picture messaging has been created and integrated with apps through barcodes, and ticket tracking within users' mobile inboxes facilitates mobile ticketing (Opticon, 2009). Furthermore, apps also provide information about the airports that explain the various functions of airports and enhance the travel experience (Amadeus, 2011). Airlines are using this technology (SimpliFlying,