A Survey Study of Smartphones Behavior in Brunei: A Proposal of Modelling Big Data Strategies

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ABSTRACT

The use of smartphones is generating large amounts of data. The term “big data” has become popular in describing a massive data, both structured and unstructured. Big data refers to high volume, high velocity, and high variety. This study used an inductive approach involving the distribution of a questionnaire to gain an understanding of smartphone users’ habits in Brunei. Then, the authors identified several concerns that became the focal point of further analysis in the use of smartphones in daily activities. The findings is correlated to the growing of trends of big data application for users’ benefit. The finding suggests that there is growing demand from smartphone users could create better services and value through big data application. The authors propose a big data approach that will enable service providers to enhance smartphone users’ experiences. Big data application will enable smartphones to become smarter in terms of service and value.

KEYWORDS

Big Data, Brunei, Instant Messenger, Smartphone, Social Networks, Value

1. INTRODUCTION

The advancing of technology like smartphones has made life so much easier. It has been created for a good faith thus increasing the productivity by associating work into life. People have become highly dependent on smartphones. The mounting obsession for Smartphones among the users has brought concerns for psychologists and others. Obsession that has consequences that ranges from minor where teenagers no longer use proper English grammar in messages to major con like car accidents due to texting while driving. When people get too dependent to their smartphones to do most of their jobs, addiction will eventually develop. Along with addiction, there will also be negative outcomes such as the negative emotions that emerge when one cannot use smartphone, the inability to reduce the usage of smartphones by free will and extensive usage for enjoyment (Chen, Zhang & Zhao, 2015).

Over the years, smartphones have been advancing rapidly. Smartphone was first known in the 1992 (Tweedie, 2015). In the past, Smartphones were only affordable by corporate and businessmen. As of today, people at all ages can afford to purchase at least one smart phone. The myriad capabilities of Smartphones like the competency to assess the internet using Wi-Fi. The myriad capabilities of smartphones like the competency to access the internet using Wi-Fi. Thus, these capabilities have caused the society to be independent of cameras, maps, address books and more. Each smart phone is

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designed to fulfill every need of communication, work and most importantly entertainment (Ali Imram, 2011). Smartphones’ capabilities of storing social networking applications have made it convenient for people to stay connected with others regardless of the distance. Social networking sites such as Facebook, Instagram, WhatsApp and more. In general, the invention of the smartphone has brought many changes to our daily lives, work tools, and learning processes for students.

In addition, we are now in the ‘Big Data era’ as a new fuel of an important asset. Big data implies a vast amount of any data type with a high speed data processing in which organizations derive value from it especially to make decision making, and one of the big data source comes from smartphone activities. Big data arose in response to the rapid growth in the volume of data being produced worldwide. This massive amount of data was no longer able to be processed by standard computers (Schönberger & Cukier, 2013). Therefore, more powerful computers and operating systems were developed that were able to process this data efficiently. Big data are collected both online and offline. These data can be obtained from a range of online sources such as social media (Facebook or Twitter posts, etc.), and can be used by organizations to monitor activity by both people and machines, e.g. using smart meters to record how much electricity, water, or even gas is being consumed (Watson, 2014). This data can then be analyzed to reveal usage patterns. In this way, it can help organizations to understand their customers’ habits and use this knowledge to improve their services and make profit. Similarly, users may benefit from the availability of comprehensive information to assist in their own decision-making.

This study examines smartphone users’ habits and surveyed 589 respondents in Brunei to discover their habits and preferences regarding smartphone use, as well as their online activities. Even though this study was conducted in Brunei, it is hoped that the findings will prompt other researchers to investigate different contexts and scenarios. While, a big data approach was used to analyze our results because the changing business landscape that requires sustainability of service-oriented and innovation. In the next section, we present a review of related work. Section 3 outlines the methodology. We present our smartphone’s behavior in Section 4 and propose big data model in Section 5. Our conclusions are presented in Section 6.

2. LITERATURE REVIEW

Smartphones provide a one-stop solution for managing information, communication and internet access. Unlike a desktop PC or a laptop, smartphones can easily be carried around by the user, either as devices for communication or as devices for recording, playing, or to some extent manipulating sounds, images, and videos, as is popular among the younger generation (Thompson, 2012). Smartphone users somehow develop a kind of relationship namely “cyberspace-oriented relationship” meaning feeling more intimate with friend that are made through smartphone rather than real life friends (Kwon et al., 2013). This kind of addiction is so serious, even there are rehabilitation for smartphone addict (Kim, 2013). The factor that contributes to addiction is huge convenient mobile computing function of smartphone such as mobile media player, high speed Wi-Fi mobile system. Smartphone carrying in the hand can access the internet more easily and conveniently than PC (Kim, 2013). Hence, smartphone addict is a serious problem to be concern.

Some researches reveals that users spend most of their time with their smartphone, unexpectedly their health will be affected too. Pain on the wrist or at the back of the neck, sleeping disturbance and even blurred vision are few of them due to long term of usage (Kwon et al., 2013). The worst case is that, pedestrians even watch videos or texting on their smartphone when crossing the street and this of course put their life at risk of car accident. Texting while driving is not anymore uncommon. It
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