

Determinants of Personal Health Information Disclosure: A Case of Mobile Application

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ABSTRACT

This study explored the factors that affect personal health information (PHI) disclosure via a mobile application (app) in Thailand. Since mobile apps are increasingly popular, as is the Thai people's concern on their health condition, many mobile app service providers want to know which factors would persuade customers to reveal their PHI via mobile apps. This research model was, therefore, developed and included the six factors of: personalized service, self-presentation, mobile app reputation, familiarity, perceived benefits and privacy concerns. The hypotheses were tested by structural equation modeling using the questionnaire responses from 294 valid subjects. Surprisingly, privacy concern was not significantly negatively related to the intention to disclose PHI. However, the significance effect of the perceived benefit, personalized service and self-presentation were consistent with previous studies. In addition, the respondents were willing to reveal different personal information in different situations. The implication of the result will shed light on the development of a healthcare mobile app service provider.

KEYWORDS

Disclosure of Personal Health Information, Mobile Application, Perceived Benefits, Personalized Service, Privacy Concerns, Self-Presentation

1. INTRODUCTION

The proportion of Thai people who are currently using smartphones, tablets and computers is 64%, 11% and 27%, respectively, which shows the overall growth in the number of mobile devices in Thailand (Google, 2016). Moreover, the use of mobile applications (apps) via mobile devices is rapidly increasing because of the advancement in mobile apps. Mobile apps are software that are installed and run on mobile devices. There are many categories of mobile apps, and these have been developed to serve different purposes.

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People have an increased concern over their health and, therefore, have increased their demand in managing their health. This has influenced the rapid development of mobile apps on smartphones and tablets response to their needs. Current healthcare mobile apps are mainly comprised of medical equipment and workout apps. Each healthcare mobile app requires users to input their health data into it, which means it is necessary for users to disclose their personal health data to the mobile app. The required health data varies depending on the purpose of the mobile app. The health data that users are willing to disclose to the mobile app are widely varied, which may be because the public are not equally aware of the degree of privacy protection of disclosed health information.

Disclosure of personal health information (PHI) via a mobile app is a significant issue as people have their own different level of risk concern about disclosing their PHI. There is the risk of PHI being stolen, or accessed without authorization, which could pose a threat to users. For instance, the data of hospitals in the U.S.A. was hacked (CNN, 2014), where the social security number, address, birth date and telephone number of more than 4.5 million patients was accessed from the hospital information system that was linked to other hospitals in 28 states. If the PHI was then acquired by a malefactor, it would negatively impact upon the victim's and hospital information system's security and trustworthiness. Consumers are accordingly concerned with privacy when they intend to disclose their PHI to a health website (Bansal et al., 2010). To use a website or mobile app, the consumer must have an account that includes their PHI. Once consumers perceive the reputation of the website and acquaint themselves with the website, their privacy concern about the website is largely alleviated (Li, 2014). However, the benefits from revealing personal information via mobile apps are attractive to consumers because they can get personalized products and services as well as promotions (Wang et al., 2016).

This study developed a research model of intention to disclose PHI, largely based on previous studies. This paper is one of the first studies to examine the factors that influence the users' intention to disclose PHI via mobile apps in Thailand. The result will help identify the factors enabling PHI disclosure by Thai people and be a guideline for the government to set the relevant policies and law for healthcare mobile app development and healthcare information sharing via mobile apps that more exactly serve the citizens' requirements. In addition, this paper will show the difference in personal information disclosure in different situations; for example, when people are healthy and when they have medical problems.

2. LITERATURE REVIEW

2.1. Affecting Factors to Disclose Personal Information

Li (2014) indicated that the reputation of the website can have a negative effect on the individual's privacy concern about the website. However, digital businesses that beneficially take advantage of customer's information or infringe upon their privacy will bring about privacy concerns to the customers. Recent studies have reported that reputable and large computer-related companies, like Apple Inc. and Facebook Inc., have an issue of customer information mismanagement on the websites (Li, 2014). They have suddenly responded to their customers in order to minimize their reputation loss. Conversely, disreputable online companies are rarely the targets for reporting for such issues, but this does not mean that they have been managed as well or better than other reputable companies in protecting their customer's privacy. Reputation is built from many aspects, including personal privacy. Customer perceptions about the company's reputation and the company's willingness to customize its products and services are significantly related to customer's initial trust in the company (Koufaris and Hampton-Sosa, 2004). Customers tend to believe that disreputable websites may not be able to protect their privacy, whereas reputable websites are keen to protect their customers' privacy. It is, hence, supposed that the reputable mobile apps can ably handle the users' personal information securely and responsibly.

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