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## Proactive privacy practices in transition: Toward ubiquitous services



### Shu-Ching Wang<sup>a</sup>, Jen-Her Wu<sup>b,\*</sup>

<sup>a</sup> Department of Information Management, National Kaohsiung Marine University, 142, Haijhuan Road, Nanzih District, Kaohsiung 81157, Taiwan, ROC <sup>b</sup> Department of Information Management, National Sun Yat-Sen University, 70, Lien-Hai Road, Kaohsiung 80424, Taiwan, ROC

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#### ABSTRACT

As the Internet paved the way for electronic businesses, ubiquitous services (u-services) will be the next wave launched by electronic services based on current customer information potential. However, privacy is a strategic issue and has been identified as a key hindrance to u-services. As a proactive approach and drawing upon integrative social contracts theory, this study presents a proactive privacy practices framework to examine how the interplays within electronic service, providers' proactive approaches influence customer disclosure willingness for future u-services, adoption. The results and implications of this study are discussed and expected to shed light on privacy practices.

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#### 1. Introduction

Ubiquitous services (u-services)—or ubiquitous commerce (ucommerce)—are a logical extension of today's electronic services (e-services). They are likely to be the next wave in a new e-era (i.e., after e-services/e-commerce and mobile services/commerce) [26,37]. U-services can be introduced cost effectively by using existing customer pools for e-services and propagated by using new m-services. U-services have created new opportunities for businesses and have provided ways for businesses to interact with their customers, to collect relevant information and to achieve closer customer relationships by removing spatial and temporal restrictions. U-services can also be widely applied in diverse domains, such as health care, retail, transportation and banking.

More customized and personalized services can be provided in such context-aware networks. However, customers may be uncomfortable with the use of u-services because of privacy concerns related to u-services. The threat of the accidental or deliberate dissemination and use/reuse of personal information for unauthorized purposes is a critical impediment to u-service development and adoption [36]. Privacy concerns discourage people from submitting personal information and shopping online and are thus an obstacle preventing people from enjoying the convenience, diversity, and flexibility of e-services [42].

While some people value their privacy, others are willing to trade their personal information for benefits such as discounts or rewards. Effective solutions for privacy concerns are important for enterprises, governments and the public. Privacy is a strategic issue that deserves great attention from both scholars and practitioners because customer information is used in a variety of business processes and can be used in response to competitive pressures. Furthermore, gaining new customers is more expensive than retaining valuable ones [30]. Thus, information management has become an increasingly important issue due to the organizational and customer behavioral patterns involved [27,48,50,51].

Although most e-service providers (ESPs) provide their privacy practices online in response to consumer concerns, they can also take action to proactively interact with customers. This proactive interaction aims to alleviate consumer's privacy concerns and to prevent privacy invasion. While numerous prior studies [1,8,19,24,25,29,48] have focused on trust, risk and privacy concerns and their impact on related online activities, such as transactions and disclosure behaviors, this study explores which privacy practices ESPs can use to interact with customers. Customer interaction allows ESPs to obtain real and useful customer information (e.g., mobile phone numbers) in order to

<sup>\*</sup> Corresponding author. Tel.: +886 7 525 2000x4722; fax: +886 7 525 4799. *E-mail addresses*: scuang@webmail.nkmu.edu.tw (S.-C. Wang), jhwu@mis.nsysu.edu.tw, jhwu@faculty.nsysu.edu.tw (J.-H. Wu).

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transition from providing e-services to providing u-services. In the u-service context, mobile communication devices are likely the most popular and effective way of reaching targeted customers at the right time and place. By contrast, mobile communication is not necessary in the typical e-service context. This study focuses on the transition of ESPs from e-services to u-services. A key question of interest to merchants and managers is as follows: what are the implications of using proactive privacy practices for customers? To answer this question, this study addresses the following set of questions: (1) What are the different ways an ESP can initiate privacy practice interactions with customers ?(2) How do proactive privacy governance and u-service-related strategies affect customers' disclosure willingness? (3) What are the associated interactions between proactive privacy governance and u-service-related strategies (i.e., perceived u-service value and value-added strategies) in relation to customers' disclosure willingness?

Answers to such questions can help ESPs identify the strengths and weaknesses of their current privacy practices and thus allow them to develop more effective privacy practices to expand their current businesses toward u-services or u-businesses. Our study draws on integrative social contracts theory to develop a proactive privacy practice model and to explore its value in practice.

#### 2. Conceptual development and research hypotheses

#### 2.1. E-services vs. u-services

Many concepts related to e-services have been proposed. For example, e-services have been proposed for essential business functions, such as online catalogs and order fulfillment, as well as customer-centered and support activities. While Zhang et al. [49] has regarded e-services as an amalgamation of business processes, policies, procedures, tools, technology and human resources, in an attempt to enhance customer services, Featherman and Pavlou [18] regarded e-services as an interactive information system with special assets (such as information, business processes, computing resources, applications) that allows for the development of new revenue and increased efficiency.

It is believed that e-services are typically B2C and utilize e- and m-service processes that offer electronic communication, information collection, transaction processing, and data exchange in order to deliver core products and services in response to customers' needs [17,43]. The e-service context has flaws, however, lacking automatic location detection, unique identity verification and context awareness of the physical environment. With the rapid growth and proliferation of e-services, e-services now are considered to be the driving force for u-services, facilitating the utilization of existing customer pools based on accessible, reliable and relevant customer information.

A constant aim for businesses is to establish more intimate relationships with their customers [4,51]. U-services have become one of the most efficient ways to establish intimate relationships with customers and convey innovation to customers, and they provide new opportunities to market businesses [27,37]. Uservices utilize both the context awareness and intelligent applications embedded within mobile communication devices and are thus able to detect a customer's unique identity and store and gather abundant information from and sense changes in the customer's physical surroundings, including the people, objects, and events within and conditions of that environment. Customers are always connected seamlessly in these context-aware networks, allowing personalized services to be delivered in a timely manner [27]. The aim of u-services is to compensate for the shortcomings of e-services, to exponentially improve customer relationships and to support customer-related activities. Although u-services are more convenient and efficient, customers are becoming increasingly aware of the privacy threats related to u-services, which evolve and become more salient over time. These privacy threats and the potential for privacy invasion discourage customers from adopting and enjoying u-services.

#### 2.2. Privacy issues

Customer privacy concerns are multi-dimensional, including improper acquisition of personal information (e.g., unauthorized access and collection of personal information; improper monitoring of online behavior), improper use of personal information (e.g., unauthorized sharing of personal information with third-party or affiliated companies), and privacy invasion (e.g., dissemination of personal information without a customer's prior consent) [1,42]. Even reputable websites share customer information with their affiliated companies [29]. Although ESPs disclose their information practices by posting privacy policies and privacy seals, numerous studies have shown that such privacy policies are too complicated and thus are rarely read by customers [2,28,42].

Many customers are willing to trade their personal information for benefits such as rewards and discounts. People can generally be classified into three groups regarding their level of concern with privacy: privacy fundamentalists, privacy pragmatists and unconcerned customers. Most customers are privacy pragmatists, who assess the potential benefits and privacy risks of providing their information before deciding whether to disclose it [1,28].

While u-services seek to reach consumers anywhere and at any time and to provide customized and personalized services and products, u-service providers still face the challenge of obtaining personal information from customers who are privacy fundamentalists [1]. Privacy practices are thus crucial for ESP in coaxing customers to disclose their personal information [23,41,42].

#### 2.3. Integrative social contracts theory

Integrative social contracts theory (ISCT) is based on social contract theory (SCT), which is generally applied to exchange relationships in the marketing and business domain. It has provided moral guidelines for businesses that are founded on impartiality and consent. For instance, Li et al. [29] examined information exchange as a fair social contract, whereas Spaulding [38] used SCT to determine how virtual communities create value for businesses. Generally, three core elements are included in such theories: (1) individual consent, (2) agreement among moral agents, and (3) a device or method whereby an agreement is obtained.

ISCT is more suitable for ethical issues across different communities because it covers boundary-spanning relationships and cross-cultural problems. Within ISCT, "integrative" refers to the use of two different types of social contracts: a hypothetical *macro-social* contract that is employed as a heuristic approach and an actual *micro-social* contract that exists in relevant communities. Thus, ISCT is rooted in the social norms that are the underlying behavioral rules for living in a community. These communities may be as large as a nation state or corporation or as small as a department or informal unit [15,16].

Furthermore, certain behaviors are assumed to take place in forming *contracts*. In particular, rational reactions are assumed to occur between contractors, who face bounded moral rationality, as an extension of the economic rationality in the moral sphere. Information, time, and emotional strength may be insufficient to allow people to make perfect moral judgments, and global contractors may not be able to reach a perfect consensus. ISCT postulates that people work to preserve their right to choose their own values to the extent possible. In addition, people aspire to Download English Version:

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