Chapter 7.3
The Personalization Privacy Paradox:
Mobile Customers' Perceptions of Push-Based vs. Pull-Based Location Commerce

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INTRODUCTION

Recent advances in positioning technologies, such as global positioning systems and cellular triangulation techniques, have not only provided consumers with unprecedented accessibility to network services while on the move, but also enabled the localization of services (Bellavista, Kupper, & Helal, 2008). Locatability, that is, the ability of mobile hosts to determine the current physical location of wireless devices, is thus the key enabler of an alluring mobile business operation (Junglas & Watson, 2003). In the literature, commercial location-sensitive applications and services that utilize geographical positioning information to provide value-added services are generally termed location-based services (LBS), marketed under terms like 'Location-Commerce' or 'L-Commerce' (Barnes, 2003).

Despite the growing attention given to LBS, little is understood about the differential effects of alternative protocols for locating client devices on the mobile consumer perceptions and behaviors. To offer personalized services that are tailored

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to mobile consumers' activity contexts, LBS providers deliver information content through mobile communication and positioning systems in two ways – push and pull mechanisms. In the pull mechanism (i.e., reactive LBS), individuals request information and services based on their locations, e.g., a user might request a list of nearby points of interest. In the push mechanism (i.e., proactive LBS), location-sensitive content is automatically sent to individuals based on tracking their locations. From the consumer perspective, the pull-based L-Commerce entails a higher level of control, but consequent time and cognitive investment to manage personal information are relatively high. The push-based L-Commerce, on the other hand, allows for the regular canvassing of information sources for updated information and automatic delivery (Edmunds & Morris, 2000): less control but also less effort. Although the push-based L-Commerce may reduce consumers' information processing and retrieval efforts, it increases the amount of potentially irrelevant information that consumers have to deal with as well as the amount of personal location information that they have to disclose to service providers (Eppler & Mengis, 2004).

Will the push-based L-Commerce be experienced as more intrusive to individual privacy and/or as interruptive to the mobile consumer's activity? How will mobile consumers make the tradeoff between privacy concerns and instrumental values of L-Commerce? In this chapter, we attempt to respond to these questions by discussing the differences between push and pull mechanisms and discussing how these differences may lead to different mobile consumers' perceptions of push-based and pull-based L-Commerce. In what follows, we present the conceptual analysis, describing the personalization privacy paradox, and discussing the different impacts of pull and push mechanisms on the privacy personalization paradox. This is followed by a discussion of the key results, directions for future research, and theoretical implications.

CONCEPTUAL ANALYSIS

The Personalization Privacy Paradox

Information privacy refers to the ability of the individual to control the terms under which personal information is acquired and used (Westin, 1967). Within the robust body of research that attempts to understand the nature of consumer privacy, it has been found that the *calculus* perspective of privacy is "the most useful framework for analyzing contemporary consumer privacy concerns" (Culnan & Bies, 2003, p.326). This perspective reflects an implicit understanding that privacy is not absolute (Klopfer & Rubenstein, 1977); rather, the individual's privacy interests can be interpreted based on a "calculus of behavior" (Laufer & Wolfe, 1977, p.36). That is to say, individuals can be expected to behave as if they are performing a risk-benefit analysis (i.e., privacy calculus) in assessing the outcomes they will receive as a result of providing personal information to corporations (Culnan & Bies, 2003). Applying the notion of privacy calculus to the understanding of the tradeoff between personalization and privacy, we may interpret the usage of personalized information or service as an exchange where consumers disclose their personal information in return for the customized information or services. Prior studies have confirmed that users are more likely to provide personal information when they perceive higher value in the personalization services offered (White, 2004).

Labeled as one type of context-awareness applications, L-Commerce can provide a user with the value of contextualization by sending the user with relevant promotional information based on the user's location, identity, activity and time (Barnes, 2003). Personalization has been generally defined as "the ability to provide content and services that are tailored to individuals based on knowledge about their preferences and behaviors" (Adomavicius & Tuzhilin, 2005, p.84). In the context of L-Commerce, personalization