Chapter XXX
Improving M-Commerce Services Effectiveness with the Use of User-Centric Content Delivery

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ABSTRACT

Advances in wireless communications and information technology have made the Mobile Web a reality. The Mobile Web is the response to the need for anytime, anywhere access to information and services. Many wireless applications have already been deployed and are available to customers via their mobile phones and wirelessly-connected PDAs. However, as communications and other IT usage becomes an integral part of many people's lives and the available products and services become more varied and capable, users expect to be able to personalize a service to meet their individual needs and preferences. The involved sectors have to meet these challenges

by reengineering their front-end and back-end office. This article will examine the interaction requirements regarding a friendlier, personalized and more effective multi-channel services environment. It will present the mobility challenges and constraints implemented into the business sector, investigating the current m-commerce situation and the extended user characteristics presenting a high level user-centric m-commerce architecture.

INTRODUCTION

The Internet revolution has brought about a new wave of conducting business and proved to be an important marketing tool for all sorts of business fields that found this new means as convenient as it is creative. With the emergence of wireless and mobile technologies, new communication platforms and devices, apart from PC-based Internet access, are now emerging, making the delivery of services available through a variety of multi-channel mediums without loosing their integrity or quality of their content (Germanakos et al., 2005a). Inevitably, this increases user requirements, which are now focused upon an "*anytime, anywhere and anyhow*" basis. Moreover, the explosive growth in the size and use of the World Wide Web as well as the complicated nature of most Web structures may lead in orientation difficulties, as users often lose sight of the goal of their inquiry, look for stimulating rather than informative material, or even use the navigational features unwisely. To alleviate such navigational difficulties, researchers have put huge amounts of effort to identify the peculiarities of each user group and design methodologies and systems that could deliver an adapted and personalized Web content. Challenges therefore range not only on adapting to the heterogeneous user needs and user environment issues, such as current location and time (Panayiotou, & Samaras, 2004), but also on

a number of other considerations with respect to multi-channel delivery of the applications concerning multimedia, services, entertainment, commerce, and so forth. That is why, when the next big thing in technological gadgets, the mobile phone flooded the market, offering cheap SMS services using the GSM technology and enabling the extremely successful i-Mode and mobile Internet, various business institutions felt they couldn't stay away from this new rising opportunity.

Relevant channel and distribution strategies are critical for future advancement of m-commerce services to achieve accessible, customer-focused and responsive services. Following the growing user demands and requirements as well as the rapid development of the technological advancements and infrastructure capabilities, the development of m-commerce services should not only focus on making the service available on the Internet, but also examine the different delivery platforms. Indisputably, this is the vision of an interoperable, transparent and secure continent whereby multi-channel service delivery integration is considered fundamental.

This article emphasizes the proliferation of m-commerce services delivery starting with a reference to multi-channel delivery characteristics of user-centric services and the investigation of the m-commerce status and dimensions in various application areas (market fields). The adaptation and personalization considerations with regards to new user requirements and demands is also analyzed emphasizing the significance and peculiarities of user profiling for providing a more personalized m-commerce services result. It further presents a high level architecture for personalizing m-commerce services, introducing a comprehensive user profiling that incorporates intrinsic user characteristics such as user perceptual preferences (visual, cognitive and emotional processing parameters), on top of the "traditional" ones (such as name, age, education, etc.).

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