Portable Portals for M–Commerce

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INTRODUCTION

In the new decade, the call for information technology will be information, anytime, anyplace, and on any device. Accordingly, e-commerce is poised to witness an unprecedented explosion of mobility, creating a new domain of mobile commerce. Mobile commerce, or m-commerce, is the ability to purchase goods anywhere through a wireless Internet-enabled device (e.g., cellular phone, pager, PDA, etc.). Mobile commerce refers to any transaction with monetary value that is conducted via a mobile network. It will allow users to purchase products over the Internet without the use of a PC. Non-existent a year ago, m-commerce is now the buzzword of the marketing industry (King, 2000).

Over the past few years, e-commerce has become increasingly reliant upon portals to attract and retain users. Portals are the preferred starting point for searches that provide the user easily customizable architecture for finding relevant information. Portals provide the valuable gateways for getting users to their desired destinations. Today, about 15% of all Web page view traffic goes through the top nine portals, making them some of the most valuable land on the Web (Monohan, 1999). This heavy traffic flow gives the Web-based portal a unique position in corporate e-commerce strategy—with even greater potential influence for mobile applications. For mobile devices, these portals take on increased significance, as consumers are unwilling to spend long periods "surfing" on these inherently less user-friendly wireless devices. By the year 2006, 25 million people are expected to be dedicated wireless portal users (Carroll, 2000).

As m-commerce success will likely depend upon maintaining consumer utilization of these gateways, the companies that leverage the unique characteristics of wireless devices will gain exploitable advantages in the mobile marketplace. Due to current technological limitations and varying mobile consumer behavior patterns, portals developed for mobile devices must emphasize differing characteristics than conventional Web-based portals. As such, many portals may be unsuited for application in the mobile world.

"Traditional portals are not providing information that is specific enough for the user of a mobile portal. They are not able to incorporate location-specific information nor do they have the data and knowledge of each customer that the mobile operator has." (Durlacher Research, 2000, p. 65)

BACKGROUND

Mobile devices have been the fastest adopted consumer products of all time with, last year, more mobile phones shipped than automobiles and PCs combined (Chen, 2000). By 2003, there will be 1.4 billion mobile phones worldwide, and half will be Internet-enabled (Zabala, 2000). "The wireless world is a parallel universe almost as large as the Net, and the two are beginning a fascinating convergence," said Swapnil Shah, director of Inktomi Europe, a search engine and caching solutions company (Rao, 2000, p. 1). It is predicted that this emergence of mobile commerce will happen even faster than the development of e-commerce—in roughly the time between the invention of the first Web browser and now (Schenker, 2000). "If you look five to 10 years out, almost all of e-commerce will be on wireless devices," says Jeff Bezos, chief executive and founder of Amazon.com (McGinity, 2000, p. 1).

The potential of m-commerce is considerable for those willing to develop mobile-specific business models. However, as m-commerce matures, current mobile operators will rely less upon usage fees and increasingly derive revenues from content and services. Additionally, m-commerce is going to bring about a massive change in the way users consume products and services. As Cindy Dahm, European director for Phone.com, stated:

"It is key that commerce companies recognize m-commerce as a completely unique service. Cell phone users are more impatient than Internet users. The paradigm here is not surfing; all services for the mass market have to be pitched at users in such a seamless way that they need not even be aware that they are accessing the Net." (Rao, 2000, p. 2)

Those best able to provide value-added user experiences, through content aggregation and portal development, will achieve long-term success. Merely extending the current Internet presence will not be enough. "Mobile Internet customers will be more demanding. They will want personalized service to meet their individual wants and needs, and will no longer be satisfied with being a mass market" (KPMG, 2000, p. 2). Providers must take advantage of the characteristics which distinguish m-commerce from e-commerce to develop truly unique and compelling services rather than replicating current e-commerce models.

What is a Portable Portal?

The word portal is derived from the Latin *porta*, or gate, through which something will pass, in an effort to get to another place. In the traditional sense of the word, the portal is not the desired end-state. Rather, a portal is a necessary or convenient place one must go to get to the desired location. For example, the airport is not the desired location for most people, rather a necessary portal through which they must pass to obtain transportation to another location. Similarly, portals assist by directing the transport of the Web user to the ultimate location of their choice. Mobile portals, sometimes referred to as "portable portals," are typically developed to assist wireless users in their interactions with Web-based materials. Today, most mobile portals are being formed by syndicating content providers into a centralized source of personal productivity information. Mobile portals are often modeled by aggregating applications (e-mail, calendar, instant messaging, etc.) and content from various providers in order to become the user's prime supplier for Web-based information. Mobile portals differ from traditional Web-based portals by a greater degree of personalization and localization. Representative objectives for such mobile portals may be to attract the desired viewer, and build valuable customer relationships, through value-added content and community services, to augment the overall wireless Internet experience and build long-term customer loyalty.

"Like portals of the wired world, wireless portals have a degree of control over what users see on the Internet, so the portal provider can charge service providers and advertisers high fees. Given the projected penetration rates of mobile devices and mobile consumers' increased reliance on portal services, many observers expect wireless portals to be as highly valued on the stock market as their established Internet equivalents." (Barnett, Hodges & Wilshire, 2000, p. 166)

Established portal players, such as AOL (www.aol.com/product/anywhere.adp), Yahoo! (mobile.yahoo.com), and MSN (mobile.msn.com) have recognized the potential impact of the mobile Internet and have created mobile portals targeting U.S. subscribers. However, many of the traditional portal players are experiencing difficulties adapting to the mobile world. The mobile portals emerging today are, in many ways, a stripped-down version of traditional Web portals, without an understanding of the special requirements of mobile users. Consequently, these offering are unacceptable to mobile Internet users.

"The mobile portal strategy of the traditional portal players often lacks in-depth understanding of national mobile markets and of the specific local dynamics involved in building businesses in a territory. In addition, the differences between a fixed and more mobile portal model are non-trivial and, as such, lessons learned in the past are not necessarily directly transferable." (Durlacher Research Ltd., 2000, p. 69)

Current portal strategy is based on a traditional paradigm of consumers as passive receivers of communication efforts, with the portal provider holding control of the "when" and "where" of information. With wireless Internet-enabled devices, consumers now have more discretion of "when" and "where" the information that is available, creating a demand for a specialized portal offering.

Unique Advantages of Mobile Portals

The mobility afforded wireless devices will shape mobile portals into a disparate entity from conventional portals. The advantages of mobile devices provide a greater offering of *value-for-time* to users. That is, by accessing the Internet through mobile devices, users will be able to realize additional value allowances for any specified period of time that fixed-line users will not be able to achieve. Information will now truly become available anytime, anyplace, and on any wireless device. Portable portals differ from traditional portals on four dimensions: ubiquity, convenience, localization, and personalization.

(1) **Ubiquity:** Mobile devices offer users the ability to receive information and perform transactions from virtually any location on a real-time basis. Thus, mobile portal users can have a presence everywhere, or in many places simultaneously, with a similar level of access available through fixed-line technology. Communication can take place independent of the user's location. Mobile portals, for example, can leverage this advantage of ubiquity by

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