

Overview

The following document outlines the introduction to mobile search as developed by the Mobile Search Committee of the Mobile Marketing Association (MMA). The document contains the following information:

- Introduction to Mobile Search
- How is Mobile Search Different from Internet Search?
- Search Addresses the Needs of All: Subscribers, Carriers, and Marketers
- Search-Evaluation and Education of the Consumer
- Mobile Search Business Models
- Challenges/Hurdles to Mobile Search
- Conclusion

About the Mobile Marketing Association (MMA)

The Mobile Marketing Association is an action-oriented association designed to clear obstacles to market development, to establish standards and best practices for sustainable growth, and to evangelize the mobile channel for use by brands and third party content providers. MMA members include agencies, advertisers, hand held device manufacturers, wireless operators and service providers, retailers, software and services providers, as well as any company focused on the potential of marketing via the mobile channel. The Mobile Marketing Association's global headquarters are located in the United States. For more information, please visit www.mmaglobal.com

Mobile Search Committee

The Mobile Search Committee has been established to develop common business models, operating procedures and technology interfaces that allow operators to offer an integrated, carrier branded mobile search experience to their subscribers – as well as help brands and content providers monetize their opportunities in the mobile ecosystem. The Mobile Search Committee developed this document in collaboration with representatives from: AOL Mobile, iCrossing, Inc., JumpTap, Inc., Mobile Phone Applications, Inc. (Mophap), Neven Vision, Openwave Systems Inc., Starcom MediaVest Group, Sprint Nextel, The Weather Channel, V-ENABLE and Verizon Wireless.



Introduction to Mobile Search

Mobile Search is one of the next significant value creation opportunities for mobile operators around the world. This emerging ecosystem will greatly enhance the way people discover and purchase mobile content, physical goods, and local services. Searching on mobile devices follows in the footsteps of two significant wireless industry breakthroughs: SMS, which changed the way people communicate, and ringtones, which changed the way people think about personalizing their phone.

Although online veterans like Google, Yahoo, Amazon and eBay proved the Internet to be an extremely efficient sales and marketing channel, the mobile Internet is just beginning to demonstrate its potential. With nearly 2 billion global mobile device users, poised to be the primary means of accessing information, mobile economies are expected to eclipse Internet economies.

Mobile search revenues will surpass Internet search revenues as 1) mobile devices are always on, always available; 2) call completion connects consumers with marketers; and 3) mobile search couples subscriber profiles with immediate purchase intention as indicated by search activity.

Enhanced handset adoption is growing, allowing easier access to data services. And, increased data service usage is leading to a greater demand for quality mobile content and services. But as with the early Internet, the volume of content will exceed the capability of directories to help users find the content they seek. Subscribers expect to be able to search for mobile information, products, and services.

Subscribers will generate significant mobile search traffic, creating tremendous revenues through proven online search marketing models. Global search revenues are projected to generate \$5.5 billion in 2005 and \$11B by 2008 (Piper Jaffray.) At the time of publishing, Google was valued at >\$133 billion – the MMA believes carriers can build similar revenue streams and valuations with the right strategic decision surrounding search.

How is Mobile Search Different from Internet Search?

Internet users seek information for their term paper, their company's competition, their boyfriend's background, or prices for flights and mortgages. Today, mobile subscribers are looking for ringtones, downloadable music, and video clips, and at times, they use their phones to find a cool bar, the phone number of a nearby hotel, the capital of Armenia or the score of the Nuggets game. In the near term, however, the MMA expects internet searches to cover a broader territory of possible searches, while mobile searches, either by design or by user demonstrated usage, will be more mobile specific.



Despite the tendency to view mobile phones and mobile search as simply targeted at the personalization and entertainment uses, mobile search also addresses several utility functions. For example, when traveling and looking for local addresses; when sitting on the shuttle and wondering if the plane is departing on time; or when sitting in a bar with friends and settling a bet regarding whether or not Kiefer Sutherland's first movie was "Lost Boys," mobile search can help to quickly find time sensitive information. Although mobile search has similarities with some Internet search functions, subscribers using mobile search tend to look for an experience that offers answers and actionable results rather than links that lead to more searching.

Mobile phones have several advantages over PCs accessing the Internet:

- 1. Mobile phones are always on, always available, and always "connected". Subscribers can gain access to information anywhere; at home, in the office, at a restaurant, or from the car.
- 2. Ability to immediately connect people to phone numbers, since they already have a device in hand.
- 3. When conducting mobile search, users are in an atmosphere, situation and environment more likely to result in a purchase. Most of the time they are on the go and out of the home.

Mobile phones have some limitations compared to PCs:

- 4. PCs have big screens that can show lots of detailed information and numerous search results. Mobile phones have tiny screens with limited real estate.
- 5. PCs have large, comfortable keyboards with easy-to-use pointing tools like a mouse, trackball, or touchpad. Mobile phones have compact number pads, commonly with arrow keys to navigate up, down, left and right.
- 6. PCs and the Internet have consistent color displays, screen sizes, browsers, and open programming standards. Mobile phones are the epitome of variety with varying input methods, display screens, browsers, operating systems, and user interfaces. Mobile devices do not conform to any standards.

In addition to these immediate differences, future mobile search applications may be able to capitalize on user specific information. Mobile phones are joined to individuals and are representative of their owner's personality, with specific demographics, behavior patterns, and personal interests. This information may allow more relevant search results. Mobile phones may also be able to leverage location as an additional search parameter, allowing for further specificity of search results. These future capabilities, however, depend on the mobile carriers developing privacy and liability controls.



Search Addresses the Needs of All: Subscribers, Carriers, and Marketers

Mobile search engines will benefit wireless subscribers, marketers and mobile operators by fostering a virtuous cycle where: 1) Subscribers use search to find content, services, or information. 2) Marketers present relevant products and services, and are willing to pay for traffic. 3). Search engines provide what subscribers seek and subscribers find what they are looking for. 4) Operators provide a useful subscriber experience while enjoying new revenue streams. For example:

Subscribers

Mobile search is the easiest way to find the content and services subscribers seek. What cool stuff can I download for my phone? What's a good restaurant nearby? What is the best price for an iPod?

Marketers

Search allows marketers to reach mobile subscribers with offers that are highly relevant to consumers' immediate interests.

Carriers

Wired Internet users frequently start their online experience at search engines. These search engines play a powerful role in routing Internet traffic, and have built significant revenues based on this position. By delivering a quality search experience, carriers can improve the mobile subscriber's Internet experience and secure meaningful search revenues.

Portals, Internet Service Providers

Consumers are already familiar with the online portals such as AOL, Google, Yahoo, and MSN. These companies may be key players for the uptake of mobile search, but the right balance between the needs of the mobile operator and the profit desires of the internet search engines must be achieved.

Content Providers

Search gives consumers the power to search for all types of content: a phone number, an address, a clip of the last CU football game, a ringtone, etal. Content providers such as ESPN, Univision and MTV, plus providers without well-known name brands can benefit from an easy mobile search experience that helps consumers find what they are looking for.

With mobile search, subscribers get what they are looking for, marketers find consumers for their goods, and carriers provide better service while earning more money. This economic system represents one of the most efficient and powerful marketplaces invented in recent history Mobile characteristics and behaviors will only further refine and benefit the market dynamics unlocking additional revenues for the value chain.



Search-Evaluation and Education of the Consumer

Mobile search has high expectations. Analysts expect the revenues generated from mobile search to be significant between 2008 and 2010. However, as industry specialists, the MMA believes everyone should be conscious of building a solution that consumers will adopt, in order to release the potential of this industry. The MMA must look at multiple user related questions. How does the consumer think of search? What do they expect from a mobile search experience? Understanding what they do today, as well as what they typically do with a mobile phone, can help the industry educate mobile users on what new features are available and how those new features may bring additional convenience, communication and value to their daily lives. Following are some examples of user behavior that need more research:

• Discoverability

Consumer education is a key factor in getting subscribers to use mobile search. Today, there are two main ways that a consumer can access the mobile search application, either as part of a WAP experience or as a separate application that resides on the top page of the phone interface. For the WAP experience, a subscriber can either find the application through the operator portal, or separately through a user entered web address (off-net entry). The Mobile Search Working Group will need to know where subscribers expect to find and want to find a mobile search application.

Input Methods

There are several ways that mobile search queries can be entered:

- Text: QWERTY, Triple-Tap, Predictive Text -- The most common method today for subscribers to enter information or queries into a mobile phone is via text entry.
- o Speech -- Another method of requesting information is via the spoken word.
- Image -- Using an image is another way to launch a search for information.
- Outputs

Once a subscriber has launched a query, the search engine must look in a variety of databases and return a set of relevant results. Most important, the results must be relevant to the users search. The search may often require that an action be completed on the basis of the result of the search. Examples of actions include:

- o Purchases
- o Sharing
- o Storing
- o Calling

There are multiple ways to deliver information to the user and multiple ways to let the user use the result. But intuitive actions must be allowed as a result of the search.



 What types of content are searchable? All types of content are searchable. The scope of mobile search is infinite. However, there must be a phased implementation of content searches, both from a consumer usability perspective, as well as an advertiser/merchant perspective.

Mobile Search Business Models

In order for mobile search to flourish, not only must consumers quickly try, adopt and use the service, but companies in the wireless and marketing industry must generate profit from these searches. Some models from the internet may apply to the mobile search market, but other new models may also arise.

- Search models on the Internet
 - o Performance-based Marketing
 - Shopping and Shopping Comparisons
 - o Banners and interstitials

Challenges/Hurdles to Mobile Search

• Education of value proposition and user benefit

In order for consumers to find and use new mobile search applications, the mobile industry needs to engage in a concentrated education campaign. Led by the mobile operators and supported by other members of the wireless community, an education campaign to let users know the availability and power of mobile search will kick-start usage.

This education campaign will be defined more and led by the MMA's Mobile Search Working Group.

Usability

In order to assess what consumers want from a mobile search solution, and to add empirical data to the discussion around mobile search, usability studies, focus groups and quantitative research will be conducted with various market segments of the wireless user population.

This is an initiative that the MMA will lead.

• Different Capabilities Across Handset Types As with all mobile applications, mobile search must contend with a variety of handset displays, input capabilities, sound capabilities, memory levels and operating systems.

The MMA may identify specific capabilities required or the minimum set of technologies required by a handset to ensure that a scalable solution that meets customer requirements is offered to the mobile user base.



Conclusion

The MMA believes that mobile search is a significant opportunity for many players in the wireless industry. While consumers from all over the world use Internet search applications as their primary access point to information and web sites, mobile users are just starting to experiment with the potential of mobile search applications. By cataloging and researching ways that consumers use search today, and discovering what they may want from mobile search applications of the future, the MMA's Mobile Search Working Group will help to educate the wireless industry, the marketing community and eventually even consumers themselves. In addition, this Group will endeavor to help the industry overcome many of the hurdles and challenges that have hindered the mass adoption of previous wireless applications. As a cross-industry working group, the MMA's Mobile Search Working Group looks forward to the challenge.

For details on the Mobile Search Working group, or other MMA initiatives, please contact the MMA's Executive Director, Laura Marriott (laura.marriott@mmaglobal.com).