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Introduction to Mobile Search

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Overview

Mobile search is one of the most discussed topics in the mobile, Internet and advertising industries, and for good reason- As more people use their mobile phones to access content, information and entertainment, a search function becomes a vital tool for finding what they're looking for quickly and easily. This document provides an overview of mobile search in terms of how it differs from traditional Internet search and how mobile search meets the needs of consumers, operators and marketers. Developed by the Mobile Marketing Association (MMA) Mobile Search Committee, this document also discusses mobile search strategies, business models and challenges.

Introduction to Mobile Search

Mobile search is emerging as a major source of revenue and market-differentiation opportunities for mobile operators, marketers and content providers worldwide. By making it fast and convenient for mobile users to find information and content, mobile search has the potential to change the way consumers view their mobile devices. That creates revenue opportunities for mobile operators and their business partners by creating a perception among consumers that they can just as easily find and download content – such as songs – on their mobile phone as they can on a PC. Mobile search has the added advantage of encouraging and accommodating impulse buys. For example, if a consumer hears a new song and immediately wants it, she can use mobile search to find and download the MP3, rather than waiting until she's at home in front a PC.

The Internet clearly is an extremely efficient sales and marketing channel, with advertising revenues of over $20 billion in the U.S. and $45 billion worldwide (Kelsey Group – Feb 2008). Yet many analysts predict that this success will be over-shadowed by the mobile web. One reason is reach: There are more than 2 billion mobile devices in use worldwide today. That installed base is already roughly 600 million larger than the number of Internet users worldwide.[1] Just as important, it's growing, as the mobile web becomes an increasingly popular way for consumers to go on-line when they're away from their PCs or if they don't own a PC.

Additional market drivers include:

1. Mobile devices are always on and always available. That's a major advantage over PCs, especially among consumers – such as younger demographics – who spend most of their day away from home and thus away from a PC.

2. Mobile devices are a natural fit for marketing initiatives that include one-click call completion, where mobile users can

be immediately connected to the company to learn more about or purchase a product. This ability is another example of how the whole concept of mobile search centers around convenience and instant gratification.

Mobile search has enormous potential, which can be measured in a variety of ways. For example, the installed and grown base of 2 billion-plus mobile users is already generating a significant amount of mobile search traffic even though many, if not most, of those users are still learning about mobile search. This usage is creating tremendous revenues through proven online search marketing models. It's not a stretch to see analysts and investors giving members of the mobile search ecosystem valuations comparable to the Internet search world. Today, Google is valued at around $180 billion. The MMA believes operators, marketers and content providers can build equally large revenue streams and valuations with the right strategic decisions surrounding search.

How is Mobile Search Different from Internet Search?

One fundamental difference between mobile search and Internet search is the form factors of the devices used. Even with QWERTY keyboards and large screens increasingly common, mobile devices still require search platforms designed to make it fast and convenient for users to find information and content on a handheld device. Internet search engines and strategies can't be simply ported to the mobile environment. Instead, they have to be modified – often significantly – in order to accommodate device and network limitations.

A second fundamental difference is the type of information sought. Internet users often seek comprehensive, lengthy information, such as material for a term paper, analyst reports on their company's competition, their boyfriend's background, or prices for flights and mortgages. By comparison, mobile users typically seek concise, actionable information, such as news headlines, sports scores, weather, movie times or a list of nearby hotels. Mobile users also increasingly seek ringtones, downloadable music and video clips, all of which must be organized in a way that makes it fast and convenient to find exactly what they want.

Multiple Players, Multiple Beneficiaries

Mobile search engines benefit wireless consumers, marketers and mobile operators by fostering a cycle where: 1) Consumers 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 consumers seek and consumers find what they are looking for. 4) Operators provide a useful consumer experience while enjoying new revenue streams. For example:

[1] Source: http://www.internetworldstats.com/stats.htm

- **Search Providers –** Mobile search provides a way for search providers to continue to serve consumers when they're away from their PCs. In the process, search providers give their advertisers, content providers and other business partners a way to reach consumers anytime, anywhere. By expanding into mobile search, search providers also can expand their advertising revenue by placing ads in conjunction with the mobile queries.

- **Consumers –** Mobile search provides consumers with a convenient way to get actionable information, such as weather, and immediate gratification, such as song downloads. Mobile search also can leverage the location technologies (e.g. GPS) built into many phones to make search results even more focused and actionable. For example, with GPS, search results could go beyond just a list of nearby Italian restaurants to include turn-by-turn directions to each one.

- **Marketers –** Search allows marketers to reach mobile users with offers that are highly relevant to their immediate interests. Although that sounds as obvious as it is, there's more to this ability than is immediately apparent. For example, instead of hoping that consumers will remember something – such as a song they heard or a purse they saw – when they're back home and in front of a PC, mobile search provides marketers with a way to serve those needs and wants on the sport. Put simply, mobile search gives marketers a way to provide instant gratification.

- **Mobile Operators –** Because they have major control over the applications, services, portals and menus that appear on their customers' devices, mobile operators are ideally positioned to provide their customers with search tools that make it easy not only to find information and content, but also to spend money once they've found what they're looking for. In the process, the mobile operator benefits in at least three ways: 1) additional revenue from data services 2) the potential for royalties from content downloaded as the result of a search or from sponsored links 3) reduced churn if the search tools are more convenient and sophisticated than what rival operators offer.

- **Portals and Publishers –** Mobile search gives Internet portals and publishers a way to serve consumers when they're away from a PC. That additional reach can directly impact their bottom lines by, for example, driving additional sales and additional advertising revenue. These searches can be performed at the publisher's own site or through the use of a third party's search engine.

- **Content Providers –** Mobile search makes it convenient

for consumers to find and use a wide variety of content anytime, anywhere. That benefits content providers because it increases their addressable market and revenue potential far beyond people who are in front of a TV or a PC. In the process, mobile search also gives content providers a way to sell into markets that have low PC and Internet penetration.

With mobile search, consumers get what they are looking for, marketers find buyers for their goods and services, and mobile operators get additional revenue from data usage and, in some case, royalties. That's why the mobile search ecosystem is one of the most efficient and powerful marketplaces in recent history. As mobile search matures, the market dynamics will improve even more, unlocking additional revenues for all members of the value chain.

Consumer Opportunities and Challenges

In order for mobile search to reach its full potential, it has to be fast and convenient to use, regardless of whether the user has a smartphone with a QWERTY keyboard or a feature phone. The ideal mobile search should provide users with immediate, relevant answers, with no distractions.

For example, mobile search should not force users to scroll though menu after menu or type in lengthy queries. Instead, the ideal solution should be to find the content or information they seek with the fewest taps and page views possible.

The more efficient that a mobile search service is in terms of bandwidth, screen space and the user's time, the better the user experience. In the process, this efficiency builds a relationship between the user and a particular mobile search service that then may be leveraged for marketing opportunities, such as sponsored links.

Companies involved with mobile search should pay close attention to fundamental issues such as consumer perceptions of mobile search, their expectations and how they currently use – or don't use – mobile phones to find information, content and services. These insights are key for creating mobile search offerings that best match those needs and wants. Following are some examples of key issues to consider:

- **Discoverability –** Education is critical for building awareness and use of mobile search. Today, there are two main ways that consumers access their phone's mobile search application: as part of a Mobile Web experience or as a separate application that resides on the mobile phone. With Mobile Web, users can either find the application through the operator portal (on-deck) or separately through a user-entered Web address (off-deck).

- **Input Methods –** There are three primary ways that mobile search queries can be entered:

   - As text, using a QWERTY keyboard or a numeric keypad

that's supported with predictive-input software to minimize keystrokes. Text currently is the most common method for entering information or queries.

- Via speech, using voice-recognition software that converts speech into text that the search engine can use.

- As an image - Using an image is another way to launch a search for information. For example, users can take a picture of a bar code with a camera phone.

• **Output Methods –** Search results should be presented in a way that respects limitations such as the phone's display size and the network's speeds. The results also should include options that make it easy for users to perform an action, such as purchasing the song that they were searching for, sharing directions to a restaurant via SMS with friends that they'll meet for dinner or clicking a link to call for more information. Put simply, the search results should be concise and actionable.

The Opportunity for Mobile Operators

Mobile search gives operators an opportunity to increase revenue. At a minimum, additional revenue comes from the data plans that customers must sign up for in order to use mobile search. It's important to note that this helps increase average revenue per user (ARPU), a key metric that analysts and investors focus on when assessing a mobile operator's competitive position.

Mobile operators may receive an additional revenue share paid for by search providers and their business partners. For example, if a user clicks on a sponsored link or buys a ringtone, the mobile operator may receive a revenue share. This isn't always the case, but it's an opportunity that does exist.

Mobile operators also can use search as a market-differentiator. For example, if the operator selects mobile search services that are easier to use than those provided by rival operators, that helps create a favorable market perception among existing and potential customers. Operators also can work with search providers and other parties to create storefronts for downloadable content. Because they control the network and, in most cases, the applications and services that are on their customers' handsets, mobile operators play a key role in enabling mobile search. For example, they can configure their billing systems to support premium SMS content delivery and real-time location data that can be used to provide turn-by-turn directions to accompany search results for nearby restaurants. Mobile operators also play a key role in protecting the identities and privacy of their customers.

Mobile operators currently have two main options for how they provide mobile search services to their customers:

• **Operator Branded Search Service –** This approach puts the operator's brand up front on the search engine and provides access to content such as ringtones, songs, games, wallpaper and videos available directly from the operator. An on-portal approach also gives content providers an effective way to highlight their content through advertising. For example, some content providers currently buy keywords and contribute to the search results with sponsored links.

• **Off Portal –** There are many mobile search providers that allow users to search for content across the Mobile Web rather than the operator's content. Many mobile users navigate off portal – also known as off deck – by using a browser bookmark or by entering a URL. (Users with smartphones that have physical or virtual QWERTY keyboards are more likely to go off portal than users with feature phones that have only a numeric keypad for text input.)

Operators sometimes combine both on deck and off deck results within their operator-branded search services. For example, they can serve up an ad or marketing message as the user reviews the initial results and decides what to do. This ad can lead the user back on portal, to the open Internet, to a map or directly to a voice call with a merchant, depending on what makes the most sense for that type of search. The easier that the search service is to use and the better it is at combining on deck and off deck results, the more likely that it will become the customers' first choice when conducting searches.

Operators also face a few challenges. The context of the search, the location of the user and any operator-provided behavioral or demographic data gives companies advertising through operator search services the best opportunity to deliver the highest relevancy, the highest click-through rates and the first impression. The key is relevance because no operator wants to risk annoying a $50- or $100-per-monthly customer with a bombardment of ads every time they perform a search. Instead, operators and their business partners must ensure that ads are relevant to the information, services or content that the user is searching for.

The Opportunity for Marketers

Of the many emergent marketing channels – including social, video and word –of-mouth – mobile offers the most to marketers in terms of flexibility and reach. For example, mobile search lets marketers reach consumers when they're away from their PC, TV or magazines. That translates into additional revenue opportunities because, for example, sales opportunities aren't lost because a consumer exposed to an ad has forgotten about it by the time she's at a PC and thus in a position to take action. Instead, mobile

search makes it possible for consumers to take action on the spot, such as by searching for the ringtone for a song they just heard.

Savvy marketers have already identified many of these opportunities. According to Forrester Research, 83% of marketers believe that the mobile channel will become an increasingly effective platform over the next three years. Yet few are moving to incorporate it into their current media mix. That lack of action creates opportunities for marketers willing to develop and execute a mobile strategy now in order to make their brands and messages stand out from the clutter. Just as some marketers recognized and capitalized on the potential that digital media offered in the 1990s, there's an early-adopter advantage for marketers that embrace mobile search sooner rather than later. For example, the more mainstream that mobile search becomes, the more that brands will seek marketers with hands-on experience with that channel.

Following are some current mobile search options for marketers:

Paid Search Strategies

- **Mobile Paid Search –** Some search portals offer mobile paid search text advertising, as do select wireless operators and independent mobile advertising networks. This traditional pay-per-click (PPC) model often proves to be the easiest transition for marketers experimenting with mobile because of the similarities to the process and metrics of Internet paid search campaigns.

The travel, hospitality and entertainment industries have been among the first to add mobile paid search to their marketing mix, but it has significant potential across nearly all verticals. As more mobile networks and devices support location technologies, it gives marketers the ability to target consumers based on their location, when they are ready to act, creating a powerful advantage for mobile search advertising.

Natural Search Strategies

- **Mobile Web Development –** Perhaps the most obvious yet overlooked opportunity for marketers is creating natural search visibility with mobile-friendly content. Although search engines do their best to present mobile users with content that is adapted to match their devices' capabilities – such as in terms of screen size and resolution – the majority of Web sites still render poorly, if at all, within a mobile browser. Offering mobile versions of contextually relevant content from Internet sites designed for viewing on PCs – such as store locators, product catalogs and mission statements – enables a brand to maintain comparable natural search visibility on a mobile device while ensuring a good user experience.

Mobile Search Business Cases

In order for mobile search to live up to its potential, two things must happen: Consumers must try and then regularly use the services, and companies in the mobile and marketing industries must generate profits from these searches.

Following are some examples of mobile search initiatives, with a discussion of their underlying business models.

JumpTap – Mobile Gaming Company Increases ROI through Intelligent Search

User Scenario – Home from college for the holidays, Zach is on a bus with friends heading to the movies. He sees his friends playing games on their phones, so he decides to see what's on his. He knows his operator offers downloadable games, so he navigates to the operator's search box and types in "games." The first search result is for *Sonic The Hedgehog*, which he purchases, downloads and begins playing. The goal is to beat his friends' high scores by the time the movie starts.

Background – Before the start of the holiday season, Sega's Mobile division purchased keywords from JumpTap's paid search marketplace. Sega's goal was to increase sales of their Sonic brand games. Sega selected the keywords and determined what it was willing to pay for them in a keyword auction.

Figure 1: Sonic sponsored link

Whenever a user enters keywords into a JumpTap search box, JumpTap's paid search auction system analyzes the various bids and relevancy for the keywords and determines the best sponsored text ad (referred to as a "sponsored link") to place above the organic search results. (See Figure 1.)

When the user clicks on the *Sonic the Hedgehog* sponsored link, JumpTap takes the user to a landing page where the user can buy the game. (See Figure 2.)

Results – In the first month of the campaign, Sega saw a 9% click-through rate, which means that for every 1,000 times that the Sonic sponsored link appeared, 90 would result in a user clicking through. Of the 90 clicks, 7% (or about six) of those clicks resulted in a sale. When the first month of the campaign was over, Sega tallied up its sales and divided that figure by the total amount spent on buying keywords to calculate a 320% ROI. This success validates their selection of the right wording in the sponsored link, the call-to-action during the purchase process and the graphical elements used to reinforce a leading, established brand.

Yet Sega chose to refine the campaign further by analyzing the keywords purchased. After re-running the campaign, it saw an ROI of 530% in the second month. Why the improvement? Interestingly, it did not come from an increase in the number of people clicking on the sponsored link. Instead of 7% of those clicks resulting in a sale, the second month campaign saw 11%. This illustrates the importance of attracting quality traffic to a mobile site. Success in mobile search should be measured not just in quantity, but in quality, too.

Figure 2: Sonic landing page

Conclusion – The Sega campaign illustrates some key success factors of mobile paid search:

- Identify your campaign goals.
- Measure your campaign's effectiveness against its goals. How many people are clicking through on your ad? How many are converting to a paying customer/subscriber/valuable visitor?
- Refine keyword buys, sponsored link titles and landing pages.
- Do not be afraid to experiment.

Medio Systems, Inc. – Mobile Content Provider Increases Subscriber Base through Keyword Advertising

User Scenario – Jeremy is a sports enthusiast, checking the scores of his favorite teams throughout the day. He frequently uses his mobile phone to get the scores of games in progress when he is away from his PC or TV. A few years ago, he would navigate through his operator's portal to his favorite sports network's mobile web site and then to the league and team of interest. During the past year, he discovered that by simply typing his team's name in the search box, he could skip several navigation steps to get the information he is looking for, such as the score for today's game.

Background – 4INFO offers a mobile alert service with up-to-date information for sports, celebrity news, weather, horoscopes and more. Seeking to broaden its subscriber base, 4INFO purchased advertising on Medio's MobileNow Search network, targeting specific keywords such as sports teams and keyword categories (i.e., professional sports). For example, ads appear with search results for "Avalanche" and "hockey," or "Nuggets" and "basketball."

Results – Initial results were extremely good: a 29% click-through rate and a 5% conversion rate. Simple but direct creatives such as "NBA Score Alerts" and "NHL Live Updates" compelled 29% of users to click on the ad, with 5% of these converting to subscribers. That is, roughly 1.5% of all viewers seeing a 4INFO search ad became subscribers to its SMS alert service. For example, Jeremy now receives his sports updates directly, via SMS text alerts, as they happen in real time.

Conclusion – 4INFO continues advertising with Medio MobileNow, generating high-quality leads and high conversion rates, as search ads lead mobile users directly to its 4INFO Mobile Web site (Figure 3). On this site, users can sign up for the service.

Figure 3: 4INFO Mobile Web site

Challenges for Mobile Search

• Market Development – In order for mobile search to live up to its potential – that is, becoming at least as mainstream, effective and profitable as Internet search – the mobile advertising market must continue to mature. To foster this maturation, the MMA will continue educating advertisers, marketers and brands about the value of this highly focused, highly targetable channel.

Maturity also includes developing a level of research, reporting and analysis capabilities on par with what's available today with Internet search. The MMA is currently working with industry leaders to increase the level of available data to share with its members.

• User Adoption – Consumers need to be educated to better understand the value of accessing content on their mobile phone versus devices such as the PC. The mobile industry can help address this need with support from mobile operators and other industry leaders in the form of an education campaign to let users know the availability and power of mobile search, which will spur usage. Additional awareness can come from online and print promotions to drive traffic to mobile content.

• Availability of Mobile Content – Mobile Web adoption remains a chicken-and-egg problem. As users try the Mobile Web, they expect the same depth and breadth of content available on PCs. However, many businesses have been slow to develop mobile sites, which are key for meeting that expectation. The good news is that beginning in 2007, mobile site development increased and is expected to grow even more in 2008 and 2009.

• 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 ideal mobile search solution should provide a consistently good user experience across all networks and devices – a major but not insurmountable challenge. For example, there's a growing selection of network-based products that identify a handset model and then tweak the content to match its capabilities, all in real time.

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 mobile industry. Although consumers worldwide use Internet search applications as their primary way to find information and Web sites, they're just starting to experi-

ment with mobile search. By cataloging and researching ways that consumers use search today, and discovering what they want from mobile search applications in the future, the MMA will continue to help to educate the mobile industry, the marketing community and consumers. In addition, the MMA will endeavor to help the industry overcome many of the hurdles and challenges that have hindered the mass adoption of previous wireless applications.

Who We Are

About the Mobile Marketing Association (MMA)

The Mobile Marketing Association (MMA) is the premier global non-profit trade association established to lead the growth of mobile marketing and its associated technologies. The MMA is an action-oriented organization designed to clear obstacles to market development, establish mobile media guidelines and best practices for sustainable growth, and evangelize the use of the mobile channel. The more than 650 member companies, representing over forty countries around the globe, include all members of the mobile media ecosystem. The Mobile Marketing Association's global headquarters are located in the United States and in 2007 it formed the North America (NA), Europe, Middle East & Africa (EMEA), Latin America (LATAM) and Asia Pacific (APAC) branches.

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, chaired by AOL LLC and JumpTap, developed this document in collaboration with representatives from:

MMA Mobile Search Committee		
4INFO, Inc.	Jingle Networks	Qualcomm
Aegis Mobile, LLC	JumpTap	Single Touch Interactive, Inc.
Alltel Wireless	Medio Systems, Inc.	The Weather Channel Interactive
AOL LLC	Microsoft (MSN and Windows Live)	TMP Directional Marketing
Cricket Communications	mInfo Information Technology Co., Ltd.	V-ENABLE
go2 Media	Motricity	Yahoo!
Gold Mobile	Nielsen Mobile	
iCrossing	Publicis NA (denuo Group, Leo Burnett & Starcom)	

References

The following links provide additional sources of information and reference:

- MMA Code of Conduct
  (http://www.mmaglobal.com/codeofconduct.pdf)
- MMA Consumer Best Practices Guidelines
  (http://www.mmaglobal.com/bestpractices.pdf)
- MMA Global Mobile Advertising Guidelines
  (http://www.mmaglobal.com/mobileadvertising.pdf)
- MMA Introduction to Mobile Coupons
  (http://www.mmaglobal.com/mobilecoupons.pdf)
- MMA Mobile Advertising Overview
  (http://www.mmaglobal.com/mobileadoverview.pdf)
- MMA Mobile Marketing Sweepstakes & Promotions Guide
  (http://www.mmaglobal.com/mobilepromotions.pdf)
- MMA Mobile Search Use Cases
  (http://www.mmaglobal.com/mobilesearchusecases.pdf)
- MMA Off Portal – An Introduction to the Market Opportunity
  (http://www.mmaglobal.com/offportal.pdf)
- MMA Short Code Primer
  (http://www.mmaglobal.com/shortcodeprimer.pdf)
- MMA Understanding Mobile Marketing: Technology & Reach
  (http://www.mmaglobal.com/uploads/MMAMobileMarketing102.pdf)
- Mobile Marketing Association Website
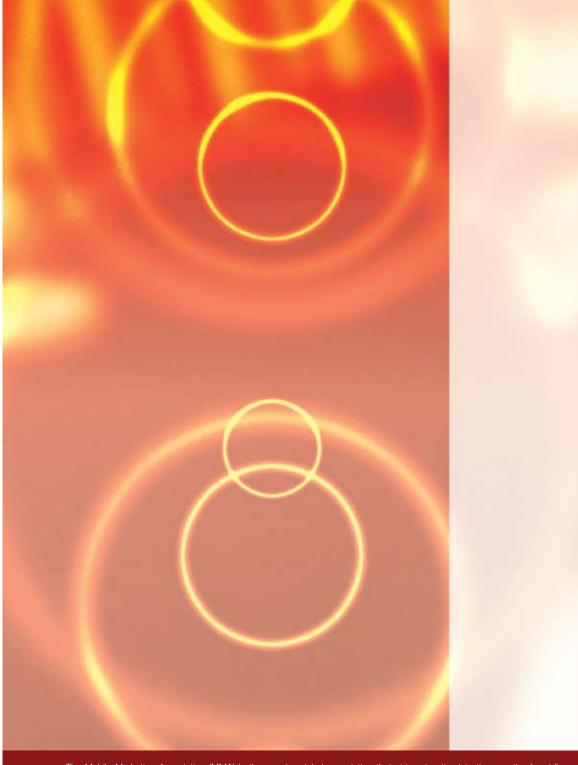 (http://www.mmaglobal.com)

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Glossary of Terms

The MMA maintains a nomenclature glossary of all terms for the mobile marketing industry. The glossary is available at:
http://www.mmaglobal.com/glossary.pdf

The Mobile Marketing Association (MMA) is the premier global association that strives to stimulate the growth of mobile marketing and its associated technologies. The MMA is a global organization with over 650 members representing over forty countries. MMA members include agencies, brands, content porviders, hand held device manufacturers, operators, technology enablers, market research firms, as well as any company focused on the potential of marketing via mobile devices.