mma
mobile marketing
association

Mobile Search Use Cases

Introduction

Mobile search has been discussed and reviewed throughout the mobile, Internet and advertising industries over the past few years. As more people use their mobile phones to access content, information and entertainment a search function becomes a requirement in order to locate what they're looking for quickly and easily. As with all new technologies and services, however, there are multiple ways to implement this requirement. In order to help the mobile and advertising industries understand mobile search and its various attributes, the Mobile Marketing Association's (MMA) Mobile Search Committee gathered a sampling of use cases that demonstrate the functionality and possibilities of mobile search.

Purpose

The purpose of this document is to show mobile content providers, advertisers and other industry groups how mobile search is being implemented in North America, and how the various attributes of mobile search are presented to users.

Key Elements of Each Use Case

This document brings together 10 examples of mobile search in use today. Each use case includes the following three sections:

I. **Mobile Search Attributes** –– Attributes are key elements of mobile search that must be present in order for the mobile search functionality to occur. The attributes are:
   a. Query
   b. Query Input Method
   c. Source of Query Results
   d. Presentation of Query Results
   e. Presence of Advertising
   f. Sources of Advertising

II. **Summary Description** –– Each summary shows what the mobile user is looking for in a certain situation and how he or she would conduct that search.

III. **Screen Shots** –– These complement the text summary by showing how users interact with mobile search and how content and advertising are presented.

Summary of Use Cases

- AOL –– Searching for Disturbia in local theaters
- AOL –– Searching for libraries in the area
- iCrossing –– Coldplay Search with IVR input and results
- iCrossing –– Finding pizza in New York City with text input and results
- InfoSpace –– Search for stock information
- InfoSpace –– Web site search for BBC on Virgin Mobile UK
- JumpTap –– Search for a bank in Los Angeles
- JumpTap –– Mobile operator promo for NASCAR
- Medio Systems –– Search for a Killers ringtone
- Medio Systems –– Shopping for a Honda minivan
- Microsoft –– Search for cars on Sprint
- Microsoft –– Search for pizza near a friend
- Openwave –– Generic and personalized search
- V-Enable –– Search for an Italian restaurant in San Diego

AOL Use Case #1

Table 1: Searching for Disturbia in Local Theaters	
Attributes	**Example Content or Source**
Query Example	Disturbia
Query Entry Process	Text entry into search box
Presentation of Query Results	Key information about the movie, the closest theater showing it and when it is showing Links for further actions and access to additional information
Presence of Advertising	None shown. Opportunities for advertising include sponsored listings, display ads or coupons for restaurants, bars or cafés near the theater
Source of Advertising	None

Summary

Bill and his friend, Joe, are interested in seeing the new horror movie *Disturbia* but are out shopping and do not know where it is showing. Using AOL's mobile web site, he enters *"Disturbia"* into the search box and clicks "Go." Because he has set Arlington, Virginia, as his home location, the search service automatically looks there. The search service recognizes *Disturbia* as a movie and provides the nearest theater and show times, information about the movie and the option of getting a map and driving directions.

There are many opportunities for targeted advertising in this example. Ads or coupons could be shown for nearby businesses where the user could get a meal or do shopping after the movie. Competitive ads could be shown for other movies or theaters in the area. And there is the opportunity to enable the user to purchase tickets through his phone.
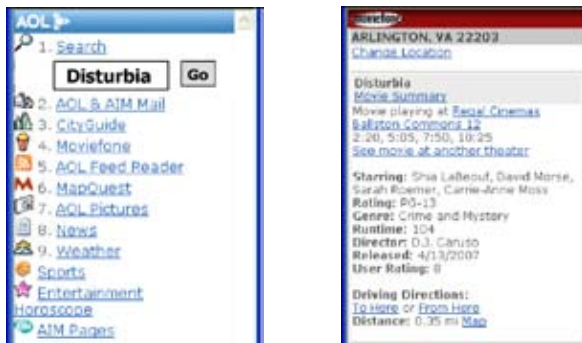
AOL Use Case #2

Table 2: Searching for libraries in the area	
Attributes	**Example Content or Source**
Query Example	Libraries 22207
Query Entry Process	Text entry into search box
Presentation of Query Results	Local listings
Presence of Advertising	List of nearby libraries with their addresses and phone numbers. Links for actions and access to additional information
Source of Advertising	None

Summary

Susie is visiting a friend in Arlington, Virginia, and would like to find a nearby library where she can do some reading. Using MapQuest's mobile Web site, she clicks the "Find Places" link, enters the search term "Libraries" with the local zip code "22207" and clicks "Go." Within seconds she receives a list of local libraries sorted by distance. She is able to select one of the libraries, view a map, get directions and call the library to ask questions.

There are many opportunities for targeted advertising in this example. The libraries could provide enhanced listings with additional information such as their hours and available resources. Also, ads and coupons could be shown for nearby businesses where Susie could get a meal or do shopping after her library visit.

iCrossing Use Case #1

Table 3: Spur of the Moment Coldplay Search with IVR Input and Results	
Attributes	Example Content or Source
Query Example	Coldplay
Query Entry Process	Voice Entry
Source of Query Results	Off-deck IVR
Presentation of Query Results	Voice response, WAP push
Presence of Advertising	Voice Ad
Source of Advertising	Mobile Ad Agencies

Summary

Marc is walking to work and sees a poster for Coldplay's new tour. The poster has a call out at the bottom inviting fans to call the (800) number provided to get free, ad-supported content from the band, such as ringtones, wallpapers and video clips from their new tour.

Marc is a huge Coldplay fan, so he stops right there, pulls out his RAZR and calls the (800) number. He reaches an IVR menu – narrated by Chris Martin, the band's lead singer – that directs him to say "video," "ringtone" or "pictures". He says, "ringtone," and the voice menu recites to him the song titles and types of tones available (e.g., "Yellow," truetone). Marc says the name and type of tone he wants to download and is presented with a brief audio ad for a non-profit charity organization supported by the band. The audio ad gives him the option to donate a $1.99 to the charity by selecting a number on the keypad before proceeding. (The $1.99 will be billed to his phone bill.) Marc presses 2 to donate, after which he receives an audio prompt asking him if he is certain he wants the ringtone he indicated. He confirms and shortly afterwards receives a WAP push that delivers the ringtone to his phone.

Note: In this example, the goal of the advertisers is both awareness AND donations; hence the caller receives the tone for free regardless of whether he or she agrees to donate. The cost of the carrier's royalty on the premium content is covered by the CPM. These socially conscious ads are placed directly by the agency responsible for developing the IVR campaign.

iCrossing Use Case #2

Table 4: Finding Pizza in New York City with Text Input and Results	
Attributes	Example Content or Source
Query Example	Pizza Wallstreet
Query Entry Process	Text message
Source of Query Results	Off-deck local search portal
Presentation of Query Results	Web page via WAP push
Presence of Advertising	Banner Ad and Couponing
Source of Advertising	Search Engine Marketers

Summary

Lucy is on a business trip to New York City, and between meetings in lower Manhattan, she is dying for a slice of real New York pizza. She doesn't know the city well, so she pulls out her Motorola PEBL and texts the query PIZZA WALLSTREET to ACLCL (Area Code Local), which is her favorite mobile local search directory. A few moments later, she receives a WAP push that delivers her a mobile Web page listing all the pizza parlors in the Wall Street area. At the top of the page, above the text links, is a banner ad for the Wall Street franchise of the Original Ray's, the famous NY pizzeria. The banner encourages her to click through to get a free Coke with her slice. She clicks the banner and gets a page with directions to the restaurant, as well as a graphical coupon to save to her phone that she can present at the counter for her free soda.
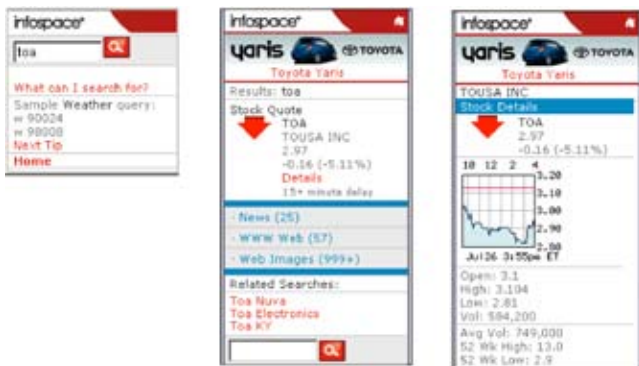
Infospace Use Case #1

Table 5: Information Search for Stock	
Attributes	**Example Content or Source**
Query Example	Stock Information
Query Entry Process	Text entry into search box
Source of Query Results	Aggregation of Content: World Wide Web, Mobile Friendly Sites, Local Business Listings, Images, Related Searches and InfoSpace Portal Applications (News Sports, Weather, Stock Quotes, Horoscopes, Lottery, Movie Listings, Ringtones, Graphics, Games and Flight Times)
Presentation of Query Results	Mobile Browser
Presence of Advertising	Display ads, sponsored listings, and click-to-call
Source of Advertising	Display Ads – Integration with third-party Ad platform Sponsored Listings, Click-to-Call, Local Business Listings

Infospace Use Case #2

Table 6: Web Site Search for BBC on Virgin Mobile UK (Virgin BITES Portal)	
Attributes	**Example Content or Source**
Query Example	BBC (Web site search with Web Adaptation)
Query Entry Process	Text entry into search box and browse by category
Source of Query Results	Aggregation of Content: Web search, Storefront search (Games, Truetones, Ringtones, Videos, Images), Mobile Friendly Sites, on-portal search (Virgin BITES), Horoscope, Weather, Lottery
Presentation of Query Results	Mobile Browser
Presence of Advertising	Merchandising of storefront content
Source of Advertising	Virgin BITES

Summary

John, an avid day trader, purchased a hot new stock this morning. While at lunch with his friends, John shares his amazing financial insight. John's friends ask what the stock price is now. John pulls out his trusty mobile phone, navigates to InfoSpace Search and types in "TOA" into the search box. John receives the latest stock price, percentage increase and a link to view more details. John clicks on "details" to see more information. The details page displays the stock price, stock chart, open, high, low, average and volume for the day. John's friends were not impressed with the stock's performance, but they were intrigued by the search capabilities and the ability to explore other relevant result categories, including News, Mobile Web, WWW Web, Images, Local Listings and Related Searches.

Summary

George is taking the subway ('tube') home. He is interested in catching up on the latest news from the day, and the BBC is his favorite news source. He pulls out his Virgin phone and opens Virgin's portal "Virgin BITES." George types "bbc" into the search box. The results page provides George with a number of options to choose from, including Full-Track Music, Ringtones, Virgin BITES results, Mobile-Friendly Sites and Top Web Results. George selects "Top Web Results," and the first result is the BBC homepage. He clicks on the "BBC-homepage" link and opens the BBC Web site, which is automatically modified to fit his handset model's display size and resolution.
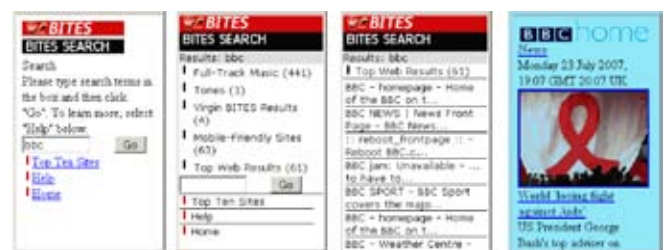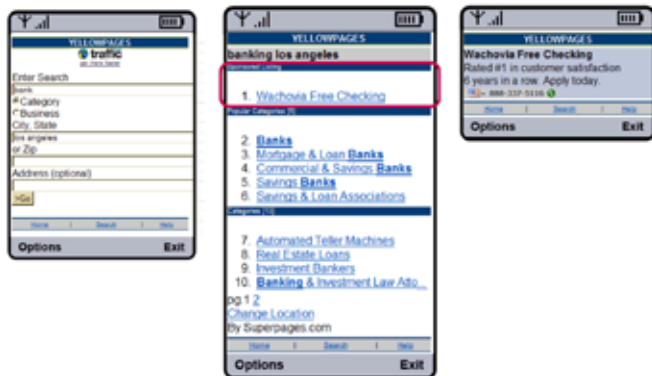
JumpTap Use Case #1

Table 7: Search for Bank in Los Angeles	
Attributes	**Example Content or Source**
Query Example	Bank (local services), Los Angeles, CA
Query Entry Process	Text entry into search box (Bank) Along with user-entered location (Los Angeles)
Source of Query Results	Local directory, plus sponsored links
Presentation of Query Results	One sponsored links (Wachovia) Categorized results and popular categories
Presence of Advertising	Sponsored links
Source of Advertising	Sponsored links offered by Local Directory service

Summary

Veronika has just arrived in Los Angeles. On the second day there, she needs to open a checking account. She doesn't have a Yellow Pages handy and doesn't have a landline phone. She heard that she can use mobile search on her phone, so she launches "Mobile Search" from the front screen and sees a "Yellow Pages" link. She clicks on the link and enters "Bank" into the search box. The next box on the screen is labeled "City, State," so she enters "Los Angeles" and then clicks go. Within seconds, she is presented with a list of banks, with one sponsored link at the top. She clicks on the "Wachovia" listing, and sees they are rated No. 1 in customer satisfaction. There's a phone number that is underlined, so she clicks on the phone number and her phone immediately dials the number.

JumpTap Use Case #2

Table 8: Mobile Operator Promo for NASCAR	
Attributes	**Example Content or Source**
Query Example	NASCAR
Query Entry Process	Text entry into search box
Source of Query Results	Operator portal, content management system and live race results
Presentation of Query Results	Text, images and animation
Presence of Advertising	No (unless you count promotion of the mobile operator sponsored content)
Source of Advertising	Mobile operator internal

Summary

A mobile operator is sponsoring NASCAR and wants to promote the sponsorship, get associated brand marketing, and maybe sell a few pieces of digital content in the process. During the Daytona 500 race, car positions are constantly listed on the bottom of the screen. Every 15 seconds, a promo is presented: "Live Race Stats Provided by Mobile Operator X, Search "NASCAR" on your Operator X Phone for more info." Matt, an avid fan, sees the promo, flips open his phone and sees the search application. He enters "NASCAR" into the search box, hits go and sees several categories: Live Race Results, NASCAR Images, NASCAR Ringtones, and Mobile Friendly Sites. Matt clicks on NASCAR Images and finds a screen saver of Dale Earnhardt, Jr., on sale for $1.99. Because he's a huge Dale, Jr., fan, Matt clicks on "Buy" and the background on his phone is now car #8 racing around the track.

Medio Systems Use Case #1

Table 9: Searching for "The Killers"	
Attributes	**Example Content or Source**
Query Example	The Killers
Query Entry Process	One-second voice query
Source of Query Results	Verizon Wireless Get It Now Catalog
Presentation of Query Results	Text and Images returned to the handset Listed at Top Ringtones: The Killers (20) Followed by: Wallpapers – a few Killer Whales/Orcas Recommendations: 12:51 by the Strokes
Presence of Advertising	Interstitial ads, promos or messages appear after the search is submitted, and when the user requests a detail page:
Source of Advertising	Verizon Wireless

Summary

Jed just recently picked up The Killers' CD, and is listening to it in his car. He thinks: "It would be cool to have a ringtone by The Killers. I wonder if they have any ringtones?"

At the next stop light, he opens his cell phone, and with the search application, simply speaks "The Killers" while holding down the send key. Within seconds, the results display ringtones at the top, with 20 of them available from The Killers. He selects ringtones, and then scrolls to the one he wants, hits "Get It" and then selects pur–chase. The ringtone downloads, the light turns green and he's on his way. Moments later he gets a call, and his new ringtone plays.

Medio Systems Use Case #2

Table 10: Shopping for a Honda Minivan	
Attributes	**Example Content or Source**
Query Example	Honda 206
Query Entry Process	Text entry
Source of Query Results	Medio Local Search on T-Mobile USA
Presentation of Query Results	Ad / Sponsored Link Text Links
Presence of Advertising	Sponsored Links
Source of Advertising	Directory Listings Provider Medio Systems

Summary

Gina is shopping for a new Honda minivan. She arrives at her near-by Honda dealership, goes for a test drive and falls in love with the Odyssey minivan. She'd prefer a different color, and she thinks she can get a better price, but the salesperson is firm with his offer. As Gina is considering the offer, she decides it's probably better to go to another dealership and see what else is available.

She opens her T-Mobile phone, goes to T-Zones and types "Honda 206" (The area code for Seattle) in the search box. The results in-clude Honda dealerships and repair specialists. At the top is a listing for a dealership with the word "Ad" next to it. She clicks on the ad because it's listed first and is exactly what she's looking for. Her click on the ad immediately invokes a call. Within seconds she is con-nected to a salesperson.

"Hi, this is Rob, can I help you?"

"Hi, Rob. I'm interested in an Odyssey EX in Midnight Pearl Blue. Do you have any on the lot right now?"

"Yes, we do. Where are you coming from? I can give you directions."

"That's OK. I see your location on the map. I know exactly where you are."

Microsoft Use Case #1

Table 11: Searching for 'Cars' on Sprint	
Attributes	**Example Content or Source**
Query Example	Cars (Content and Yellow Page listings)
Query Entry Process	Text entry into search box
Source of Query Results	Sprint content catalog and Live Search listings
Presentation of Query Results	Yellow Page Listings for local car-related goods and services including click-to-call numbers and maps and directions Links to Cars related content in Sprint content catalog
Presence of Advertising	Click to call sponsored links to related businesses
Source of Advertising	Live Search for mobile in partnership with Ingenio

Summary

Jane is car shopping and looking to see if there are any other car sales places in the neighborhood. She searches for "cars" on her Sprint phone, and because she has set Seattle as the last search location, she gets local listings, as well as ads related to cars. She sees a sponsored link for an agency, checks out where it is on the map, and looks at the directions to it and then clicks on the link to phone them. The call connects her directly to the agency.

In the meantime, her buddy Jake, who is along for the ride, was interested in the car-related content that the search results included. He checks out the cars screensavers and cars tunes from the catalog and buys one of each using his own phone.

Microsoft Use Case #2

Table 12: Searching for Pizza and a Friend	
Attributes	**Example Content or Source**
Query Example	White Page listing and Yellow Page listing
Query Entry Process	Text box entry and Browse by Category
Source of Query Results	Local listings
Presentation of Query Results	Listings of white pages – person's name and address List of nearby restaurants with their addresses and phone numbers Links to map them onto a single map, reset the search to near one of the restaurants, maps and directions
Presence of Advertising	None shown. Opportunities for advertising in future could include sponsored listings, display ads or coupons for restaurants, bars, coffee or dessert near the theater
Source of Advertising	None

Summary

Carlos is visiting his friend, Claire, in Bellevue and is going to pick up a pizza on the way to her house. He looks up Claire's address by entering her name in the search box. He then sets her address as the search location and browses the categories to find pizza. He gets several pizzeria listings, chooses one and then gets directions. He also gets a map with a satellite or street view, and he can check out traffic on the map. He switches back and forth between map and directions view easily and arrives with time to spare.
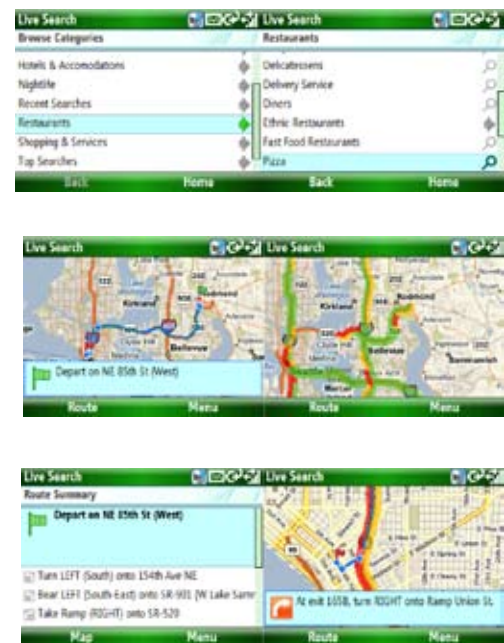
Openwave Use Case #1

Table 13: Generic and Personalized Search	
Attributes	**Example Content or Source**
Query Example	Home deck Superman
Query Entry Process	Text entry
Source of Query Results	Aggregation of Portal Content, RSS, Off-deck sites
Presentation of Query Results	Mobile Browser or Client Application
Presence of Advertising	Merchandizing of portal content, third-party CPC ad
Source of Advertising	Mobile Ad Agencies

Introduction

Parallel use cases are presented for generic and personalized search. Search is also used to determine what information to show users on the carrier's home deck. Some background on John, the subject of the use case:

Generic Experience:
- Home location is Sydney
- Current location unknown
- Demographics unknown
- Interests unknown
- Purchase habits unknown

Personalized Experience:
- Home location is Sydney
- Current location is New York
- Subscriber is a 31-year-old male
- Enjoys sports, especially European football, and favorite team is Arsenal
- Owns IBM stock
- Buys ringtones, but never buys games or wallpapers

Summary

John is traveling in New York, where he sees a billboard promoting the release of Superman Returns and remembers how he loved Superman as a child. John opens the browser on his mobile device and navigates to his carrier's home deck, where he is shown:

Generic

Personalized

- Generic banner ad
- Generic weather for Sydney
- Generic news relevant to Sydney
- Generic events relevant to Sydney

- Personalized ad relevant to demographics and interests
- Personalized weather to home and current locations
- Personalized news relevant to interests and current context
- Personalized events relevant to interests, home and current locations

Next, John enters the term "Superman" into the search field and is shown:

Generic

Personalized

- Generic portal content links
- Links to search term relevant news
- Links to search term relevant URLs

- Personalized portal content link
- Personalized ad relevant to demographics and location
- Links to search term relevant news
- Links to search term relevant URLs

In the personalized case, John is able to quickly obtain the information he needs, such as the weather for his home and current locations, and the current exchange rate.

In addition, advertisements are targeted to John and are therefore more likely to be viewed as a benefit than a nuisance. For example, because John never buys games and wallpapers, he is shown a direct link to content he is likely to purchase rather than a higher level list of all possible matches to his query. Moreover, given the context of his location, advertisers are able to target promotions with laser precision, such as the example of movie times at a theatre near him, adding value to the advertiser.

V-ENABLE Case Study #1

Table 14: Search for an Italian Restaurant in San Diego	
Attributes	**Example Content or Source**
Query Example	Restaurant (local services), San Diego, CA, Italian
Query Entry Process	Voice Entry Location entered via voice (San Diego, CA) Followed by Voice search for Business Type (Italian food or Italian restaurant) or Text Entry Location entered via text (San Diego, CA) Followed by text entry into "Business Type" search box (Italian food or Italian restaurant)
Source of Query Results	Nationwide directory database, plus local sponsored links
Presentation of Query Results	Results are displayed on the screen as follows: Listed on Top: One or Two sponsored links (e.., Paulie's Pizza) Followed by: Alphabetical listing results (can also be sorted by proximity of current location)
Presence of Advertising	Yes, sponsored links.
Source of Advertising	Existing online sponsored links offered by nationwide directory company.

Summary

Jeff has traveled from San Francisco to San Diego on business and is ready for dinner after a long day of work. He has a craving for Italian food, but he doesn't know the city that well and is too tired to aimlessly go exploring. He doesn't have any information handy about the area and doesn't want to waste time returning to his hotel to ask the concierge for advice.

He decides to use the voice-enabled mobile search application that he found was preloaded on his phone. He launches the application from the front screen and changes the location from his home town to San Diego by simply pressing and holding the "TALK" key and saying "San Diego, California." He then selects "Search by business type", and again presses and holds the "TALK" key while saying "Italian restaurant" to see all the Italian restaurants in the area.

Within about 3 seconds, he is presented with a list of 36 Italian restaurants in San Francisco. Jeff is currently on University Avenue, so he decides to narrow down his options by speaking the name of

the street he is on. He then is presented with four Italian restaurants within a 10-mile radius. He sees a sponsored link at the top for a pizza place and thinks: "Mmm, pizza. That sounds good."

He then clicks on the sponsored link for "Paulie's Pizza". The application now gives the option of calling the restaurant, seeing it on a map, getting driving directions, seeing what else is nearby, sending the listing to a friend or saving it in case he wants it next time he is in San Diego. He quickly checks the location of the restaurant on the map and sees it is just a few miles away. He jumps into his rental car and selects "Get directions" from the application. He finds it extremely easy to follow the step-by-step directions because they are read aloud to him while he is driving, so he doesn't need to look at his phone anymore. As he walks up and smells the pizza, he's glad that it was so easy to find.

Conclusion

From the example use cases listed in this document, it becomes clear that mobile search solves multiple end-user needs, including the need to find downloadable content, to find local services and to get relevant information. Although there are multiple ways to invoke a search (e.g., via text entry or voice input), most mobile searches return a set of basic results that may have advertising present.

One element that is different among various search providers is the source of the data that is being searched. Possible sources are as varied as the number of providers and include the carrier-controlled content management systems, various local directories, wireline Web sites, wireless Web sites and other private databases. Nearly all providers of mobile search, however, agree that providing a small list of potential answers that immediately address the mobile subscribers' needs is the most effective approach. Providing relevant results offers end-users a quick and easy way to access the content, information and services that they want. At the same time, advertisers have a direct way of reaching those subscribers with highly targeted offers.

In the U.S. mobile market today, there are multiple options for content providers and other advertisers to reach the subscriber through mobile search. The mobile search vendors that have contributed use cases in this report are a great place to start if a content provider or advertiser wants to learn more about mobile search, or if those companies want to engage in campaigns that target the mobile user. For more information on mobile search in general, look to the Mobile Marketing Association and the Mobile Search Committee for continued research, white papers and case studies.

Who We Are

About the Mobile Marketing Association

The Mobile Marketing Association (MMA) is the premier non-profit global association that strives to stimulate the growth of mobile marketing. The Mobile Marketing Association is an action-oriented association designed to clear obstacles to market development, to establish guidelines 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 is designed to establish guidelines for a search marketing ecosystem. The Mobile Search Committee will help operators maximize value as well as provide an efficient search ecosystem for advertisers and content providers in the mobile space.

The Mobile Search Committee developed these Use Cases in collaboration with MMA member company representatives from:

Mobile Search Committee	
4INFO, Inc.	LavaLife Mobile, a division of Lavalife Corp
Action Engine	Medio Systems, Inc.
Alltel Wireless	Microsoft (MSN and Windows Live)
AOL, LLC	Nokia Corporation
AT&T Mobility	Openwave
Cellfish Media, LLC	Telephia, Inc.
Denuo (a Publicis Groupe Company)	TMP Directional Marketing
Helio LLC	V-ENABLE
iCrossing	VeriSign, Inc.
Infospace	The Weather Channel Interactive
Jingle Networks, Inc	Yahoo!
JumpTap	

Contact Us

For more information, please contact the Mobile Marketing Association at:

Mobile Marketing Association
Email: mma@mmaglobal.com
Phone: +1.303.415.2550
Fax: +1.303.499.0952
www.mmaglobal.com

Glossary of Terms

The MMA maintains a nomenclature glossary for all terms within MMA guidelines, education documents and research. The glossary is available at http://www.mmaglobal.com/glossary.pdf

mma™ mobile marketing association

The Mobile Marketing Association (MMA) is the premier global non-profit association that strives to stimulate the growth of mobile marketing and its associated technologies. The MMA is a global organization with over 450 members representing over forty-two countries. MMA members include agencies, advertisers, hand held device manufacturers, carriers and operators, retailers, software providers and service providers, as well as any company focused on the potential of marketing via mobile devices.