



# Mobile Search 2.0: Relevancy Rules

Illustration by John Cossey

Plain-vanilla mobile search—the approach that delivered a long list of blue links to users’ mobile phones—is yesterday’s news. Now both branded and white-label mobile search providers are scrambling to do one better: deliver the right results to the right users based on the clues they leave, such as their query patterns, download history, location and time of day.

**By Peggy Anne Salz**

**S**earch—which is already the de facto interface to content in the online space, with more than half of all users going straight for the search box when they enter a website—has also become the primary means to access and monetise the legendary Long Tail of content. Moving forward, mobile search—like its online counterpart—is destined to become the core capability required by any company that wants to sell content or information successfully.

After all the hype that marked 2006, the mobile search market is picking up steam. Although it’s early days, the usage figures are encouraging. M:Metrics, a company that specialises in measuring consumer consumption of mobile content and applications, recently reported that 15 per cent of users in the US access internet content on their phones.

More good news comes from Ipsos Insight, which has found that the mobile phone is well on its way to becoming the dominant internet platform. It reports 28 per cent of mobile phone owners worldwide had browsed the internet on a wireless handset in 2006, up slightly from 25 per cent at the end of 2004. France and the UK exhibit the strongest growth, but Japan also shows rapid growth.

By 2010, the, “gap between the average number of searches that a user does on their desktop and the number of searches they do on their mobiles will vanish,” says Chetan Sharma, president of Chetan Sharma Consulting, a strategic advisory firm. Today, he estimates, desktop search outpaces mobile search by a ratio of 3:1. But the revenue potential of the mobile search market in the US alone is set to reach \$2.5bn in 2010, up from

just \$100m in 2007. And these estimates don’t include enterprise mobile search, a vertical poised for growth as more road warriors demand remote access to information and applications on-the-fly.

But before providers can break out the champagne, they have to revamp their approaches. They need to deliver content within an acceptable click-distance, and so overcome the key usability barriers—screen-size limitations and restricted input capabilities—that currently make finding and buying content using mobile phones more effort than it’s worth.

Established usability studies have been arguing since 2003 that mobile sites and portals must bring content to users within six clicks. Unfortunately, the same studies consistently conclude that a whopping 65 per cent of content is positioned too far from the homepage, making it invisible to users.

Usability research conducted by Informa Telecoms & Media reveals that users typically have to click through 10 - 40 screens, spending more than two minutes to download some of the most popular ringtones or games. This is unacceptable—particularly since the mobile industry itself now generally agrees the optimal mobile search experience must deliver content within three clicks.

This ambitious end-goal has long been “business as usual” for Israel’s Targetize Innovative Solutions. Its search solution effectively processes mobile search results from other search engine companies to deliver actual content—not a list of links—to users within three clicks of the portal homepage. It presents the results in the form of an overview screen that summarises the available and relevant content in phrases and images,

discerning between content types to show users which results refer to ringtones and which to wallpapers, for example.

As Avichai Levy, Targetize CEO, puts it: “Our technology dives into content located on portals or on the web and harvests the relevant information about the content.” After the technology has gleaned important content traits, it extracts these and delivers them to the user’s handset in a form and format compatible with that device. The company’s client-server solution also monitors the individual user’s click patterns, learning over time to deliver results that are selected based on the user’s preferences and behaviour.

In August, Universal Music Mobile, the Dutch subsidiary of Universal Music Group International, teamed up with Targetize to provide music search and discovery for the recording label’s AnySong service. AnySong gives Dutch mobile subscribers access to music tracks, videoclips and ringtones. According to Ritchie Kremer, a Universal Music Mobile manager, the ability to provide personalised search also has a direct and positive impact on mobile content consumption.

Kremer’s sentiments point to the “big thing” in the mobile search continuum: personalisation. In the mobile space, users won’t likely want long lists of URLs—but they will appreciate actionable and personalised results based on their profiles and preferences. To be genuinely useful, mobile search results will therefore have to factor the user’s location and context into the equation. With this in mind, search engine providers and operators are rapidly rethinking their approaches to serve up the right content to the right users at the right circumstances. »

The mobile search experience on a personal device like the mobile phone must be more in tune with the individual user, says Deep Nishar, Google's director of product management.

"Mobile search isn't about browsing, it's about finding," Nishar says. "The next level is going to be about understanding what the user is doing and using this insight to give them results and information that are more in line with their personal usage as opposed to functional usage."

In Nishar's view, personalised search should satisfy three requirements: it should learn and adapt to each user (if a user always looks for traffic conditions between home and work, then they shouldn't have to type in the route every day); it should base results on recent activities (if a user has been researching HDTVs on the mobile web, then the system should learn from the queries to volunteer additional relevant results); and it should understand the user well enough to only deliver useful results (if a user has never asked to see weather results in a search, then the system should not present them as part of the mix).

Google intends to sharpen its focus on personalised search, building on existing capabilities and features such as Google Maps and its personalised home page. While Nishar is tight-lipped about products in the pipeline, personalisation will be the thread that ties them together. "Google's approach to search is about user-centricity." Moving forward, and beginning with announcements during 3GSM, Google will use its tools and techniques to, "get the right users for individual users every time they search."

Likewise, relevancy runs like a leitmotiv through Yahoo's new product offer and its future roadmap. It has revamped its approach by releasing oneSearch, a Web 2.0-type search engine that picks up on users' intent, intuitively the information they want and then presents the relevant content, grouped by subject, in synopsis form. A sports search on oneSearch, for example, will return a relevant bundle of scores from a team's most recent game, along with game schedules, team rosters, photos, local results, and so on.

"First-generation search was really just repeating the search experience on the PC, and that, the industry has learned, was a fatal error," notes Geraldine Wilson, vice president of Connected Life, Yahoo, Europe, the business group responsible for the company's "beyond the browser" strategy.

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Drawing from customer research Yahoo created a mobile search experience from the mobile user's perspective. "One result that stood out is that users want fast answers, really instant answers," Wilson explains. More importantly, users will vote with their feet if the search results aren't relevant. While Wilson can't divulge Yahoo's next move, she assures that enabling targeted advertising—based on the user's profile, preferences and search patterns, as well as on oneSearch's pivotal position as the "route on to the mobile internet"—is a top priority. Adding location and local content to the mix is also a chief focus.

Improving relevancy of search results also sits at the centre of Medio Systems' tie-up with T-Mobile USA to improve mobile search on the mobile operator's t-zones portal. However, Medio's mobile search and merchandising solution is not only about delivering relevant content; it's designed to recommend content to users based on their intent, exposing users to more of what's stored deep in the t-zones catalog, observes Brian Lent, Medio CEO.

For example, a search for a Nickelback ringtone will bring back every available Nickelback ringtone, CallerTune, wallpaper and news item on the t-zones portal that can be played or displayed on that user's handset. Medio's technology sorts and displays the search results by content type and popularity. But the real tough act to follow may be the tie-up between search and recommendation technology to proactively suggest similar content to users based on an analysis of their

content preferences and intent. In the case of the Nickelback ringtone, the search results would also list ringtones with a similar style such as Soundgarden or Hinder.

Likewise, InfoSpace, a white-label search engine company that has a long track record in the online space with its internet search engine dogpile.com, is bouncing back after restructuring with technologies and techniques to personalise search results and recommend relevant content. The company is currently gearing up to launch a, "carrier-focused client software-based scheme that can follow the clues users leave on their phone to deliver a more relevant and more comprehensive" mobile search experience, explains Brendan Benzing, InfoSpace VP of Mobile Search.

The company is also "in the process" of developing an on-device application that will "bring mobile search closer to the users in an above-the-browser experience," Benzing says. Two options are in the running: delivering mobile search in the form of an icon on the phone or harnessing the phone's idle screen to deliver personalised content (see box). "The paradigm is content-push, so it would be about pushing relevant content to the users without them having to ask for it, or initiate a browser session."

While providing an improved user experience is crucial, the real value of personalised search is its pivotal position in all search monetisation and mobile advertising schemes. Indeed, a mobile search that is aware of the user's context—and therefore able to deliver results in tune with the individual user's profile, preferences and passions, as well as location and time of day, satisfies user requirements for relevancy. More importantly, it empowers media companies to deliver targeted mobile advertising campaigns and content promotion schemes. Anything else is spam.

Medio read the writing on the wall, which is one reason it quietly acquired Web Relevance, a company that brings a contextual advertising—and a platform to support it—to the mix. "We've taken that platform and mobilised it," Medio's Lent explains. The results of that aren't public yet, but the company has built the capability. "The next step in search is all about bringing performance-based marketing to mobile."

It's an opportunity operators are lining up to exploit. Orange was among the first to dive into mobile advertising, opening its »



portal to major brands and then allying with Yahoo to display sponsored ads with mobile search results. The operator's approach allows advertisers to post banners on the portal and will eventually give advertisers an opportunity to reach its customers in what one Orange senior executive described as, "a more targeted, more immediate and more interactive way." Orange has also improved its portal functionality to deliver better search results—a move the operator says has resulted in an 80 per cent increase in the searches being done by users.

The growth in mobile search, and the emergence of effective search monetisation models, will be significant drivers for mobile marketing and advertising. Indeed, recent research from market research firm eMarketer shows the current trickle of mobile-marketing spending may soon become a flood, transforming the mobile commerce landscape.

It is bullish about the outlook for mobile ad spending and estimates investments in the US alone will grow to \$4.8bn in 2011 from \$421m in 2006, a jump from 2.6 per cent to 12 per cent of overall US ad dollars. In its global Mobile Advertising report, Informa Telecoms & Media forecasts that advertisers will spend over \$871m in 2006, which will rise to \$11.35bn by 2011. The amount of ad spend attributed to mobile search is forecast to rise rapidly, driven by strategies to target users with advertising relevant to their search queries and purchase habits.

With so much money resting on operators' abilities to play matchmaker between search results, mobile advertising—all the while promoting their own portal and friendly off-portal content stock, some question if aligning with one or two mobile search engines is a viable strategy arguing it limits users choices, the range of results and the opportunities to monetise search.

Japanese mobile operator NTT DoCoMo is wise to the problem. It has recently created a mobile search ecosystem of over a dozen search engine providers, directory companies and content companies. Each brings its own index and its own expertise—delivering DoCoMo's i-mode mobile service subscribers a well-rounded list of relevant results. On the vendor side of the equation, Finland's mobile phone manufacturer Nokia has launched an initiative to offer customers a comprehensive out-

of-the-box mobile search experience that delivers vertical search through a variety of search engine companies and directory partners.

Sensing a business opportunity in aggregating mobile search results from all the search engines, Mobile Content Networks (MCN) is the first out of the gates with a search engine platform that can incorporate the results of all search engines into a relevant subset of results. More importantly, MCN can also connect with the indexes that are growing and flourishing under the radar such as blogs, user-created music, and videos, allowing operators to offer and monetise the legendary Long Tail of content.

The approach, part of what MCN calls its "real-time mobile search platform," effectively casts a net over the internet to capture more content hidden in its depths. "Aggregating search results creates a 'more' section for the users and increases the likelihood that they will see something they like," Marc Bookman, MCN CEO says. It also increases the opportunity for operators to generate mobile advertising revenues through sponsored search and a variety of other monetisation models.

NTT DoCoMo has combined FM radio and MCN's search platform, making it possible for users to listen to the built-in FM radio in their mobile phone and search for information, content and merchandise related to the song they hear in real-time. When the song changes, so do MCN's search results. The results can also be customised to fit user profiles, preference and context.

Moving forward, it's all about the individual and about delivering users a mobile search experience that guarantees each user a greater choice of sources and search engines, an abundance of relevant and contextual results and more of a say in their content consumption. It's an approach that will move content revenues out of the doldrums and lay the groundwork for mobile Web 2.0. ■

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## On-device portals

With an avalanche of mobile content slated to come online this year, subscribers certainly can't claim they suffer a lack of choice. But they can complain about the tedious navigation process and confusing hierarchical menus they have to endure to find and buy content they like.

Granted, mobile search goes a long way toward solving this problem. However, it can also lead users to destinations that are dictated by the search engine provider's algorithms or advertising schemes—and not the individual user's personal preferences. Moreover, mobile search can't keep up with fast-paced content such as entertainment and multimedia.

The mobile search model also ignores the rise of empowered customers who increasingly expect—even demand—content and services consistently tailored to their individual tastes.

To deliver fresh and relevant content directly to their subscribers' mobile phones—even before they ask for it—an increasing number of operators and media companies are harnessing on-device software and schemes that turn the idle screen into an active dialog with the individual user.

Their top choice: On-Device Portals (ODPs), a new generation of client applications that leverage the handset's capabilities to deliver a more appealing user experience, increase service awareness and streamline content purchasing. "For mobile operators and content providers, ODPs are able to deliver an immersive user experience, providing a 'wow' factor through the use of rich graphics and targeted content," observes Andreas Constantinou, author of a recent report on the subject from ARCCart, a UK based independent technology consultancy. He counts some 20 vendors in this emerging space, led by SurfKitchen, which has been selected by over 20 operators worldwide. Its software can also be pre-installed on 60 per cent of handsets being shipped today.

"It's about encouraging users to discover and interact with content because the offer is designed from the ground up to appeal to them," says Michel Quazza, SurfKitchen CEO. The approach also provides an important missing link in the quest for optimal usability and one-button access to content, according to Maxis, Malaysia's largest mobile operator and a SurfKitchen customer.

According to Siew Nen Jun, a Maxis manager, the client-software solution underpins its strategy of encouraging content discoverability and accessibility. "Personalisation is a key differentiator," he says. Right now, it's about delivering customised content to the user.