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Mobile Location Becomes Invisible

by Thomas Husson for Consumer Product Strategy Professionals



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No Longer A Service, Location Will Be Embedded In Mobile Products

by Thomas Husson

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EXECUTIVE SUMMARY

eBay's recent acquisition of Where and Groupon's acquisition of Whrrl show how two Internet pure players looking to develop mobile transactions plan to integrate new location-based features into their mobile product and services portfolios. Indeed, location is no longer a service, like maps or navigation, but is increasingly an enabler of new product experiences. Consumer product strategists should think beyond location alone but should couple this feature — which will be increasingly accurate, particularly indoors — with other data sources, such as user context and past behaviors.

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NOTES & RESOURCES

For this report, Forrester used data from the European Technographics® Consumer Technology Online Survey, Q4 2010 and the European Technographics Benchmark Survey, Q2 2011. Data about consumers from the seven markets of France, Germany, Italy, the Netherlands, Spain, Sweden, and the UK was analyzed. Forrester also interviewed a number of players active in the location-based business, including Factual, infohubble, Intersec, madvertise, Micello, Placecast, Poynt, Skyhook, TCS, Telmap, TomTom, Volt, and xAd.

Related Research Documents

"The Future Of Mobile Is User Context"
July 11, 2011

"Case Study: PagesJaunes Embraces The Local Social Web To Drive Mobile Product Innovation" June 17, 2011

"Location-Based Commerce: An Evolution In Mobile Shopping" February 15, 2011



LOCATION WILL BE EMBEDDED IN MOBILE PRODUCTS

The prevalence of the expression "location-based services" highlights the fact that, over the past decade, consumer product strategists have long thought of location as a service in and of itself, mostly developing maps and navigation services. But today this is changing: Location is no longer a standalone service but is becoming a feature embedded in a wide variety of mobile products. eBay's recent acquisition of Where and Groupon's acquisition of Whrrl show how two Internet pure players looking at developing mobile transactions plan to integrate new location-based features into their mobile product and services portfolios.¹

Integrating location as a feature will enable new product experiences. For example, Yelp has made location a critical feature of its peer-generated reviews.² Addieu is a mobile app that integrates location into social networking: When you become friends with someone, Addieu will mark where and when you met that person.³ For product strategists, embedding location in mobile products can create a differentiated mobile service portfolio and lead to customer loyalty.

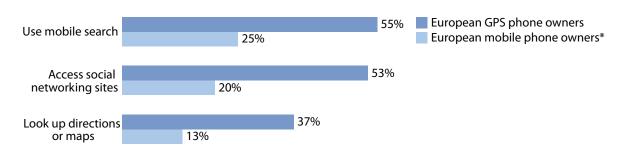
Maps And Navigation Services Are Not Yet Mainstream . . .

While maps and navigation services are increasingly available for free and on a growing number of devices, our data suggests that a majority of consumers do not regularly use them — yet.

- Fewer than a quarter of consumers report owning a phone with GPS support. Despite the fact that most new smartphones ship with GPS navigation support, the percentage of consumers of ages 16 and older reporting GPS as one of the features of their mobile phones has increased only from 12% in 2010 to 18% in 2011— indicating a gap between the phones' features and awareness by users of those features.⁴
- GPS mobile phone owners show an early-adopter profile. Among EU-7 (France, Germany, Italy, the Netherlands, Spain, Sweden, and the UK) consumers who report owning a mobile phone with GPS support, 61% are male, versus 50% for average European mobile phone owners. Sixty-nine percent of the owners with GPS support are technology optimists, and 55% have high income, versus 47% who are technology optimists and 46% who have high income among average mobile phone owners. Also, 53% of GPS mobile phone owners are between the ages of 25 and 44, while 37% of average mobile phones belong to this age group.⁵ This early-adopter profile demonstrates that GPS usage hasn't quite reached the mass market in Europe yet.
- A minority of consumers regularly use directions and maps on their mobile phones. Just 13% (and 37% of GPS phone owners) of European online consumers report that they look up directions and maps on their mobile phones on a monthly basis (see Figure 1).6 Other types of location-based services, such as foursquare, are still niche with around 10 million users globally despite the massive hype.7 However, consumers are more likely to use services such as mobile search or mobile social networking, which increasingly have a location component.

Figure 1 GPS Phone Owners Haven't Yet Fully Embraced Location

"Which of the following activities do you conduct at least monthly on your mobile phone?"



Base: 3,704 European online adults (16 and older) who own a GPS mobile phone *Base: 13,326 European online adults (16 and older) who own a mobile phone

Source: European Technographics® Consumer Technology Online Survey, Q4 2010

58974 Source: Forrester Research, Inc.

... But They're More Useful As Product Features, Anyway

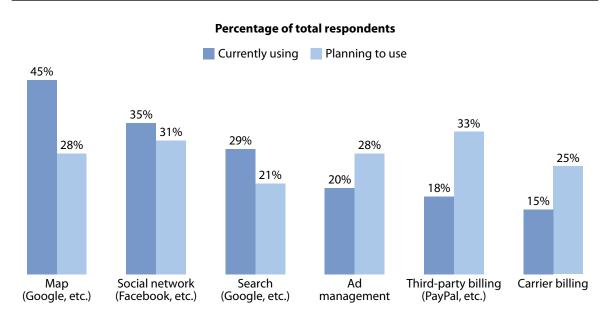
While our usage data suggests incomplete adoption, consumers will soon embrace these services. Now that most new smartphones are shipping with GPS support and that Google and Nokia offer maps and navigation services for free, we expect a majority of consumers to use these services in the coming years. As of May 2011, there were more than 200 million mobile installations of Google Maps, and the service is used 40% of the time through consumers' smartphones.⁸

Once the devices are in the hands of consumers, product strategists will drive location forward. How? By making location an automatic part of mobile products and applications — whether explicitly or invisibly:

- Location and maps are increasingly becoming features of new mobile products and services. Developers are leading the way: Forty-five percent of developers are currently using maps as cloud application programming interfaces (APIs) that help them provide location-aware services (see Figure 2). OpenTable makes the most of context: It conducts searches based on location and provides additional utility once the search is done, letting consumers make a restaurant reservation (see Figure 3). Product strategists will combine location, maps, and directions to provide consumers with more relevant and accurate information whether they are shopping, gaming, socializing, or writing a restaurant review.
- Location will happen automatically, behind the scenes. In the same way that a sensor enables a phone to ring louder because it detects that the phone is in a bag, so location awareness allows

the phone to change its ring tone, for example, because it knows the user is in the office. These adjustments happen automatically and, from a user perspective, invisibly. A growing number of applications will use geospatial information — without necessarily generating a map. Location becomes part of the contextual information you have available to create better user experiences. Apple's recent new feature in iOS5 will include a "reminders" app that allows the user to set time or location-based reminder alerts.⁹

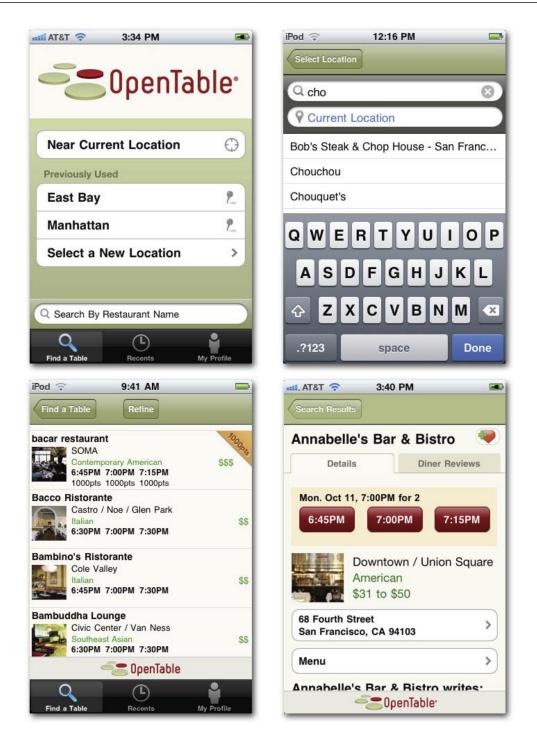
Figure 2 Maps Are The Most Popular APIs



Source: "Developer Economics 2011" report, Vision Mobile 2011

58974 Source: Forrester Research, Inc.

Figure 3 OpenTable Integrates Location Directly Into Its App



Source: OpenTable iPhone app

58974 Source: Forrester Research, Inc.

RICHER DATA WILL DRIVE CONTEXT-BASED EXPERIENCES

Product strategists are just starting to use location as an enabler of total mobile product experiences. ¹⁰ Moving forward, more relevant and accurate local data will drive better product experiences with more accuracy and relevance. And location will interact with other enablers (place, user context, sensors, and the like) to open up even greater opportunities to create a differentiated portfolio of mobile product and services.

Relevancy Of Local Data Will Improve Significantly

The potential of local data has not been unlocked yet. Product strategists should benchmark the space closely, since it will open up new opportunities in the years to come.

- Indoor location and mapping will be a game-changer. The current location business is primarily focused on outdoor opportunities. While indoor positioning is improving via the combination of Wi-Fi and femtocell technologies, accurate indoor mapping will open up a new ecosystem with new players (malls, airports, parking facilities, conference centers, universities, etc.). The emergence of new services such as the ability to locate a product on the shelves or to find a nearby underground parking slot will be critical to shaping a total product experience for consumers. Early innovator Micello recently launched the first-ever set of indoor map APIs for developers to tap into.¹¹
- Relevancy of local data will improve quickly. The era of basic point of interest (POI) information is over. This is no longer about just the address and the business name of a local shop. Enriching content with more accurate information on opening hours, real-time data (traffic information, coupons and promotions, etc.), product data, brand data, dynamic data (review and promotion), and inventory data will deliver greater consumer benefits (see Figure 4).
- New algorithms will bridge the physical and digital worlds. Coupling more accurate local data with user context and other sources of information will enable developers to create new algorithms bridging the digital and the physical worlds. ¹² Such a model, linking consumer behaviors with local data, will foster the development of crowdsourcing and predictive analysis. ¹³ Some innovative startups, such as infohubble (created by the founder of iLocal) and Factual (created by the founder of Applied Semantics), are leveraging this trend. ¹⁴

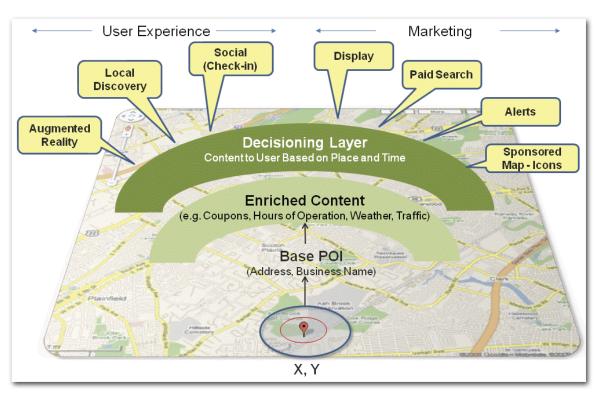


Figure 4 New Mobile Experiences Will Bridge Online And Offline Worlds

Source: Placecast

58974 Source: Forrester Research, Inc.

Location Must Be Combined With Other Types Of Data

Location alone will not suffice to deliver highly contextual experiences.¹⁵ Consumer product strategists should be aware that, moving forward, they will need to tap into other marketing variables and other features to differentiate their product experiences:

• "Place" is just one of the marketing variables to take into account. The basic notion of "where the customer is" will not be enough to deliver a highly contextual mobile offering. While using place as a marketing variable is key, there are other variables to take into account. Knowledge — making the most of past consumer behavior by leveraging the fact that mobile phones are the most personal devices we use — and time — making the most of the notion of immediacy, uniquely leveraged by devices we carry 24x7 — are two other key variables that need to be taken into account to deliver best-of-breed mobile products and services. ¹⁶

- New technologies will facilitate the emergence of contextual services. New sensors in mobile phones will reveal details about the user's environment: Barometers, microbolometers, chemical sensors, and many others will find their way into phones as both the use and business cases evolve. The phones will also act as modems, relaying or interpreting information from other machines or from attachments with sensors. They will offer new information, including a consumer's altitude, speed, temperature, presence of relative lightness or darkness, etc.¹⁷ These features, coupled with location, will help product strategists design more contextualized experiences.
- Invisibility will also raise privacy and identity fears. Who knows you best? Your mobile phone. Why? Your mobile phone will become the device you use to interact with the world around you. This will raise growing concerns about risks to lose personal information or to share location information with people and organizations you don't want to have it (see Figure 5). Really convenient services delivering more contextual information will overcome the privacy concerns provided a new ecosystem of trusted aggregators of data emerges.¹⁸

Figure 5 Address Consumers' Fears By Giving Them Control Over Privacy



Base: 1,500 respondents across the US, the UK, Germany, Canada, and Japan

Source: "Location Based Services Usage & Perceptions Survey," Microsoft, December 2010 Note: Microsoft conducted interviews online between December 13, 2010, and December 22, 2010, among 1,500 respondents from the general population across the US, the UK, Germany, Canada, and Japan. Cross-Tab Marketing Services conducted the research.

58974 Source: Forrester Research, Inc.

RECOMMENDATIONS

THINK CONTEXT, NOT JUST LOCATION

Consumer product strategy professionals should think beyond just location. Location alone is not enough to drive the best-of-breed mobile services. Taking into account past behavior, time, and places will help in delivering more contextualized mobile experiences:

- Mash up location with other enablers. Don't just answer the question "where are you?" but, increasingly, consider "where are you going?" This is not just semantics. Answering the question "where are you going?" will help bridge time and consumers' intents into services provided to them. Using other sensors to obtain more contextual information about a user's environment and analyzing past behaviors will be key to delivering more contextual experiences. Mashing up location with other features and services will increasingly be critical.
- Continuously benchmark pioneering initiatives in this innovative space. The path of mobile innovation is accelerating as never before. Mobile years are like dog years one counting for seven. This is particularly true in the location space because it is quickly colliding with mobile and social drivers. From augmented reality to social-based features à la Facebook Places or Groupon flash sales to proximity marketing campaigns or new location-based ad networks such xAd or madvertise, there are plenty of interesting initiatives to look at that go beyond pure location-based services.
- Systematically reassure consumers about their privacy concerns and give them control. Users need to be convinced that they can control their privacy whenever they want, regardless of whether they face a real risk or only think they do. They should also be able to: 1) choose the degree of personal information they share with their different social contacts; 2) contact their service providers to find out more about their privacy policies; 3) be systematically informed about how third parties will use their identity information; and 4) have the ability opt out at any time.

WHAT IT MEANS

BEYOND MOBILE, A NEW GOLD MINE FOR CONSUMER BEHAVIOR PREDICTABILITY

Moving forward, the ability to create new algorithms bridging the digital and the physical worlds will have far-reaching consequences well beyond mobile.

There are already multiple examples of crowdsourcing applications that leverage smartphone presence to predict traffic congestion or monitor air quality. Predictive and aggregated mobile local data analysis will open up new business opportunities. There is tremendous value in knowing not just where customers are at a given moment of time but also where they are going and who they are in an aggregated and anonymous way.

Tracking the profiles of customers in shops or at a trade show will help in developing a more efficient consumer presence as well as more targeted offerings and marketing messages. Just imagine how you could improve the efficiency of billboard advertising if you knew the exact profile of consumers passing by! Retailers will be able to plan commercial developments and openings of new stores based on real pedestrian and car movements. Real-time analysis and alerting of consumers' moves will improve supply-chain logistics and help prepare for a sudden rush of consumers. For example, some retailers and hotels are already starting to improve their last-minute stock plans and hospitability capabilities by obtaining real-time information on travelers' plans during peak vacation times. Opportunities will not be limited to the business-to-consumers or business-to-business segments. Governments will also benefit from it and will, for example, be able to better plan urban development by in-depth analysis of citizens' moves and population density.

For product strategists, exploiting this new gold mine of information means opportunities to create new experiences based on location-aware services. We believe that consumers will literally walk through their own personal Internet experiences. What does it mean? It implies that consumers will receive more and more individualized content based on their current context. The Internet will no longer be just a pull mechanism, with consumers choosing to access their content in a fixed place — it will become a push-based approach, where information will also be automatically updated and personalized to their past behaviors and their real-time environment. As the remote control of our daily personal lives, mobile phones will become both enablers and recipients for merged physical and digital experiences.

SUPPLEMENTAL MATERIAL

Methodology

The European Technographics® Consumer Technology Online Survey, Q4 2010, surveyed 14,363 respondents in the seven markets of France, Germany, Italy, the Netherlands, Spain, Sweden, and the UK. This survey is based on online adults ages 16 and older who are members of the Ipsos-MORI online panel. Ipsos weighted the data by age, sex, online frequency, and hours spent online to demographically represent the online adult European population per country. Ipsos fielded the survey in November and December 2010 and motivated respondents with various incentives. For results based on a randomly chosen sample of this size (N = 14,363), there is 95% confidence that the results have a statistical precision of plus or minus 1.1% of what they would be if the entire online adult population of Western Europe had been polled. This confidence interval can widen to 3.1% when the data is analyzed at a country level. The sample used by Ipsos is not a random sample; while individuals have been randomly sampled from the Ipsos panel for this survey, they have previously chosen to take part in the Ipsos online panel.

The European Technographics Benchmark Survey, Q2 2011, surveyed 26,925 respondents in the eight markets of France, Germany, Italy, the Netherlands, Poland, urban Russia, Spain, Sweden, and

the UK. This survey is based on adults ages 16 and older. Taylor Nelson Sofres (TNS) weighted the data by age, gender, region, education, and income to demographically represent the adult European population per country. TNS conducted the fieldwork in February, March, and April 2011 and motivated respondents with various incentives. For results based on a randomly chosen sample of this size (N = 26,925), there is 95% confidence that the results have a statistical precision of plus or minus 1.1% of what they would be if the entire online adult population of Western Europe had been polled. This confidence interval can widen to 3.1% when the data is analyzed at a country level. The consumer topics covered include general behavior toward technology, device ownership (including brand usage of mobile phones, PCs, digital cameras, portable music devices, and printers), personal finance, importance of main banks, travel, interest in digital services, technology brands, preferred media sources, consumer trust, mobile phone buying behavior, mobile Internet, demographics, and Technographics segmentation.

Companies Interviewed For This Document

Factual Skyhook

infohubble TCS

Intersec Telmap

madvertise TomTom

Micello Volt

Placecast xAd

Poynt

ENDNOTES

- ¹ Acquiring local-shopping search engine Milo in December 2010 and barcode-scanning app Redlaser in June 2010 are clear signs that eBay is willing to tap into offline commerce opportunities. eBay acquired Where in April 2011. Source: Sarah Kessler, "eBay To Expand Mobile Commerce With Acquisition of WHERE Inc.," *Mashable*, April 20, 2011 (http://mashable.com/2011/04/20/ebay-acquires-where-inc/). Groupon acquired Pelago (the company behind the Whrrl product) back in April 2011 as well. Source: Alexia Tsotsis, "Groupon Acquires Whrrl Creator Pelago," *TechCrunch*, April 18, 2011 (http://techcrunch.com/2011/04/18/groupon-acquires-whrrl-creator-pelago/).
- Product strategists at Yelp have made it possible for its mobile users to generate and contribute to the content of Yelp's core product. Its mobile applications offer many ways for users to generate content quickly and simply. Yelp is able to attract and keep these users by offering a product that delivers on the high expectations held by the most tech-savvy consumers the digital and discerning crowd that makes up the mobile army of creators. See the March 22, 2011, "Case Study: Yelp's Mobile Customers Help It Build A Better Core Product" report. [58947].

- ³ Source: Addieu (http://www.addieu.com/).
- Source: European Technographics Benchmark Survey, Q2 2010 and European Technographics Benchmark Survey, Q2 2011.
- ⁵ Source: European Technographics Benchmark Survey, Q2 2011.
- ⁶ Source: European Technographics Consumer Technology Online Survey, Q4 2010.
- ⁷ Source: Tom Krazit, "Foursquare Unlocks The 'You've Got New Funding!' Badge With \$50 Million," *mocoNews.net*, June 24, 2011 (http://moconews.net/article/419-foursquare-unlocks-the-youve-got-new-funding-badge-with-50-million/).
- ⁸ Source: Ranina Sanglap, "More Google Map users on the mobile than the PC," *International Business Times*, May 30, 2011 (http://au.ibtimes.com/articles/154058/20110530/google-maps.htm).
- ⁹ Source: "New Version of iOS Includes Notification Center, iMessage, Newsstand, Twitter Integration Among 200 New Features," Apple press release, June 6, 2011 (http://www.apple.com/uk/pr/library/2011/06/06ios.html).
- We are entering the Era of Experience, a period when product strategists won't be able to win because of production efficiency and distribution channels alone. Instead, they'll have to create total product experiences by leveraging digital technologies like those available on smartphones to simulate, stimulate, and support their products. See the October 18, 2010, "How To Prepare For The Era Of Experience" report.
- ¹¹ Source: "Micello Launches First Ever Set of Indoor Map APIs," Micello press release, March 31, 2011 (http://micello.com/pressrelease/micello-launches-first-ever-set-indoor-map-apis).
- ¹² Source: Thomas Husson, "How Mobile Can Bridge The Digital And Physical Worlds In New Ways," mocoNews.net, June 1, 2011 (http://moconews.net/article/419-how-mobile-can-bridge-the-digital-and-physical-worlds-in-new-ways/).
- ¹³ Source: Jeff Howe, "The Rise of Crowdsourcing," *Wired*, June 2006 (http://www.wired.com/wired/archive/14.06/crowds.html).
- ¹⁴ Source: infohubble (http://www.infohubble.com/) and Factual (http://www.factual.com/).
- Mobile convenience can be reduced to three key characteristics: immediacy, simplicity, and context. Context is key for crafting mobile product experiences. See the October 14, 2009, "The Convenience Quotient Of Mobile Services: A Facebook Case Study" report.
- Mobile is finally getting airtime with the most innovative brands and marketers. Hoping to make mobile a more common and rich media choice among large brand advertisers, both Google and Apple have joined the fray with their mobile advertising offerings. But for all of that movement, few chief marketing officers (CMOs) are involved in defining what mobile means to their brands. CMOs must join the march and use mobile as an opportunity to raise the bar on the overall brand experience by adopting three key characteristics of life on the go: immediacy, simplicity, and context. See The October 18, 2010, "Mobile Adds New Appeal To Your Brand Experience" report.

- ¹⁷ Consumers will adopt and use convenient services and products. In mobile, this means services that offer immediacy and simplicity through a highly contextual experience. The ability to deliver highly contextual experiences will evolve in sophistication with technology in the phone. Consumer product strategy (CPS) professionals must leverage context to create and deliver product experiences that enhance the overall perceived value of a product. Not all CPS professionals need to move at the same pace. They must first incorporate context into digital products such as games and media today while assisting their eBusiness and interactive marketing counterparts in their use of mobile to deliver more targeted experiences. Longer term, CPS professionals must lead efforts among their colleagues throughout their organizations as they begin to use new sensors to detect context and motion to control the devices and services on them. See the July 11, 2011, "The Future Of Mobile Is User Context" report.
- ¹⁸ Consumers will adopt and use convenient services and products. In mobile, this means services that offer immediacy and simplicity through a highly contextual experience. The ability to deliver highly contextual experiences will evolve in sophistication with technology in the phone. Consumer product strategy (CPS) professionals must leverage context to create and deliver product experiences that enhance the overall perceived value of a product. Not all CPS professionals need to move at the same pace. They must first incorporate context into digital products such as games and media today while assisting their eBusiness and interactive marketing counterparts in their use of mobile to deliver more targeted experiences. Longer term, CPS professionals must lead efforts among their colleagues throughout their organizations as they begin to use new sensors to detect context and motion to control the devices and services on them. See the July 11, 2011, "The Future Of Mobile Is User Context" report.
- ¹⁹ Source: Eric Mankin, "Monitor the Air With a Smartphone" *USC News*, September, 20, 2010 (http://uscnews.usc.edu/science_technology/monitor_the_air_-_with_a_smartphone.html).
- ²⁰ Source: Interview with Intersec on March 31, 2011.
- ²¹ Consumers will adopt and use convenient services and products. In mobile, this means services that offer immediacy and simplicity through a highly contextual experience. The ability to deliver highly contextual experiences will evolve in sophistication with technology in the phone. Consumer product strategy (CPS) professionals must leverage context to create and deliver product experiences that enhance the overall perceived value of a product. Not all CPS professionals need to move at the same pace. They must first incorporate context into digital products such as games and media today while assisting their eBusiness and interactive marketing counterparts in their use of mobile to deliver more targeted experiences. Longer term, CPS professionals must lead efforts among their colleagues throughout their organizations as they begin to use new sensors to detect context and motion to control the devices and services on them. See the July 11, 2011, "The Future Of Mobile Is User Context" report.

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