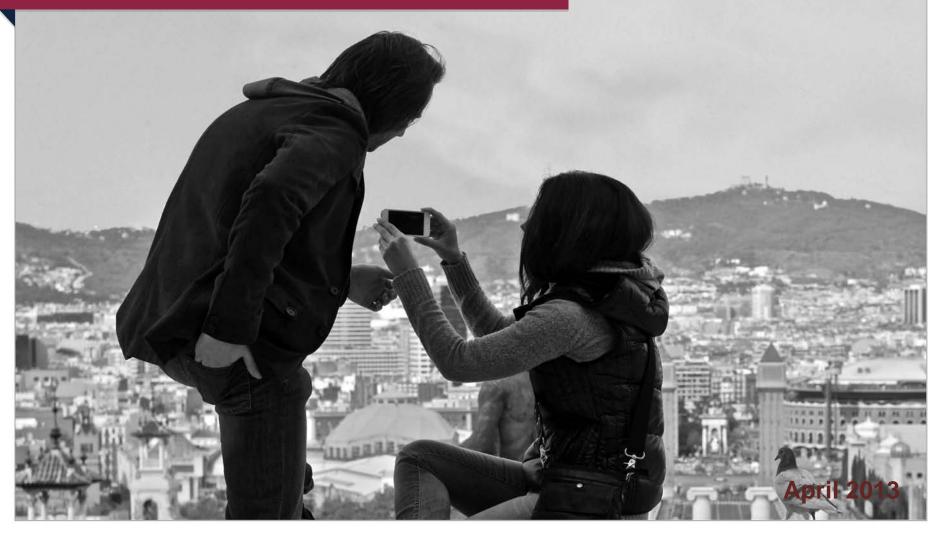
JWT | 13 MOBILE TRENDS FOR 2013 AND BEYOND



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BACKGROUND

For the second year, JWTIntelligence attended the GSMA's Mobile World Congress, held in Barcelona in late February. The event again broke an attendance record, attracting some 72,000 network operators, mobile manufacturers, developers and many other players looking to profit from an industry that only keeps expanding. This report builds on last year's (see Appendix for an outline of what we covered in 2012), offering 13 key trends we spotted during the MWC, along with examples that illustrate these ideas and implications for brands. The report also incorporates insights from interviews with several mobile experts and influencers.

EXPERTS AND INFLUENCERS*



PAUL BERNEY CMO and managing director, EMEA, Mobile Marketing Association



JENNIFER DARMOUR Design director, user experience, Artefact



NATHAN EAGLE CEO and co-founder, Jana



DI-ANN EISNOR VP, platform and partnerships, Waze



SHRIKANT LATKAR VP of marketing, InMobi



IRIS LAPINSKI CEO, CDI Apps for Good

*See Appendix to learn more about these experts and influencers.

INTRODUCTION

We've been analyzing the mobile phenomenon for some time, from our trend The Mobile Device As the Everything Hub in our 2009 forecast to The Mobile Fingerprint—our identity all in one place—for 2013. The rapid spread of mobile has been dizzying: Consider that tablets, on the market for just three years, are expected to outsell PCs this year and laptops next year. Smartphones are starting to dominate, with close to a billion forecast to sell this year. And the GSMA forecasts 3.9 billion global subscribers by 2017, 700 million more than in 2012.

Mobile is disrupting industries from retail to health to autos to finance to education and beyond—and the consensus at MWC was that change is happening at an astonishing scale and speed. The next 10 years will "dwarf" the last 10 in terms of disruption, said speaker Rajeev Chand of Rutberg & Co. One driver of change will be the shift to 4G; another, the millions more consumers who will get connected; and another, the rapid spread of machine-to-machine communication.

Still, several issues may hinder mobile's untrammeled growth. Many speakers argued for less government regulation and urged serious self-regulation when it comes to the hot-button issue of privacy. There are technology challenges too; the industry is still grappling with basic issues like battery life and Wi-Fi availability, for instance. Companies will also need to broaden their horizons: "The next wave of innovation will require a broad environment of collaboration and partnership, and expertise will come from many areas and different players," said keynote speaker Steve Girsky, General Motors vice chairman.

INTRODUCTION (cont'd.)

But already the mobile is moving well beyond its role as a phone and even as a communication device more broadly, becoming an enabler for a wide range of experiences from TV viewing to shopping to banking. In this respect, the mobile is evolving into a primary screen for consumers.

To glimpse the future, look no further than the attitudes and behaviors of Gen Z, the generation weaned on mobile screens: They are "growing up with an understanding that you can click and find, click and know, click and buy," observes Paul Berney of the Mobile Marketing Association. "And that has to change your mentality and mindset as a consumer." Marketers are starting to get the message: Mobile will soon become "the starting point" for brands, not an add-on or siloed initiative, as Pete Blackshaw, Nestlé's global head of digital marketing and social media, predicted at one session.

EVERYTHING IS CONNECTED



M2M was a big buzzword at this year's MWC, signaling that as new partnerships and common standards develop, we'll start seeing more consumer-facing applications of machine-to-machine communication (objects wirelessly communicating with each other through embedded sensors and other devices).

Partnerships such as the nonprofit Internet of Things Consortium and the M2M Multi-Operator Alliance—a coalition of companies including NTT Docomo, Etisalat and Telefónica—are promoting common standards that simplify communication between products and services from different manufacturers. Plus, as cheap network cards like the Electric Imp proliferate, making connectivity easy for any device, more brands and consumers will upgrade low-fi products.

As M2M connections proliferate and expand the Internet of Things, we'll see disruption in sectors and industries from energy to health care to urban planning.

Worldwide M2M connections are forecast to grow at a compound annual rate of 36% between 2011 and 2021, reaching 2.1 billion. —Analysys Mason, May 2012

IN ACTION

Qualcomm, AllJoyn: This open-source software platform enables the "Internet of Everything," allowing any devices that use AllJoyn to communicate. For instance, a washing machine could send an alert about an unbalanced load to an Internet-enabled TV. Qualcomm demonstrated a system that allowed remote control of a coffee maker using a tablet; when the beverage was ready, the machine sent alerts to a tablet, smartphone and television, and could turn the TV on as well.





IN ACTION (cont'd.)

Vodafone, Connected Ice Cream Cooler: Vodafone demonstrated a retail ice cream cooler equipped with a sensor that monitors factors including temperature, how often the door is opened and the inventory inside. This information is transmitted to the brand that owns the cooler, enabling better control over the unit and understanding of how it's used by retailers.



Fujitsu, Next Generation Cane: Fujitsu demonstrated a prototype Wi-Fi-enabled cane that includes a GPS sensor to help elderly people find their way around; when needed, the cane can point users in the right direction via a vibrate function and built-in LED screen. A heart rate monitor in the handle automatically alerts authorities in case of a cardiac emergency.



IMPLICATIONS FOR MARKETERS

- M2M will present brands with opportunities to reach consumers on new platforms—the mobile app that syncs with a refrigerator or the screen on a coffee machine. In some cases, this will mean products taking on personalities. Ericsson's prototype Facebook-like interface allows users to "friend" their connected objects, such as lamps, fridges and ovens. Marketers will need to consider the tone and manner their products will adopt.
- Finding new and novel ways to make once-dumb objects intelligent will enable some brands to attract new cohorts.
- M2M will provide new sources of data about consumers, allowing manufacturers to analyze how consumers are using their products. Brands can use this data to better understand their consumers and upgrade their products, pushing software updates to the device or adjusting product development strategies.
- We'll see M2M changing cities as infrastructure gets connected to the Web. The global addressable market in smart cities, transport, utilities and intelligent buildings will reach \$67.1 billion in 2020, up from \$22.8 billion in 2012, according to Machina Research.

IMPLICATIONS FOR MARKETERS (cont'd.)

- Some consumers will have a hard time adjusting to the idea of objects that can communicate wirelessly and act autonomously. The challenge will be to design experiences that truly enhance the value delivered to the user.
- We'll see a lot of ideas that don't show much insight into what users need or want. Brands will need to be creative with connectivity but judicious about where and how to implant it.
- While advanced technology is at the core of M2M, ultimately the goal is to make it invisible and the user experience the defining feature. Consumers will look for speedy, seamless experiences from the moment they open their item. Products will have to easily activate out of the box.
- With more devices sharing data, security and privacy will become increasingly prevalent concerns. Manufacturers will have to ensure protection from hackers and allay consumer concerns about the safety of their data.

With the advent of in-car 4G, built-in Wi-Fi and ever more partnerships between apps and automakers, the "original mobile device" (as GM's Steve Girsky put it) is turning into a speedy smartphone. Intel forecasts that by 2014, cars will be one of the three fastest-growing market segments for connected devices and Internet content.

At the MWC, "automakers, not smartphone and tablet manufacturers, stole the spotlight," as *Businessweek* noted. GM announced it will start embedding 4G LTE connectivity and touch screens into its vehicles, Ford let attendees test-drive connected cars, and Audi was advertising its A3 Sportback as "The world's biggest smartphone."

Connectivity can be achieved by embedding a wireless modem into the car or by the vehicle interfacing with drivers' smartphones. However it's executed, the potential that advanced connectivity brings to cars—for improved car safety, myriad entertainment options, geo-local advertising, etc.—is enormous.

We envision a day when your car becomes just another device in your wireless plan." – STEVE GIRSKY, vice chairman, General Motors

Around 1 in 10 cars shipped globally features a connectivity system; by 2017, this will grow to 6 in 10. —ABI Research, July 2012

IN ACTION

Ford, AppLink: Ford lets drivers control in-car apps with voice commands, instructing the car to share its location with contacts or social networks (using the Glympse app), for instance, or requesting songs on Spotify (Ford announced a partnership with the streaming music service). Ford's SYNC technology wirelessly syncs with drivers' smartphones, allowing them to use Ford-approved apps including iHeartAuto, MOG and Slacker Personal Radio.





IN ACTION (cont'd.)

GM, **4G LTE**: GM plans to start outfitting cars with 4G LTE, introducing in-vehicle Wi-Fi hot spots, streaming entertainment and apps designed for its proprietary browser. It's the first mass-market automaker to do so (Audi was the first to introduce 4G LTE, in its A3 model). 4G LTE will be included in most Chevrolet, Buick, GMC and Cadillac vehicles in North America starting in 2014 (via a partnership with AT&T), and GM said it will subsequently expand to brands including Opel and Vauxhall in Europe. GM also demonstrated a prototype vehicle with embedded cameras that enable owners to remotely monitor their car.

Volvo, Connected Vehicle Cloud: Starting with 2014 models, Volvo drivers will be able to link in to Ericsson's Connected Vehicle Cloud—accessing streaming radio, navigation apps, etc.—using an Android-powered touch screen on the dashboard. The system will also automatically schedule an appointment with a local repair shop if the car's computer detects a problem. And the Parrot SmartLink app will let users "mirror" their smartphone on the larger touch screen.





IN ACTION (cont'd.)

Toyota, Friend: Launched in Japan in 2012, Friend is a social network of sorts that connects customers with their cars, dealerships and Toyota HQ. Owners can "friend" their vehicle, getting information such as battery charge and fuel level. The car can also alert owners to issues such as low battery power or tire misalignment with tweet-like notifications.





The car used to be just a product, but in the future it will be a touch point with consumers ... an iPhone on wheels." — SHIGEKI TOMOYAMA,

managing officer, Toyota Motor Corp., promotional video

IMPLICATIONS FOR MARKETERS

- Consumers are coming to expect constant connection, and the car will be the next means to achieve this. Already 37% of people want to stay as connected as possible in their vehicle, according to a 2012 report from Deloitte. And, as Ford Motor Co.'s Jim Farley remarked ahead of this year's New York auto show, in-car technology is an increasingly important priority for car buyers. Soon, another layer of connectivity will be infused into our lives.
- We'll see a lot more collaborations among automakers, tech companies, app developers, network operators and all kinds of brands, working together to add enhancements and functionality for drivers.
- As V2X (vehicle-to-vehicle, vehicle-to-infrastructure) communication expands, we'll see driving becoming safer and easier, as traffic flow improves. Toyota, for example, is exploring systems that allow vehicles to communicate with each other and with roads, reducing the risk of accidents (e.g., missing a red traffic light).

Tomorrow's 'connected vehicle' will likely become a node on the mobile communications highway capable of connecting drivers with friends, family and information at a pace they desire." — DELOITTE,

"Connected vehicles enter the mainstream" report, June 2012

IMPLICATIONS FOR MARKETERS (cont'd.)

- As screens proliferate in cars, the vehicle will become a platform for delivering targeted, tailored value to drivers in multiple ways:
- With cars able to stream video, brands will have opportunities to deliver specialized content for passengers.
- By combining data points like location, time and user profiles, the car will deliver personalized recommendations and time-sensitive promotions. For instance, Ford owners can ask the vehicle to search for nearby products, such as ice cream.
- Drivers will get ever smarter, using apps and other resources to find parking spaces or the nearest gas station.
- The car will be an e-commerce platform, enabling purchases via the dashboard. Toyota's Entune, for example, lets
 drivers make restaurant reservations or buy movie tickets using in-car apps. A report from Johnson Controls found that
 61% of U.S. vehicle owners would like to pay for items using a debit or credit card linked to their car's infotainment
 system.
- Driver distraction will become a greater concern. In February 2012, U.S. regulators released guidelines for in-car electronics that highlighted the complexity of dashboard displays and pointed to the perils of tweeting in traffic and buying tickets from the driver's seat. Brands will need to be ultra-sensitive to a wide range of safety implications and anticipate regulation.

EVERYONE GETS CONNECTED



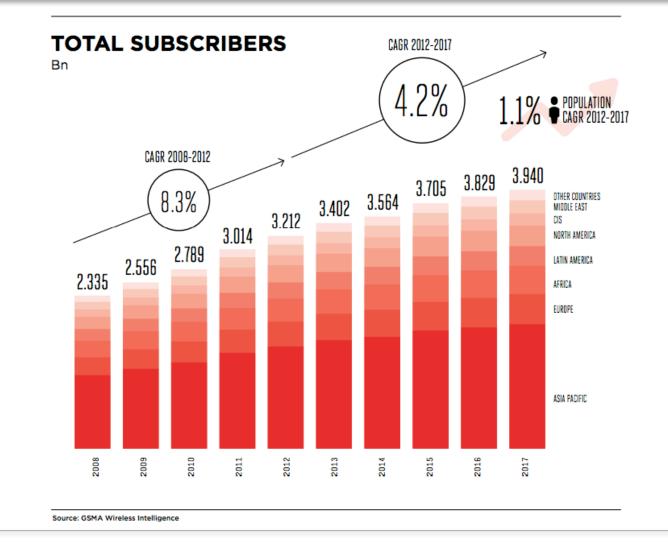
While mobile adoption has been skyrocketing—with a billion new subscribers in just the last four years, per the GSMA—that still leaves more than half the world's population without a mobile subscription.* Mobile companies are focusing on "connecting the next billion," as Nokia describes its aim, which will require not only cheaper handsets and data costs but a rethink of hardware design and software (apps, discovery, etc.).

In developing regions, many are bypassing PCs altogether and going online for the first time via mobile devices, bringing a different set of expectations and some notable limitations (e.g., unreliable or limited power, low literacy). Meanwhile, expanding 3G and 4G access will greatly boost the capabilities of this mobile population.

• Mobile subscribers will rise from 3.2 billion today to 4 billion by 2018. - GSMA

• 3G and 4G will represent a majority of mobile connections (including machine-to-machine) by 2017. –GSMA

*Various studies have shown higher mobile penetration, but the GSMA claims that by identifying inactive SIMs and multiple SIM ownership, its measurement is the most accurate.



IN ACTION

Nokia,105 phone: The BBC's Tom Chatfield wasn't alone in finding the Nokia 105 phone "perhaps the most intriguing product released in Barcelona." At around \$20, the phone is the cheapest yet with a color screen. And since the target consumer may not have regular access to power, the phone can last for 35 days on one charge, and includes a built-in flashlight and FM radio. All lower-end Nokia phones feature its Xpress browser, a cloud-based Internet service that compresses data, saving users data costs and battery life.





We're seeing things like airtime regulators that let you control the data use from your phone, ... proxy browsers like Opera Mini making huge penetration because they basically strip out all the excess in a standard website and give you the barebones data you need to see the page. Those types of things are fascinating, and we're going to see more of them."

CEO of Jana (formerly txteagle), a mobile rewards platform

IN ACTION (cont'd.)

Huawei, 4Afrika phone: Created in partnership with Microsoft, this phone launched in February in seven countries in Africa (the fastest-growing smartphone market, per the GSMA). The Windows Phone 8 device, priced at around \$150, comes preloaded with apps tailored for each market. Microsoft's 4Afrika Initiative includes AppFactory centers in South Africa and Egypt that create apps based on crowdsourced ideas.



IN ACTION (cont'd.)

ecoATM: ecoATM and similar services that pay consumers in developed markets for their mobile phones and resell them in other markets will drive the proliferation of cheap secondary handsets. Mobile phones have an average useful design life of about seven years but are used for an average of only 18 months in developed nations.



IMPLICATIONS FOR MARKETERS

 We'll see "trickle-up innovation" as mobile companies find creative ways to bring costs down for emerging markets and better cater to their needs—and as new mobile consumers start using the technology in new, inventive ways. While targeted at developing markets, Nokia's 105 phone was also touted as a backup-phone option for developed markets and as "the ultimate festival phone." Brands that don't operate in emerging markets would do well to start monitoring them anyway.

Innovation seems increasingly sure to arrive from the margins. Or rather, what were once the margins are destined to become the driving force behind a new conception of mobile computing: neither a luxury nor a delicate toy, but a given feature of every single adult life."

— TOM CHATFIELD, "Making mobiles for the masses," BBC, Feb. 28, 2013

 Brands have a unique opportunity to establish themselves at the core of the mobile experience for this newly mobile cohort, who are likely to welcome the value exchange that brands can offer. A WIN/Gallup study presented at the MWC found that many emerging market consumers are mobile "optimists"—the cohort that is "most open to mobility, m-commerce, and mobile advertising"—and concludes that "targeting ads to Optimists is not just possible but also, from their perspective, desirable and useful."

IMPLICATIONS FOR MARKETERS (cont'd.)

 As mobile's reach expands, brands will now be able to engage consumers who have lived beyond the reach of most traditional media. For example, a category and brand awareness campaign for Unilever's Active Wheel detergent targeted Indian women in remote areas without easy access to most media, given the lack of electricity, infrastructure and literacy. Consumers who opted in (by calling a toll-free number) received calls back with recorded snippets of humorous conversations. More than 3 million people called in, around 26 million times. The campaign created a medium of entertainment for the consumer and a medium of communication for the brand, as the case study video puts it.

"Mobile is a great leveler," said Ijaz Shafi Gilani, chairman of Gallup Pakistan, at one MWC session. With mobile adoption comes entrée to the digital world and potentially to the Internet; for many, the smartphone is their first Internet-enabled device. As Nokia CEO Stephen Elop noted during his MWC keynote, the next billion to get connected may earn just a few dollars a day but would have access to the same information as the world's upper and middle classes.

Connectivity brings positive economic, political and social effects, as speakers noted, and several cited the correlation between GDP and broadband penetration. On an individual level, the mobile device is a tool that can help users do everything from basic chores to acquiring knowledge to running microbusinesses—leading many in emerging regions to see it as enabling upward mobility and a better life.



Emerging market consumers don't necessarily have as much other technology exposure as their developed word counterparts. And so the expectation they place

on this device is higher. They're not buying into a communication device. They're buying something that does not just make voice calls or send text messages, they're looking to buy something that can serve as a flashlight or an FM radio ... that can provide them with food prices and can be their credit card."

> CEO of Jana (formerly txteagle), a mobile rewards platform

IN ACTION

Emerging-market consumers optimistic about mobile: A recent WIN/Gallup study of 54 countries classified 31% of respondents as mobile optimists—a cohort that's highly likely to see the device as helping them achieve their potential at work and in life, learn valuable things, better socialize and so on. Mostly urban, these consumers are concentrated in Asia, South America and Africa (conversely, they're least likely to be found in the highly developed markets of Western Europe, North America and Oceania).

	Global N=54,121	Africa N=3,639	MENA N=8,574	Asia N=9,383	Oceania N=1,698	North America N=2,007	South America N=4,323	Western Europe N=12,918	Eastern Europe N=11,579
Optimists	31%	35%	29%	41%	13%	15%	36%	11%	23%

IN ACTION (cont'd.)

mHealth: The mobile device is a valuable platform for delivering health care services in emerging markets, where as many as 59% of patients use mHealth, compared with 35% in developed markets, according to PwC. Nokia Life, for instance, includes a health-focused pay-per-text subscription program that sends information on subjects such as maternal and child care, fitness and diabetes. Users can personalize their profiles to get more tailored content—for example, specifying a baby's due date.

mEducation: Education is another key benefit that mobile can bring. Among various similar programs, Bharti Airtel in India offers an Exam Preparation Service (subscribers get daily help to prepare for various entrance exams), an English Guru (with education offered in an array of Indian languages) and a Campus Search service to help parents and students with college admissions, study and career tips.



IN ACTION (cont'd.)

Informing farmers: Connecting off-the-grid farmers to information sources is an oft-cited benefit of mobile, and the MWC hosted an mAgri seminar for the second year. Speakers included Vodafone Turkey's CEO, who discussed the company's text-based Farmers' Club, estimated to have driven a 12% productivity rise among its 700,000 members. Farmers get weather alerts, news updates (on training programs, for instance) and access to a marketplace that allows users to list goods by text. "It is a simple service, but it has been transformative, both for the farmers who previously had no access to radio or television, and for Vodafone Turkey," reported *The Telegraph* in November.



IMPLICATIONS FOR MARKETERS

- Mobile represents both a business opportunity and an opportunity to help consumers do everything from building up businesses, improving their health, becoming more informed citizens and connecting with social networks. We'll see more mobile players shift business models to integrate social issues into their core strategies because, as we noted in one of our 10 Trends for 2012, "By putting shared value at the center of their strategy, brands can benefit their business, their customers and society at large."
- Consumers in emerging markets who are enthused about the power of mobile devices to enhance their lives are more open to marketing messages than consumers in developed markets. Marketers can help these mobile owners become more informed consumers, integrating the brand into the platform. WIN/Gallup found that many in the "optimist" cohort of consumers, most of whom are in emerging markets, see the mobile device as not just an "important" tool to becoming a smarter shopper but "critical."

We needed to create a trust-mark in Turkey for Vodafone. ... That means you have to think of how you can improve consumers' lives beyond your core proposition, so we don't just offer them telecoms. We go a step further to make sure we are really integrated in their lives. It creates loyalty."

CEO of Vodafone Turkey, "Vodafone Farmers' Club fuels Turkish turnaround," *The Telegraph*, Nov. 19, 2012

IMPLICATIONS FOR MARKETERS (cont'd.)

 If mobile is a great equalizer, not having mobile (and especially Internet) access is coming to be a distinct disadvantage as more people get connected. The "socio-techno" divide is akin to the gap between the proletariat and the aristocracy of old, said tech maven Shelly Palmer at one session. As the technology gets cheaper and the infrastructure gets better and better, brands can help to sponsor connectivity at relatively low cost—especially for women, given the gender gap in both mobile usage and Internet access (e.g., in developing nations, 16% fewer women than men are online, per the ITU Telecommunication Development Bureau).

5 REVOLUTIONIZING TRANSACTIONS

Mobile phones have the potential to revolutionize transactions in places where bank accounts and credit cards are the exception. Almost 6 in 10 adults in developing economies are "unbanked," per the World Bank, due in part to costs, travel distances and the paperwork involved. As mobile money slowly comes to fruition, it will make a major impact on developed markets, and an even bigger one in developing regions, where it's already broadening access to financial services.

In Kenya, 68% of adults have used a mobile phone for making a payment, thanks to Safaricom's hugely popular M-Pesa text-based money service. But 85% of the world's transactions are still cash-based, a figure several speakers cited, and the race is on to digitize the relationship between merchants, consumers and funds. A recent GSMA report found that more customers are making payments with mobile money accounts, and "providers are beginning to move beyond traditional service options like airtime top-ups to allow their mobile customers to pay for water or electricity bills, to buy goods in shops and supermarkets, or public transport tickets."

- An estimated 1.7 billion people had a mobile phone but not a bank account in 2012. —G20 Financial Inclusion Experts Group
- Of the 150 mobile money services for the unbanked, 41 launched in 2012. -GSMA
- Mobile money accounts outnumber bank accounts in Kenya, Madagascar, Tanzania and Uganda. --GSMA

5 REVOLUTIONIZING TRANSACTIONS

IN ACTION

Turkcell, mobile wallet: In Turkey, a country that's 40% unbanked, Turkcell has developed one of the most comprehensive mobile wallets in the world, according to executive Emre Sayın, an MWC speaker. The mobile wallet, which launched last October, enables transactions (payments, airtime top-ups, etc.); lets customers add debit, credit or preloaded cards with an SMS; and sends personalized, location-based offers. Almost a million customers are using the wallet, and 400,000 credit cards are linked, according to CIO İlker Kuruöz.

Telesom, Zaad: In Somalia's Somaliland region, Telesom has operated the mobile money service Zaad since 2009, when few financial institutions were operating. Three years after launch, almost 40% of Telesom GSM subscribers were actively using Zaad, making as many as 34 transactions on average per month. "Today, mobile money is effectively replacing cash in Somaliland, and people use it on a daily basis for a broad range of transactions," according to the GSMA's February report on global mobile money adoption.





5 REVOLUTIONIZING TRANSACTIONS

IMPLICATIONS FOR MARKETERS

- Digitizing payments will enable more transactions. As a speaker from MasterCard noted, a cash exchange requires two people to be in the same place at the same time; mobile enables two parties to exchange money anywhere, at any time. And on more platforms: With Turkcell's mobile wallet system, for instance, customers without credit cards can pay for online goods at participating retailers by entering their mobile number.
- Mobile payments open a new channel for communication. Unlike cash or cards, the mobile screen enables interaction, as George Held of Etisalat noted. Operators can work with brands to push targeted, time-sensitive coupons to shoppers that encourage additional purchases or establish an ongoing connection with the consumer.

THE MOBILE-DRIVEN LIFE

10 MILES 7 2000 CALORIES 4 MPH

5

6 GEN Z: MOBILE MAVENS

Members of the youngest generation (born after 1995) take mobile connectivity for granted; many are using mobile almost as soon as they can hold the device. They have come to expect everything information, products, friends, entertainment—to be instantly available in the palm of their hand. This mobile-informed outlook makes them more impatient, socially connected and constantly stimulated than any generation before—presenting a new challenge for marketers looking to engage with this cohort.



[Gen Z's] experience in the world is that everything can be done in real time; everything can be two-way and dialogue, rather than monologue and broadcast.

... They' re growing up in a world where they have access to almost the sum total of human knowledge in their pocket." – PAUL BERNEY.

CMO and managing director, EMEA, Mobile Marketing Association

- Nearly two-thirds of Gen Z's older cohort (ages 8 to 18) have access to mobile phones. —NTT Docomo five-market study
- Among American teens, 78% now have a cell phone, 37% a smartphone and 23% a tablet. One in four are "cell-mostly" Internet users. —Pew Research Center, March 2013

IN ACTION

The next Zuckerbergs: Already Gen Z is starting to harness their mobile knowhow to produce innovative products. Last year, Apple opened its developers event to 13- to 17-year-olds for the first time.

Seventeen-year-old Nick D' Aloisio developed newsbrowsing app Summly at age 15; in March, Yahoo bought the app for an undisclosed sum (reported as \$30 million by AllThingsD) and hired D'Aloisio, who planned to concurrently finish high school and report to the company's London office. Jordan Casey, 13, has created multiple mobile apps and spoken at conferences worldwide. And Ethan Duggan, age 12, launched an app at this year's SXSW Interactive Festival: LazyHusband, which lets users record complimentary phrases and play them to significant others.

We used to think that inviting students as young as 18 years old was great, [but] we would get emails after the developer conference from students 16, 15, 14 years old, saying I already have X number of apps in the app store. I'm a developer. Can I take part in this too?" – PHIL SCHILLER.

SVP of worldwide marketing at Apple, "App Developers Who Are Too Young to Drive," *The Wall Street Journal*, June 18, 2012

IN ACTION (cont'd.)

Tech camps: With kids looking to ramp up their skills early in life, tech camps are proliferating. iD Tech Camps, a Californian company, saw the number of attendees at its summer camps grow 70% between 2011 and 2012. CoderDojo is a free, not-for-profit coding club that has spread to 24 countries. CDI Apps for Good is a U.K. program that helps students 11 to 18 create apps that "change their world." In Sweden, SWE Advertising (a JWT partner agency) created the SWEappcademy, a weeklong camp where kids 10-12 create mobile apps.





Apps and tech is the new rock & roll."

- IRIS LAPINSKI, CEO of CDI Apps for Good

IMPLICATIONS FOR MARKETERS

- The next generation has new ideas about how consumers and brands interact. Among other things, they expect brands to be available for quick, seamless communication across platforms, and they expect transparency, which mobile can enable (e.g., via NFC tags, QR codes or augmented-reality content that lead to information on sourcing or nutritional data).
- For many Gen Zers, the mobile device is omnipresent and indispensible, and often the primary device for Internet access. While they will have no patience for websites not optimized for mobile browsing, brands have great opportunities to pop up on Gen Z's mobileroaming radar through SoLoMo (social, local, mobile) strategies.



[Gen Zers] are growing up with an understanding that you can click and find, click and know, click and buy. And that has to change your mentality and mindset, as a consumer. And

therefore those people have a much greater expectation that they will be able to connect with each other and with any brand, via every channel possible, but particularly mobile." – PAUL BERNEY.

> CMO and managing director, EMEA, Mobile Marketing Association

IMPLICATIONS FOR MARKETERS (cont'd.)

- Brands that spend time with this group can enjoy a two-way learning experience. For its developer conference last year, Apple extended scholarships to 150 youngsters. JWT partner agency SWE Advertising created SWEappcademy last year, which brought together kids and marketers in a mobile-focused summer camp, helping the agency learn more about Gen Z and their mobile habits. Brand-sponsored hackathons can also be a valuable way to both learn from and teach this generation.
- As Gen Z enters the workplace, they' II bring a distinct set of desires and expectations. Companies will have to fully embrace BYOD and mobile culture (as Marissa Mayer has mandated at Yahoo by requiring employees to use smartphones), and allow this entrepreneurial, independent-minded group the freedom to tinker with products and services.

Not so long ago, there were basic voice calls and SMS texts. Today, the "telephone" element of the mobile is diminishing, and new messaging services are starting to take a bite out of traditional texts. People are using the device to communicate in multiple new ways that are more visual, richer, faster, easier, more automated or simply more fun: think Snapchat's self-destructing pictures and video, virtual stickers, instant-translation apps, Apple's FaceTime and now Samsung's Dual Video Call.

Since many of these communication experiences are enabled by over-the-top services, they travel easily across borders and cut users' data costs.

- Snapchat users send more than 60 million "snaps" a day.
- Line, a messaging app with an emphasis on stickers and drawings, has racked up 120 million downloads.

IN ACTION

Multimedia messaging: Messaging apps like Line, MessageMe, Viber and KakaoTalk "have become an indispensable form of communication for hundreds of millions of people worldwide," as *The Wall Street Journal* notes—making messaging more complex and colorful. Depending on the service, users can embed content like songs, video, images and even doodles; communicate via emoticons and virtual stickers; share location; play games while chatting, and so on. Virtual stickers (some free, some premium) are a world in themselves, from dancing pizza slices to an array of proprietary characters to themes that tap into local hot topics.

To compete with over-the-top apps, mobile operators are launching their own services. Among them, Orange has Libon, T-Mobile USA offers Bobsled, and Telefónica has created Tu Go, which lets subscribers call and text over Wi-Fi using their mobile number rather than a username. And the GSMA's Joyn platform for mobile operators promises to "make everyday mobile to mobile communications more engaging" by "combining all the ways you want to be in touch—talk, chat, share videos, photos and files."



IN ACTION (cont'd.)

Passive communication: Apps that enable automatic alerts take the task of actively communicating basic details out of users' hands: Twist notifies designated contacts when the user is most likely to arrive, making its calculations by linking up to GPS data and harnessing proprietary traffic algorithms. More broadly, Foursquare and the like let users know where friends are without explicit communication.

Samsung, Dual Video Call: Samsung's new Galaxy S4 has a feature that builds on existing videoconferencing technology, such as Apple's FaceTime, by enabling simultaneous use of the phone's front- and rear-facing cameras. Callers can show their face and their surrounding environment in the same call, giving those on the other end more of a "you are there" experience.





IMPLICATIONS FOR MARKETERS

- Communication is now as efficient, disposable, to-the-point or multilayered as people want it to be. As the array of options expands, consumer preferences are further fragmenting and becoming more varied. More than ever, brands must understand which mode their target consumer currently prefers on which occasions and serve up messaging accordingly.
- Marketers have various opportunities to become part of the messaging-app ecosystem. For instance, Line's social networking element includes brand-themed channels that users opt in to in exchange for coupons, news updates, etc. E-commerce partnerships are also possible: Line has a "secret sale" offering in Japan that sells an eclectic array of goods (including underwear and stuffed animals) to app users. Brands can also give away sponsored stickers that tie in with their products or IP content.

As we come to take the convenience of smartphones for granted, we'll want the next level of convenience: not having to pull out a device, unlock it and open the relevant app. Accessories like glasses and wristbands, along with in-car connectivity, will enable a more seamless and discreet experience, infusing the technology into daily routines.

Mobile will extend beyond the confines of the device screen to become more human-centered. Connectivity will be contiguous, with you wherever you are, whatever you're doing.



People are becoming used to the idea of always being connected, always having access to data, having instant feedback, etc. And ... they're longing for better

experiences that are less bulky or disruptive, and more integrated into their lifestyle. People start to think that taking out the cell phone and launching an app to do something is too much work."

> —JENNIFER DARMOUR, design director of user experience, product design company Artefact

The global wearable tech market is forecast to reach \$5.8 billion by 2018, up from \$750 million in 2012. —Transparency Market Research, January 2013

IN ACTION

Smart glasses: Accessories like Google Glass integrate a small screen and a microphone, camera and speaker, echoing many smartphone features. Eventually, users will be able to make calls, send messages and take photos using their voice.

Google Glass is expected to launch later this year, as are the M100 glasses from Vuzix. Already on the market, Oakley's Airwave goggles target skiers and snowboarders, using GPS sensors, Bluetooth and a display to provide information on the slopes.

In the future, contact lenses with LCD screens and connectivity may display information directly to wearers' eyes. Researchers at Ghent University in Belgium have developed prototype lenses that could eventually function as a heads-up display for users.



IN ACTION (cont'd.)

Smart watches: Bluetooth-enabled wristwatches with touch screens are simplifying the way people interact with their mobile device. Products like G-Shock's Bluetooth Watch and The Pebble (available for preorder) allow users to see who's calling when the smartphone rings, read emails, scan Twitter or Facebook, and control their music from their wrist. The Cookoo watch also lets users check in on Facebook or activate the phone's camera at the touch of a button. Samsung is working on its own smart watch, and Apple and Google are expected to be doing so as well.



IMPLICATIONS FOR MARKETERS

- Consumers themselves will become the mobile device as they adopt more wearable technology and shift from intermittent interactions with a handheld device to a constant state of connectivity.
- Mobile experiences will be less intrusive and more discreet, unless the user chooses otherwise. When a message comes in, for instance, users can simply see the sender on their watch or instruct their smart glasses to read the contents aloud. The LinkMe bracelet, currently a Kickstarter project, syncs with users' smartphones and displays incoming text messages or social media alerts via a light-up display.

When we evolve from 'mobile,' a screen, to a mindset of mobility, we'll see the full potential of this space. Efforts like Google Glass and Ford's in-car app strategy are giving us glimpses of what's possible. Content, be it recipes, your emails or dinner reservations, doesn't want to be contained by a screen. It wants to be liquid, nimble and free-flowing. We value the idea of mobility more than mobile." — ADAM KMIEC,

director of digital marketing and social media for Campbell Soup, "Mobile's Next Big Opportunity," Digiday.com, March 21, 2013

IMPLICATIONS FOR MARKETERS (cont'd.)

- With screens always available, marketers have more opportunities to send short, targeted, geo-local messages.
- As consumers start accessing multiple content streams from different devices and as the visual real estate shrinks, marketers will have to shorten their messaging to catch the fleeting attention of recipients.
- Wearable technology may help drive adoption of mobile wallets; when paying is as easy as swiping a watch over a reader, more consumers may warm to the idea of mobile payments.



The phone is becoming more of this consumption device, where you have the optimized screen. Wearable technology has the potential to take some of

the moments you would have with the technology you access on your phone. For example, ... why not wear something that you can easily wave your hand or tap it very discreetly to check in to Foursquare? One of the benefits is to have more of these personal discreet moments with your technology and content."

> —JENNIFER DARMOUR, design director of user experience, product design company Artefact

The mobile device is starting to become a primary screen for viewing long-form video, thanks to bigger and better screens, faster processors and connectivity, and evolving consumer behaviors.

This evolution is taking place both in developed markets—as tablets proliferate and Wi-Fi extends even to cars—and in developing regions, where mobile users are leapfrogging PCs and sometimes TV access but are increasingly able to afford lower-end smartphones and tablets.

While conventional wisdom once held that viewers would primarily watch short clips on smaller screens, we'll see mobile consumers embrace the idea of instantly available video wherever they are, on the device they're most attached to.

- 56% of global online consumers watch video on a mobile phone at least once a month. -Nielsen, May 2012
- In the U.S., mobile video viewing increased 24% year-over-year in Q2 2012. —Nielsen, November 2012
- Cisco forecasts that mobile video will increase 16-fold from 2012 to 2017, when video will account for twothirds of global mobile data traffic. —Cisco, February 2013
- 1 out of 3 digital media consumption minutes takes place on a mobile channel. -comScore

IN ACTION (cont'd.)

Video streaming: More brands are offering apps that enable streaming of long-form content on mobile devices, from companies like Netflix to cable channels like HBO and ESPN to broadcasters like the BBC. U.S. broadcast network ABC is working on an app that would live-stream programming to smartphones and tablets for cable and satellite subscribers. Spotify is reportedly considering expanding into streaming video. And Dish Network recently launched a home DVR box that allows users to send recorded content to their mobile devices. CEO Joseph Clayton remarked, "Customers want video content to be affordable, easy to use and available anywhere."

Viewers are concurrently changing their habits. In March, mobile viewers of the NCAA college basketball tournament's opening week watched 61 minutes of live-streamed action, a 42% increase over 2012.





IN ACTION (cont'd.)

Mobile video in emerging markets: Many consumers in emerging markets have only one Internet-enabled device—their mobile phone—and are embracing the opportunity to see a world of content previously unavailable to them. In the Asia-Pacific and Middle East/Africa regions, almost 40% of online consumers watch video on a mobile device at least once a day, according to a May 2012 Nielsen report. A crop of services cater to these viewers, like Afrinolly, an app that provides "African movies in your pocket."



IN ACTION

Airlines turn to tablets: Airlines are starting to embrace mobile rather than seat-back screens for in-flight viewing, whether by supplying the devices or catering to patrons who bring their own. Lufthansa and Virgin Australia have been testing BoardConnect, an in-flight infotainment system that allows travelers to access content wirelessly on their mobile device. Last year, the airlines launched apps that let flyers watch TV and listen to radio on their own devices. American Airlines and El Al are among those replacing built-in entertainment systems in premium cabins with content-loaded tablets.



IMPLICATIONS FOR MARKETERS

- A shift to mobile-based video means an equivalent shift in viewer context, with more people consuming content during daily commutes or on the go (while waiting in line, for instance). Depending on the context and screen size, engagement will shift as well—while fewer viewers will be distracted by other on-screen activities, as on PCs, some will be multitasking in the real world. Samsung now caters to distracted viewers with Smart Pause, a feature in the Galaxy S4 that uses eye-tracking technology to automatically pause video when a viewer looks away.
- As the mobile device becomes a primary content channel for some in emerging markets, it will become easier for brands to reach these video-hungry consumers. Marketers have opportunities to create or sponsor relevant content or develop branded video-streaming apps.
- Entertainment brands will need to enable their customers to seamlessly hop among platforms so that, for instance, a viewer can start watching something on a tablet and pick up from the same point on his smartphone or television.

IMPLICATIONS FOR MARKETERS (cont'd.)

 Note that the rise of mobile video viewing doesn't mean the death of the first screen, television. In developed markets, daily video consumption is increasing; Bell Labs suggests that by 2020, Americans will access seven hours of video each day, up from 4.8 hours today, an increase due in part to viewing two devices concurrently. And thanks to the rise of secondscreening (using a mobile device while watching TV), the mobile can serve as a complement to traditional TV.



The always-on, alwaysthere nature of mobile phones means that consumers always have access to them, and they are always using them to

consume media. For example, while commuting, when users don't have access to TVs, mobile video is very popular. Even at home it ends up being easier for the consumer to turn on their device than walk over to a PC and wait for it to boot up, which is why we see very high levels of engagement with mobile even when respondents are in bed (82%)—this portability is making long-form content on mobile phones easy and popular." <u>SHRIKANT LATKAR</u>, VP of marketing, mobile ad tech firm InMobi

Mobile devices are becoming integral to the consumer process. Consumers are tapping into mobile resources as they discover and research goods and services, order and pay, share purchases with social networks, rate products and experiences, and engage with brands post-purchase. Unique mobile technologies like geolocation, augmented reality and NFC will help further integrate mobile into each step.

This is empowering consumers, especially in-store shoppers, but brands are also gaining new opportunities along the consumer path—for instance, the ability to remind consumers to buy what they need at the right moment or to lure a consumer out of a rival's store.

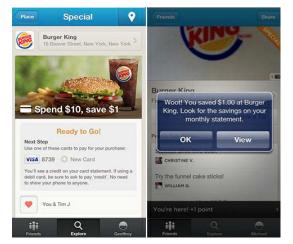
• Consumer time spent with iOS and Android retailer apps jumped 525% year-over-year in December 2012, and well over 200% for both price-comparison and purchase-assistant apps (e.g., ShopSavvy). —Flurry

- On Cyber Monday 2012, PayPal's mobile payment volume increased 190% globally year-over-year.
- As of Q4 2012, more than 1 in 10 retail e-commerce dollars is spent using smartphones or tablets. —comScore

IN ACTION

Foursquare, Visa and MasterCard: Foursquare, which has partnered with American Express for two years to offer its Specials, announced agreements with Visa and MasterCard. Users connect their Foursquare account with their credit card account to receive automatic discounts when they check in to designated businesses and use the card to pay turning the geosocial app into a couponing tool.

NFC-enabled outdoor ads: Technology like near field communication (NFC) and QR codes lets mobile consumers interact directly with advertising to get more information about a brand or incentives to buy. In the U.K., Clear Channel has installed more than 10,000 NFC tags and QR codes on outdoor signage. To promote the NFC component in its Galaxy S III phones, last year Samsung installed bus shelter and other outdoor ads in New York City with an embedded NFC chip; people who owned the phone could tap the ad to get a free MP3 track.





IN ACTION (cont'd.)

Walmart, Scan & Go: This pilot program, which Walmart recently expanded to more U.S. stores, is one example of many that demonstrates how retailers are trying to integrate mobile into the physical shopping experience. Customers scan items using the iOS app as they shop to see a running tally of the basket total; if the shopper has created an in-app list, items are automatically checked off as they're scanned. Users then pay at self-checkout terminals, avoiding a wait in line. More than half the app users have returned and used the technology again, Walmart execs have reported.



Through our mobile app, we're bringing personalized ecommerce to our customers wherever they go. So whether it's making shopping lists and researching products before they shop or helping them find products while they're in the store, we're turning their smartphones into a powerful tool to improve their shopping experience." – ASHLEY HARDIE,

manager of corporate communications, Walmart, "Walmart ramps up mobile in-store strategy to save customers time," Mobile Commerce Daily, March 22, 2013

IN ACTION (cont'd.)

London's "virtual supermarkets": Ever since Home Plus, the Korean arm of Tesco, launched a shoppable-by-mobile wall for Seoul commuters in 2011, numerous others have picked up the concept. One of the latest is Transport for London, which recently said it will install virtual supermarkets in Tube stations, allowing commuters to shop using their smartphones via electronic screens featuring pictures of products and barcodes.



IMPLICATIONS FOR MARKETERS

- By injecting real-time interaction into every step of the consumer's path, mobile changes the equation for marketers and requires a more contextual and nimble approach. And since a transaction can happen at any time, traditional marketing is starting to meld with other disciplines. "We are not just in the brand building business, we are in the direct response business," Coca-Cola group director of mobile and search Tom Daly said at an MWC event.
- Brands have new opportunities to make shopping simpler, faster and easier, whether by way
 of shoppable walls, apps with in-store maps and product guides, seamless coupon redemption
 and so on. But to capture the most mobile-savvy consumers, they will need to perfect every
 step of the process: finding consumers at the right touchpoint, getting the technology and
 the supply chain working smoothly and in tandem, making the interface ultra-simple for
 users, etc. Marketing and IT departments will need to work hand in hand to offer satisfying
 mobile experiences that work seamlessly.

Our communication must take into account that whenever we reach a consumer, he or she will talk not with their feet, as we used to say, but with their fingers—and unless we are ready to capture that action, then we will be missing an opportunity."

- KEITH WEED, chief marketing and communication officer, Unilever

IMPLICATIONS FOR MARKETERS (cont'd.)

- Brands also have new means of connecting with customers as they use the product or service and keeping them tied to the brand for future purchases. For instance, an executive from the IHG hotel conglomerate talked about using mobile through the course of the patron's visit— with an app that serves as a check-in tool, room key, payment hub, virtual concierge, etc.— and then beyond, with messaging that could alert a departing customer when rooms at that location will next be discounted or with a promotional offer for other locations. And with the advent of Intelligent Objects like connected cars or appliances, consumers will become accustomed to interacting with products via mobile.
- Brands can now track consumers from the first marketing message or other point of contact through to conversion and beyond. This enables easy ROI measurement for mobile initiatives and results in a trove of new data tied to each step of the consumer's path.
 - The purchase funnel gets very, very short: Awareness, consideration, all the way to purchase and then the loyalty and advocacy—it's happening in a much more compressed time frame for Millennials. From a retail perspective, you need to build the infrastructure and make it easy for them to stay on that path to purchasing from you."

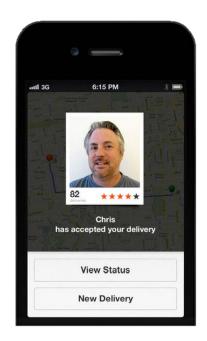
global business director, Shopper Marketing, JWT

The mobile device can summon what you need when you need it and where you need it. More companies are using mobile technology to enable consumers to request products and services at the push of a button and have these delivered to any location. As the mobile device turns into a genie of sorts, "instant" will be redefined to mean truly immediate.

Payments will get pushed to the back of consumer experiences, as one MWC speaker noted. The most successful services will let customers purchase and pay easily via the app, then enjoy a seamless experience (simply hopping out of the taxi upon arrival at a destination, for instance).

IN ACTION

Instant delivery of products: Various services can connect consumers with local couriers, allowing people to order items from their smartphone and get them quickly. eBay Now, which offers an iOS app and a mobile Web version, allows consumers on the go in several cities to receive products from local merchants within hours. Orders are pushed to the courier closest to the vendor in question; users can track the delivery's progress and phone the valet directly. Postmates offers a similar service, promising delivery in under an hour, as well as couriers who can make in-store purchases and deliver them.

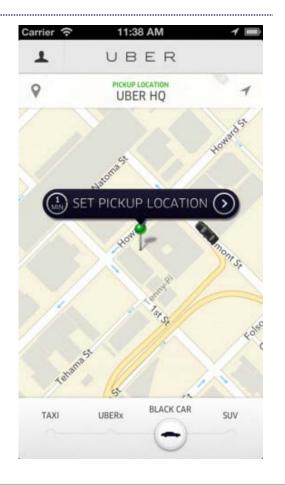


"[Postmates] works like a remote control for your city. You press a button and [in] under an hour the item that you so desire is in your hands." — BASTIAN LEHMANN,

CEO of Postmates, "Stores offer same-day delivery to compete with Amazon," Los Angeles Times, Dec. 14, 2012

IN ACTION (cont'd.)

Instant delivery of services: Services can also be ordered on-demand via smartphone. Several MWC panelists mentioned Uber as a favorite app: Users specify a pickup location, payment is debited automatically, and a chauffeured vehicle arrives. The service operates in several cities in the U.S., Europe and Australia, as well as Singapore. Similar companies include Olacabs in India and GetTaxi in London, Israel and Moscow.



IMPLICATIONS FOR MARKETERS

- Consumers on the go will increasingly expect to order and receive goods and services with minimal delay—especially the impatient, tech-savvy Millennials. A recent Boston Consulting Group study found that affluent Millennials are particularly attracted by expedited delivery service and are often willing to pay more for it. Brands will need to cater to these demanding consumers by building out their own instant delivery services or partnering with companies like TaskRabbit or Postmates. In a fun example, Durex has trialed an app that allows customers to order condoms for quick and discreet delivery.
- As more consumers gain the ability to have goods come to them quickly and easily, brick-andmortar outlets will have to entice shoppers by creating "third spaces" or otherwise providing compelling reasons to visit a physical store.

The mobile device is becoming a sixth sense for users, harnessing a variety of data streams to enable an enhanced sense of the world.

Smartphones contain an array of sensors that provide real-time information about the device and its surroundings, and thanks to an array of appcessories, they have the potential to add on capabilities as needed. What the smartphone is, is a way of bringing the information that is out there, that you can't physically reach, and bringing it to you."

> - PETER MARX, VP of business development, Qualcomm Labs, Qualcomm Spark video, episode 1.5, September 2012

IN ACTION

Context-aware apps: Some smartphones contain as many as 18 specialized sensors, such as a gyroscope (to determine the device's orientation in space), GPS (to identify location), an accelerometer (to track movement) and a magnetometer (to determine which direction it's facing). Their data streams enable the mobile device to understand the user's context and potentially provide relevant information or automatically complete tasks.

For instance, Jini is an app that logs users' routines, activities and surroundings to assess their behavior and serve up relevant recommendations. For example, Jini tracks activity and sleep patterns to help users understand how they sleep and when the best time is to go to bed.



We imagined a future where your smartphone would behave as a sixth sense to a user, a world in which mobile will become a context-aware device, capable of interpreting your behavior and 'automagically' understanding what you need." – FILIP MAERTENS,

founder, Jini, promotional video

IN ACTION (cont'd.)

Appcessories: Sensor-laded appcessories leverage the mobile device's computational capabilities to collect and analyze data about the world. The Tinké, for example, plugs into an iPhone, allowing the user to monitor biological data such as heart rate, respiratory rate and blood oxygen level by pressing a thumb against a sensor. Thermodo, currently on Kickstarter, tells users the temperature in their immediate environment. Sensordrone, which bills itself as "the 6th sense of your smartphone," can act as a breathalyzer to estimate blood alcohol content and measure carbon monoxide levels, light intensity and humidity. Among other things, its developers imagine parents employing it to ensure comfortable conditions for a baby.



IN ACTION (cont'd.)

LifeWatch V smartphone: The first of its kind, this medical smartphone features built-in sensors for monitoring heart rate, ECG, body temperature and even stress levels. Users can also check blood glucose by inserting test strips into the phone. Results can be shared with caretakers, physicians, etc., via email or text. The phone also reminds users to take medication and includes a pedometer application and diet apps. The device was approved for launch as a medical device in Europe in December.



IMPLICATIONS FOR MARKETERS

- The mobile device will become a key source of contextual, real-time information, potentially helping to make consumers' lives simpler and easier as it begins to perform context-specific tasks automatically. Consumers will come to expect messaging and promotions to be equally personalized, hyper-relevant and automated.
- As sensors get ever smaller, cheaper and more energy efficient, the mobile device will be able to track new data streams. Consumers will use information ranging from air quality to vital signs to improve their health, enhance their lifestyle or simply indulge their curiosity.
- As heads-up displays like Google Glass proliferate, the mobile sixth sense will be more seamlessly integrated into daily routines—for instance, serving up weather conditions on the walk to work or heart rate data at the gym. Further in the future, users may be able to see the social media profiles of people they encounter, thanks to facial recognition technology. Brands can provide product-specific augmented reality content and promotions that are activated when shoppers look at an item.

IMPLICATIONS FOR MARKETERS (cont'd.)

- As we noted in last year's report, the mobile device will serve as a wellness guru. And as
 mobile becomes adept at tracking vital signs and even diagnose illnesses, it will radically
 disrupt health care. (Qualcomm is offering the \$10 million Tricorder X Prize to a company
 that develops a mobile tool capable of diagnosing a set of 15 diseases.) Consumers will
 perform their own diagnoses and transmit the information to physicians remotely. Brands can
 provide these tools and/or enable patients to use them.
- Beyond the individual, the mobile device can serve as a sixth sense for governments and other organizations that harness the collective information gleaned from many thousands or millions of smartphone sensors. Street Bump, for instance, is an app that identifies potholes based on crowdsourced accelerometer data from smartphones, while Google Maps leverages users' anonymized GPS data to monitor their speed and draw conclusions about traffic conditions.

13 BRANDS BLEND IN

Increasingly, we'll see a move away from asking how brands can advertise on this platform toward a focus on how brands can blend in to the mobile lifestyle. The challenge will be to sync with the user's frame of mind or intent, potentially predicting just what consumers might need, want or be open to at a given moment.

This will mean sending contextually relevant messaging to those who opt in or providing enough utility or value to become integrated into the mobile routine. More sophisticated data analysis and technology will help brands accomplish this companies will take into account such details as whether a user is lying down or walking, for instance.



Generations of marketers have been brought up to believe that reach and frequency is everything—you want to reach the largest number of people the most number of times you

can, in order to cut through so your message is heard. In the mobile space, quite often what we're saying to people is, we'd rather reach the right people with the right message at the time that you are most likely to react, rather than continuously broadcast a message hoping it reaches our right audience."

- PAUL BERNEY,

CMO and managing director, EMEA, Mobile Marketing Association

IN ACTION

Waze: This navigation app, which claims roughly 40 million users around the world, won Best Overall Mobile App at MWC's Global Mobile Awards contest. Waze launched its ad unit in late 2012 and is working with brands including Dunkin' Donuts, Taco Bell and Ramada. Drivers doing a search for coffee, for instance, will see Dunkin' Donuts as a sponsored option. Branded pins appear for locations along the driver's route, with users given the option to reroute. When a driver is stopped, a screen "takeover" may push a relevant offer, with the option to reroute; users can also save offers in an in-box.

Offers are tailored around contextual factors like time and origin/destination (a coffee offer during the morning drive to work), as well as weather. Waze is working on a "temporal interest graph" that shows city-specific patterns— e.g., trips to fast food outlets may peak at different times. Offers are also tailored to the route (if the end point is a Walmart or an airport). The company is working toward segmenting users based on behavior: e.g., classifying users who routinely drive to airports and open the app in different cities as frequent business travelers.

"We're building a picture of how people move through the world and what their patterns are," says Di-Ann Eisnor, VP of platform and partnerships.



IN ACTION (cont'd.)

Meat Pack, "Hijack": This trendy shoe retailer in Guatemala, which focuses on limited-edition sneakers, ran an innovative geolocation promotion for mall shoppers last year. An enhancement to Meat Pack's app recognized when customers entered an athletic brand store and sent a discount that started at 99% and dropped by one percentage each second, spurring the store's young target to sprint over to Meat Pack. More than 600 consumers were "hijacked." Redeeming a discount led to an automatic Facebook post about the promotion, "generating a viral competitive attitude," according to the case study.

The Mobile Marketing Association's Paul Berney cites the campaign as a favorite: a good example of "how you use the concept of location, plus an opt-in to the database, plus sending the right kind of messages to people at the right time."



IN ACTION (cont'd.)

Gimbal, Qualcomm: This software development kit, which became available last year, boosts context awareness for apps by gathering data from every sensor in the phone (GPS, accelerometer, altimeter, etc.) and creating an interest graph of users that takes into account Web and app usage and locations visited. Push notifications can then be adjusted based on time, location and user profile. An example that Qualcomm gives is the ability to send a promotional family discount for a pizza place on a mom's route between school and home, several minutes before the car passes the restaurant.

Société de transport de Montréal: The transit authority is testing an app that pushes personalized offers, events and services to riders. Users provide basic data about likes and dislikes, which is funneled into a system that can recognize where a rider is on the transit system. Merchants can make on-the-spot personalized offers.





IMPLICATIONS FOR MARKETERS

- While most mobile phone advertising will be permission-based, fine-tuned messaging will likely win brands significant opt-in. AT&T presented customer opinions about the company's new Alerts, a location-based deals program, reporting that 3 in 4 say they are likely to recommend Alerts to friends or family. Paul Berney of the Mobile Marketing Association reports that Turkcell has roughly 13 million opted-in users, and O2 in the U.K. has around 10 million. But brands have only one chance to get it right; consumers will have zero tolerance for mobile experiences that aggravate or frustrate.
- As technology evolves, we'll see more and more Predictive Personalization (one of our 10 Trends for 2013, the idea that brands will increasingly be able to predict customer behavior, needs or wants, and will tailor offers and communications very precisely)—which will help to drive consumer opt-in. Coca-Cola, for instance, is in the early stages of testing how mobile can be used to anticipate needs, such as the inclusion of a sensor that detects when people need rehydration.

We are already able to tell when a consumer is walking in the park (we know his location) on a hot day (we know what the weather is like there) and where the nearest place is to buy a Magnum [ice cream] and send him a code for a discount."

- KEITH WEED, chief marketing and communication officer, Unilever

IMPLICATIONS FOR MARKETERS (cont'd.)

- More than any other platform, most mobile phone advertising will revolve around some kind of value exchange, from the blatant (watching an ad in exchange for free mobile minutes) to the more nuanced (e.g., most users of Waze will understand that the branded pins on their map help to enable the free service). "Without adding value to consumers through the mobile experience, we will most likely annoy them by intruding in a space that they feel is personal," says George Felix, a brand manager at Procter & Gamble, on Digiday.com.
- Everything brands do on mobile will need to take into account the 3 P's: privacy, permission and preference.



We have a totally different level of acceptance for unsolicited messaging online and coming through our mailbox, and coming through our home phones even, than

we do for our mobiles. We feel very differently about mobiles. We feel we own the mobile channel; it's very personal to us. So there's absolutely a priority to get [marketing] right and to respect people's privacy and understand the difference in the user experience that's expected."

- PAUL BERNEY,

CMO and managing director, EMEA, Mobile Marketing Association



APPENDIX: MORE ABOUT OUR EXPERTS/INFLUENCERS



PAUL BERNEY, CMO and managing director, EMEA, Mobile Marketing Association

Berney has over 25 years experience in a wide variety of sales, marketing, business development and commercial roles spanning several industries and market sectors, including automotive, printing, Internet development and management consultancy. He has spent the past nine years in mobile marketing and has been a speaker at more than 220 mobile events across the world, speaking to more than 32,000 people. Berney is a Business Leader in The Marketing Society, writing regularly for their blog, a fellow of the Institute of Direct Marketing, a Chartered Marketer in the Chartered Institute of Marketing, a member of the CMO Council and a mentor in the Marketing Academy.



JENNIFER DARMOUR, design director, user experience, Artefact

At award-winning product design firm Artefact, Darmour focuses on designing next-generation user experiences. She began investigating wearable technology in graduate school at Art Center College of Design in Pasadena, Calif., where she designed projects exploring wearable computing, soft textiles and the aesthetics of circuitry. Darmour lives in Seattle, where she is designing on-body and technology products for brands including Xbox, Microsoft Surface, Windows Mobile, HTC, Blackberry, Google, Lenovo, Sonos and American Eagle. She blogs at and runs electricfoxy.com, dedicated to new interactions that are beautiful, wearable and able to connect with software and services.



NATHAN EAGLE, CEO and co-founder, Jana

Jana helps global brands connect directly with people in emerging growth markets via mobile phones, rewarding consumers with mobile airtime in return for taking market research surveys and trying out products. The company is working with global clients including P&G, Unilever, Danone, General Mills, Nestlé, Johnson & Johnson, Microsoft, the World Bank and the United Nations. Eagle is also an adjunct assistant professor at Harvard University; his research explores how the petabytes of data generated about human movements, financial transactions and communication patterns can be used for social good. In 2012, *Wired* named Eagle one of the "50 people who will change the world." He has been elected to MIT's TR35, a group of the world's top innovators under 35, and serves on the World Economic Forum's Global Agenda Council for Data Driven Development.

APPENDIX: MORE ABOUT OUR EXPERTS/INFLUENCERS (cont'd.)



DI-ANN-EISNOR, VP, platform and partnerships, Waze

Eisnor runs U.S. operations for Waze and is crafting the cartography of "live mapping" for the crowdsourced navigation and real-time traffic startup. She is a neogeography pioneer and serial entrepreneur employing all means to increase the world's citizen mappers. Prior to Waze, Eisnor founded Platial, the Peoples' Atlas and Eisnor Interactive, which she sold to Omnicom. Eisnor believes social mapping is a critical tool for cultural diplomacy. She sits on the board of Gray Area Foundation for the Arts in San Francisco.



SHRIKANT LATKAR, VP of marketing, InMobi

Latkar is responsible for all marketing activities at InMobi, a leader in mobile-first technology platforms and the largest independent mobile ad network. Latkar also oversees market research (InMobi Insights) and corporate communications. He has spent over 18 years in the technology industry in a wide variety of marketing, product management and engineering leadership roles. Prior to InMobi, Latkar was responsible for marketing all products and solutions for the Aricent Group. He has also held various roles in marketing, product management and engineering at Juniper Networks, Avaya and Lucent Technologies Bell Labs.



IRIS LAPINSKI, CEO, CDI Apps for Good

Lapinski runs CDI Apps for Good, an award-winning technology education movement where young people in schools learn to create apps that solve problems they care about and change their world. From a modest start in two centers, two teachers and 50 students in 2010, Apps for Good has grown to 100 schools and 5,000-plus 11-18 year-olds across the U.K. and is aiming for 400 schools with 20,000 students by September 2013. Apps for Good is supported by hundreds of leading-edge technology entrepreneurs, UX designers and developers as expert volunteers, as well as tech industry partners like Facebook, Dell, Thomson Reuters, Blackberry and Barclaycard. In 2012, the Observer and Nesta named Lapinski one of Britain's "50 New Radicals" for her work with Apps for Good.

APPENDIX: OUR 2012 MOBILE TRENDS

The following are the 15 trends outlined in our 2012 mobile report, all of which remain relevant in 2013. To read the full report, see <u>JWTIntelligence</u> or <u>SlideShare</u>.

Access Over Ownership

With the proliferation of cloud-based services and Internet-enabled devices, consumers will shift from owning media to accessing it through subscriptions however they want (via various connected devices) and wherever they want. Using the next generation of high-speed mobile networks (4G, LTE and ever-faster Wi-Fi), people will listen to Spotify, Pandora and the like from Internet-enabled cars, speakers and even fridges; watch movies on tablets or TVs using services like Netflix; and catch up with TV everywhere as providers gradually expand access.

The Data-Sharing Debate

While third parties will seek access to more data (location, browsing history, social graph, etc.) in order to finetune personalization engines, people will increasingly think more closely about what they should share. This push-pull over data-sharing will spotlight what personal data is worth and how it's used, forcing brands to make a bigger point of asking consumers to opt in and, in some cases, to add incentives for doing so.

Everything Is 'Smart'

It's no longer just our mobile phones that are getting "smart"—that is, gaining access to the Web and the ability to communicate wirelessly. All kinds of things, from cars to refrigerators and entire homes, are getting connected in this way as well. Down the road, as more manufacturers embed Wi-Fi, SIM cards and other technologies into more products, expect anything and everything to link in to the intelligent Internet of Things.

APPENDIX: OUR 2012 MOBILE TRENDS (cont'd.)

Friction-Free Purchasing

The smartphone will become a passkey to the retail experience. QR codes allow smartphone users to shop anytime, anywhere, as we're seeing with the rise of retailers' coded out-of-home displays. The integration of NFC in handsets will enable fast and easy mobile payments. And as e-commerce and brick-and-mortar retailing integrate and overlap, shopping may entail simply snapping a photo or tapping a sensor, then collecting the order or having it immediately delivered.

The Humanization of Tech

As voice and gesture control become more common, our technology (mobile included) will adapt to us, rather than us adapting to it. Our digital experiences will become simpler and more user-friendly. Devices will also take on more human-like qualities, with personalities, individual quirks and other elements that make them more understandable and accessible.

Hyper-Personalization

Mobile devices will increasingly use the data they're privy to—from purchases made to social interactions to location—to offer information tailored to the user. They will analyze past and current behavior and activity to provide recommendations on where to go, what to do and what to buy.

Media Multitasking

The mobile is becoming a complement to or distraction from most other types of media platforms and content. Consumers are hopping between screens (and the printed page), toying with their tablet or smartphone as they watch television, play video games, work on their computer and so on. Sometimes they're multitasking, and sometimes they're using the mobile device's unique capabilities (e.g., apps that recognize audio content or scan QR codes) to augment the experience at hand.

APPENDIX: OUR 2012 MOBILE TRENDS (cont'd.)

Mobile Device As Lifesaver

Internet-enabled mobile devices are becoming important tools in broadening access to health care, diagnosing diseases and saving lives in crisis situations. In developing regions, where network coverage is steadily expanding to remote areas, people who lack access to medical care for economic and/or logistical reasons can use their phone to connect with health professionals. And as smartphone computing power explodes, we'll see Star Trek-like devices that perform diagnoses on the go; some will even act automatically to ensure users' safety.

Mobile Device As Wellness Guru

Smartphones will help people lead healthier lives by providing information, recommendations and reminders based on data gathered through sensors embedded in users' clothing (shoes, wristbands, etc.) or through other phone capabilities (its motion detector, camera, etc.). We'll track everything from physical activity to sleep patterns and then get tailored advice on how to make improvements in real time.

Mobile Identity

With the mobile device serving as an Everything Hub—an ongoing trend we've spotlighted—it will become a summation of who we are all in one place. It will be packed with personal information and images we've accumulated over time and serve as our mobile wallet and keychain, enabled by secure and seamless technologies.

"NoMoPhobia"

This term for "no mobile phobia" refers to the fear people feel when separated from their mobile device. Hightech devices in general are becoming as integral to people as food and clothing (a macro trend we've termed Eat, Pray, Tech). With the mobile in particular, our attachments are deepening as the smartphone evolves into an indispensible Everything Hub and as it becomes more closely linked to our identity (see Mobile ID). Increasingly, going without this appendage will provoke real anxiety.

APPENDIX: OUR 2012 MOBILE TRENDS (cont'd.)

Seamless Living

As all kinds of devices get connected to cloud services, mobile technology will help us navigate the world more seamlessly. And as key players like Microsoft, Google and Apple expand their product lines across devices—from televisions to tablets—we'll see more unified experiences across platforms.

Security Consciousness

App usage, mobile browsing and mobile payments all put personal data at risk, and security threats are rising. We'll also see a rise in cloud security concerns and claimed solutions as people share more personal data with third parties and as more businesses store customer and proprietary information in the cloud.

Smartphone As Everything Interface

The smartphone will become the key interface between connected devices and products (the Internet of Things) and their users. Among other things, people will use the device to remotely control household appliances, interact with screens and automatically adjust car settings to their preferences.

Widening Access

The United Nations declared Internet access a human right in June 2011, underscoring the importance of connectivity to people around the globe. The public and private sectors are working to open up access. Mobile providers are expanding infrastructure in rural areas and bolstering existing systems to ensure the growing ranks of smartphone owners can communicate. Affordability is also a key issue. Another barrier to access is government constraints on citizens.

THANK YOU

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13 Mobile Trends for 2013 and Beyond

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