

A hand holding a blue smartphone against a background of colorful bokeh lights. The background consists of out-of-focus light spots in shades of yellow, orange, and purple, creating a vibrant, festive atmosphere. The hand is positioned in the lower right quadrant, holding the phone vertically. The phone's screen is dark, and the back of the phone is visible, showing a blue finish.

JWT | 10 MOBILE TRENDS
FOR 2014 AND BEYOND

MAY 2014

Image credit: LDprod

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BACKGROUND

Our third annual report on trends in the mobile sphere spotlights some key themes that came out of this year's Mobile World Congress, Consumer Electronics Show and South by Southwest Interactive; builds on trends we've outlined in our previous reports; and explores how several of our 10 Trends for 2014 impact mobile. It's based around on-the-ground research at the MWC in Barcelona and SXSW in Austin, as well as desk research and insights gleaned from interviews with several mobile experts and influencers.



MICHAEL BJÖRN
head of research,
Ericsson ConsumerLab



DAN HODGES
managing director
and founder,
Consumers in Motion



JOHN KIETA
lead,
m:lab East Africa



JIM MCARTHUR
managing director,
Big on Mars,
part of Digitaria, a
JWT company



ALEX SOOJUNG-KIM PANG
author,
The Distraction Addiction



TOBIAS PEGGS
CEO,
Aviary



INTRODUCTION

Today “mobile” connotes not only our phones and tablets but other connected devices like wearables and cars, and “smart” objects and systems (aka the Internet of Things). Some of this tech is in its infancy, but it’s maturing quickly, as evidenced by the many connected cars and wearables at this year’s Mobile World Congress and heavy emphasis on the IoT.

We’re hurtling toward a world steeped in and vastly impacted by mobile technology, with mobile driving fundamental changes in the business landscape and in consumer behaviors and expectations.

Certainly consumers are spending ever more time with mobile screens. A Millward Brown study released in March reports that across 30 countries, people spend an average of 147 minutes a day using a smartphone, which now outranks the TV or laptop screen. And this figure may soon seem low, considering that phones are the only available route to the Internet for many of the newest mobile consumers. Already Facebook has more mobile-only than desktop-only users.

As phones and many other connected devices become integrated into every part of our lives, the real and virtual worlds will get increasingly blurred. Marketers will need to transition from focusing on the mobile platform in and of itself to thinking holistically about how mobile affects and interacts with everything else.



1. HOLISTIC CONNECTIVITY IS ON THE HORIZON

Integrated, holistic systems will start to link up devices, goods and services in the home, on the road and beyond so that each component works in lock step with the rest.

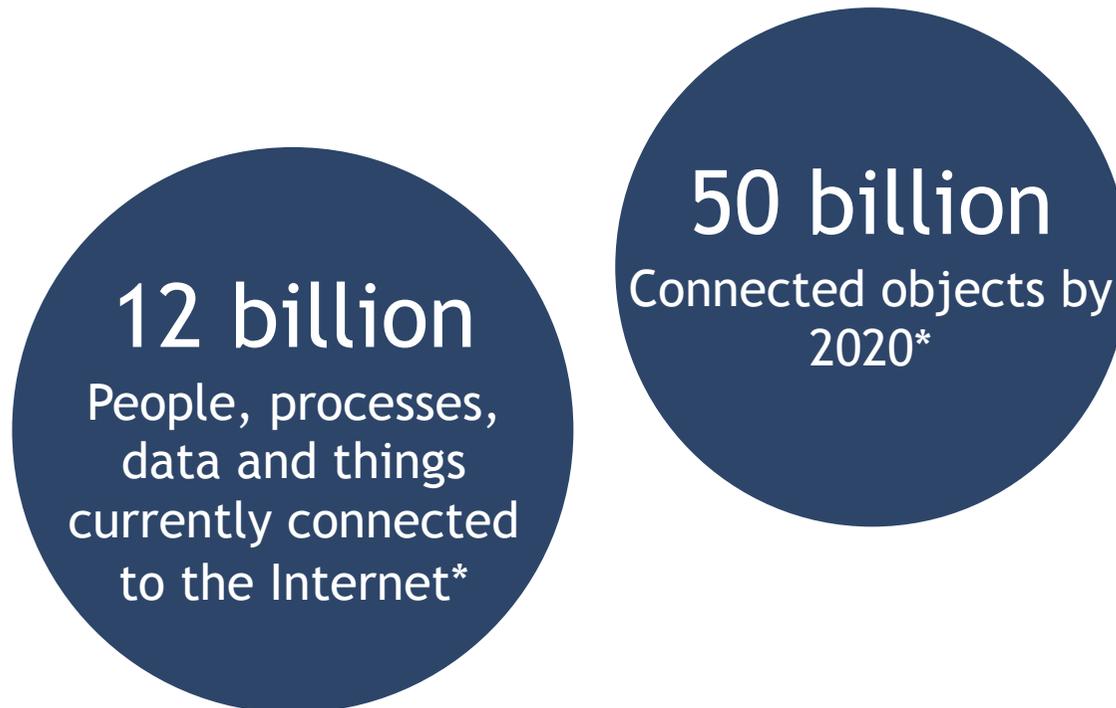
IN ACTION:

- The connected home
- Connected cars
- The framework

HOLISTIC CONNECTIVITY IS ON THE HORIZON

We're moving toward a world in which connectivity is ubiquitous, with many more things gaining the ability to communicate via mobile technology. Connected cars were prevalent on the Mobile World Congress exhibit floor for the first time, and we saw more examples of "the connected home" and "smart cities." Wearables were a hot topic, with mobile devices taking the form of glasses, wristbands or watches (see Section 2).

Estimates vary widely on how big the Internet of Things will become by the end of the decade, but they're all mind-boggling. Soon we'll begin to get a better sense of how all those objects might connect to each other and to the user.



THE CONNECTED HOME

Today's "smart" products can communicate wirelessly thanks to built-in sensors that users control from smartphones. Down the road, we'll see systems in which an array of devices and services—appliances, glasses, vehicles, email, mapping software—communicate and operate in tandem. (And the race is on among tech and other consumer electronics giants to see who will control those systems.)



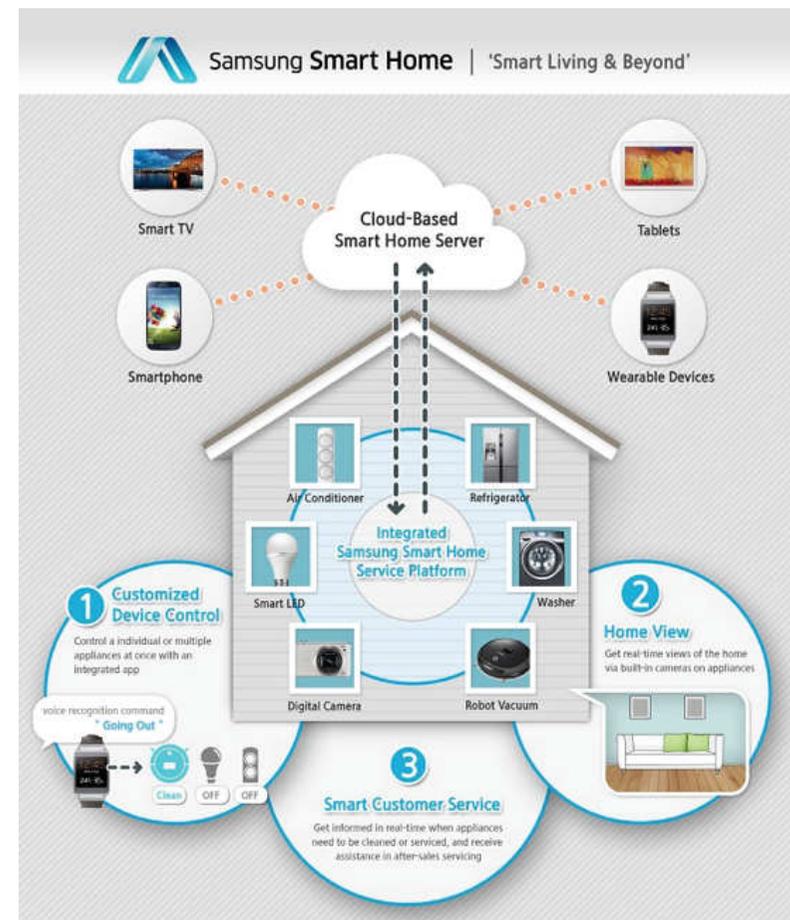
Nest, which Google bought in January for \$3.2 billion, sells a "next generation thermostat" that programs itself around the user's patterns—helping to position Google as a key potential player here.



Philips, LG and Samsung are among those turning light bulbs and lamps into appliances. Smart bulbs may sync with smartphones to turn a home's lighting on or off automatically (thanks to geofencing), blink to indicate incoming calls or notifications, or pulse in tandem with music.

THE CONNECTED HOME

LG and Samsung are among the companies selling connected appliances, including TVs, washing machines, air conditioners and robotic vacuums. At CES, LG showed HomeChat, a system that lets people text their appliances in natural language. Samsung unveiled Smart Home, an app that manages and integrates these appliances, along with Samsung phones, cameras and smart watches. Systems like these will develop further as they gain the ability to link up with devices from other manufacturers.





CONNECTED CARS

Fast 4G LTE connections are turning vehicles into hot spots that come with a data plan. Audi's new A3 is the first 4G car, to be followed by several GM cars, including Cadillac's 2015 models. Ford, Toyota and others aren't far behind. All new cars in Europe will integrate connectivity by 2015 thanks to regulations that require the eCall system, which sends location and other data to emergency services after an accident.

Cars are also gaining more connectivity-enabled sensors that help make driving easier. At the MWC, Ford showcased new features like perpendicular-parking assist. Ultimately, sensors in cars will enable vehicle-to-vehicle communication, allowing cars to coordinate with each other. Cars will also start communicating with "smart" infrastructure (traffic lights, etc.). All this should greatly improve traffic flow and safety.

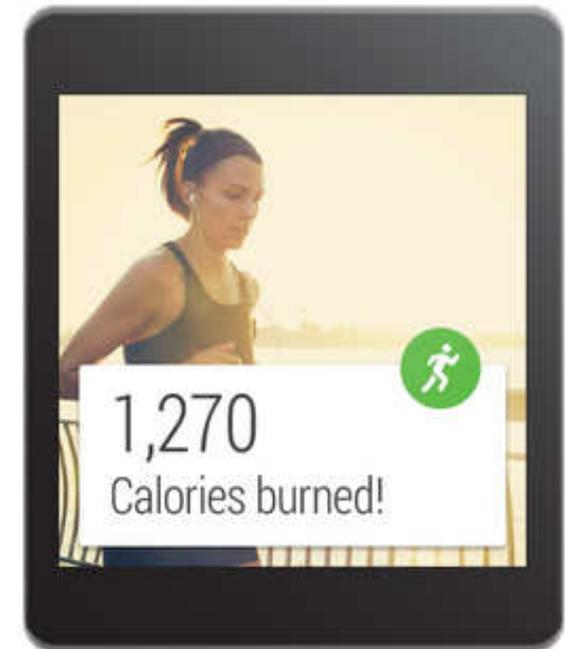
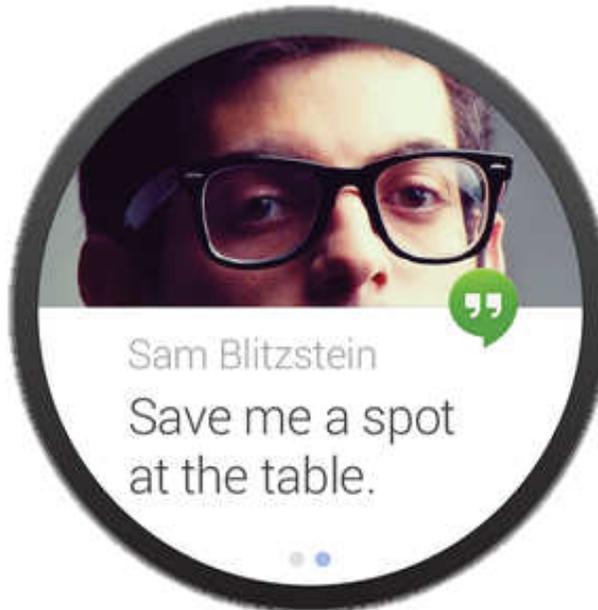
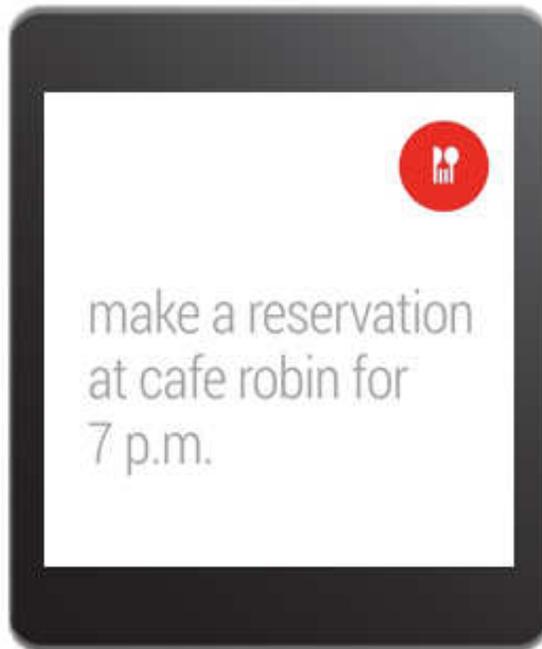
Google's Android and Apple's iOS are making their way onto dashboards. Apple's new CarPlay—which turns the car into a platform for an iPhone's content—is included in new Ferrari, Mercedes-Benz and Volvo models. Android-ready cars will come on the market later this year thanks to Google's new Open Auto Alliance. Car-based app ecosystems will eventually provide relevant info (traffic, maps, vehicle diagnostics, restaurant suggestions) and entertainment, combined with safety precautions like voice control.

Eventually, connected cars—complete with Internet hot spots, a suite of apps and sensors that communicate—will link up with drivers' connected homes, mobile devices and other gadgets to form a seamless system.

THE FRAMEWORK

Holistic connectivity will be enabled by initiatives like the Linux Foundation's new AllSeen Alliance, which is pushing an open-source framework for the Internet of Things based around Qualcomm's AllJoyn software platform. LG, Panasonic, Cisco and Sears are among the companies involved.

The tech giants will also vie to dominate the framework here. Google recently announced Android Wear, a platform to power wearables, while Microsoft says it's planning a Windows operating system for small Internet of Things objects.



IMPLICATIONS FOR MARKETERS

New ecosystems are emerging: Cohesive ecosystems will need to form around connected objects and devices so that users can easily (and securely) link each component and add functionality or customization with apps. Currently these ecosystems are in the very early stages (Google's Android Wear platform, for instance).

Google and other tech/electronics giants, from Apple and Microsoft to Samsung, are angling to retain dominance by enabling these systems. But new players are also emerging—e.g., startup Pebble is behind one of the three key smartwatch platforms—and some are entering new spheres. Philips, for instance, is aiming to turn its Hue smart bulb into a platform, soliciting apps from third-party developers.

Companies will need to find their place in these ecosystems, which may require forging partnerships or perhaps creating their own.





IMPLICATIONS FOR MARKETERS

Goods are meshing with services: As objects become “smart,” products blur with services and manufacturers become service providers. “The [Nest] thermostat is the product, but the service is the core,” noted Jahangir Mohammed, CEO of Jasper Wireless, at the MWC.

In a holistically connected system, the product is therefore just one element of a broad service offering that is potentially personalized around consumers’ needs, patterns and behaviors. This opens up new channels for engagement with customers over extended periods of time.

At the same time, services can offer products that collect pertinent data. Car insurers, for instance, have started offering dongles that monitor driving and then provide customers with insights into their driving and reduced premiums for the safest drivers.

IMPLICATIONS FOR MARKETERS



Products have evolved from purely physical components to complex systems combining processors, sensors, software and digital user interfaces that are now connected to the Internet and each other. As their definition has evolved, product capabilities have multiplied, creating new forms of value and even doing things well beyond their primary function. The impact is a fundamental transformation of how manufacturers create and exchange value with customers. This transformation is shifting the sources of value and differentiation to software, the cloud and service, and spawning entirely new business models.”

—“The Internet of Things: How a world of smart, connected products is transforming manufacturers,”
PTC report

IMPLICATIONS FOR MARKETERS

Big Data paints detailed portraits: The data stream coming from a connected object can reveal a lot about the user. And combined, this data paints a detailed portrait of a person's comings and goings, daily habits, physical condition and so on. Analyzed in aggregate, these data streams provide unprecedented insight into everything from consumer product use to traffic patterns to public health issues.

Brands will be able to better personalize their goods and services for individual consumers and make wide-scale adjustments based on aggregate findings. Marketers will potentially be able to target very precisely once they have a more holistic view of the consumer. Inevitably, trust becomes a chief priority, as consumers will opt out if they believe their privacy and data security could be compromised or mistreated. And increasingly consumers will understand that they're trading some level of privacy for convenience and personalization.



Even anonymised user data would give Google incredible new insights into our behavior in the physical world [with the Nest acquisition]. ...Perhaps Google could pair our movements with how we shop—say, using Google's own same-day delivery service. Or some choice we make offline that compels us to perform a particular search. This may sound creepy, but much like using Google for search, it could become the price of admission for participation in the Internet of Things.”

—MARCUS WOHLSEN,
“What Google really gets out of buying Nest,”
Wired, Jan. 15, 2014

IMPLICATIONS FOR MARKETERS



The core game changer is just data, information. Devices telling us what's happening, what's going on, what people are doing, in a new way, painting an entirely new picture. I like to think of it as, all of a sudden, one day mankind could see UV light—there's this whole sector of light out there that we can't see but other animals can, and if you have the right device, you can see it. And that's what data is like to us today. When it's firing at full speed, we're going to have an entirely new sense.”

—JIM MCARTHUR,
managing director, Big on Mars

IMPLICATIONS FOR MARKETERS

Safety and security will become prevailing issues: Anything connected to the Internet is at risk of being hacked; and once connected objects are linked with each other, that danger is multiplied. The specter of having a hacker gain access to, track or take control over one's car, home or wearables will spur anxiety and some reluctance among consumers to adopt smart systems. Meanwhile, if cybercriminals gain access to smart infrastructure or a business's databases, huge geographies or swaths of customers could be gravely affected.

Security considerations will need to be baked in to the design of products and systems, while passwords/ access systems will need to get more sophisticated. Even then, many issues remain. For instance, who's responsible for keeping security up to date across an ecosystem? This is both a technology and a business problem, noted analyst Benedict Evans at the MWC.

Some companies are offering rewards for help with security. In February, Cisco announced six prizes totaling \$300,000 for companies with innovative solutions to IoT security issues. Tesla, whose electric Model S sedan is vulnerable to hackers, rewards researchers for uncovering and sharing security weaknesses (much like the bug bounty programs of Facebook, Microsoft and others).



“Once you've got 50 billion connected devices with as much computing power as a PC from 2000, what happens when security is compromised?”

—BENEDICT EVANS,
partner, Andreessen Horowitz
Mobile World Congress panel

IMPLICATIONS FOR MARKETERS

New rivalries and partnerships will form: As goods mesh with services, new ecosystems emerge and new types of products come on the market, companies will find themselves with a new set of competitors. In its lighting business, for instance, Philips will now be competing against LG and Samsung as they create connected lights.

At the same time, companies may need to form an array of alliances, whether to gain connectivity, provide new services enabled by connectivity, make the most use of data collected, fit into connected ecosystems and so on. For instance, Fossil Group and Motorola are among those partnering with Google to create Android Wear watches. We'll also see a drive to share data—among both public and private entities—rather than keep it siloed, making it all the more useful.



Jarden, which owns small-appliance brands including Crock-Pot and Mr. Coffee, recently entered into a partnership with consumer electronics brand Belkin. One of the first products is a smart slow cooker that lets users change settings via smartphone.



30°

10 MILES

2. WEARABLES BREAK OUT

Mobile is becoming a whole-body experience as wearable tech expands from Kickstarter projects to mass-market products from major brands. It's early days, however, and we'll likely see the devices, form factors and software evolve considerably before winning broad adoption.

IN ACTION:

- Wearable operating systems
- Biometric authentication
- Quantifying moods
- Tracking from afar
- Haptic feedback

WEARABLES BREAK OUT

The wearable category is exploding this year, with dozens of product launches or announcements at CES, MWC and SXSW from brands including Samsung, Sony, Motorola, Huawei and Epson, in addition to multiple startups. Google announced Android Wear, its wearables operating system, and is expected to officially launch Glass later this year. But as evidenced by Nike's recent decision to wind down its FuelBand group, wearable tech is a category still working itself out. There's no killer app as yet, but many believe there will be in the next few years. "It's now just a matter of who gets it right," as Mashable says.



Wearable tech is not a niche play; it's a broad, industry-wide phenomenon impacting everything. It's critical marketers and brands realize that we're at the first embryonic stage."

—MICHAEL BECKER, managing director,
Mobile Marketing Association, *Adweek*, Jan. 5, 2014

\$5.8 billion

Estimated value of global
wearable tech market by
2018, up from \$750 million
in 2012*

WEARABLE OPERATING SYSTEMS

Operating systems designed for wearables will provide a foundation for ecosystems, driving standardization and enabling manufacturers and developers to more quickly and easily build products. Importantly, common standards will allow devices from different manufacturers to communicate with each other and share data streams, giving users a richer experience. “For wearables to sing the body electric, they must first form choirs,” says *Wired U.K.*

powered by
ANDROID wear

Google’s Android Wear OS brings the functionality of the Android operating system to wearable devices. The first products to use it are Motorola’s Moto 360 smartwatch and LG’s G Watch.



While Samsung is a partner in the Android Wear ecosystem, the company is also developing its own OS. Tizen is currently available on Galaxy Gear products and will expand to smartphones.

BIOMETRIC AUTHENTICATION

As we pointed out in our 100 Things to Watch for 2013, passwords are evolving beyond letters and numbers to meet new security threats. Wearable tech, which can track the wearer's vital signs, could harness these data points as an alternative, and ostensibly more secure, authentication tool.



In addition to a heart rate monitor, Bionym's new Nymi wristband uses the wearer's unique cardiac rhythm as a verification of identity. The Nymi connects with all the user's devices, replacing the need for traditional passwords.



Identification [via wearables] will be one of those really killer apps. ... There's frustration around keys and login IDs, and there's a relatively low barrier to entry for authentication using wearable tech."

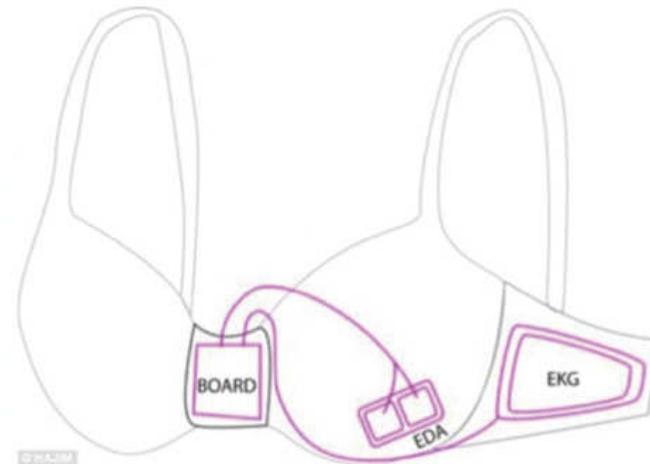
—JOHN MICHELSEN,
CTO, CA Technologies,
"Wearable tech offers promise (and potential peril)
for the Enterprise,"
CIO.com, Jan. 22, 2014

QUANTIFYING MOODS

As we augment our bodies with sensors, it will be possible to detect and quantify moods and emotions, enabling us to understand ourselves in new ways and improve overall well-being. At SXSW, IDEO showed its “empathic threads” concept: clothing with sensor-equipped fabric that tracks mood and relays this data to a smartphone, allowing people to learn more about what makes them happy, sad or anxious. Where appropriate, brands can use mood data to tailor messaging or create immersive experiences.



Vital signs like heart rate or blood pressure can indicate emotional state. Phyode’s W/Me wristband monitors the automatic nervous system and provides an analysis of the wearer’s mental state through a companion app.



A prototype bra from Microsoft researchers tracks the wearer’s heartbeat and perspiration to detect emotional state and relays this information to a smartphone. Microsoft envisions using this to help women make better decisions about their eating habits.

TRACKING FROM AFAR

A new crop of wearables allows users to be tracked from afar. People can keep tabs on their children, for instance, or on elderly parents. While some might see this type of tech as leading to Big Brother-type scenarios, it can keep loved ones connected to each other and assured about their safety.



Created by JWT Singapore, the Guardian Angel is a simple accessory—worn as a necklace or on a bracelet—designed to help women feel safe. It syncs with users' smartphones so that, at the push of a button, a text will go out to emergency contacts with a Google Map link to their location.



The Filip watch uses GPS, GSM and Wi-Fi to keep parents informed on a child's location. The device alerts parents if the child enters or leaves a designated area. The child can receive texts and calls, and push an emergency button to contact parents, record conversations and send location information. In the U.S., AT&T sells the Filip for around \$200, plus a monthly data plan.

HAPTIC FEEDBACK

The body can become a surface for communication or multisensory entertainment experiences when wearables combine with haptic (touch) feedback, one of our 100 Things to Watch in 2014. Wearable Experiments co-founder Billie Whitehouse theorizes that small vibrations near body parts could be associated with different types of action and meaning (the groin is erotic, the arm informative), conveying messages without need for words. Each part of the body could have a unique set of communication conventions and subject matters. Wearable Experiments created these three haptic garments:



Fundawear, made for Durex, consisted of vibrator-equipped underwear that could be controlled remotely via smartphone, allowing lovers to communicate in a novel way.



Created for sports broadcaster Foxtel, the Alert Shirt is a battery-powered, Bluetooth-enabled shirt with a built-in vibrator that converts live data from Australian football games into sensations experienced by a TV viewer.



The Navigate Jacket turns the upper back into a site for delivering directions via two sensors that vibrate to indicate either a right or a left turn. Both vibrate at once when the wearer arrives at his or her destination.

Image credits: Wearable Experiments [\[1\]](#), [\[2\]](#), [\[3\]](#)

IMPLICATIONS FOR MARKETERS

Broad adoption will happen later than sooner: Wearables are still in their infancy, with multiple players vying to land on a killer app. For the most part, it's as yet unclear how or why people will integrate wearables into their lives—but they will eventually, as the technology and design evolve. GlobalWebIndex reports that 43% of Internet users age 16-64 say they are interested in using wearable tech in the future.

“Wearables will only succeed when they do things people really care about,” observed Genevieve Bell, director of user experience research at Intel, at a Mobile World Congress presentation. A September study in the U.S. and U.K. by CCS Insight found that “a significant proportion” of wearable device owners stopped using them, largely due to boredom or lack of functionality. Wearable technology will have to evolve to identify and address true consumer needs.



Useful new technology has to replace or simplify some function, ideally; otherwise it has the challenge of persuading us that we need this entirely new thing. ... [Wearables are] just not that good at exciting us. The problems to be solved—usefulness, battery life, appearance—clearly haven't been. Nor has the real killer app appeared.”

—CHARLES ARTHUR,
“Wearables: one-third of consumers abandoning devices,”
The Guardian, April 1, 2014

IMPLICATIONS FOR MARKETERS



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The devices we're putting in place are now the new layer for pillar concepts to reach more and more places within customers' lives. ... Your wearables today represent the big gray phone the size of a phonebook that was the first mobile phone. Give it 15 years and then apply the smartphone paradigm to wearables."

—JIM MCARTHUR,
managing director, Big on Mars

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IMPLICATIONS FOR MARKETERS

Privacy concerns could imperil adoption: As discussed throughout this report, concerns about data privacy and security encompass all aspects of the mobile lifestyle. Wearables are no exception—and indeed may spur greater concern than mobile phones, since the devices can yield a very intimate view of the wearer. Consumers will fear that this information could be appropriated without their permission or used to discriminate against them (with insurance premiums, for instance).

As there are few established conventions when it comes to wearables, brands will need to establish best practices and reassure consumers that their data is secure and will be used appropriately.

1 in 3

Internet users in a seven-country study fear that wearable devices will invade people's privacy*

IMPLICATIONS FOR MARKETERS

Marketers gain a “fourth screen” on which to reach consumers: Wearable devices represent a new platform on which to engage consumers with highly customized content, as brands will have extensive data on the user and his context. The challenge will be getting permission to enter this space. Noted Mashable columnist Todd Wasserman: “[It] is not so much how to market to consumers on their smartwatches, but how to get them to agree to let you market to them on their smartwatches.”

Still, the potential is exciting. At the MWC, the augmented reality firm Blippar showed off a Google Glass app that brings AR to the device, providing the wearer with information on the fly.



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A smartwatch may look like just another screen to conquer after television, computers and smartphones—but it’s not. The interruptive model worked fine for TV, print and even to an extent online, but the smartphone ushered in a different relationship between consumers and advertisers. As the line between a consumer’s body and her device becomes fuzzier, advertising is perceived as being more intrusive.”

—TODD WASSERMAN,
“The fourth screen: how smartwatches could be used for ads,”
Mashable, March 23, 2014

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IMPLICATIONS FOR MARKETERS



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If you look at wearables, all the appliances and the heads-up displays that are coming our way, one of the big changes is the number of channels that we're going to have to play in is about to duplicate and then change."

—JIM MCARTHUR,
managing director, Big on Mars

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IMPLICATIONS FOR MARKETERS

Mobile will become more human-centered, less disruptive: As we noted last year, once the smartphone screen is removed, technology becomes more seamless and discreet, infused into daily routines. Google Glass and other backers of wearables argue that this will help put us back in the moment. As we point out in our 10 Trends for 2014, consumers are developing a greater interest in mindful living—a desire to experience everything in a more present, conscious way—and distractions like smartphone screens are a key driver of this. Wearable tech offers a way to help people manage technology’s siren call.



So many people are viewing things now just through their screen. ... We live this digital life instead of what’s real. We’re removing the screen as a distraction and giving the person their eyes back.”

—BILLIE WHITEHOUSE,
co-founder, Wearable Experiments

IMPLICATIONS FOR MARKETERS

Both function and form are key: As with all accessories, wearables are a means of self-expression, a statement about the user. We'll see design getting more important, especially as luxury brands enter the space. Fitbit is partnering with fashion designer Tory Burch, Intel is collaborating with high-end retailer Opening Ceremony and Barneys on a wearable device, and Google is working with upscale eyewear maker Luxottica for versions of Glass.

Brands have novel opportunities for collaboration here, helping to give these devices a personality or new image.



Wearables bring questions of design to a level that's orders of magnitude beyond anything the technology industry has ever faced. ... Wearables are more like clothing than gadgets, and there are literally millions of clothing designs to meet people's varying fashion tastes."

—BOB O'DONNELL,
founder and chief analyst, TECHanalysis Research,
"The smart wearables debate: Fashion vs. function,"
USA Today, March 5, 2014



3. MOBILE IS THE PRIME SCREEN

With people spending ever more time reading and watching video not only on tablets but on smartphones too, mobile has become the prime screen for content consumption.

IN ACTION:

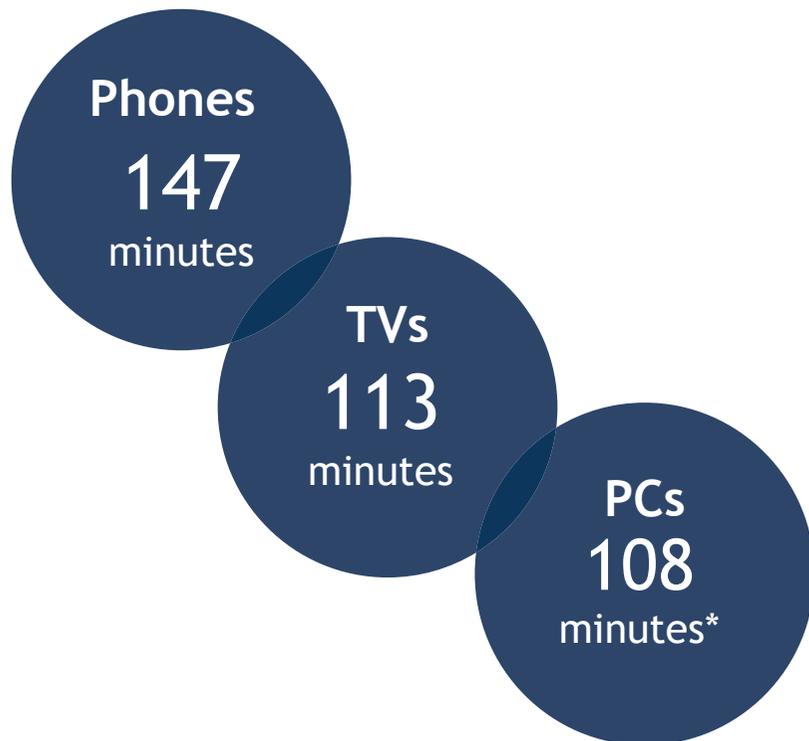
- Mobile video
- Mobile news
- Longer reads

MOBILE IS THE PRIME SCREEN

In our trends report for 2009, we forecast that mobile would become the “everything hub,” the preferred platform for digital activity. Today, it’s the hub not only for digital activity but also for content. Mobile is increasingly the first screen or, more aptly, the prime screen, since the idea of ranking screens will become obsolete as we move into an era of ubiquitous screens (phone, tablet, PC, TV, smart watch, etc.) that consumers constantly shift between.

Content will morph to accommodate this audience shift and to better fit the mobile platform and mobile consumer.

Time spent per day with:



Mobile is undoubtedly the first screen. It’s crazy to think of it in any other way.”

—MATT GILLIS,
EVP, global monetization solutions,
Millennial Media,
Mobile World Congress panel

MOBILE VIDEO

719%

Increase in global share of time spent watching videos on tablets and mobile devices between Q4 2011 and Q4 2013*

*Source: Ooyala

40%

YouTube traffic coming from mobile, up from 6% in 2011*

*Source: Google

72%

People with a broadband connection who use mobile devices at least weekly for video viewing*

*Source: Ericsson ConsumerLab TV & Media Report, August 2013

14-fold

Forecast increase in mobile video traffic between 2013-2018*

*Source: Cisco Systems

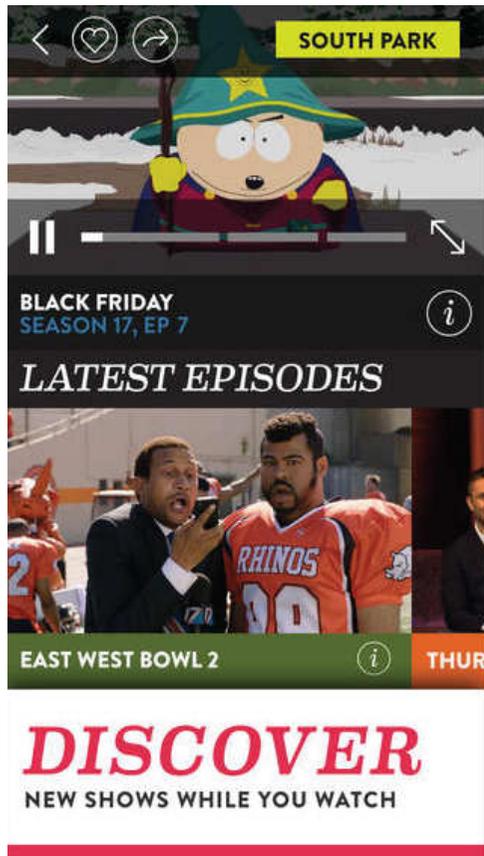
“

Widely doubted as a viable TV platform by critics less than a decade ago, mobile today is the fastest-growing segment of online video. It has been for the last two years, and will be for the next two. In fact, mobile video is growing so fast, it could make up half of all online video consumption by 2016.”

—Ooyala,
Global Video Index: Q4 2013

MOBILE VIDEO

Consumer habits are quickly changing when it comes to watching video on mobile, thanks to fast 4G networks (and cheaper access), a spike in mobile-viewing apps, the proliferation of Wi-Fi hotspots, improved quality (HD screens, optimized sound) and wider tablet adoption. “Mobile video has proven to be far more popular than anyone might have guessed,” says Business Insider.

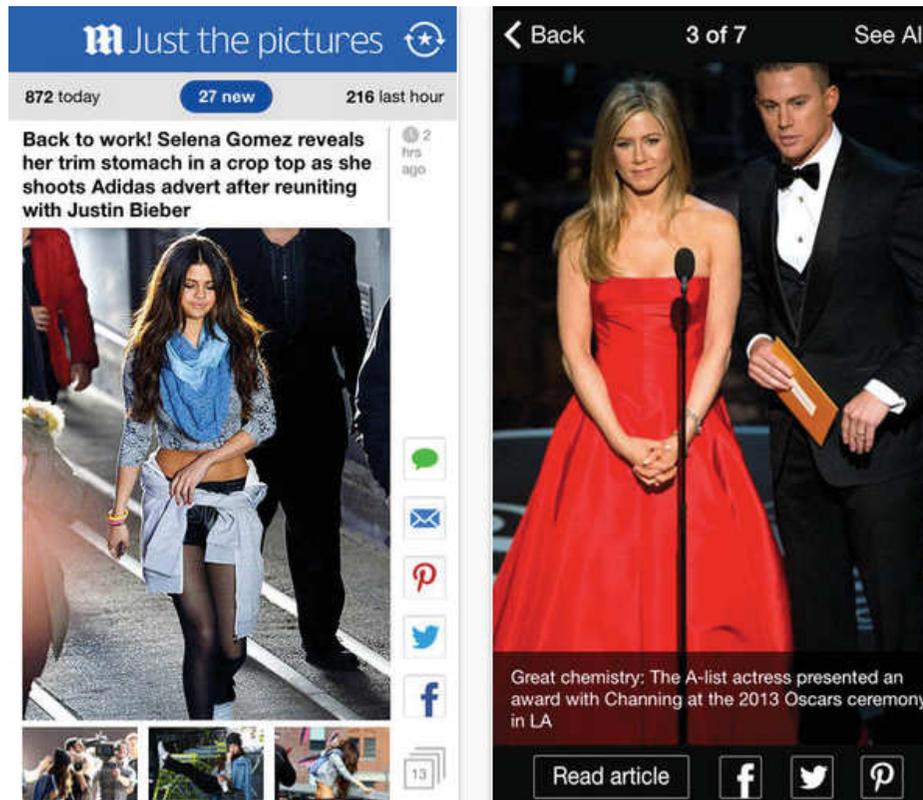


This applies to smartphones as much as tablets, with people watching not only short clips but longer-form content—TV shows, movies, sporting events—on this pocket-size screen. Ooyala reports that globally, 53% of mobile viewing time involves video content longer than 30 minutes. And in a global study by Vuclip, 65% of respondents said they prefer to watch movies or TV episodes over brief music videos or movie clips on their phone.

Video viewing on mobile devices will soon be on par with that on PCs and begin to approach that of TV and DVR by some measures, according to the Yankee Group’s 2014 forecast.

MOBILE NEWS

Many news outlets are seeing up to 50% of online traffic coming from mobile. “You have to accept that mobile is becoming the majority usage,” said John O’Donovan, CTO of the *FT*, at an MWC panel. In 2013, 45% of the *FT*’s online traffic came from mobile, reaching as high as 62% among subscribers.



The Mail Online’s iOS app draws about a million daily users in the U.K., and they typically return four or five times a day for 12 minutes apiece, said Melanie Scott of the Mail Online at an MWC panel. The average app user spends about eight hours a month with the app.

MOBILE NEWS

News outlets are putting more resources and consideration into mobile offerings. *The New York Times'* new NYT Now app, for instance, is designed as “a news report for people who live on their smartphone”—and is a new potential source of revenue. With mobile audiences in mind, last year the *FT* launched fastFT, a Twitter-like stream that focuses on breaking news. Such efforts are led by mobile editors, a new position in the newsroom.

Non-news brands are also taking note. In January, Facebook launched Paper, an app in which the news feed sits amid a mix of articles and other content.

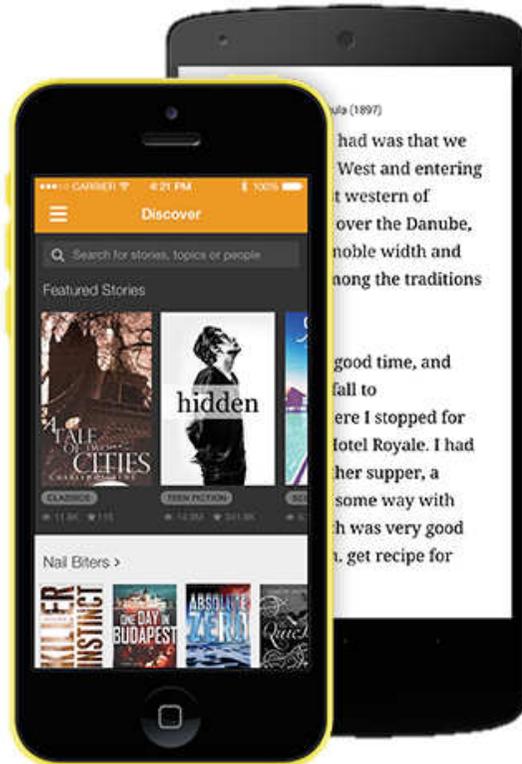


There is a massive shift underway in how people consume digital information.”

—DAVID HO, editor for mobile, tablets and emerging technology, *The Wall Street Journal*, quoted in Digiday

LONGER READS

Mobile reading isn't only about quick news updates—people are using mobile for longer reads, on smartphones as well as tablets. *The New Yorker* says its audience is more likely to read and finish long stories on smartphones than on computers, as Digiday reports; the magazine's phone and tablet readership was up 27% year-over-year as of February. BuzzFeed's mobile-phone readers spent an average of 25 minutes with a popular 6,000-word story it published in January.



Wattpad is a storytelling platform and global social network that has attracted some 25 million readers, who spend as many as 6 billion total minutes on the service each month reading fiction posted by around 2 million amateur writers. (While Wattpad isn't exclusively mobile, close to 85% of its traffic and usage comes from mobile devices.) Most stories are serialized, since short, digestible bites are well suited to mobile.



LONGER READS

“

As consumption has moved to mobile devices, there has been a growing hunger for long-form content: phones and tablets are perfect for enjoying in-depth articles, and there are more moments than ever for readers to dig into a story—on a commute, on the couch, or just waiting in line at the store.”

—RAANAN BAR-COHEN of Automattic (parent of WordPress)
after the company acquired Longreads in April 2014



IMPLICATIONS FOR MARKETERS

The future is omnichannel: While in recent years marketers have been urged to retool for mobile audiences, today the imperative is to retool for an omnichannel world. Mobile may be the new “first” screen, but what’s most important is that audiences are moving among various favored devices. People often start watching something on one device and finish on another or use devices simultaneously; gadgets like Google’s Chromecast let users watch content from a mobile device on a TV.

Deloitte calls these audiences “digital omnivores.” “In today’s world, consumers make a conscious choice that they can watch whatever content on whatever device they want to watch it,” Gerald Belson, Deloitte’s U.S. media and entertainment sector leader, told *MediaPost*. And *Forbes* reports that at the recent RampUp conference, Greg Coleman of ad tech firm Criteo forecast that “In two years, we won’t be talking about mobile. We’ll just talk about reach.”



.....
If you’re just focusing on mobile, you’re solving yesterday’s problems.

—NEAL MOHAN, VP of display advertising at Google,
RampUp conference
February 2014
.....



IMPLICATIONS FOR MARKETERS

Primetime is anytime: Brands have new opportunities to communicate at different times and in different contexts as audiences engage during the periods most convenient or conducive for them. Traditional ideas about which audiences are tuned in at a given time are increasingly irrelevant. “Primetime is redefined within the mobile universe,” noted Vevo chief revenue officer Jonathan Carson at the MWC.

TV is now regarded as “an ever-present commodity,” observes an Ericsson report. The old curve of TV viewing levels, which peaked in the morning and evening, is flattening out, with levels higher throughout the day and into the night. “Viewing content is becoming a continuous activity rather than one that is treated as an act of relaxation and luxury,” notes Ericsson.



.....

Video has found its way into new situations throughout our daily lives. From catching a final episode on a tablet before going to bed, to watching a short video on a smartphone while waiting for friends at a café, the increasing number of mobile devices has enabled us to bring our content with us wherever we go.”

—Ericsson ConsumerLab TV & Media Report, August 2013

.....



IMPLICATIONS FOR MARKETERS

Audience analysis goes to the next level: Once content providers can track user activity through an app—looking at everything from when and how long the app is used to which content the user favors—they gain much greater insight into customer preferences and patterns. Ultimately this will enable a high degree of customization around content as well as the marketing messages that accompany it.

The *FT* employs some 30 data scientists and analysts, said CTO John O’Donovan at an MWC panel. “For the first 125 years of the *FT* we didn’t have a lot of user data,” he said. “Now we have a lot, and we take great care of it.”



.....

The use of mobile devices to source TV content embeds that process in a much richer and more personalized data environment than traditional means of sourcing content can provide, giving marketers for the first time the ability to marry TV advertising with behavioral targeting.”

—PAUL SWEETING,
“Mobile disruption in the living room in 2014” report,
Gigaom, Feb. 4, 2014

.....

IMPLICATIONS FOR MARKETERS

The shape of content is changing: With the rise of mobile audiences, the idea of what a newspaper article or a book or a TV show is, exactly, is changing. In summer 2013, for example, AT&T sponsored *Summer Break*, a teen reality show designed for mobile devices; daily episodes over nine weeks were a few minutes in length. Since content has fewer constraints, it can be ultra-short like these episodes, serialized like Wattpad's stories or a lengthy scroll. Formats can be reimaged.

Take the news category, where several apps reimagine the delivery of news. Circa, which touts itself as “the first news organization to write strictly for the mobile lifestyle,” serves up news bites; “follow” a story to get notified of updates. Twice a day, Yahoo's News Digest delivers summaries of the top stories, incorporating key quotes, images, videos, maps, etc. Wibbitz translates long text articles into short video summaries that weave together related images, animated infographics and video clips.





IMPLICATIONS FOR MARKETERS

Discovery is changing: Mobile devices change the way audiences discover content. With the “appification” of content, many users will remain confined to the offerings served up by their apps rather than looking around more widely. Social media also wields a powerful influence here: In an Ericsson survey of iPhone/Android users in 10 major global cities, 38% said they watch video clips recommended by friends several times a week.

Mobile makes it easy to customize content. News aggregation/curation app Zite, for instance, tracks which articles the user is engaging with in order to surface stories most likely to strike a chord.



4. MOBILE CHANGES HOW WE SOCIALIZE

Unique social tools for mobile are going well beyond what exists for the desktop, and people are spending ever more time with them. Sharing and communicating can be ephemeral, visual, anonymous or passive; it may be public or, increasingly, private. And it's much more continuous, since mobile phones are always with us.

IN ACTION:

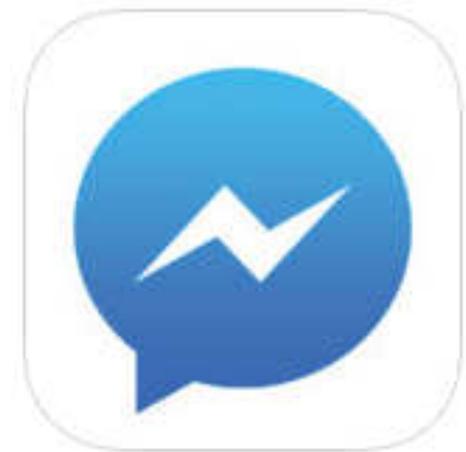
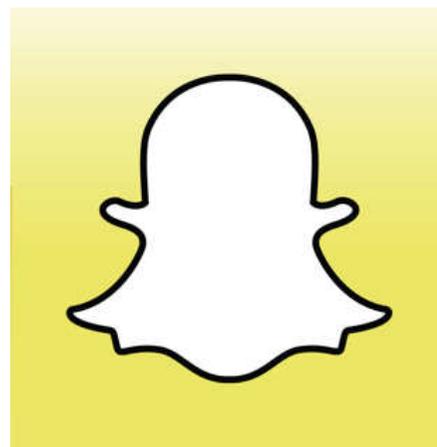
- Constantly connected
- Speaking visually: video and more
- Messaging apps become channels
- Seeking privacy and anonymity

MOBILE CHANGES HOW WE SOCIALIZE

Last year we noted that mobile is enabling communication to become as efficient, disposable, to-the-point or multilayered as people want it to be, with consumer preferences getting more fragmented and varied. Today that trend is accelerating with the birth of new ways to share (e.g., anonymous messaging, reaction-recording apps) and the expansion of older concepts (couples-sharing apps, video message apps, etc.).

New social platforms are attracting many millions of users. Vine, for instance, became a hit over the past year, and racked up more downloads from Apple's App Store in 2013 than Twitter or Facebook, as did Instagram and Snapchat. Multimedia messaging apps have exploded, with WhatsApp passing half a billion users. Facebook itself has responded to the popularity of more private platforms by laying out billions for WhatsApp and turning Messenger into a standalone app that will soon enable photo and voice messages.

This flourishing of the mobile social sphere is helping to keep people constantly connected.





MOBILE CHANGES HOW WE SOCIALIZE

“

The first generation of social media touted ‘networking,’ but the next generation, raised in always-on connectivity, will embrace ephemerality and digital tribalism. Those users will abandon the major social networks and migrate to more granular mobile villages with simpler ecosystems. They will follow a small circle of close friends on Instagram, pin with a small handful of followers on Pinterest, message with a girlfriend or schoolmate on WhatsApp or Snapchat, or follow a co-worker’s check-ins on Foursquare. Or, they will build the next platforms and apps that don’t exist yet.”

—MATTHEW BRYAN BECK,
“The future of social media is mobile tribes,”
April 18, 2014, ReadWrite



CONSTANTLY CONNECTED

Mobile is redefining what it means to be connected with social networks, allowing people to maintain a flow of contact throughout the day, often in brief bursts. Mobile users seem to be increasing the overall volume of communication they engage in, as Michael Björn of Ericsson ConsumerLab told us, which in turn increases the influence of social circles on everyday activities, especially media consumption.

Social and messaging apps occupied 28% of time spent on mobile devices among Americans from January-March 2014, up from 24% in 2013, according to Flurry Analytics.



[Mobile] messaging enables constant communication. Conversations are never ending, and friends come and go at a pace dictated not by physicality but rather by attention. And ... we are more than happy to give massive amounts of attention to messaging, to those who matter most to us, and who are always there in our pockets and purses.”

—BEN THOMPSON,
blogger, “Messaging: Mobile’s killer app,”
stratechery.com, Feb. 18, 2014



CONSTANTLY CONNECTED

Paradoxically, mobile is both driving social alienation and easing it. As noted in Section 8, people are feeling resentful of how mobile screens are intruding on face-to-face interactions and looking to connect more meaningfully. But mobile also gives us easy ways to stay in touch and a rich set of tools with which to do so. The app Couple, for instance, lets users send “thumb kisses” by rubbing thumbs on their screens in sync.



.....

We are now in constant and continuous communication with our friends, co-workers and family over the course of a day. These interactions can help us feel physically close, even if they happen through a screen. And because this kind of communication is less formal than a phone call or an email, it feels more like the kind of casual conversation you might have over a meal or while watching television together.”

—JENNA WORTHAM,
“I had a nice time with you tonight. On the app,”
The New York Times, April 5, 2014

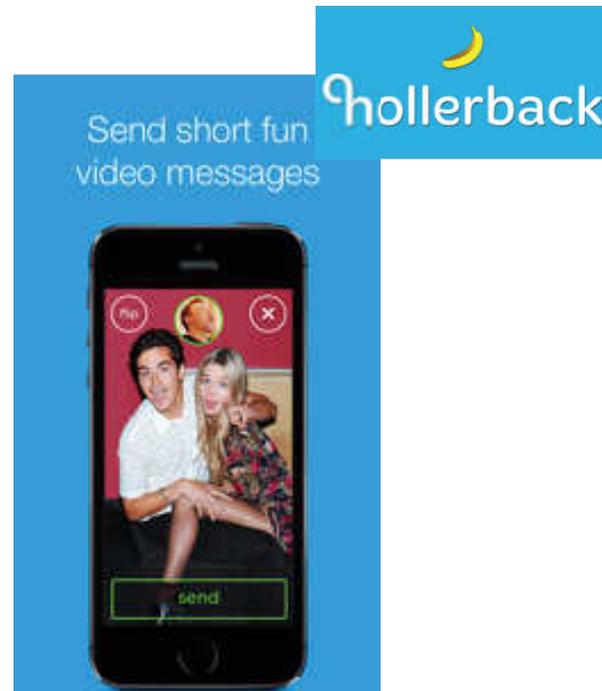
.....

SPEAKING VISUALLY: VIDEO AND MORE

As noted in Section 5, people are speaking more visually, minimizing or supplanting the need for text. They're relying on emojis or stickers (see slide 62) and on image-sharing platforms like Snapchat (see slide 61). Wearables like Google Glass will further drive photo or video capture and sharing.



Where many social video apps tried and failed, Twitter's Vine took off thanks to its simple interface, 6-second limitation and the support of a massive social network. Launched in January 2013, it was the fastest-growing app of last year, according to GlobalWebIndex. Similar services include Conveys, which launched in April.



Currently in beta, Hollerback lets users send video messages of up to 20 seconds, adding in fun props such as sunglasses, funky hairstyles or mustaches. The app is set to launch later this year.



Reaction apps make messaging more emotionally transparent and synchronized by recording a recipient's response to a message using the front-facing camera. Says GiggleMail co-founder Trevyn Meyer, the app gives you "the ability to share things with people as if they were right next to you. You enjoy and laugh together." Similar apps include Chatwala and Samba.

MESSAGING APPS BECOME CHANNELS

Messaging apps, which let people communicate in multiple ways at little or no cost, are coming to dominate the mobile social sphere. As they do so, services like Line, KakaoTalk, WeChat and Viber, with their hundreds of millions of users, are evolving beyond basic communication tools into quasi-operating systems and new channels for reaching consumers.

Chat apps are becoming hubs for social networks, games, e-commerce and more. “If you look at Line, it is building essentially a consumer company,” Yahoo co-founder Jerry Yang has said. Japanese e-commerce giant Rakuten acquired Viber earlier this year and plans to integrate its retail platform with the chat app. Kik features a built-in browser, allowing friends to surf the web simultaneously. Chat app Tango has partnered with Zynga to incorporate Words With Friends.

Many brands have accounts on these apps, and some are testing retail opportunities. Media outlets see potential too: The BBC, for instance, has launched BBC News India accounts on WeChat and WhatsApp, with news updates in English and Hindi.

Aiming to amass a billion users by 2015, Line sees itself as “a portal to the smartphone,” according to its COO. It has branched into games, e-commerce and Internet calling, and plans to start a music streaming service.



Users of China’s WeChat can do anything from booking taxis to making payments to investing in financial products. The app is also integrated with Yixun, the e-commerce arm of parent company Tencent.

SEEKING PRIVACY AND ANONYMITY

After years of public sharing and transparency on social media, people are gravitating toward more intimate, private and even anonymous ways to share, boosting the popularity of messaging apps and ephemeral messaging (see slide 61). Visual networks like Vine and Instagram now let users send private text or video messages. And a new crop of apps enables users to share things anonymously.

In contrast to the big social networks, where many users feel status updates must showcase their perfect selves, these apps allow users to relax, as they can easily limit who sees what (or go nameless altogether).



Secret



Truth!

Secret lets users anonymously share “secrets” among their networks; Whisper, which sees more than 800,000 messages shared every day, allows people to post messages and images anonymously; Truth enables anonymous one-to-one messages to contacts.



IMPLICATIONS FOR MARKETERS

Brands must master an array of mobile social environments: With consumers using multiple social and communications apps, brands have an increasingly difficult job of determining which ones fit their voice and audience and how best to join the conversation. Some of these platforms have proved inspiring for brands (especially visual forums like Vine and Instagram), while others, like Snapchat, are more difficult to join.

Since mobile social networks are driving a shift from public broadcasts to one-to-one or one-to-few messaging, brands will need to get ever more conversational and personal. Marketers will also need to understand how, when and where their mobile audience is engaging and tailor messaging according to context. (For instance, sending promotions or coupons via Line for shoppers to use in store.) Brands can also play a role in helping consumers express themselves by providing stickers, emojis, videos and other content with fun or heartfelt messaging.

IMPLICATIONS FOR MARKETERS

Messaging apps offer new routes to mobile consumers: While WhatsApp's Jan Koum has said he wants to keep the service simple and free from advertising, his rivals are creating complex platforms that offer brands many interesting ways to speak to consumers and even sell directly to customers.

At a basic level, marketers are diving into messaging apps with branded profiles. KakaoTalk's Plus Friend platform, for instance, is for brand and celebrity accounts, which users can add to their contact list; fans then see updates in the chat dialogue format.

Brands will need to provide incentives to follow these profiles, whether via promotions, free virtual stickers or fun content. In a partnership with WeChat, Burberry allowed Chinese fans to view its womenswear show for London Fashion Week, personalize digital versions of runway pieces and see exclusive content by texting Burberry.

Branded virtual stickers—for everything from Hello Kitty and Spongebob Squarepants to Paul McCartney and the FC Barcelona team—can also be a source of revenue for marketers. Meanwhile, messaging apps are looking to incorporate e-commerce. In December Line launched a partnership with L'Oreal to sell makeup, while WeChat has sold Xiaomi smartphones in China.

Line users who follow the Hello Kitty profile get branded virtual stickers.



IMPLICATIONS FOR MARKETERS

Keeping up with social can be dizzying for consumers: Immersed in always-on communication, people will start getting overwhelmed by the task of keeping up to date on every platform. (A recent *Portlandia* skit has Carrie, beset with messages, declaring “social bankruptcy.”) Consumers will seek ways to control or streamline their flow of information and messages.

Some products help filter calls, texts and messages, prioritizing communications from more important people. Ringly is a Bluetooth-enabled ring that syncs with users’ smartphones and vibrates to indicate when designated contacts send a message or call.

Brands can help manage this deluge by sewing these communications together or helping people determine what’s relevant. Smirnoff’s Mixhibit app creates a montage of a user’s Instagram or Facebook photos, Twitter updates and Foursquare check-ins. Users can layer on music and convert this into shareable videos. Brands might do the same with communications from messaging apps, letting people centralize their videos, photos and text messages.





5. SHIFTING TO VISUAL

Mobile devices are helping to drive the shift to a more visual vocabulary and aesthetic, which minimizes or even supplants the need for text.

IN ACTION:

- Search goes visual
- Image-sharing platforms multiply
- Speaking in stickers
- Photo-based dating



SHIFTING TO VISUAL

Equipped with a dual-sided camera, touch screen and keyboard that easily shifts over to emojis, mobile devices make it easier to rely on images than on words. As outlined in Section 4, we've seen the mushrooming of mobile social networks like Snapchat, Instagram and Vine that put images at the fore, and messaging apps that let users communicate with stickers, photos or video. Search is getting more visual thanks in part to image recognition technology, while dating apps like Tinder emphasize pictures over profiles.

With more consumers speaking in visual—and many becoming adept at creating memorable images, from selfies to inventive Vines—a high degree of visual literacy will be imperative for brands.



SHIFTING TO VISUAL



We know an image is worth 1,000 words. On mobile, it's really hard to write 1,000 words and quite hard to even read 1,000 words. So people communicate with images instead. This is not just because of hard-to-type touch screens but because of the way people use mobile, too: high-frequency, short-duration bursts of activity while multitasking across many apps. So images are the only way to communicate with any depth in the time these users have implicitly allotted themselves to engage with a certain activity, app or service.”

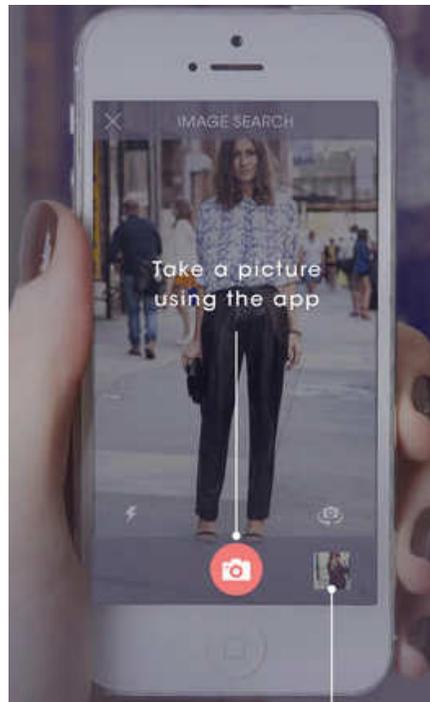
—TOBIAS PEGGS,
CEO, mobile photo-editing app Aviary

SEARCH GOES VISUAL

Google has offered Goggles for some time, allowing people to bring up search results based on a photo. Now, with image recognition software getting more advanced, an array of apps enable consumers to identify real-life clothing items and other goods and click through to buy them.



In February, Amazon launched Flow, an image recognition feature on its app that lets customers add items to a shopping list by holding them in front of the smartphone camera, removing the need to scan a barcode.



Asap54 lets users upload images of clothing items they're trying to identify, then looks for matches or something similar in its database; shoppers can then segue to a purchase. Similar apps include Chic Engine, Snap Fashion and Style-Eyes.

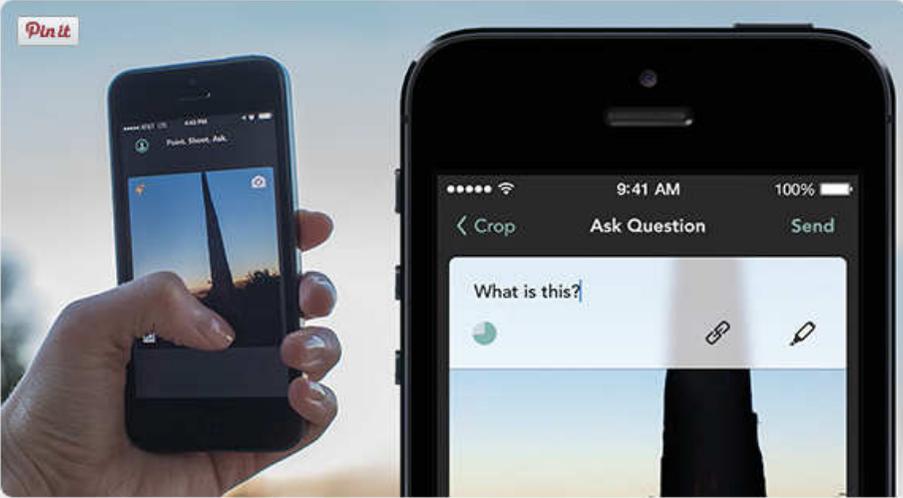


Slyce offers a mobile app (as well as a desktop service) that provides purchase info based on a user's photo. The company is pitching the service to major retailers.

SEARCH GOES VISUAL

Earlier this year Twitter co-founder Biz Stone launched Jelly, a mobile question-and-answer app that relies on users' photos and the help of one's social network.

Point, shoot, ask!
Questions with images deepen their context.



In a world where 140 characters is considered a maximum length, a picture really is worth a thousand words. Images are in the foreground of the Jelly experience because they add depth and context to any question. You can crop, reframe, zoom, and draw on your images to get more specific.



IMAGE-SHARING PLATFORMS MULTIPLY

Three years ago, Instagram effectively popularized the image-based mobile social network—it now counts 200 million users—and today a wide range of visually focused services are flourishing. 2013 saw the rise of video-sharing platforms, with Twitter introducing the popular Vine and its 6-second-long videos, and Instagram adding the ability to post 15-second clips. Snapchat found young fans with its concept of sharing images (and now video) that quickly self-destruct. Frontback, which enables dual-perspective images that use the front and rear camera simultaneously, is gaining traction as an image-based social network.

Mobile analytics firm Flurry says the category of “camera-enhanced messaging” apps like Snapchat and Vine grew eightfold in 2013.

25%

Proportion of 18- to 29-
year-old mobile phone
users who use
Snapchat*

SPEAKING IN STICKERS

Virtual stickers—vibrant and sometimes animated icons that are larger, more colorful and more detailed than emojis—are a defining feature of chat apps like Line and KakaoTalk. Indeed, some credit the popularity of stickers with helping to drive rapid adoption of chat apps. Users can buy packages of premium thematic stickers, and many marketers offer branded stickers.



Some messaging apps offer stickers with proprietary characters. Line's include Cony the rabbit and Brown the bear.

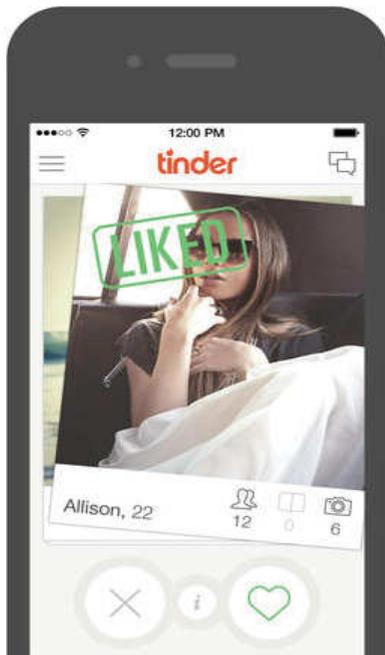


A Brazilian ad by JWT for Line sums it up, showing various people rambling on until a Line sticker character silences them. A voiceover explains, "Speak less, Line more. You say much more with the thousands of stickers from Line."

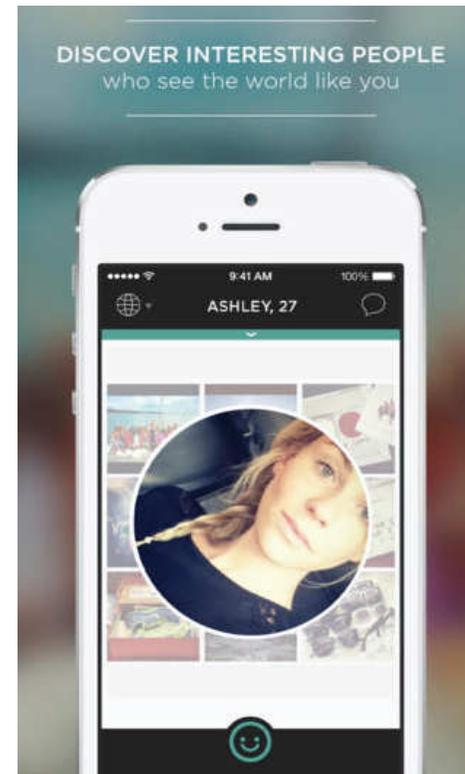
PHOTO-BASED DATING

Tinder and various other apps vastly simplify the online dating process by condensing profiles down to photos with a few stats. A crop of copycats includes niche apps like JSwipe, for Jewish singles.

Anonymously **like** or **pass**
on each suggestion



Instead of reading extensive profiles, Tinder users simply swipe through images and decide whether to “like” or pass on the person.



Glimpse profiles consist of nine images that users select from their Instagram feeds; people can “smile” at those whose lives seem to be of greatest interest.



IMPLICATIONS FOR MARKETERS

Visual literacy becomes a brand requirement: The way we see and understand the world is becoming far more visual. Given mobile's rich toolset of ways to communicate, we're starting to think with images: looking around the physical world for ideal Instagram images, articulating emotions by calling upon icons and animations.

Brands will need to adopt a new visual lingo for communicating, mastering creative ways to express themselves and new ways to communicate with consumers. For instance, Starbucks encouraged its fans on WeChat to describe how they were feeling using an emoticon, responding with a song to match the mood.

44%

of consumers are likely to engage with pictures posted by brands they "like" or follow, the highest rate of engagement among all types of content.*



IMPLICATIONS FOR MARKETERS

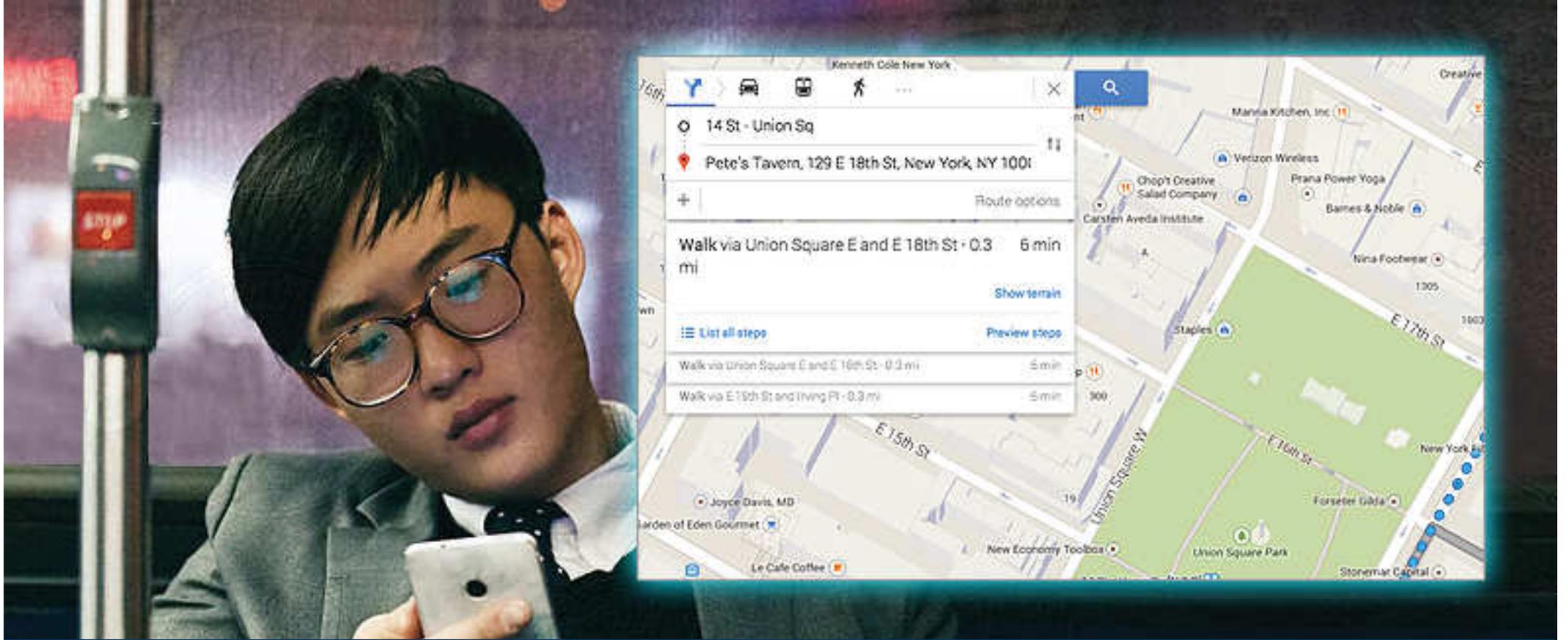
Visually oriented consumers will seek “glanceable UIs”: Why read when you can discern all you need from a quick glance at an image? A “glanceable UI” (a term attributed to Misfit Wearables CEO Sonny Vu) involves “creating something meaningful out of information processed in just a quick glance,” as explained by Gigaom. Sean Rad, creator of dating app Tinder, says the concept was integral for his service, which swaps lengthy profiles for images that users quickly swipe through.

As people look to sort through, absorb or convey information faster by relying on images over words, brands will have to get adept at creating glanceable UIs.

More than ever, consumers are content creators: Enabled by mobile tools, consumers are getting increasingly adept at creating compelling visual content, motivated in part by the prospect of racking up likes on social feeds. As outlined in Section 6, apps like Magisto also make it easier than ever to produce almost professional-quality output.

Brands have been tapping into consumer creators for a while, and increasingly they are taking advantage of crowdsourced mobile images and video. Airbnb, for instance, crowdsourced a four-minute video, “Hollywood & Vines,” made up of 100 user-submitted Vine clips. The company compiled a list of shots it was looking for, offering \$100 in Airbnb credit, and received more than 750 submissions.

Brands can also encourage co-creation, with creative consumers incorporating branded elements into their own images. For example, the Boston Red Sox created a series of branded beards for the app Snaps that users could apply to their images like stickers.

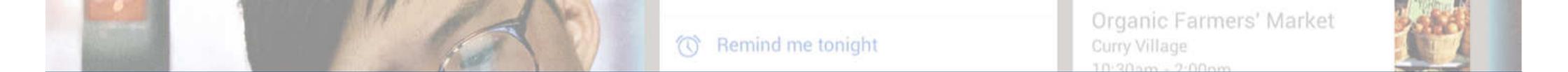


6. OUTSOURCING TO THE MACHINE

Mobile devices are helping us outsource ability, knowledge and effort—and as technology evolves, they will learn to anticipate needs as well, staying one step ahead of the user. Life is becoming more idiot-proofed.

IN ACTION:

- AI goes mobile
- Outsourcing photography skills
- Outsourcing relationships



OUTSOURCING TO THE MACHINE

Having an advanced computing device constantly at hand—and one that can determine location, acceleration and other real-time data—enables us to compensate for skill gaps, augment our capabilities or otherwise outsource an array of tasks and some brainpower. We're getting accustomed to asking the mobile device to figure out directions, translate foreign phrases or match a tune with the song title. Meanwhile, technology is getting increasingly advanced in its ability to help, learning user preferences over time or serving up information more seamlessly.

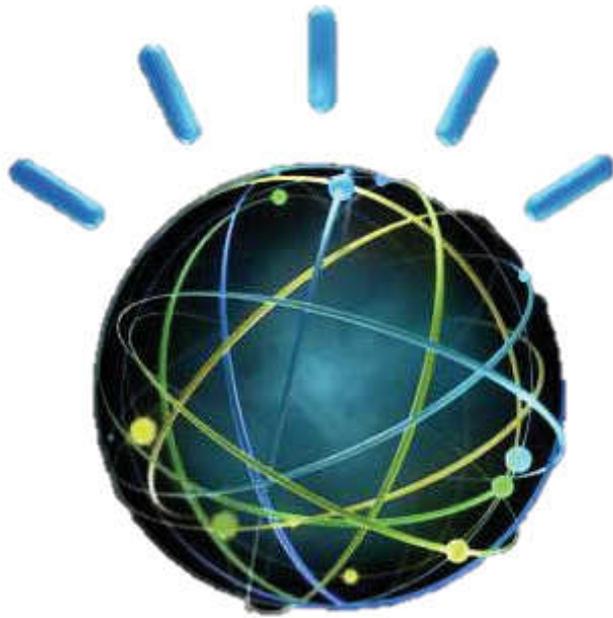
As artificial intelligence and other technologies get more sophisticated, consumers will increasingly harness mobile tools to become instantly smarter, savvier and more skilled, and also much lazier.

Remind me tonight

Organic Farmers' Market
Curry Village
10:30am - 2:00pm



AI GOES MOBILE



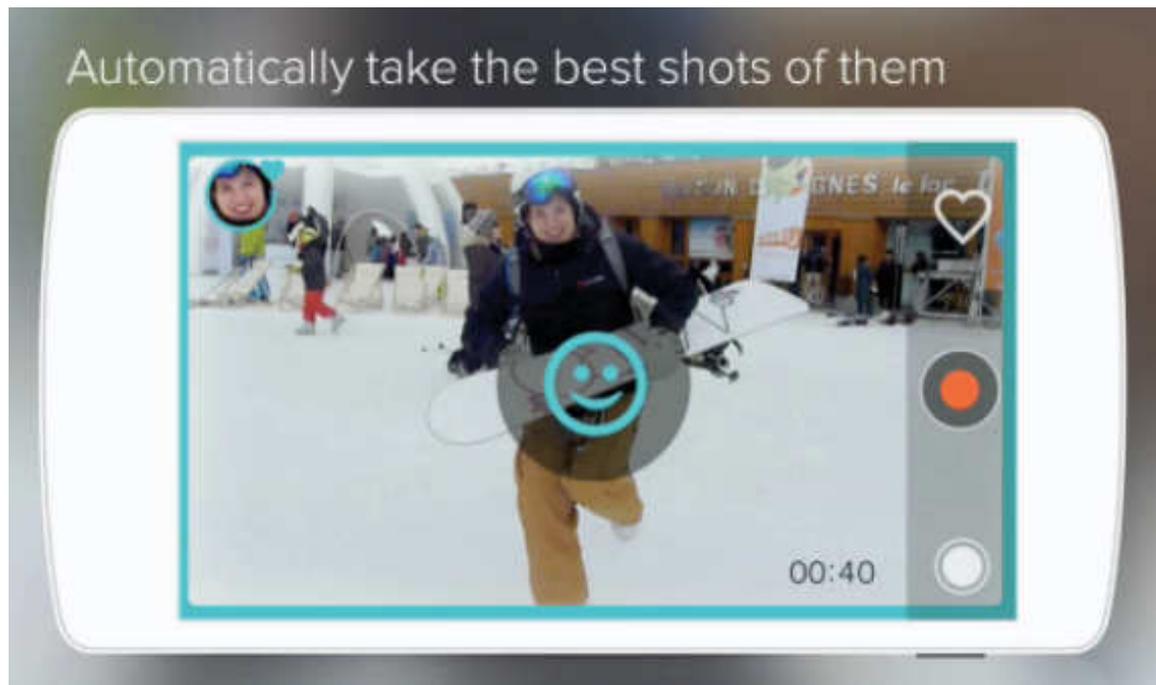
At the MWC, IBM issued a challenge to mobile developers to create apps that leverage Watson, its artificial intelligence system that can understand the complexities of human language, absorb mega-amounts of text in seconds and improve by learning. “It’s about changing the essence of decision-making from ‘information at your fingertips’ to actual insights,” says IBM.



The 2013 movie *Her* provided a futuristic vision of how mobile helpers that converse with us, like Apple’s Siri, could evolve to manage our lives. Today, these tools are slowly evolving “from helpful librarians into full-fledged concierges,” as *PC World* explains. Microsoft’s new Cortana, for Windows Phone 8.1, and Google Now additionally focus on anticipating wants and needs after collecting an array of user information.

OUTSOURCING PHOTOGRAPHY SKILLS

Tech advances have steadily reduced the need for skill and effort in photo and video taking, and that's all the more true with mobile tools that easily or even automatically improve photos and instantly create videos. Google's Photos app for Android, for instance, can create a movie out of video and images in seconds.

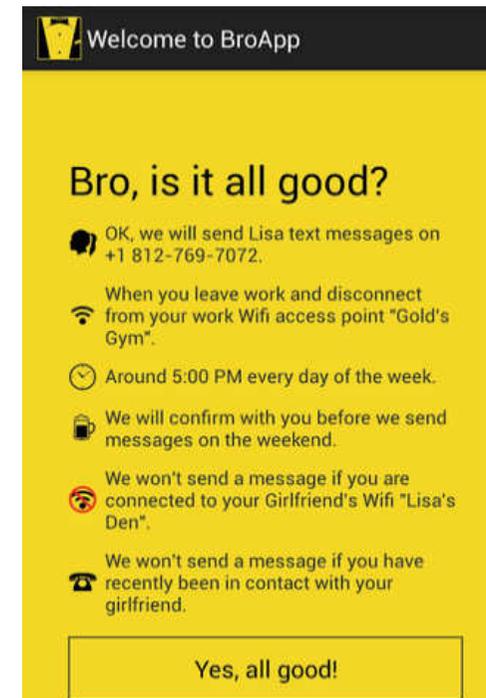
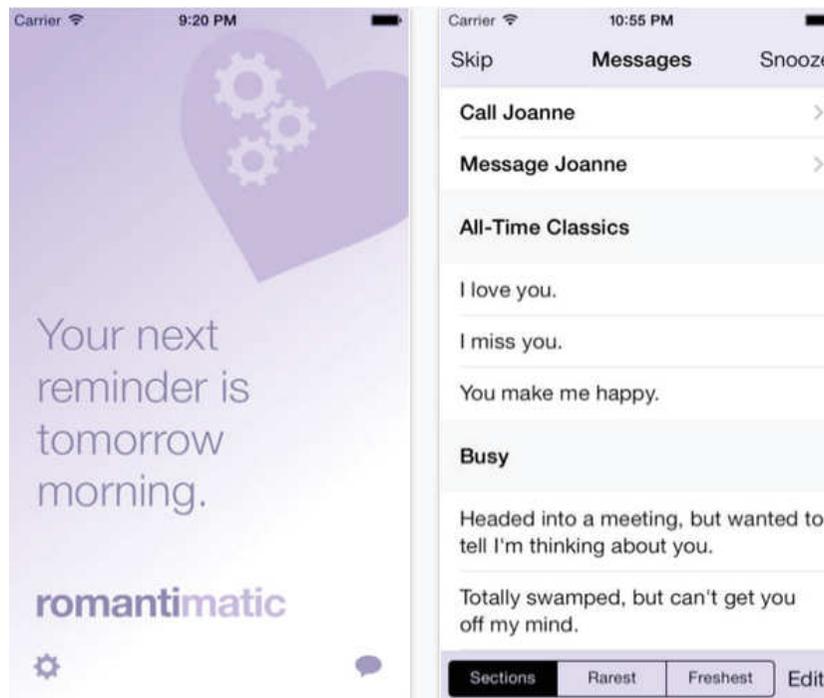


Magisto is a fast-growing “magical video editor” app that claims more than 25 million users, up from 10 million in September 2013. It automatically selects compelling moments from videos or photos and combines them with customized styles and music. At CES, Magisto showed its CamCrew technology, which optimizes for the important characters the user is filming (one’s kids, for instance) and provides real-time feedback on video lighting, framing and stability. Magisto boasts that it gives users “the end-to-end production process that a professional film crew might deliver, all on their smartphone.”

OUTSOURCING RELATIONSHIPS

Perhaps the ultimate in outsourcing effort to mobile are apps that help keep a relationship humming along by sending romantic messages at pre-selected intervals. Romantimatic and BroApp, which launched earlier this year, have prompted some lamenting that anyone would require such “digital ventriloquism” and debate on the morality of such apps.

“What’s really weird is that Romantimatic-style romance may be a small sign of more ambitious digital outsourcing to come,” writes Evan Selinger, associate professor of philosophy at Rochester Institute of Technology, in *The Atlantic*.





IMPLICATIONS FOR MARKETERS

Ushering in predictive personalization: One of our 10 Trends for 2013 is Predictive Personalization, the idea that brands will increasingly be able to predict customer behavior, needs or wants—and tailor offers and communications very precisely. Digital assistants and other tools that can learn from experience and adapt themselves to user preferences will become increasingly predictive, catering to needs even before the user is aware of them.

Microsoft's Cortana can automatically present flight information and boarding passes as users travel to the airport. Google Now will tell a user when he passes a store that sells a product he's looked up in Google.

Walmart is working to enable shopping lists that generate automatically through the retailer's app. "What if you walked in the store and got a predictive shopping list based on your past behaviors, then the app guided you through the store based on that list?" asked Gibu Thomas, SVP of Mobile and Digital for @WalmartLabs, during an MWC panel.

Questioning the boundaries between man and machine: With mobile devices automatically thinking and doing more for us, people will start to question how much control to cede to technology. We may not question outsourcing things like figuring out where we are on a map, but as we let machines come to know our preferences and take over more tasks, we'll grapple with big questions like whether we're losing autonomy and brainpower.

7. PRIVACY AND SECURITY FEARS CHANGE THE GAME

Rising consumer awareness of just how vulnerable digital data is to cybercriminals, government spying, corporate tracking and other prying eyes will push all players in the mobile sphere to make privacy and security a top priority. Everyone is now a data steward.

IN ACTION:

- Data vulnerability
- Marketers and mobile tracking
- Rise of a privacy and security marketplace

PRIVACY AND SECURITY FEARS CHANGE THE GAME

Edward Snowden and the revelations of government spying; a security breach at Target that exposed the personal data of at least 70 million customers; the Heartbleed bug. Thanks to these and other headlines, unauthorized or undisclosed access to personal information now loom as much bigger threats in the minds of consumers. People have become more protective of their privacy. Over the past year, for instance, we've seen users flock to the more private realm of mobile messaging apps, while Facebook's public platform has seen some decline.

As marketers look to make the most of mobile data and tracking technologies like beacons, both privacy and security will have to be baked in to their efforts. This will be especially important as the Internet of Things expands: Brands will be stewards of a vast amount of intimate consumer data, and the implications of a breach will be far worse than they are today. (See also Section 1, Slide 16.)

83%

of mobile Internet users are concerned about sharing personal info when accessing the Internet or apps from a mobile device*



Mobile will hang in the balance of being secure.”

—GINNI ROMETTY,
CEO, IBM,
Mobile World Congress 2014

DATA VULNERABILITY

Mobile isn't immune when it comes to hackers. About 10% of Android devices are vulnerable to Heartbleed, for example. The threat will rise as consumers do more on mobile (banking, shopping, etc.), tempting more hackers. McAfee reports that Android malware almost tripled from 2012 to 2013.

When it comes to privacy issues, consumers are growing more aware of how much personal data a phone reveals. For instance, apps can log location data, call history, contacts and even text conversations, and track when users log on to Wi-Fi or turn their device on and off. More than 8 in 10 Android apps now track users, per McAfee.

As anxiety over security and privacy rise, we'll see the expansion of a marketplace focused on protecting mobile communications and data, greater transparency around data collection, and more tools that help consumers manage permissions and privacy settings.

Even the most innocuous of apps can be privacy invaders. Reports *The New York Times*: "When a smartphone user opens Angry Birds ... spies could be lurking in the background to snatch data revealing the player's location, age, sex and other personal information, according to secret British intelligence documents."



MARKETERS AND MOBILE TRACKING

At the same time that consumer concerns are rising, marketers are gaining new abilities to benefit from mobile data. Companies like Euclid and Nomi track phones via Wi-Fi to learn more about shopper patterns or send targeted messages. Some wireless carriers sell aggregated user data to marketers. Many app developers incorporate tracking software from analytics firm Flurry, which then sells anonymized user profiles based on the data collected.

Beacons, one of our 100 Things to Watch for 2014, are small, low-cost transmitters that rely on Bluetooth to precisely track mobile phones and send highly targeted content via apps.



RISE OF A PRIVACY AND SECURITY MARKETPLACE

More companies are creating products, tools and services that make privacy and security a key feature.



Described as “the world’s first smartphone that places privacy and control directly in the hands of its users,” the Android-based Blackphone will ship in June from encrypted-communications firm Silent Circle. And aerospace firm Boeing has developed an ultra-secure Black smartphone for the U.S. defense industry that includes a “self-destruct” mode (if it falls into the wrong hands, the phone becomes inoperable and its data disappears).

The communication app Wickr uses military-grade encryption to let users send and receive photos, video and text that’s viewable for up to 10 days. Wickr is now selling a suite of six privacy features to developers and apps like Snapchat and WhatsApp. Its developers have offered \$100,000 to any hacker who can crack its code. A similar app, Telegram, offers a bounty as high as \$200,000 to anyone who can infiltrate it.

RISE OF A PRIVACY AND SECURITY MARKETPLACE



Designed by artist and technologist Adam Harvey, the OFF Pocket is a pouch that blocks GPS, Wi-Fi and cellular signals from reaching a mobile phone.



\$4 billion

Forecast market for mobile security products by 2017, up from \$3 billion in 2014.*

Lookout, known for its security apps, is a name to watch as mobile security becomes a bigger business. Some 50 million people worldwide use Lookout's security software, and the company is now targeting the enterprise market.

IMPLICATIONS FOR MARKETERS

Security as a USP: As evidenced by the rise of a privacy and security marketplace, security is becoming a unique selling proposition. Rather than treating it as an afterthought and scrambling to compensate if user data is compromised, more companies will build highly secure mobile environments for their users from the start—selling it as a point of differentiation until it becomes a right of entry.

Meanwhile, as security becomes a USP, a company's home base may become either a weakness—notably for American companies—or an advantage. In Germany, for instance, lawmakers are looking to make it very costly, if not impossible, for U.S. tech companies to operate in the country.

Security, privacy and transparency at the core: Brands will need to bake security and privacy in to all phases of their operations, and transparency about how customer data is used will be essential. With Microsoft's Cortana, for instance, users can easily see what it's tracking and which data it's saving.

Opting in to privacy protection must be easy and painless. For example, the Future of Privacy Forum's Smart Store Privacy is a new initiative that allows consumers to opt out of any in-store tracking performed by some leading companies in this category.

Marketers must be highly sensitive to consumer concerns before deploying any advanced tracking tools, and prepare for reactions driven more by emotion than by logic. And smart brands will communicate privacy policies in simple and easily digestible ways. Mobile-security company Lookout, for instance, has implemented a design-driven “short-form privacy policy” that conveys key points at a glance.



8. RAGING AGAINST THE MACHINE

The infusion of screens into our lives is spurring fear and resentment, and some fretting about what's been lost in the embrace of digital devices. Our love affair with mobile devices is turning into a love-hate relationship.

IN ACTION:

- Laments and rants
- Heads-up movement
- Future fears

RAGING AGAINST THE MACHINE

Our 2012 mobile report spotlighted consumers' growing attachment to their mobile phones and the resulting "nomophobia" ("no mobile phobia"): anxiety over being separated from one's phone. As a countertrend to this deep attachment, we're now seeing a rising resentment of the way screens distract people from the world around them or mediate our real-life experiences.

The drive to use phones more mindfully and to periodically de-tech will get stronger. Meanwhile, technophobia will keep rising as digital technology becomes ever more integrated into daily life.



The novelty of [smartphones] has worn off, and we're able to recognize that this kind of 24/7 constant engagement, while exciting at first, carried a pretty high price.

—ALEX PANG,
author of *The Distraction Addiction*

LAMENTS AND RANTS

Laments and rants about the effects of mobile immersion are piling up. “I Forgot My Phone,” a short video by actress Charlene deGuzman (below), shows a woman in bed with her boyfriend, hanging out with friends, and then celebrating a birthday—all while her companions are distracted by their phones. Posted to YouTube in August 2013, the video has accumulated more than 40 million views.

The latest viral video on the topic: U.K. writer-director Gary Turk’s “Look Up,” which urges: “Look up from your phone, shut down the display, take in your surroundings and make the most of today.”



“

Why is it that the essence of our app-mediated existence seems so eerily reminiscent of some of our most famous and enduring visions of dystopia?”

—DANIEL SAREWITZ,
“Your smartphone has officially hijacked your life,”
Slate, Nov. 11, 2013

HEADS-UP MOVEMENT

One of JWT's 100 Things to Watch in 2014: People are becoming more aware of how much time they spend—in meetings, on the street, at meals, during family time, etc.—with their heads down, immersed in mobile devices. So more of us will make an effort to keep our heads up, better attuned to people and the environment, and ask others to do the same.

The irony is that in some cases this will be enabled by technology itself, as wearable tech like Google Glass can help people have it both ways.



FUTURE FEARS

With the proliferation of wearables and expansion of the Internet of Things, people will become both more intimate with and more anxious about technology.



In the next era of computing, the coming ‘plague’ will bring an elaborate network of devices, sensors and radios that will talk with each other and collect, store and analyze overwhelming amounts of data. ... Do we run the risk of losing control and allowing technology to take over our lives?”

—Panel description,
“IoT: Is the Coming Plague of Devices Too Smart?”
SXSW '14

IMPLICATIONS FOR MARKETERS

Consumers are seeking more balance: Most consumers will embrace mobile technology while also feeling some fear and anger toward it. They are learning how to navigate the line between too immersed and too disconnected, seeking a more balanced approach—to the extent that that’s realistic. Whether that means de-teching on occasion or learning to take a step back and relegate technology to a smaller role in their lives, more people will try to use mobile devices more mindfully.

Brands can enable or encourage this mindful approach, as Buick did with its #InTheMoment campaign.



SPONSORED
BY BUICK

InTheMoment

We all get lost in our smartphones.
But imagine what you'll find if you
put the phone down for a minute.
For a meal. For a conversation.
For a road trip.

*Look up, live life, and join us in the
moment.*

THE PLEDGE

I pledge to spend less time on my
phone and more time

#inthemoment

TAKE THE PLEDGE

By taking this pledge I consent to the use of my tweet or post on
the web site getinthemoment.tumblr.com and other related
properties of Buick/GM, subject to Buick/GM's sole discretion.

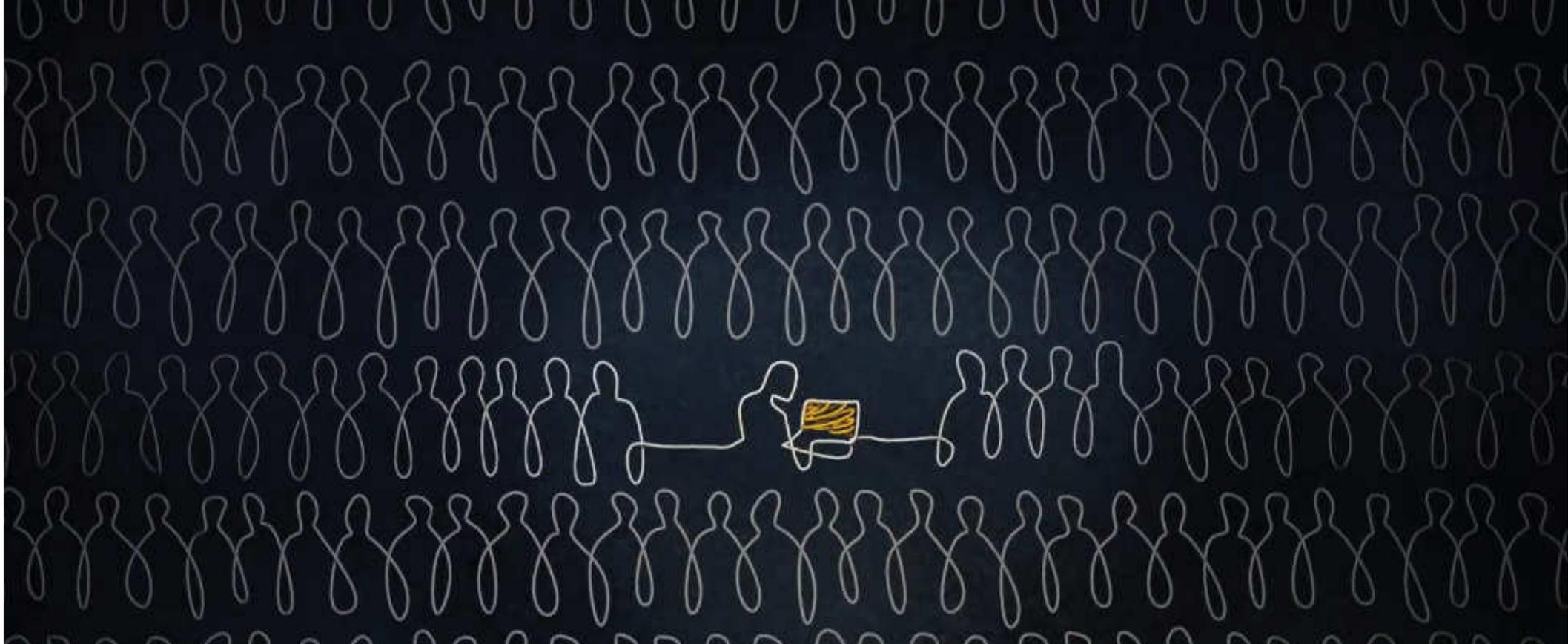
IMPLICATIONS FOR MARKETERS

Greater appreciation for undivided attention: As “I Forgot My Phone” shows, some people feel they’re constantly battling with mobile devices for attention. As a result, we’re developing greater appreciation for moments of undivided attention with loved ones, colleagues, dates and others who cross our path each day.

People are devising solutions to the constant distraction—the phone stack game, for instance, involves diners putting their phones in the middle of the table during a meal; the first one to check his or her phone must pay the tab. A few marketers have played with this idea. In Malaysia, KFC created a Phonestack app that rewards players for leaving the stack undisturbed (movement is detected through the phone’s gyroscope and accelerometer). In Brazil, an ad agency created the Offline Glass: a beer glass with a notch the size of an iPhone at the bottom. The drinker’s iPhone must remain on the bar in order for the glass to balance.

Brands have plenty of opportunity to encourage and foster periods of focused interaction, showing people what they’re missing when absorbed in their devices.





9. BRINGING MOBILE TO MANY

As mobile brands look for new customers by making phones cheaper, lowering data costs and expanding Internet availability, the global population is steadily becoming connected—opening up a new channel for brands and a gateway to opportunity for underserved people.

IN ACTION:

- Cheaper smartphones
- Internet everywhere
- Africa as an innovation hub

BRINGING MOBILE TO MANY

During his MWC keynote, Mark Zuckerberg described his vision of “connecting the world” as he plugged Facebook’s Internet.org project. This was an overriding theme at the Congress, with operators, handset manufacturers and service providers all outlining strategies to bring mobile connectivity to more people around the world—a mission that benefits corporations and consumers alike. As billions more get connected for the first time, leapfrogging PCs, brands will gain new audiences, new ways to reach their customers and new ways to provide services.

18%

Annual growth of
sub-Saharan Africa’s
unique mobile
subscriber base over
the past five years*

1 billion

Projected number of
4G LTE connections by
2017, up from
176 million
in 2013*



“Giving everyone the opportunity to connect is the foundation for enabling the knowledge economy. It is not the only thing we need to do, but it’s a fundamental and necessary step.”

—MARK ZUCKERBERG, CEO, Facebook,
“Is connectivity a human right?” essay posted on Facebook

CHEAPER SMARTPHONES

Motivated by slowing growth in developed regions, handset makers have been creating cheaper, stripped-down smartphones for emerging markets, along with lower-cost basic phones. Google scaled down KitKat, its latest Android mobile OS, so it can run on low-end devices with reduced RAM. In Africa, Intel is working with phone brands to lower the cost of handsets that use its processors.



Mozilla showed a prototype \$25 smartphone at the MWC. It has just 128MB of RAM, 2.5G connectivity and a low-res screen but includes a camera.



Nokia showcased its new 45-euro Asha 230 handset at the MWC. Nokia's Xpress browser compresses data to reduce access costs.

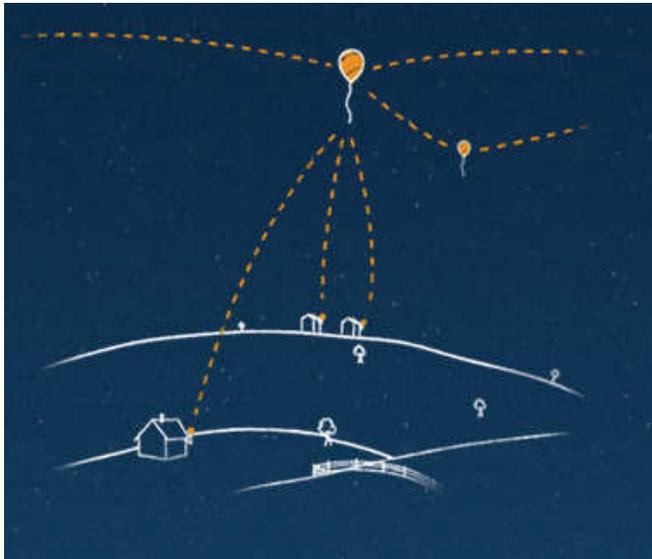


We're targeting people who never had this kind of Internet access before. Maybe they had a basic feature phone before. And for them, even a \$70 smartphone is a substantial investment. As close as we can get that to zero dollars, the better.

JOHNATHAN NIGHTINGALE, VP of Firefox OS,
The Wall Street Journal, Feb. 25, 2014

INTERNET EVERYWHERE

With an eye toward bringing the next billion consumers online, Google and Facebook are developing tools to connect underserved consumers. They are part of the Alliance for Affordable Internet, and Facebook is the driving force behind Internet.org, an initiative to bring affordable connectivity to “the two-thirds of the world who are not yet connected.” At the MWC, Mark Zuckerberg said he aims to provide an “on-ramp to the Internet” in partnership with mobile operators and brands to help people better understand what benefits data access can bring them. Unilever is among the marketers that have signed on.



Google's Project Loon uses high-altitude balloons to provide Internet access. Users connect to this network via antenna on buildings. In April, Google announced it is also buying a drone company, Titan Aerospace.



As part of its Internet.org initiative, Facebook envisions solar-powered drones delivering Internet access to remote regions.

INTERNET EVERYWHERE



The Internet not only connects us to our friends, families and communities, but it's also the foundation of the global knowledge economy and a way to deliver basic financial services, health and educational tools. ... We hope to break down the barriers to access and, in turn, provide millions of people with the information that can help them, and their communities, thrive.”

—CHRIS WEASLER,
director of global connectivity, Facebook,
Unilever press release

AFRICA AS AN INNOVATION HUB

As mobile access ramps up in Africa, the continent will become a wellspring of innovation, thanks in part to fast-growing economies, a youthful population and a lack of legacy infrastructure. While entrepreneurs will focus on products and services specific to resource-constrained emerging markets, some innovations will trickle up into developed markets. “Mobile is changing Africa, and Africa is going to change mobile,” declared one attendee at Nigeria’s DEMO Africa tech conference, according to VentureBeat.

Innovation hubs across the continent are focused on creating new mobile-based products that address local needs, including Kenya’s iHub and m:lab and Uganda’s Hive Colab.



This mobile and desktop app allows musicians to broadcast and monetize their content.



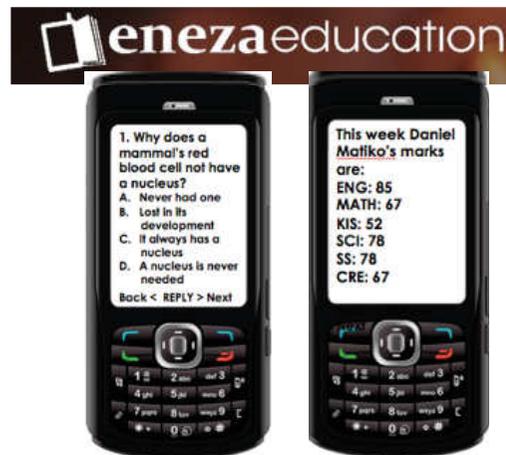
Jooist is a Nairobi-based social gaming platform designed for feature phones. The service is offered in partnership with mobile networks.

IMPLICATIONS FOR MARKETERS

Mobile is a gateway to opportunity: As we explain in our 10 Trends for 2014, mobile is helping to solve social problems and change lives by providing first-time or better access to health care, banking, education, the job market and more. mHealth, mEducation and mFinance tools continue to expand as more people in emerging markets join the mobile web. Brands can help provide these tools: In India, for instance, hair care brand Marico offers pre-recorded calls with basic English lessons. For much more on this topic, see our 10 Trends for 2014 report.



Gidimo is Nigeria's first mobile learning service, aimed at helping people prepare for exams or professional certifications. The company is also working with Nigeria's Nollywood to create low-cost educational videos. Premium content is available for a fee.



Kenya-based Eneza Education sends targeted education-related content via Safaricom mobile phones. Students can take SMS-based quizzes on a variety of subjects, get mini lessons, search Wikipedia and ask questions of live teachers. Teachers and parents can receive progress reports.



InSight from InVenture helps micro and small businesses in India get access to credit. Users log daily expenses and earnings via text to receive “statements,” documents that can help them get microloans and other funding.



IMPLICATIONS FOR MARKETERS

Mobile meshes business opportunities with social responsibility: Mobile represents both a commercial opportunity and a way to help improve lives. This aligns with The Rise of Shared Value, a trend we spotlighted three years ago. Companies can become a force for positive change while enhancing their long-term competitiveness. A shared-value approach can improve the way companies are perceived by consumers, foster innovation by thinking about products and markets in new ways, and open up new markets.

Vodafone's M-Pesa mobile banking service in Kenya, for instance, started as a social responsibility initiative and was initially funded by a grant from the British government's Department for International Development. As of 2012, it accounted for 18% of revenue for Safaricom (Vodafone's Kenyan subsidiary). Facebook's Internet.org will likely benefit the social network over the long term—by adding legions of new members—but meanwhile helps very low-income consumers to access the Internet.

At minimum, brands can help to enable connectivity, given that not having mobile and especially Internet access is coming to be a distinct disadvantage around the globe. In Kenya, Safaricom's Vuma Online program equips private minibuses with free Wi-Fi for price-sensitive mobile users; minibus owners get the equipment at no cost but pay Safaricom low monthly fees for data.



IMPLICATIONS FOR MARKETERS

New cohorts of consumers will be reachable for the first time: At the same time that more people around the world are advancing economically, brands have a new platform with which to reach these rising consumers, some of whom have been largely off the grid. Marketers are using mobile to reach these audiences in innovative ways. Unilever offers a free Bollywood music-streaming service in India that includes ads for a Unilever product. Users call a toll-free number that disconnects after two rings; the system then calls back and plays 15 minutes of music, interspersed with brand messaging.

Mobile access is a form of currency: Paying for airtime or data can be difficult for many in emerging markets, where mobile subscribers spend around 10% of their daily income on top-ups, according to Jana, a mobile rewards platform that aims to “redirect the world’s advertising dollars to airtime.” Marketers can therefore award data and mobile minutes in exchange for purchases or consumer engagement. In India, for instance, Cadbury included airtime credits with the purchase of a 5-Star candy bar.

Jana, which claims access to 3.5 billion mobile phones, works with brands including P&G, Google and Microsoft to send ads directly to mobile phones. In exchange for viewing these ads, Jana rewards users with airtime credit. Brandtone is a similar service.

In Egypt, Vodafone worked with JWT to introduce airtime as a form of currency. Small shops or kiosks in the country often substitute low-value items like gum and candy for small change. Vodafone launched top-up cards in small denominations, naming them Fakka (“small change”) and designing them to fit in a cash register. The cards led to an average 7% rise in revenue per customer.

IMPLICATIONS FOR MARKETERS



The mobile phone is an essential commodity—to the extent that some people actually consider airtime on their phone as a necessity. They could even skip a meal just to have access to airtime.”

—JOHN KIETI,
lead, m:lab East Africa



IMPLICATIONS FOR MARKETERS

Emerging market consumers are mobile-first: Having leapfrogged PCs, emerging market consumers are innately mobile. They lean heavily on the device, expecting it to serve more functions than most consumers in developed markets. Marketers will need to reorient for a different mindset.

These consumers also use mobile devices differently than people accustomed to PCs, in part because they lack familiarity with established patterns of using computers and websites. Brands will need to adopt different assumptions when targeting these consumers on mobile—for example, relying more on visuals for those who are illiterate. By pioneering new ways to approach mobile and to serve consumers in remote areas with few resources, brands may be able to better innovate in developed markets as well.

IMPLICATIONS FOR MARKETERS

Brands have opportunities to drive or support local innovation: Brands can build their expertise by partnering with regional innovators, investing in startups or launching their own programs to connect innovators, mentors and investors. For instance, the Mobile Innovation Roadshow is a joint project between infoDev and the Southern Africa Innovation Support program to spur mobile entrepreneurship. Mobile operator Orange launched its African Social Venture Prize in 2011, granting up to 25,000 euros, mentorship and other resources to entrepreneurs and startups using technology that meets the needs of African consumers.



Corporations should see themselves as a catalyst for growth of the ecosystem through supporting and creating partnerships that could be either revenue-share arrangements or investment arrangements with some of these innovative companies coming up, or even supporting innovation hubs.”

—JOHN KIETI,
lead, m:lab East Africa



10. MOBILE DISRUPTS EVERYTHING

Mobile technology is both rewiring consumer behavior and enabling goods, services and processes never before possible. Legacy companies will have to take a critical look at their business model through a new lens and determine how to evolve if they are to keep up with innovators and with customers' changing habits.

IN ACTION:

- From millions to billions
- Bringing the outside in



MOBILE DISRUPTS EVERYTHING

Our previous mobile reports have spotlighted the disruption that mobile is sweeping in. “If one thing’s clear, mobile will disrupt it all, and earlier than we could have expected,” we noted two years ago. Last year we warned that mobile technology is disrupting industries from retail to health to auto to finance to education and beyond, at an astonishing pace.

This bears repeating as millions more people acquire smartphones and get onto 4G, as new categories like wearables sprout up and as connected devices proliferate. Opportunities to reimagine the status quo are multiplying. And increasingly, failure to do so—to understand the full potential of new technologies and consumers’ new behaviors and expectations—could be fatal.

“When it comes to mobile, most companies are simply doing ‘old things in new ways,’” notes Forrester. By contrast, the disruptors will do new things in new ways. To wit: “Uber is a \$3.5 billion lesson in building for how the world *should* work instead of optimizing for how the world *does* work,” as Aaron Levie of enterprise cloud company Box wrote in a tweet.



FROM MILLIONS TO BILLIONS

The scale of mobile platforms can be breathtaking. WhatsApp has processed as many as 64 billion messages in 24 hours. The 5-year-old messaging app is “on a path to connecting more than a billion people,” noted Mark Zuckerberg at the MWC, days after Facebook’s \$19 billion acquisition of the company. The stunning deal points to the enormity of what’s at stake as upstarts turn established models upside down.

Currently WhatsApp has around 500 million active users; Japan-based messaging app Line claims around 400 million and is aiming for a billion by 2015.



It has taken us two decades to build relationships with millions of people, but new players are building those relationships with hundreds of millions in just a few years.”

—JO LUNDER,
CEO of global telecom VimpelCom,
MWC keynote

BRINGING THE OUTSIDE IN

In search of fresh and disruptive ideas, companies from IBM and Intel to Unilever and Sprint are opening up to outside thinking more than ever before. They're sponsoring hackathons and other challenges, bringing independent entrepreneurs into their innovation labs, or partnering with research institutions.

IBM's Ginni Rometty announced the Watson Mobile Developer challenge (see slide 68) at the MWC. Intel kicked off the Make It Wearable challenge at CES, both a contest for visionary ideas and a mentorship program for entrepreneurs developing wearables. In December, Unilever launched the Go Global challenge, a program that pairs its brands with small to medium-sized digital companies focused on content, mobile or connected devices.

To find inspiration in the mobile health space, U.S. telecom Sprint is sponsoring its first accelerator, in conjunction with Techstars. Ten startups are participating in a three-month program in Kansas City.





IMPLICATIONS FOR MARKETERS

Every company will be a tech company: With the advent of ubiquitous connectivity and with customers intimately connected to mobile devices, almost every company will become a technology company in one way or another.

Ford's Stephen Odell explained in his keynote at the Mobile World Congress: "We're introducing the new Ford Focus here because we're a consumer electronics company as well as an automotive company." Said Citi CEO Michael Corbat, another MWC keynoter, "We see ourselves as a technology company with a banking license."

Rather than fighting to preserve the status quo, companies will need to reinvent themselves for the era of mobile connectivity. Philips, for instance, has shifted from making incandescent light bulbs to LED lighting and, most recently, to smart lighting that fits within the connected home of the future.

As mobile connectivity blurs and meshes the physical and digital worlds, goods and services will need to seamlessly integrate the two for an omnichannel future.



IMPLICATIONS FOR MARKETERS

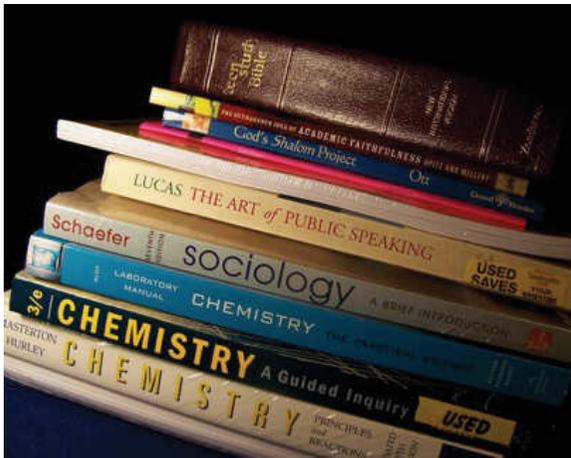
Competition will come from anywhere and everywhere: If every company becomes a tech company, competition will start coming from new and often unexpected places. For instance, mobile viewers can watch shows via apps provided by Hollywood players like Disney as well as by Netflix, YouTube, mobile operators like AT&T (which is now getting into the content game) and by startups like ShowMobile.

The tech giants themselves will expand into new realms and become competition for many more businesses. For instance, Google is now a player in the connected home thanks to its Nest acquisition and in the auto category with its driverless cars. Brands will need to take on new rivals, but they also have new opportunities to venture into different categories.

— YESTERDAY / TODAY / TOMORROW: — HOW MOBILE IS CHANGING BUSINESSES

EDUCATION

YESTERDAY



TODAY



mEducation programs for low-cost feature phones provide access to basic information. In the Philippines, the mobile operator Smart Communications collaborated with textbook authors and publishers to condense books into series of 160-character SMS messages. These were programmed into inactive SIM cards, allowing for quick, easy and cheap access to the materials.

TOMORROW



Mobile devices will become a core platform for learning around the world, thanks in part to Massive Open Online Courses (MOOCs), which will increasingly cater to mobile students.

Gidimo is Nigeria's first mobile learning service. Users can take courses anywhere in Africa with wireless coverage. Classes include group discussions and reading materials. Gidimo is also working with Nigeria's Nollywood to create low-cost educational videos.

HEALTH CARE

YESTERDAY

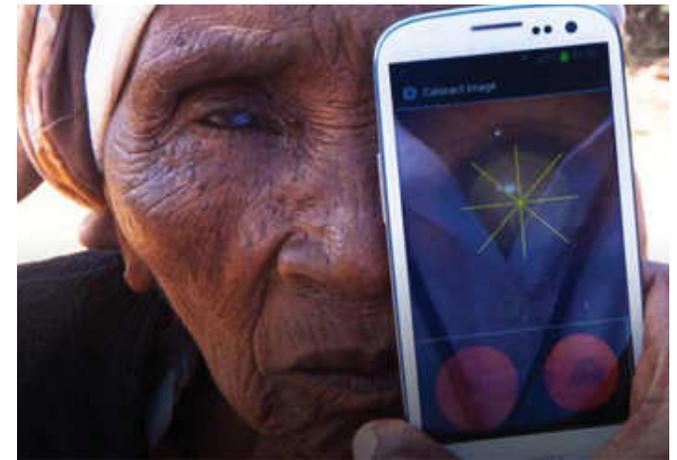


TODAY



Mobile devices provide a tool to track symptoms and provide information on better health care. Telecom operator Etisalat's Mobile Baby program, for example, is designed to cut maternal mortality rates by providing birth attendants and midwives with a suite of mobile tools to help identify, communicate and respond to obstetric emergencies.

TOMORROW



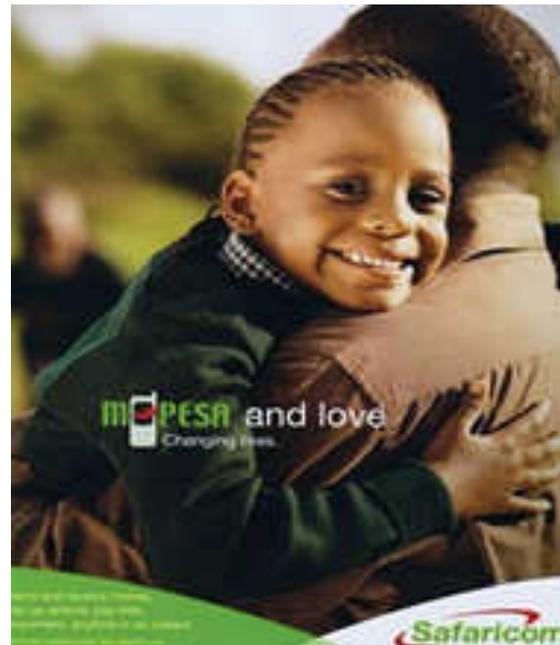
Thanks to advanced sensors and high-quality cameras, mobile devices will support medical professionals by helping to diagnose diseases. Peek Vision uses a smartphone camera and light to scan patients' eyes and identify problems. This information is geotagged and can be compiled into a patient record and shared with doctors.

FINANCE

YESTERDAY



TODAY



Mobile money services allow users to pay for goods or transfer money using their mobile phone. M-Pesa, a service that launched in Kenya in 2007, now processes more transactions in the country than Western Union does globally.

TOMORROW



In addition to a wallet, the mobile device will serve as a tool for managing financial health, securing loans and saving money. M-Kesho builds on the M-Pesa service by functioning as a savings account, paying interest and offering emergency credit and insurance.

InSight helps underbanked Indians gain access to credit. Users log daily expenses and earnings via text to receive a monthly "statement," a document that can help them get microloans and other funding.

THE CONNECTED HOME

YESTERDAY



TODAY



Nest, which Google bought in January for \$3.2 billion, sells a “next generation thermostat” that programs itself around the user’s patterns.



Philips, LG and Samsung are turning light bulbs and lamps into appliances. Capabilities range from turning a home’s lighting on or off automatically, blinking to indicate an incoming call or notification or pulsing in tandem with tracks playing through a smartphone.

TOMORROW



Google and others could be at the center of a system in which an array of devices and services (appliances, glasses, vehicles, email, mapping software) communicate and operate in tandem.

And systems like Samsung’s Smart Home will develop further as they link up with devices from other manufacturers. This will be enabled by initiatives like the Linux Foundation’s new AllSeen Alliance, which is pushing an open-source framework for the Internet of Things based around Qualcomm’s AllJoyn software platform (LG, Panasonic, Cisco and Sears are among the companies involved).

CONNECTED CARS

YESTERDAY



TODAY

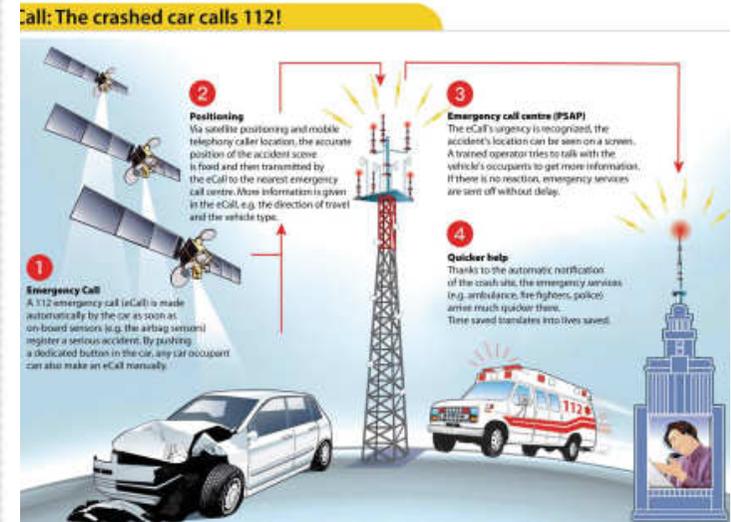


Fast 4G LTE connections are turning vehicles into hot spots that come with a data plan. Such cars can find parking lots with open spaces, let owners open or lock doors via smartphone, etc.



Google's Android and Apple's iOS are making their way onto dashboards. Apple's new CarPlay is included in new Ferrari, Mercedes-Benz and Volvo models. Android-ready cars will come on the market later this year thanks to Google's new Open Auto Alliance.

TOMORROW



All new cars in Europe will integrate connectivity by 2015 thanks to regulations that require the eCall system, which sends location and other data to emergency services after an accident.

More sensors in cars will enable vehicle-to-vehicle communication, enabling cars to coordinate with each other. The U.S. National Highway Traffic Safety Administration plans to issue proposed rules on V2V by 2017. Cars will also start communicating with “smart” infrastructure (traffic lights, etc.). All this should greatly improve traffic flow and safety—and help pave the way for self-driving cars.

VIDEO

YESTERDAY



TODAY



Audiences are watching video on an array of devices and are increasingly including mobile in that mix. The Yankee Group forecasts that video viewing on mobile devices will soon be on par with that on PCs and begin to approach that of TV and DVR by some measures. Mobile audiences are watching not only on the “lean back” tablet but on smartphones, where they’re viewing short clips as well as longer-form content.

TOMORROW



Viewers will become accustomed to watching whatever they want—from live-streamed content to movies to short clips—on whatever screen is at hand or best suited for the moment, and frequently they’ll start on one screen and finish on another. Mobile will be a key element of the omnichannel universe.

NEWS

YESTERDAY



TODAY



Readers have long been getting much of their news online, and now many are accessing digital news as much from their mobile devices as from their PCs. News outlets are seeing up to 50% of online traffic coming from mobile, a proportion that spikes on weekends.

The Mail Online's iOS app draws about a million daily users in the U.K., and they typically return four or five times a day for 12 minutes apiece.

TOMORROW



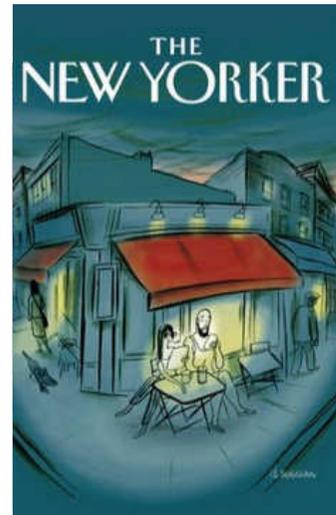
People will expect their mobile devices to keep them constantly up to date, whether via quick summaries of breaking news (as the *FT*'s fastFT provides), curated feeds on topics of interest (as apps like Flipboard and Facebook's Paper provide) or in-depth articles they can scroll through on the bus, in bed or anywhere in between. News outlets will increasingly adapt their formats to cater to this mobile audience.

LONG READS

YESTERDAY

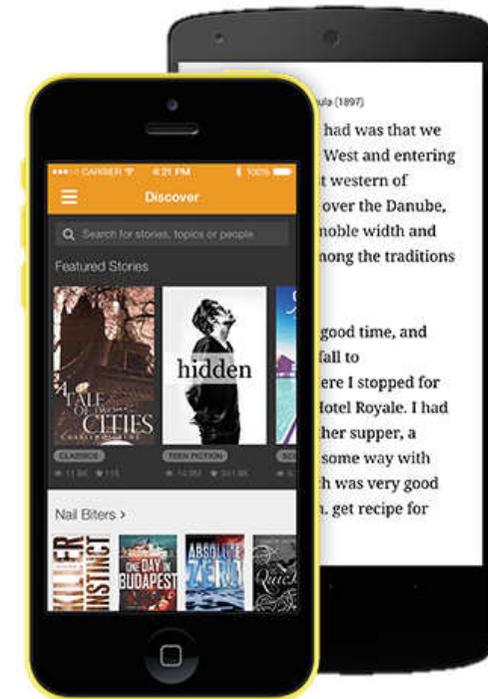


TODAY



Contrary to previous assumptions, people are using mobile for longer reads, on smartphones as well as tablets. *The New Yorker* says its audience is more likely to read and finish long stories on smartphones than on computers.

TOMORROW



Formats that engage mobile readers will flourish. Wattpad, a fast-growing storytelling platform and global social network, has attracted some 20 million (largely mobile) readers, who spend as many as 6 billion total minutes on the service each month reading serialized fiction posted by around 2 million amateur writers.

APPENDIX

MORE ABOUT OUR EXPERTS/INFLUENCERS



MICHAEL BJÖRN, head of research, Ericsson ConsumerLab

In his role at Ericsson, Björn studies global consumer trends, as well as the process of assimilation of ICT into everyday consumer life. Between 2000 and 2002, Björn was responsible for mobile Internet applications at Ericsson in Japan. He joined Ericsson in 1997 as an analyst, after completing his PhD in data modeling at the University of Tsukuba in Japan. Björn is also adjunct professor at the Lund University School of Economics and Management, a novelist with two works of fiction, and a journalist regularly contributing to Tokyo-based rock music magazine *Strange Days*.



DAN HODGES, managing director and founder, Consumers in Motion

Hodges founded CIM, a boutique consulting firm, in 2008. He started his career in advertising agencies, ran the U.S. media business for P&G, was part of the executive sales team at Discovery Communications and co-founded Greenwich Consulting Partners. Hodges entered the mobile world as head of U.S. sales for Enpocket, a global leader in mobile marketing, which was acquired by Nokia in 2007. He became Nokia's head of global sales and has stayed in the mobile world ever since. He has spoken at a number of events including Mobile World Congress.



JOHN KIETI, lead, m:lab East Africa

Kieti is the lead at m:lab East Africa, a Kenya-based hub to promote and inspire mobile innovation. He is passionate about innovation and entrepreneurship that creates thriving knowledge economies in East Africa. Kieti is a technologist, an M4D researcher, an agripreneur and a blogger. For more than a decade, he has accumulated experience in management and entrepreneurship, and holds an MBA and a BS in computer science from University of Nairobi. For his PhD studies, John is investigating scalability and sustainability of M4D initiatives.

MORE ABOUT OUR EXPERTS/INFLUENCERS



JIM MCARTHUR, managing director, Big on Mars, part of JWT's Digitaria
McArthur is managing director of Big on Mars, a part of JWT's Digitaria. Big on Mars is a new, specialized mobile connectivity communications unit that strategically plans, creates and manages "apps for the connected life," including the Internet of Things. McArthur proved himself a Renaissance man during his eight years with digital marketing agency Digitaria, where he worked at various points in creative, engineering and business development. He passionately wants to influence the future and believes digital connectivity is going to empower and revolutionize the human condition.



ALEX SOOJUNG-KIM PANG, author, *The Distraction Addiction*
Pang has spent the past 20 years studying people, technology and the worlds they make. A professional futurist with a PhD in the history of science, Pang is a former Microsoft Research fellow, a visiting scholar at Stanford and Oxford universities, and a senior consultant at Strategic Business Insights, a Silicon Valley-based think tank. His book *The Distraction Addiction* was published in 2013. His writings have appeared in *Scientific American*, *American Scientist* and the *Los Angeles Times Book Review*, along with many academic publications.



TOBIAS PEGGS, CEO, Aviary
Aviary is a New York-based company that empowers 70 million consumers and the world's biggest brands to communicate effectively via mobile photos. Previously, Peggs was CEO of OneRiot, a mobile social ad platform that was acquired by Walmart in 2011. Peggs has a PhD in machine learning from Cardiff University in the U.K. He is also an active Techstars mentor.

OUR MOBILE TRENDS

The following are the trends from our 2013 and 2012 mobile reports, all of which remain relevant in 2014 and beyond. To see the full reports, check out JWTIntelligence.com.

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 WiFi), 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 the upcoming Vdio or the new “digital content locker” UltraViolet; and catch up with TV everywhere as providers gradually expand access.

Brands Blend In

We’ll see a move away from asking how brands can advertise on the mobile 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.

The Car As Mobile Device

With the advent of in-car 4G, built-in Wi-Fi and ever more partnerships between apps and automakers, the “original mobile device” is turning into a speedy smartphone.

Connecting the World

While mobile adoption has been skyrocketing, 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.)



OUR MOBILE TRENDS

The Data-Sharing Debate

While third parties will seek access to more data (location, browsing history, social graph, etc.) in order to fine-tune 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.

The Disappearing Smartphone Screen

Accessories like glasses and wristbands, along with in-car connectivity, will enable a more seamless and discreet experience, infusing mobile 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.

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.

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.



OUR MOBILE TRENDS

Gen Z: Mobile Mavens

Members of the youngest generation 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.

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.

Maturation of M2M Communication

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).



OUR MOBILE TRENDS

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.

A Million Ways to Say Hi

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.

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.



OUR MOBILE TRENDS

Mobile As a Gateway to Opportunity

With mobile adoption comes entrée to the digital world and potentially to the Internet; for many, the smartphone is their first Internet-enabled device. Many in emerging regions see mobile phones as enabling upward mobility and a better life.

Mobile As Genie

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.

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. NFC (near field communication) and RFID (radio-frequency identification), for instance, allow enabled devices to communicate with each other in close proximity.

Mobile As Sixth Sense

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 accessories, they have the potential to add on capabilities as needed.

The Mobile-Powered Consumer

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. This is empowering consumers, especially in-store shoppers, but brands are also gaining new opportunities along the consumer path.

OUR MOBILE TRENDS

“Nomophobia”

This term for “no mobile phobia” refers to the fear people feel when separated from their mobile device. High-tech 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 indispensable Everything Hub and as it becomes more closely linked to our identity (see Mobile ID). Increasingly, going without this appendage will provoke real anxiety.

Revolutionizing Transactions

Mobile phones have the potential to revolutionize transactions in places where bank accounts and credit cards are the exception. 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.

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. The Android system, the top target of malicious software, saw a near-fivefold increase in malware between July and November 2011. 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.



OUR MOBILE TRENDS

Video Unleashed

The mobile device is starting to become a primary screen for viewing long-form video both in developed markets and developing regions. 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.

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. While around 85% of the globe now has a mobile phone, according to a report by Ericsson, many still lack coverage. Mobile providers are expanding infrastructure in rural areas and bolstering existing systems to ensure the growing ranks of smartphone owners can communicate. Public Wi-Fi hotspots are also proliferating: Informa Telecoms & Media estimates that today's 1.3 million hotspots will grow almost fourfold by 2015.

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466 Lexington Avenue
New York, NY 10017

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Written by	Marian Berelowitz Will Palley
Edited by	Marian Berelowitz
Trends strategist	Nick Ayala
Proofreader/ fact checker	Hallie Steiner
Design	Peter Mullaney

CONTACT:

Marian Berelowitz
Editorial Director
917-566-7227
marian.berelowitz@jwt.com
[@melonbee](https://twitter.com/melonbee)

Will Palley
Trends Strategist
212-210-7225
william.palley@jwt.com
[@wpalley](https://twitter.com/wpalley)

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