

FOR: CIOs



The Business Impact Of Mobile Engagement

by Ted Schadler, December 18, 2012

KEY TAKEAWAYS

Mobile Experiences Change The Engagement Calculus

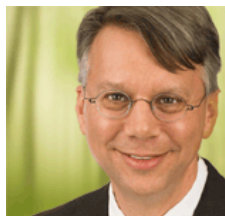
The days of simple, marketing-focused mobile apps are waning. Great mobile experiences require a native app or optimized mobile website supported by what Forrester calls “systems of engagement.” These systems help you empower your customers, partners, and employees to act immediately in the context of their daily life and work.

Mobile Transforms Services And Processes

In interviews with more than 100 mobile innovators, we found four places where mobile engagement has its biggest impact: engaging customers in the key moments of their day, accelerating business processes by re-engineering the last offline yard, empowering employees to be productive on the go, and reaching customers with new business services.

Mobile Engagement Can Disrupt Markets

Mobile apps that help people act in their direct moment of need will pull customers away from their incumbent banks, retailers, and media companies. Forrester believes that mobile apps will disrupt markets like mobile payments and media and launch new business services in transportation and telecommunications.



The Business Impact Of Mobile Engagement

Business Case: The CIO's Mobile Engagement Playbook

by [Ted Schadler](#)

with [Josh Bernoff](#), [John C. McCarthy](#), and Nancy Wang

WHY READ THIS REPORT

Smartphones and tablets are game changers for engagement because people carry them everywhere they go. Your customers and partners and employees have perpetual access to the vast resources of the Internet — and hopefully your mobile app as well — in the key moments of their day. In interviews with more than 100 mobile innovators, we have found four places where mobile engagement transforms services and processes: customer engagement, process acceleration, employee productivity, and new business services. Even at this early stage of development, you can see positive impacts of mobile engagement in apps from General Electric, Trane, and Uber Technologies. We close with a simple framework for prioritizing which apps and features people will actually use based how useful and convenient they are.

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For this report, Forrester interviewed 17 user companies: Appian, Concur Technologies, Evernote, General Electric, Kindred Healthcare, MobileDay, Paydiant, Roambi, Trane, Vail Resorts, and seven other companies.

Related Research Documents

[Great Mobile Experiences Are Built On Systems Of Engagement](#)
November 16, 2012

[Smart Products Will Require A Hybrid CTO/ CIO Skill Set](#)
November 16, 2012

[Mastering The Business Tablet Landscape](#)
November 5, 2012



MOBILE EXPERIENCES CHANGE THE ENGAGEMENT CALCULUS

The days of simple, marketing-focused mobile apps are waning. Great mobile experiences require a native app or optimized mobile website supported by what Forrester calls “systems of engagement”: robust back ends built on rich content, predictive analytics, cloud services, transaction systems, and personalization.¹ In this report, we analyze the business impact of mobile engagement and describe how to prioritize apps and features based on how engaged a customer, partner, or employee will be with your app. Why change the way you connect with these users? Because:

- **Your customers are always addressable.** Today, 38% of online US consumers are always addressable on multiple devices, from multiple locations, performing multiple activities. Among adults under 45 years old, it's 45%. In a world of always addressable customers, firms must deliver personalized, contextual experiences to a pervasively connected person.²
- **Your employees and partners work anytime, anywhere.** Already, 15% of the global information workforce is “anytime, anywhere,” and we expect that number to triple by 2016.³ Smartphones and tablets break the shackles of PC-bound productivity tools and allow employees to carry their office everywhere. And your partners need these tools, too: Trane's distributors can pull up its order management system on a tablet, while shops selling L'Oréal's professional care products can review its video-enhanced catalog.
- **People can move forward without halting their everyday work.** Think sales meetings, customer service events, operational reviews, and facilities inspections. When real business applications and content are available in a few clicks to a tablet-wielding employee, you can cut out manual steps, eliminate redundant staff, and accelerate actions and decisions. What the PC did to knowledge processes, touchscreen mobile devices will do to physical processes.

The Business Impact Of Mobile Engagement Stems From Four Fundamental Sources

Because mobile apps are built on systems of engagement, they provide a modern architecture to optimize how you interact with customers, partners, and employees. This architecture delivers four sources of fundamental business impact:

1. **Continuous engagement through mobile apps.** Because your app is in your customers' or employees' pocket, you can reach them wherever they are whenever they need you. This always addressable nature of apps, especially on smartphones, changes the engagement model: more touches, more access, and new service opportunities, for example.
2. **Data capture and access at the point of engagement using sensors, photos, and touchscreens.** The device knows where you are, so it can catalog your movements. The camera allows you to capture the product placement in a retail store, or the cleanliness and layout of a franchise, or the status of a patient, or the potholes in the road. Touchscreens make it easier for a mobile worker to tap and capture the data needed to initiate a transaction.

3. **Context-aware applications to shortcut a data access process.** Because mobile devices have GPS and other sensors, they can automatically pull up the correct maintenance record for the windmill needing service or list the physician contacts in a hospital that a pharmaceutical sales rep is about to visit. This shortcutting also applies to data capture. On a GPS-enabled tablet, a Starbucks store inspector's notes are immediately tagged to the correct store.
4. **Engagement analytics to optimize processes, effectiveness, and customer intimacy.** Mobile apps fronting systems of engagement can be instrumented to gather data on locations visited, content displayed, or buttons pushed. Social collaboration vendor Yammer, for example, uses engagement analytics to measure which app features drive more searches or collaboration activity. Product managers use this information to deliver a more valuable app experience.

MOBILE ENGAGEMENT TRANSFORMS PROCESSES AND SERVICES

With mobile apps built on systems of engagement, you can transform your company's relationship with customers, partners, and employees — and even disrupt markets with new services (see Figure 1).⁴ In conversations with more than 100 mobile innovators in the past two years, we have identified four sources of business value from mobile engagement (see Figure 2):

1. Engage customers in the key moments of their day.
2. Accelerate business processes by re-engineering the last offline yard.
3. Empower employees to be productive on the go.
4. Reach customers with new business services.

Figure 1 Examples Of Mobile Engagement

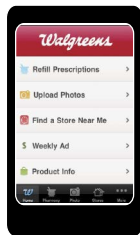
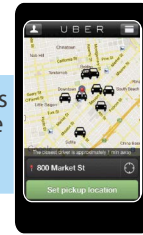


**Mobile engagement with sales:
upsell, measure, optimize**

After TraneMap launched, dealers using the app saw a 22% increase in the number of units sold. Source of value: Better tools for selling a complex product lead to faster, more profitable deals.

**Mobile engagement with taxi services:
connect passengers directly to drivers**

Uber, which operates in 23 cities in the US and Europe, cuts out the middleman with a direct brokerage service. Source of value: Users get high convenience and lower-cost transportation.

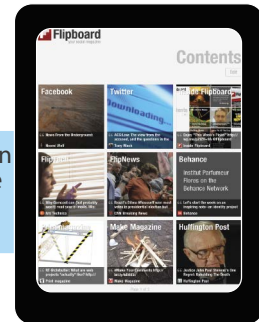


**Mobile engagement with pharmacy services:
convenient reordering and access**

Walgreens' mobile app helps patients refill a prescription in a few clicks. Source of value: The convenience of the app makes it more likely that patients will renew prescriptions on time.

**Mobile engagement with magazines:
aggregate, consume, share**

Flipboard is a magazine-like app designed for touchscreen devices with social feeds and commercial content. Source of value: Media revenue increases, and social posts are brilliantly consumable on touchscreen devices.



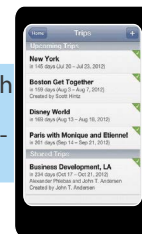
**Mobile engagement with data:
click and analyze in decision meetings**

Roambi's data dashboard helps businesspeople analyze data in meetings or anywhere on a smartphone or tablet. Source of value: Readily available data drives immediate decisions in meetings.



**Mobile engagement with travel:
aggregate and share itineraries**

Triplt pulls together all parts of an itinerary, notifies you with status updates, keeps your family up to date, and recommends alternative flights. Source of value: Users have a one-stop shop for travel status, plans, alternatives, and sharing.



Source: Mobile apps from Trane, Uber, Walgreens, Flipboard, Roambi, and Concur Technologies

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Source: Forrester Research, Inc.

Figure 2 Four Sources Of Value In Mobile Engagement

Source of value	Example	Business result
Higher customer engagement	<ul style="list-style-type: none"> • Bank of America check deposit • Vail EpicMix skier app • Walgreens ordering app 	<ul style="list-style-type: none"> • Avoid trip to branch or ATM • Enhance skiing experience • Faster, easier prescription refill
Accelerate business processes	<ul style="list-style-type: none"> • Kindred Healthcare sales • Starbucks facilities inspection • Trane HVAC tablet sales app 	<ul style="list-style-type: none"> • Improve patient meeting • Immediately fix a problem • Close richer business faster
Empower employees	<ul style="list-style-type: none"> • Evernote note taking • MobileDay conference calling • Roambi mobile data analytics 	<ul style="list-style-type: none"> • Capture notes from any device • One-click conference joining • Data dashboard in meetings
New business service	<ul style="list-style-type: none"> • Uber taxi service • Flipboard media aggregator • Triplt itinerary aggregator 	<ul style="list-style-type: none"> • Lower service transaction cost • Personal and paid media viewer • Access itineraries in one place

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Source: Forrester Research, Inc.

1. Engage Customers In The Key Moments Of Their Day

Mobile apps let you reach directly into consumers' pockets to serve them in their key moments of decision or need. This shift from online self-service to proactive service through mobile apps and alerts is the driving force of mobile engagement in your customer operations. It is mobile engagement's sweet spot: delighting your always addressable customers by divining their needs and then placing just what they're looking for right at their fingertips. Here are three companies that found the value in mobile engagement with customers:

- **Mobile engagement with banking: Mobile check deposits eliminate a trip to the bank.** USAA saw its online transactions skyrocket to 120 million when it introduced mobile check deposits in 2008. This was a win for customers who avoided a trip to the bank or post office. It was also a win for USAA because it eliminated a costly manual process. Source of value: Banking customers get the experience of a branch from any location.
- **Mobile engagement with pharmacy services: Prescription reordering just got easier.** Walgreens has a best-in-class app for reordering prescription drugs. Customers can refill from their account, scan their prescription bar code or type in the prescription number, and then pick up the refill at a nearby store. Source of value: The convenience of the app makes it more likely that patients will reorder prescriptions on time.
- **Mobile engagement with ski resorts: Guests can create their own vacation experience.** Vail Resorts has a commitment to the guest experience bordering on the fanatic. It even put a lift into town just so skiers can enjoy a fast ride to the nearest slope from outside their hotel room.

The company is entering its fourth season of EpicMix, a mobile app that tracks vertical feet skied, supports a social photo swap, and extends the on-slope experience to the fireside or back-home bragfest. Source of value: The company gains insight into how customers use the resort and improves the guest experience through participation.

2. Accelerate Business Processes By Re-Engineering The Last Offline Yard

Employees and partners that operate in the physical world of customer visits, facilities inspections, or patient consultations now have all the resources of the digital world at their fingertips. They can be handed just the data they need, capture photos and data at the point of contact, and initiate a transaction process right from a customer meeting or service visit. This opportunity to push apps and access out to the point of engagement means you can cut manual steps out of a process, act immediately instead of waiting until someone is back online, and capture all the data available. At Kindred Healthcare, for example, the sales reps use iPads and salesforce.com to automatically log all patient visits, capture a complete picture of the engagement, and use rich media to sell their post-acute care services (see Figure 3).⁵ It's not just employees who benefit from this process acceleration; partners such as Mercedes-Benz's dealers or Trane's distributors can improve their operations with mobile apps as well.

- **Mobile engagement with partners: upsell, measure, optimize.** Trane distributors use a tablet app called TraneMap, built by Cynergy, to help sell Trane's HVAC systems, improving the "ring to ching" close rates from 35% to 65% (see Figure 4). The big wins for dealers using TraneMap is 22% more revenue when compared with last year. For Trane, it's a richer product mix, more revenue, and real analytics on what content or sales process consistently has the best results. Source of value: better tools for selling a complex product leading to faster sales and higher revenue.
- **Mobile engagement with store inspections: capture, analyze, recommend.** Starbucks is using Appian software and iPads to inspect stores. A field inspector takes pictures of the layout and stock, pulls together a report while in the store, and meets immediately with the store manager to recommend improvements. Sources of value: better data capture, more immediate feedback, and accurate facilities analytics.
- **Mobile engagement with wind turbines: plan and execute before climbing the tower.** General Electric (GE) and its partners have healthy businesses servicing turbines. To improve the efficiency and effectiveness of wind turbine maintenance, GE uses an iPad app that helps a field engineer to prepare for that turbine before climbing 350 steps to the top of the tower. The engineer gets to see maintenance history, parts needed, installation guidelines, and video links back to expertise if needed. Sources of value: better on-site planning, higher service-visit efficiency, and better problem and resolution logging.

Figure 3 Kindred Healthcare Uses Tablets To Calm Anxious Families And Close Deals



Organization: Kindred Healthcare, post-acute care services provider

Key players: Barry Somervell, senior vice president of sales; solution provider Appirio

Situation: Clinical liaison sales staff worked offline, used content inconsistently, and did not have tools for meeting prep and follow-up. Sales leaders had no analytics.

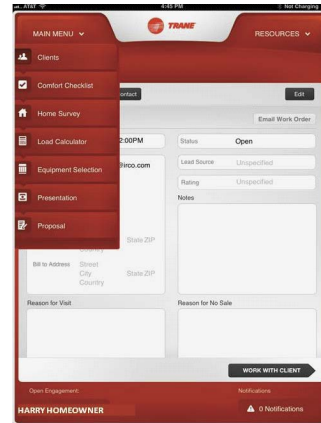
Solution: Adopt iPads to make an existing salesforce.com deployment effective in a hospital setting, including offline use. Distribute rich content and use analytics to track content effectiveness, patient meeting follow-up, and hospital visit optimization.

Sources of business value: deeper patient and family engagement with video testimonials and descriptions of post-acute care services; immediate follow-up emails to families on the proposed services; sales staff empowered with better hospital information and automatic logging of every meeting

Business impact: The deeper engagement and higher confidence in patients and their families significantly improves the close rate. The complete analytics on visits and contracts provides input for sales directors on best practices, collaboration, and assets needed.

Road map: Use engagement analytics to optimize the content deployed, the in-meeting experience, and the app effectiveness.

Figure 4 Trane Improves HVAC Sales Velocity With An iPad Application



Organization: Trane, heating and air conditioning systems manufacturer

Key players: Trane sales operations and CIO organization; solution provider Cynergy

Situation: Sales operations saw an opportunity to help dealers sell by replacing clipboards with direct engagement through tablets.

Solution: Build TraneMap, an iPad order management application with rich content, interactive modules, and analytics. The app works offline and syncs when back online later.

Sources of business value: selling or upselling the best solution based on real inputs of "load," customer priorities, and house layout; capturing data and analytics at the point of customer engagement

Business impact: Improve the "ring to ching" sales close rate from 35% to 65%. Increase the product mix by 3% and average revenue by 22% for dealers using the app. Dealers using TraneMap recognized a 30% increase in revenue over the same period the previous year. Provide analytics into future inventory requirements, which products are pitched but not selling, and what content results in the best sales.

Road map: Focus on programs to increase tablet adoption by Trane dealers. Extend the app beyond the Trane "Comfort Specialist" level of dealers to include all Trane dealers.

3. Empower Employees To Be Productive On The Go

Employees aren't confused about the business impact of mobile apps and devices. They are finding their own mobile solutions with little IT help. More than half of global information workers spend their own money to buy the tools they need to be successful at work.⁶ To empower your mobile workforce, you must first find out what they need using employee focus groups and surveys. CIOs must also re-evaluate their suppliers to see if they have good mobile solutions. While some vendors like salesforce.com are out ahead of your needs, most are not. If a vendor doesn't meet your employees' mobile engagement needs, your employees and business leaders will empower themselves and find their own mobile solutions.

- **Mobile engagement with note taking: any device, anywhere, anytime.** Evernote started with a mobile-first strategy: Capture notes on smartphones, then tablets, and later Windows and Mac apps. Its cloud service has taken off — 34 million subscribers as of today — and is capturing more notes and memories all the time. Source of value: better information capture, access, and sharing while on the go.
- **Mobile engagement with data: click and analyze in decision meetings.** Roambi was the first to see that touchscreen devices could change the way businesspeople analyze data. Their interactive data charts brought data reporting directly into the executive boardroom. Kraft Foods uses this kind of technology to improve the quality of information available in meetings. Source of value: readily available data to drive immediate decisions in meetings.
- **Mobile engagement with collaboration: business content on every device.** Dropbox has surpassed 100 million users, many of them your employees. Employees use Dropbox to get their documents and presentations onto every device they use for work, including smartphones, tablets, and home computers. Source of value: employees' ability to take all their work with them on the devices they prefer to use, helping them to be productive wherever they are.

4. Reach Customers With New Business Services

The intersection of physical context and digital services opens doors to new business services that can disrupt a market. In payments, for example, mobile-native payment providers like Square and Merchant Customer Exchange divert retail transactions away from incumbents American Express and MasterCard. The Apple App Store and its Google counterpart each contain 700,000 apps and counting. Some of these apps offer breakthrough business services.

- **Mobile engagement with travel: aggregate and share itineraries.** The American Airlines travel app is a great engagement enhancer. But TripIt Pro, a subscription service from Concur Technologies, is different because it pulls together all parts of an itinerary, connects travelers to colleagues, keeps the family and team updated, offers public services like maps, and recommends alternative flights. And its flight status updates come in *before* those from American Airlines. Source of value: a one-stop shop for travel status, plans, alternatives, and sharing.

- **Mobile engagement with magazines: aggregate, consume, share.** Flipboard is a magazine-like app designed for a touchscreen world, social feed relevance, and now commercial content. It's frankly a better way to get rich content in a convenient format. Source of value: increased media revenue and social posts that are brilliantly consumable on touchscreen devices.
- **Mobile engagement with taxi services: connect passengers directly to drivers.** The taxi service Uber Technologies, which operates in 23 cities in the US and Europe, cuts out the formal structures of a car service by giving drivers and passengers location-aware mobile apps. Passengers and drivers enroll in the program to register their profiles and payment information. Once registered, a passenger can ask for a ride, and a driver can take the gig. Source of value: automated, self-policing brokerage for drivers and passengers, thus reducing the cost of the service for both parties.
- **Mobile engagement with conferencing: one-click, no-look dialing.** MobileDay pulls your conference calls and meeting details off your calendar and into its smartphone app. One minute before your call, you get an alert. One click opens the app, where a single click on an action button dials the number and the codes needed to join the call. As a bonus, it will also launch your WebEx or GoToMeeting app. Source of value: handling the gory details of joining a call today and doing least-cost call routing to save money tomorrow.

ACHIEVING MOBILE'S POTENTIAL DEMANDS A CROSS-FUNCTIONAL APPROACH

Most of the companies we speak with still treat mobile engagement as a series of projects rather than a reconstruction of their business strategy and supporting technology strategy.⁷ Even at companies that are mobile innovators, mobile is often more an adjunct to the web or offline teams, rather than a fundamental new source of value. To go beyond a basic mobile app, bring a cross-functional team together to answer four questions:

1. **What audience are you serving?** This most basic question is often overlooked and is the core of why you're building an app in the first place: Who will benefit from it? Which platforms? In which situations? Forrester's mobile POST process analyzes which customers and employees are best reached through mobile apps. AccuWeather uses a similar method to work with its OEM partner Samsung to identify which weather features matter to which smartphone user segments.
2. **What are the sources of business value today and in two years?** You will need to prioritize apps based on the impact on your revenue and expenses. By identifying the sources of business value, you can begin to quantify how each improves the metrics that drive your business. Forcing a discussion about the road map will also help you avoid shiny object syndrome, a common corporate habit of generating apps that make an initial splash but don't contain the analytics, aggregation, context, or multichannel experiences to create value from engagement over the long haul. American Airlines' recently released version 2 of its mobile app shows the power of long-

range planning in the design choices it made — much cleaner and more task-oriented — and the enhancements to the utility and convenience of the app, including an enhanced reservation bookings function.

3. **What application features are mobile-first?** Not every application or feature belongs on tablet app — and even fewer belong on a smartphone app. At American Airlines, a proposed feature list “longer than three of Phil’s arms” pushed CIO Maya Leibman to convene a cross-functional steering committee to decide which features get investment. Check the simple engagement value scoring framework in the next section for help making decisions with your team.
4. **What back-end services are fundamental to engagement?** Out of a million-dollar mobile engagement budget, our rule of thumb predicts that you will spend \$650,000 on back-end integration and \$350,000 on apps for iOS, Android, and perhaps a third mobile platform. To help you identify what back-end apps are ready to go and which ones need to be revamped or overhauled, ask the technology team to inventory the status and availability of the systems of record and their associated data service APIs.

CONVENIENCE AND UTILITY DETERMINE AN APP’S ENGAGEMENT VALUE

All of these improvements in your business look promising. But none of them is possible without a great mobile app that people download and use. So before even bothering to decide if a mobile app or feature is valuable to you, find out if it’s valuable to your audience. As we’ve said in other reports in this playbook, the POST method — people, objectives, strategy, and technology — is a useful path forward.⁸ To help you assess and prioritize the value of an app or feature to *people*, we have created a simple questionnaire based on its convenience and utility (see Figure 5-1):


- **Convenience.** Does the convenience of the app transform the experience? If your target audience can accomplish something in moments using a smartphone or tablet app, then the convenience score is very high. If they can just as easily accomplish their goal later on a desktop application, then the convenience score is low: Mobilizing the service just doesn’t matter enough.
- **Utility.** Does the utility of the app make it home-screen-worthy? Does the app accomplish something as valuable as Google Maps, USAA’s mobile check deposit, or MobileDay’s one-click conferencing? If so, then the app has high utility and may be end up on the home screen of the customer’s smartphone. If the app is nice to have but not truly useful, then it will be relegated to the last screen and seldom called upon.

The Mobile Engagement Value Score Also Tells You What To Do Next

The answers to the mobile engagement value questions give you a score that places the app or feature into one of four quadrants (see Figure 5-2). The placement on the chart will tell you what to do next:

- 1. Transformative experience.** If the app or feature is both convenient and useful, then it can transform a service or process. That makes it the right app or feature to build. Startups like Uber and Flipboard focus squarely on these characteristics that drive adoption and disrupt a market. Be willing to look at your entire system of engagement, not just your mobile app front end, for ideas on how to create transformative experiences. For example, can you improve the convenience with voice control or a direct connection to a social feed? Can you improve the utility by using predictive analytics to improve the relevance of an offer on the app or have the app leap ahead, anticipating the next mostly likely task?
- 2. Redesign for mobile first.** If your app is very useful but not convenient to use, then it falls into this category. Many mobile websites, particularly on a smartphone screen, land here. Shrinking the website to fit on tiny screen might be useful, but it's not convenient if it isn't adapted for touchscreen interactions, GPS-enabled service, or task-orientation. The path forward here is clear: Stop adapting your web experience, and start designing your mobile experience. A new approach using HTML5 called responsive design can help, but only if you first map out the tasks people want to accomplish on their smartphones and tablets.
- 3. Engagement enhancer.** If the app or feature is very convenient but not so useful, then it shows up here. Many of today's mainstream apps for banking, retail, or media fall into this category. The convenience is high, so people will download and use the app. But the utility is humdrum — the app enhances an existing service but doesn't fundamentally change the offering or overhaul the value to a customer. You should invest heavily in apps here as a way to keep up with the mobile demands of your customers. But don't stop until you've figured out where mobile can help you deliver new services. Otherwise, a competitor might show up and take your customer away.
- 4. Back burner.** If the app or feature has low convenience and low utility, then it falls into this last quadrant. Many of your existing website features or the second and third screens on a business application will show up in this category. Because these apps or features don't take advantage of the convenience of a mobile device and aren't terribly useful, you should leave them aside for now — they'll waste your budget and disappoint your customers. To move apps out of this category, you should improve the utility by identifying what things your customers really need from you or improve the convenience by breaking down your services into tasks that can easily be accomplished on a mobile device.

Figure 5 Convenience And Utility Score The Mobile Engagement Value

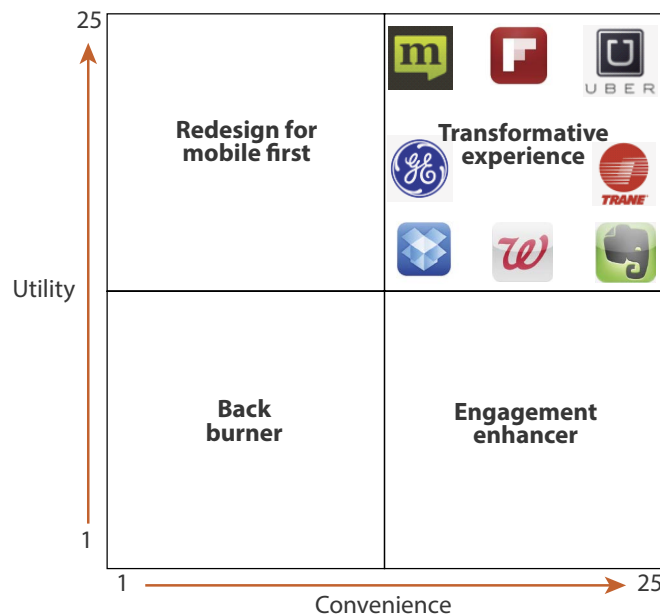
 The spreadsheet associated with this figure is interactive.

5-1 Score the app or feature on convenience and utility

**Score each factor from 1 (completely disagree) to 5 (completely agree).
Add the factor scores together to get a total score.**

Convenience factor		Score
	The app works well on a smartphone or tablet.	<input type="checkbox"/>
	The app helps you accomplish the task in less than 20 seconds.	<input type="checkbox"/>
	The app is constructed with task-oriented action buttons.	<input type="checkbox"/>
	The app uses location or sensors to deliver a better experience.	<input type="checkbox"/>
	The app alerts someone based on time, location, or other event.	<input type="checkbox"/>
	Total convenience score:	<input type="checkbox"/>
Utility factor		Score
	The app greatly enhances a person's life or work.	<input type="checkbox"/>
	The app delivers a service that people find valuable.	<input type="checkbox"/>
	The app eliminates many steps or simplifies a process.	<input type="checkbox"/>
	The app provides what a person needs to complete the task.	<input type="checkbox"/>
	The app anticipates a person's next most likely action.	<input type="checkbox"/>
	Total utility score:	<input type="checkbox"/>

5-2 The score tells you what to do



WHAT IT MEANS

MOBILE ENGAGEMENT HAS THE POTENTIAL TO DISRUPT MARKETS

Create a mobile app that offers a fundamentally different capability or service by addressing people's needs in their physical context, and you can increase loyalty or pull customers away from their incumbent banks, retailers, and media companies. Here are some early indications that mobile apps can disrupt markets using mobile engagement:

- **New core capabilities like mobile payments will stress incumbent suppliers.** The payments market is becoming volatile as people start to treat their phones as digital wallets and seek to pay with their phones. Mobile payment entrants from every direction will disrupt traditional payment models. Innovators like LevelUp will introduce fee structures that go beyond transaction fees to revenue share on measurable outcomes. Incumbents built on traditional models will be challenged to maintain their current fee structures. Other core services ripe for mobile disruption include mapping (Apple), identity (Facebook), and telecommunications (Skype).⁹
- **New aggregators in media, travel, and personal finance challenge customer relationships.** Mobile apps can aggregate services in a way that is more convenient to a consumer than working with companies individually. For example, Flipboard aggregates news and social feeds, TripIt and Traxo aggregate travel itineraries, and Mint.com aggregates financial services. Aggregators can also deliver new services on top of the services they assemble. TripIt, for example, recommends alternative flights when your flight is canceled or delayed. Mint.com advertises a new credit card when your existing one charges a fat international payment fee. Flipboard could become a vital channel for business news in the next two years and be an annoying competitor for *The New York Times*.
- **New service models eliminate intermediaries.** If a producer and a consumer can immediately connect and do business together using a mobile app, then traditional intermediaries become irrelevant. This describes Uber's opportunity to disintermediate traditional taxi services and MobileDay's opportunity to disintermediate the teleconferencing market by connecting callers directly. We predict that MobileDay will divert calls off cellular voice networks and onto wireless broadband networks, particularly for expensive international calls, and thus compete with Skype for a revamped telecommunications market.
- **New markets are made in paid content.** Apple has 435 million credit cards on file, and Amazon.com has 152 million. Microsoft and Google are also building their customer databases. Credit cards, content, and mobile devices are powerful building blocks for a media marketplace. These giants can sell the published works of independent filmmakers, game makers, authors, and artists directly to consumers. Mobile will become a dominant channel as people pull out their phones to buy on a whim or order content in the living room, hotel room, or dorm room. We predict that Amazon's direct author-to-consumer publishing revenue will exceed \$1 billion by 2016.

SUPPLEMENTAL MATERIAL

Online Resource

Forrester has created an interactive assessment tool used in Figure 5 to calculate the engagement score of an app or feature based on its convenience and utility to its target audience. Use this calculator to build consensus on which features and apps to build. The tool works just as well for development teams prioritizing features as it does for mobile steering committees charting their enterprise mobile strategy.

Thank You

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Companies Interviewed For This Report

Appian	MobileDay
Concur Technologies	Paydiant
Evernote	Roambi
General Electric	Trane
Kindred Healthcare	Vail Resorts

ENDNOTES

- ¹ Systems of engagement are different from the traditional systems of record that log transactions and keep the financial accounting in order: They focus on people, not processes. These new systems harness mobile, social, cloud, and big data innovation to deliver apps and smart products directly in the context of the daily lives and real-time workflows of customers, partners, and employees. The compelling notion of context — the sum total of what your customer has told you and is experiencing at the moment of engagement — is made possible with cloud delivery and predictive analytics applied to a blend of data from device sensors, social feeds, personal preferences, and systems of record. See the February 13, 2012, "[Mobile Is The New Face Of Engagement](#)" report.
- ² In 2010, we entered the era of pervasive interactivity, and today more people access the Internet more frequently from more devices in more places than ever before. As you think about mobile marketing, you must understand the always addressable customer — an important part of your audience today, quickly evolving to become the majority of your audience tomorrow. See the September 26, 2012, "[The Always Addressable Customer](#)" report.

- ³ Tablets are the darlings of hypermobile employees who want to be always connected and productive. They are the newest player in the mobile landscape and are even starting to be a viable alternative to the workhorse of business computing — the PC. In 2016, 375 million tablets will be sold globally and 760 million will be in use. In this report, we've identified five business scenarios for how employees use tablets, and we use data from the Forrester Tech Marketing Navigator, Q1 2012 to highlight a critical concern: IT dominates the tablet decision process, and it shouldn't. See the November 5, 2012, "[Mastering The Business Tablet Landscape](#)" report.
- ⁴ By 2014, smartphones and tablets will put power in the pockets of a billion global consumers, including your employees and partners and customers. However, mobile is not simply another device for IT to support with a shrunken website or a screen-scraped application. Rather, mobile is the visible manifestation of a much broader shift to systems of engagement that marry physical context and digital intelligence to deliver service directly into a person's hands. This shift will add value and take cost out of every business service, workflow process, and business application. But mobile engagement will also require wholesale changes to your app design, service delivery, IT skills, and technology assets, even your business model. See the November 16, 2012, "[Great Mobile Experiences Are Built On Systems Of Engagement](#)" report.
- ⁵ Kindred Healthcare made mobile collaboration based on salesforce.com and iPads into a powerful sales tool. Before the iPad program, "clinical liaison" salespeople worked inconsistently with paper-based sales tools and manual processes, and sales executives had little data on what content and what approaches worked best. Clinical liaisons now use video content to educate patients, share information immediately with patient families via email, and prepare for meetings with maps and medical staff information. See the October 12, 2012, "[The Road To Social Business Transformation Starts With A Burning Platform](#)" report.
- ⁶ Bring-your-own technology (BYOT) spans hardware devices, platform and application software, and web-based services like storage and collaboration. According to Forrester's Forrsights Workforce Employee Survey, Q4 2011, 53% of workforce employees bring their own technology for work purposes, up 5% since Q1 2011. In Q4, 43% leveraged their own personal devices, 16% installed unsupported software, and 19% used unsupported Internet-based services in their jobs. See the June 12, 2012, "[Charting The Rising Tide Of Bring-Your-Own Technology](#)" report.
- ⁷ To avoid mobile's unintended consequences, CIOs will need to balance the immediate needs of business owners to build mobile apps against the long-range technology requirements of systems of engagement. Further, to build apps that successfully engage customers and partners, CIOs should guide the technology strategy and execution of all mobile projects, not just those focused on employees. The centerpiece of a CIO's mobile strategy, then, is a mobile center of excellence that brings together business and IT stakeholders and staff to host the strategy and resources to deliver great mobile experiences. See the November 16, 2012, "[Great Mobile Experiences Are Built On Systems Of Engagement](#)" report.
- ⁸ How do you build a road map for something as fast-moving and disruptive as mobile apps, devices, and projects? Certainly not by letting projects unfold at random as budgets and sponsors appear. To control the chaos and anarchy of separate mobile efforts, the CIO's approach to mobile engagement should use a methodical though agile framework we call POST: people, objectives, strategy, and technology. The road

map report in The CIO's Mobile Engagement Playbook lays out the core activities in each of these phases and gives you a framework for the execution and organizational changes you will need to make. See the November 29, 2012, "[Use POST To Build A Road Map For Mobile Engagement](#)" report.

- ⁹ For more analysis on why Apple will stick with maps until it gets it right, see this blog post: Ted Schadler, "Why Apple Had To Do Maps: A Mobile Engagement Analysis," *The Forrester Blog For Chief Information Officers*, September 21, 2012 (http://blogs.forrester.com/ted_schadler/12-09-21-why_apple_had_to_do_maps_a_mobile_engagement_analysis).

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