

For: eBusiness & Channel Strategy Professionals

Mobile App Or Mobile Web? It's A Choice, Not A Battle

by Ted Schadler, Julie A. Ask, Michael Facemire, Peter Sheldon, and Mark Grannan, December 17, 2013

KEY TAKEAWAYS

Build Mobile Apps When Rich Engagement And Offline Use Are Priorities

You will need mobile apps to deliver a deeply engaging experience, to work offline, or to tap the unique characteristics of an iPhone or Android device.

Harness Mobile Web For Broad Reach And Consistent Experiences

To make a great web impression on any mobile device, you must optimize that experience for tablets and smartphones. Use analytics to understand what content and interactions your clients are demanding of your mobile experience.

Understand The Business Implications Of Your Mobile Technology Choice

Before committing to either choice, marketing professionals should analyze the cost, time, and skills involved. Broadly speaking, mobile apps are a long-term commitment and investment, while mobile web initiatives may push you to overhaul your entire web strategy.

Understand The IT Implications Of Your Mobile Technology Choice

Your choice will affect your technology planning, staffing, and sourcing decisions. In both cases, be prepared to develop new skills and implement Agile processes that span business, development, and operations. You must also begin the transition to a new four-tier "engagement platform" to handle the requirements of mobile engagement.

Mobile App Or Mobile Web? It's A Choice, Not A Battle

Neither Is Perfect, But Either Could Be Perfect For Your Customer by Ted Schadler, Julie A. Ask, Michael Facemire, Peter Sheldon, and Mark Grannan with John Dalton, Jeffrey Hammond, Thomas Husson, and Nancy Wang

WHY READ THIS REPORT

Companies struggle to choose between building a mobile app and implementing a mobile website. The decision becomes a battle shrouded in competing points of view and often a lack of customer information about the benefits and risks of each. To help you make the best choice possible, we have painted the differences between mobile app and mobile Web in black and white: Use mobile apps for engagement; use mobile Web for reach. We then shaded the spectrum with the factors pushing in one direction or the other. To make the best choice for your customer, assemble a cross-disciplinary team of marketing, business, and IT, and use data on the mobile mind shift to shed light on customers' expectations and requirements. Regardless of the choice, eBusiness pros and marketing leaders will find they need to spend more money and develop a much closer working relationship with IT. CIOs will find they need new skills, a new engagement platform, and a much closer working relationship with marketing and business.

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Notes & Resources

Forrester recommends the following related reports.

Related Research Documents

More Than Hype: Determining When To Use Responsive Web Design November 13, 2013

Solving The Quandary Of Responsive Design November 13, 2013

Getting Mobile Right With Mobility POST May 24, 2013

Mobile Feast Or Beggar's Banquet January 24, 2013



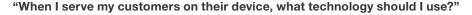
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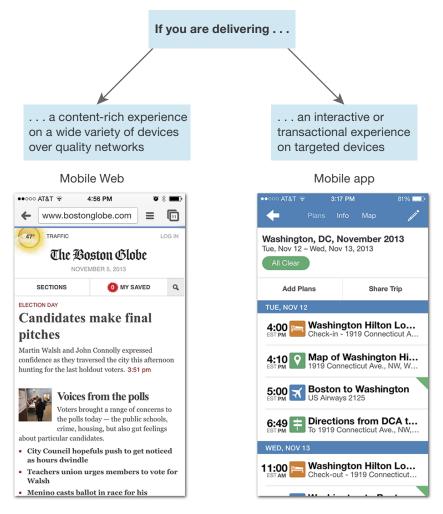
Once you have analyzed your customer or employee audience, defined your objectives, and designed a strategy for engagement, you must still choose the right mobile device technology. We have said a lot about the choice between mobile app and mobile Web in the past. But it's almost 2014, and things have changed. We brought together analysts from across Forrester to create a common, current point of view for every decision-maker and executive in marketing, business, and technology about when to use a mobile app and when to use the mobile Web.

You face a conundrum: Build a mobile app that delivers an engaging experience on just some devices? Or implement a mobile website that pulls people in from a billion devices? The answer depends entirely on your customer's mobile reality and your goals, budget, and skills. To help you decide, Forrester has painted the benefits of mobile apps and mobile Web in stark black and white, instead of the more realistic gray fog that you and your teams must cope with (see Figure 1):

- Mobile apps excel at interactive experiences on targeted devices. With an app, you can offer your customers deeply engaging experiences. A mobile app is still the best way to take a photo, use the device location, receive a push notification, and provide an intuitive touchscreen interface.² USAA's banking customers have used a mobile app to photograph and deposit their checks since 2009 about \$7.4 billion worth in 2012.³ When American Airlines customers open the airline's app, they don't see a laundry list of menu options. Instead, the app shows only what a traveler needs flight status and a check-in button. The convenience offered by a ready-click mobile app is unparalleled.
- Mobile Web delivers a consistent experience on every device. Mobile web interfaces are a welcome mat for anybody visiting from a smartphone or tablet. Almost 200 million public websites are no further away than a search query, a link click, or a QR code scan. Women's apparel store Piperlime takes advantage of mobile reach by emailing infrequent shoppers a link notifying them of new arrivals and sale items; interested consumers can then browse a preselected subset of products and make purchases on the mobile website. Bostonglobe.com uses responsive web design techniques to pare stories and navigation controls down to fit on an Android phone or scales them back up to an iPad's more expansive screen or a PC's full-screen browser.

Figure 1 Highlight The Two Ends Of The Spectrum: Mobile App Or Mobile Web?





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Source: Forrester Research, Inc.

Mobile Apps Reign Supreme For Interactive Experiences

Mobile apps are the battlefield for the fight for customer engagement.⁵ If you have the budget and skills to serve someone with the richest experience, then build a mobile app. These unique strengths make the decision to build a mobile app a no-brainer (see Figure 2):

• Offline tasks. If your customer needs to work extensively offline, then you must put a database on the device, and that means building a mobile app. Evernote, for example, lets customers capture photos and notes even when offline, then it automatically syncs them to the cloud later.

- Experiences "native" to the platform. Mobile apps feel like they belong to the device. If you want people to have a snappy interaction and a consistent, intuitive experience, then use a mobile app. A swipe or double tap will deliver a consistent response. The downside is that you have to build different native experiences to feel natural on iOS and on Android or Windows.
- **Multisensor interactions.** If your customer needs to interact frequently with the camera or GPS radio for a location or if your application relies on the device accelerometer or compass, then build a mobile app. It's the only way to tap into these valuable device resources.
- **Push notifications.** If you need to send someone a message, a mobile app is an immediate and direct way to do that, no disjointed text message required. Your customer can click the notification and launch directly into the right part of the mobile app.
- Application integration. Looking to embed a native mapping app into your experience to lead a customer to your door? Or open a photograph in an image editor? Then build a mobile app. These require your experience to link to other apps on the device. You'll need to build a mobile app to do that.

Figure 2 Pros, Cons, And Caveats To Consider Before Building Mobile Apps

Pros:

- Better interactive performance, including push notifications
- Native device experience
- Robust and immediate sensor support to collect contextual data (e.g., motion)
- Presence in app store and on device

Cons:

- Each platform requires its own source code.
- OS updates often require changes to the application.
- Cost, including development, testing, and app management costs
- Apple requires app reviews, which will delay releases.

Caveats:

- You're building a native experience; you must understand native platform nuances.
- Apps can be hybrid: a native frame and web views.
- Safari supports JavaScript for business logic; other platforms will follow.
- Kony and Xamarin can help you build mobile apps in one language for multiple platforms.

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Source: Forrester Research, Inc.

Mobile Web: The Right Solution For Reach — And Budget

Mobile Web is a battleground for reach. Your mobile website can reach 1 billion mobile devices today and will reach more than 3 billion by 2018.6 That's a goal worth coveting. If you go this route, make sure your website works well on a smartphone and tablet. Forcing your customers to pinch and zoom their way around a desktop site on a mobile device is akin to hanging a "closed for business" sign on your door. Choose mobile Web if your situation has these characteristics (see Figure 3):

- Challenging discoverability. You aren't available if nobody can find you. Mobile website URLs will show up in search engines, in push notifications, and on billboards and box tops. To improve the chances that a customer can find you on his smartphone or tablet, use mobile Web.
- Infrequent engagement . . . Not every mobile experience is a daily or even annual occurrence. Sometimes, you just want to give someone an easy way to accomplish a single task: check the times when the driver's license renewal center is open, for example. That may happen only once every five years. Use mobile Web when customers use you only occasionally.
- ... and lightweight content or functionality. It doesn't make sense to invest in a mobile app if you need only deliver a few features and some content. Southwest Airlines uses mobile Web to bring check-in to mobile devices. It's a limited set of features sufficient for infrequent travelers. Many marketing situations carry these first three characteristics: discoverable, infrequent, lightweight.
- Multinational end users. If your organization has a global customer base, managing and synchronizing apps across dozens of app stores might be impractical. Mobile Web allows a centralized customer experience organization to orchestrate a coherent brand strategy, page updates, and campaigns globally. Global presence may push you toward mobile Web.
- Easy-to-find design and development skills. You can build on your web skills to design great mobile web experiences. Mastering new techniques such as responsive web design will be easier than developing deep app development skills from scratch. And many mobile-web-focused mobile specialists Cantina Software or EffectiveUI, for example are ready to help.

Figure 3 Pros, Cons, And Caveats To Consider Before Building A Mobile Website

Pros:

- Gives access to all customers and devices
- Discoverable via search engines, email, or URLs pushed via messaging
- Immediate access; no need to download an app
- Consistent experience across every digital touchpoint

Cons:

- Mobile Web fails if the network is missing or unreliable.
- Native app platforms are difficult to integrate with mobile Web.
- Optimizing and testing across all devices is onerous.

Caveats:

- You will still need to port your content to every device.
- You can provide both a great mobile website and a great mobile app.
- The technologies of the open Web (HTML5, CSS3, JavaScript) are continuously evolving.
- You will have to use responsive web design or build a mobile-only site.

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Source: Forrester Research, Inc.

Use Hybrid Apps As A Compromise Between Engagement And Reach

Hybrid apps are one part app and one part web. Like mobile apps, hybrid apps show up in the app store and as an icon on the touchscreen.⁷ They also load like an app and have security and local storage capabilities like an app. Like the mobile Web, hybrid apps show your web content in an embedded browser. Look at hybrid apps from the Apple App Store, ESPN, and Instagram to see how they work.

If a hybrid app sounds like the best of both worlds, well, it can be. But the downside of having both mobile app and mobile web characteristics is that hybrid apps also carry the burden of both. Like a mobile app, your hybrid app adds design and code complexity. And you have to manage and deploy them on different platforms through different app stores. Like the mobile Web, they have a lower interactivity quotient than a pure app. So hybrid apps put you right in the middle of the spectrum between reach and engagement — and that's sometimes the right place to be.

TAKE A TEAM-BASED, DATA-DRIVEN APPROACH TO MAKE THE BEST CHOICE

Too many companies avoid making the choice between mobile app and mobile Web and instead wind up with both — often multiple versions of both. While supporting both mobile Web and apps is a perfectly valid outcome, make it a conscious choice and not happenstance. To take uncertainty out of the choice you make, start with the right team and honest data (see Figure 4):

- Assemble a decision team from marketing, business, and IT. Alignment is the key to avoiding a battle. Too often arguments over mobile technology are the result of misused terminology or simply a lack of common understanding on how mobile technologies such as hybrid apps or responsive web design actually function. Build a cross-functional mobile steering committee to assemble a common understanding of the options and hear all points of view.⁸
- Conduct competitive and peer reviews to orient the team. Your competitors may have built apps, but are they really serving their customers? Put your competitive insights team to work not only to gain customer sentiment from app store reviews, but also to dissect the features and functionality that are delighting these customers as well as identify the missing capabilities or poor user experiences that are frustrating them.
- Consider your customer's mobile reality. Analyze the data you have on your customers to quantify their mobile behavior: preferred devices, usage habits, and mobile intent. Forrester has developed a "Mobile Mind Shift Index" to help. With this data in hand, you can now find the specific context and scenario of mobile in your customer's journey. Teams should combine data insights with customer journey maps to isolate those "white spaces" of opportunity.
- Make a choice, then adjust and expand as you learn. The data will help you select mobile app or mobile Web depending on where the majority of your customers are.¹⁰ Once you serve these customers with engaging mobile experiences, then consider how best to fulfill other mobile initiatives such as marketing campaigns, minority customer segments, or specific products or processes. The CMO of one life sciences company calls this approach "launch, measure, pivot."

Figure 4 Must-Read Research On Mobile Application And Mobile Web Technology

"Solving The Quandary Of Responsive Design," November 13, 2013

"More Than Hype: Determining When To Use Responsive Web Design," November, 13, 2013

"Build Seamless Experiences Now," September 19, 2013

"Mobile Maturity Equates To Mobile Competency," July 12, 2013

"Getting Mobile Right With Mobility POST," May 24, 2013

"Choose The Right Mobile Development Solutions For Your Organization," May 6, 2013

"Mobile Feast Or Beggar's Banquet?" January 24, 2013

"The Future Of Mobile Application Development," January 17, 2013

"Build Five-Star Mobile Apps," November 7, 2012

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Source: Forrester Research, Inc.

WHAT IT MEANS

WHAT YOUR CHOICE MEANS FOR EBUSINESS AND MARKETING TEAMS

Fifty-six percent of eBusiness professionals spend less than \$1 million annually — barely enough to fund one good app on one platform.¹¹ So regardless of your choice of app or Web, be prepared to increase your investment in ethnographic research, analytics, user experience expertise, and testing. In both cases, you will be making strategic commitments you will carry for the next 10 years:

- Building mobile apps means long-term, seven-figure commitments. Apps are living software products that you must continually improve. The cost of the app itself is only the visible cost. Below the surface, organizations need to build systems of engagement that provide real-time access to information housed in your systems of record. Furthermore, you will spend money on enhancements, usage analytics, and marketing programs to drive adoption. Together these costs will dwarf the cost of the app itself.
- The mobile Web will dethrone desktop sites. Although responsive web design is a compelling approach to building smartphone and tablet web experiences, it will also mean

that you have to rebuild your desktop website. The simplicity and relevance of good mobile experiences will become the standard for customer experience design in short order. Indeed, t-dot sites will replace traditional desktop user interfaces within the next three years.

■ You will have to work closely with your IT team. Accessing back-end systems and information in real time is critical to serving consumers in their moment of need. If a passenger's flight is leaving in 20 minutes rather than 30 minutes, she needs to know now — not in 20 minutes. eBusiness professionals can no longer work around their IT counterparts — they must work with them to build the infrastructure required to fuel next-generation smart apps.

WHAT YOUR CHOICE MEANS FOR TECHNOLOGY TEAMS

Mobile apps will take a different development effort than mobile Web. But both choices mean you will have more interfaces to design, more code to manage, and more things to test. You will need new processes, technologies, and skills:

- Use an Agile "business plus development plus operations" process to land and expand. To be successful with mobile apps or mobile Web, you will have to move to an Agile development process and continuous delivery. This requires you to build small teams where designers and developers and "product managers" to work collaboratively in four- to eightweek release cycles. Start by shipping a "minimally viable product," and gather feedback to drive the next release.
- Plan on a new four-tier engagement platform. The three-tier architecture built for a browser-led PC world can't flex, scale, or respond to the needs of a good mobile experience or the emerging requirements for connected products. Mobile's volatility and velocity of change require a distributed four-tier architecture that we call an "engagement platform."

 This is more philosophy than product selection today, but it's not too early to think differently about your technology requirements.
- You will probably need some outside help. The level of complexity of mobile apps and sites is much higher than desktop applications. You will need new journey mapping skills to know what people are really doing on their devices. You will need to design the "engagement on the glass" to help someone efficiently complete a task. You will need to surface new APIs and build new client app experiences. You will need to test on multiple devices and networks. You may need help! Turn to a new category of vendor we call "mobile engagement providers" for assistance.¹³

ENDNOTES

- ¹ Forrester Research recommends using the POST methodology as one of several tools to help define objectives and goals before deciding what core mobile services to build. Technology choices in large part will be driven from the "S" (strategy) portion of POST. At this step, companies must decide how much to spend and what services or content they want to be mobile. For more information, please see the May 24, 2013, "Getting Mobile Right With Mobility POST" report.
- Enterprises are facing challenges with mobile enablement that are similar in many ways to technology challenges we've seen in the past yet these challenges are coming with ferocity unlike anything we've ever experienced. IT leaders who imagine that they can model their response to mobile challenges on the technical similarities with the dot-com and Web 2.0 onslaughts will miss the point the variety in technology, the time-to-market demands, and the user experience demands are vastly different. This report clarifies the overall mobile development landscape as it pertains to application development and delivery professionals and provides a tasting menu of the options available to help them solve today's mobile challenges and understand where the market is heading over the next 12 to 18 months. See the January 24, 2013, "Mobile Feast Or Beggar's Banquet" report.
- ³ Source: Research interview with USAA in November 2013.
- ⁴ Source: "November 2013 Web Server Survey," Netcraft (http://news.netcraft.com/archives/2013/11/01/november-2013-web-server-survey.html).
- ⁵ 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, technology assets, and even your business model. This report lays out a vision for mobile engagement and introduces the strategic elements developed further in The CIO's Mobile Engagement playbook. See the November 16, 2012, "Great Mobile Experiences Are Built On Systems Of Engagement" report.
- The launch of Windows 8 is a major pivot point for Microsoft and for IT leaders and the individuals they support. The new Windows 8 user experience and programming model will transform the Windows experience for end users and for IT organizations as Microsoft redesigns its technology and business strategy to address the rise of mobile touch devices. Microsoft's market share of networked personal devices has shrunk dramatically as the market has been reframed from its 95% dominance of the PC-only market to today's approximately one-third OS share of all personal device sales, PC and mobile combined. This report outlines what Microsoft is doing to address this shift, what its near-term challenges are, and what its prospects are for increasing share. We wrap up by predicting how Microsoft will continue to adjust its Windows strategy and how that will reshape its hardware ecosystem partners. See the October 22, 2012 "Windows: The Next Five Years" report.

- With a million apps available, there's a great risk that your app won't stand out from the crowd. Marketers need to make sure their core target audiences will first download and then regularly use their apps, without spending huge promotion budgets. This report shows how consumers discover apps and provides guidelines on how to promote your apps. See the April 15, 2013, "Mobile App Discovery: Best Practices To Promote Your App" report.
- 8 For more research on building a mobile organization, see the January 25, 2013, "Building A Pervasive Corporate Mobile Competency" report and see the April 12, 2013, "Your Company Needs A Mobile Organization" report.
- ⁹ Six years into the smartphone transition, customers are making a mobile mind shift. The shifted customer expects that any desired information or service is available on any appropriate device, in context, at their moment of need. To analyze how far people have shifted, we created the Mobile Mind Shift Index (MMSI), which segments people into six categories: Disconnecteds, Dabblers, Roamers, Adapters, Immersers, and Perpetuals. Companies whose customers have above-average MMSIs and who have more than 35% Adapters, Immersers, and Perpetuals must move urgently to deliver on their customers' mobile expectations. You can use the tools in this report to analyze your own customer base and determine how much to invest, how quickly, in meeting mobile expectations. See the April 19, 2013, "The Mobile Mind Shift Index" report.
- ¹⁰ Back in 2009, Forrester created the first version of mobile POST a methodology to help our clients create mobile strategies that align well with the mobile sophistication of their customer base and their business objectives. A lot has changed since then. Mobile strategists now have responsibility for tablets and wearables, while devices have evolved to make bar code readers, near field communication (NFC), and augmented reality viable options. Strategies must also address how to enable and scale the use of mobile services across functions, brands, and geographies. This research will focus more specifically on what to include in the mobile offering, such as the features, content, services, and functionality road maps, as well as technology decisions, such as iOS native applications or 2D bar codes. See the May 24, 2013, "Getting Mobile Right With Mobility POST" report.
- eBusiness professionals began to develop mobile services in earnest with the launch of the Apple App Store in 2008. They now have five-plus years of experience under their belts. Initially, they focused on learning, gathering experience, and enhancing their brands through mobile launches. Today, they are sophisticated mobile experts who are quickly advancing their mobile services while at the same time staffing, funding, and organizing to continually roll out excellent services for both phones and tablets. But too many eBusiness professionals are still building apps for the mobile phone and tablet that simply mimic the functionality of the website a short-sighted, though pragmatic, approach. This report, an update to the report of the same name published on November 2, 2012, will help eBusiness professionals benchmark the maturity or readiness of their organization to design, develop, and deploy mobile services and understand how the landscape has changed in the past year. See the July 12, 2013, "Mobile Maturity Equates To Mobile Competency" report.
- Mobile is pushing aging web architectures to the brink. The three-tier architecture built for a browser-led PC world can't flex, scale, or respond to the needs of a good mobile experience or the emerging requirements for connected products. Mobile's volatility and velocity of change require a distributed

four-tier architecture that we call an "engagement platform." The engagement platform separates technical capabilities into four parts: client, delivery, aggregation, and services. The new requirements of modern apps will force content distribution networks, application server vendors, mobile middleware vendors, platform-as-a-service suppliers, a myriad of startups, and enterprises to coalesce around this four-tier architecture. CIOs need to start planning immediately for the migration from three tiers to four. See the October 18, 2013, "Mobile Needs A Four-Tier Engagement Platform" report.

Building and delivering great mobile experiences will be the beating heart of your customer engagement strategy for the next 10 years. The challenge of making a simple, intuitive app that fronts a complex system of engagement will stretch the abilities and swamp the resources of most firms. For help, firms increasingly turn to vendors that possess a connected portfolio of engagement competencies and management skills. The result will be a new market for mobile engagement providers that will grow to \$32.4 billion by 2018. No vendor can do all of this today, but suppliers from six categories — digital agencies, management consultancies, mobile specialists, product development specialists, systems integrators, and telcos — are chasing the prize. The payoff for vendors that make this investment will be to earn a seat at your table as a long-term partner in your engagement success. See the August 6, 2013, "Wanted: Mobile Engagement Providers" report.



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