The new digital ecosystem reality:
Mobile advertising strategies for increased success

pwc

Introduction

Anyone who has walked down a city street recently recognizes that people's behavior has undergone a marked transformation. An astonishing number of people no longer keep their eyes forward as they walk: they periodically—or even consistently—look at the screen of a mobile device. In a remarkably short period of time, a variety of network, device, and software enhancements have coalesced to make mobile devices affordable, usable, and ubiquitous.

Mobile devices (including phones) are heavily used for data and internet access and are emblematic of the trend towards the convergence of capabilities. According to PwC research, 54% of mobile phones globally and 86% of phones in North America will be used to access the Internet by 2017 (*See figure 1, "Mobile internet penetration"*).

PwC research forecasts that the use of mobile devices for internet access will increase globally across all regions over the next three years.

The New Digital Ecosystem Reality is a series providing PwC's perspectives relative to the trends and challenges that businesses should consider to remain competitive. PwC has identified nine key technological, economic, and political trends for CEOs to consider. In this article, we look at the world of mobile advertising, which is affected by five of the nine major trends: disruptive innovation, managing cost and complexity, convergence, social media, and the explosion of data.
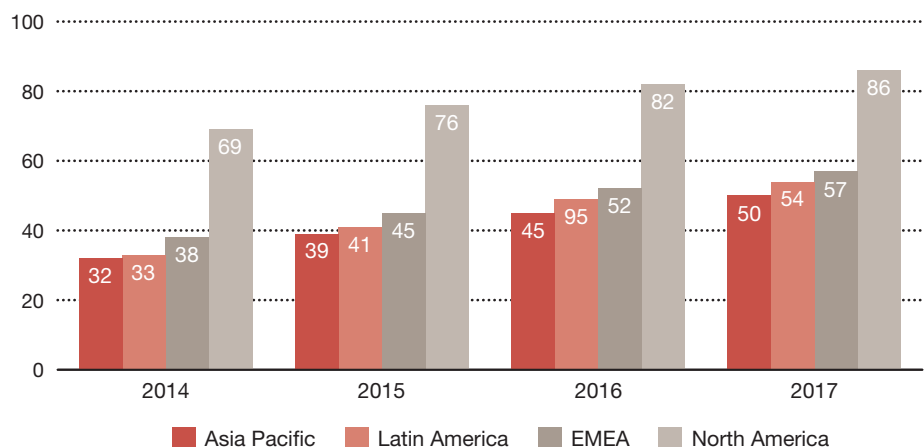
This translates into an inescapable fact: mobile devices have become the most personal of personal computers. This personalization allows users to have relationships with their mobile devices that are consistent, omnipresent and emotional.

In turn, this creates an opportunity for companies to better connect with current and target customers. Mobile devices offer the ability to reach prospects—and later, customers—through a device that customers carry with them at all times, and has the ability to track presence, location, preferences, activities, and even behavior.

Mobile advertising both designed to be seen within apps and on mobile websites, is an increasingly relevant option to reach those mobile users. Furthermore, this persistent connectivity and insight into users allows for unprecedented capabilities: the ability to use reporting and data analytics to personalize and customize advertising content in real-time.

Figure 1: Mobile internet penetration (%)

Source: *PwC Entertainment & Media Outlook*

PwC believes that the potential for mobile advertising will shadow the boom in mobile devices used for internet access. Mobile advertising can use emerging technologies to create targeted messages that eventually become less intrusive and more useful. Thanks to mobile technology, sales and marketing executives now have a conduit into consumers' virtual calendars and physical locations, amongst other data, to target them when they are most likely to consider or make buying decisions. Executives can also take advantage of another major trend, that of social media, in order to understand explicit and implicit consumer preferences in more detail. Content and technology providers in this space also have the opportunity to target their products into narrow demographic micro-markets across mobile and other formats. Both groups can leverage the mobile format to create compelling and valuable experiences, thereby increasing the return on investment for advertisers.

PwC research projects a 27% compound annual growth rate in spending on mobile advertising versus overall advertising industry growth (digital and non-digital) of 4.8%.
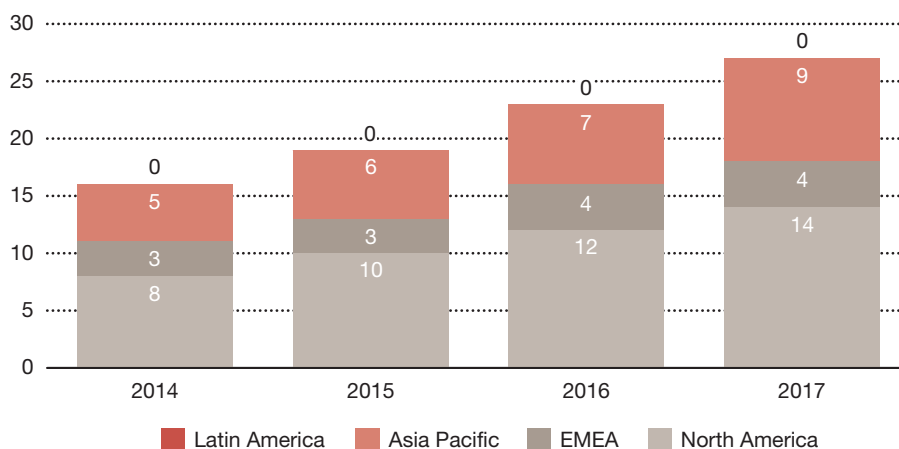
Advertisers and publishers face significant challenges in both technology and user acceptance before they can maximize the mobile advertising return on investment. However, once they overcome the barriers, success through monetary benefits and brand engagement can materialize.

Given the increasing use of mobile devices to access the Internet, PwC projects a 27% compound annual growth rate increase in global mobile advertising spending from $15 billion in 2014 to $27 billion in 2017 (*See figure 2, "Projected mobile internet advertising spending"*).

This represents the highest forecasted growth rate when compared to overall advertising industry growth (4.8% CAGR across all digital and non-digital formats), in addition to the growth rates within internet advertising (including video 25.8%, search 12%, and display 10.3% CAGR rates).

Although there are significant opportunities in mobile advertising, obstacles block the path to enhanced experiences and revenue. To leverage the full potential of mobile technology, companies must understand how these unique challenges impact their advertising strategy and implement focused efforts to increase user engagement and unlock revenue from the mobile advertising format.

Figure 2: Projected mobile internet advertising spending ($US billions)

Latin America   Asia Pacific   EMEA   North America

Source: *PwC Entertainment & Media Outlook*

Current challenges and recommendations

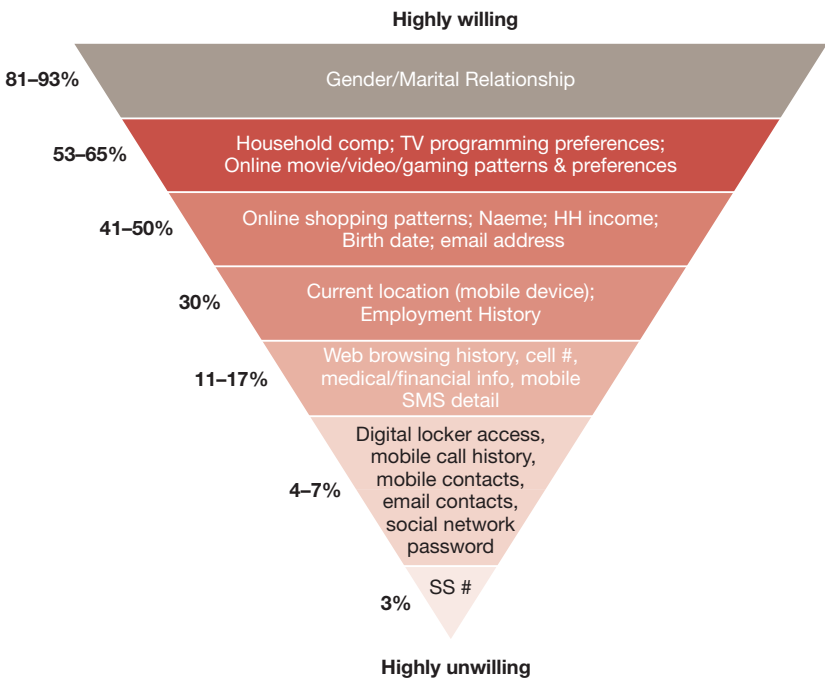**Challenge #1: Consumer sensitivity around privacy.**

A fundamental challenge facing mobile advertisers and publishers is improving mobile based targeting. Consumers are hesitant to provide personal data. Consumers willingness to share information is varied; less than 50% of those willing to share information were inclined to provide an e-mail address, among other items (*See figure 3, "Degree of willingness to share"*).

The highly personal nature of mobile devices tends to heighten consumer sensitivity about privacy and consumers feel intruded upon when they receive pseudo-personal (and sometimes inaccurate) mobile promotions. Instead of enticing customers, poorly targeted advertisements may reduce consumers' aggregated trust of all mobile advertising and limit their willingness to share information that would result in more relevant and targeted advertisements.

Consumer willingness to share information and enable more specific targeting — including permissions for geo-tracking — is critical for improved mobile advertising relevancy and impact. According to a PwC survey, only 30% of users indicated they are willing to share information about their current location, while 73% of individuals would be willing to share personal information if they benefited from sharing that information. (See figure 4, "Consumer willingness to share information in return for benefits").
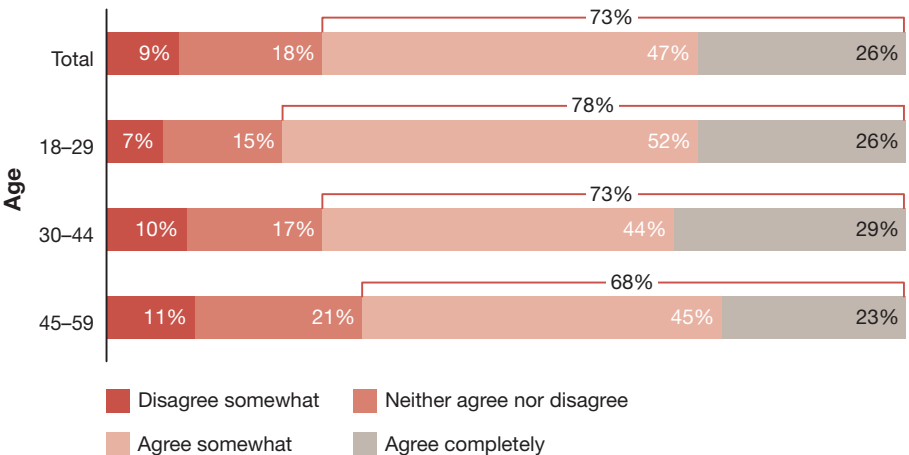
Figure 3: Degree of willingness to share
Please indicate the degree of willingness to share considering some benefits worth sharing

Highly willing

81–93%	Gender/Marital Relationship
53–65%	Household comp; TV programming preferences; Online movie/video/gaming patterns & preferences
41–50%	Online shopping patterns; Naeme; HH income; Birth date; email address
30%	Current location (mobile device); Employment History
11–17%	Web browsing history, cell #, medical/financial info, mobile SMS detail
4–7%	Digital locker access, mobile call history, mobile contacts, email contacts, social network password
3%	SS #

Highly unwilling

Source: *PwC Consumer Intelligence Series Survey*

Figure 4: Consumer willingness to share information in return for benefits

Age	Disagree somewhat	Neither agree nor disagree	Agree somewhat	Agree completely	
Total	9%	18%	47%	26%	73%
18–29	7%	15%	52%	26%	78%
30–44	10%	17%	44%	29%	73%
45–59	11%	21%	45%	23%	68%

- Disagree somewhat
- Neither agree nor disagree
- Agree somewhat
- Agree completely

Source: *PwC Consumer Intelligence Series Survey*

Recommendations for advertisers and publishers:

- **Respect consumer concerns around data and privacy.** Clearly communicate how data will be used and protected, and adhere to consumer preferences. Motivate users to share more information about themselves by exchanging it for applications, content, reduced access rates, or other enhancements. Promote and enable a visible exchange of value between customers and advertisers.

- **Establish mechanism for consumers to share preferences.** To build consumer profiles that will drive more relevant and targeted experiences, establish a mechanism like an exchange, not unlike a dating site, on which consumers preferences and approved personal data can be securely stored. This exchange would use, most likely through a unique though impersonal identifier, elements of the consumer's identity that would persist throughout the mobile advertising ecosystem (e.g., device, operating system, carrier, application marketplace). Again, user benefits need to be provided/value offered in exchange for this information.

Users are most comfortable being targeted based on their interests, followed by their location and online purchase history.

Figure 5: Targeting users find acceptable

Acceptable mobile advertising targeting criteria	Brazil	China	United Kingdom	United States
By interests	74	76	54	54
By online purchase history	37	50	35	25
By current location	44	40	41	44
Types of sites visited on mobile phone	28	36	20	24
Types of sites visited on PC or tablet	25	30	23	19
By previous offline purchase history	13	20	6	5
By route to work	19	18	7	5
By keywords used in your email	15	16	3	1
By keywords used your texts	15	14	1	2
By your name	41	14	9	5
By keywords used in your phone calls	12	12	1	1

■ **#1 within country**   ● **#2–3 within country**

Source: *PwC Consumer Intelligence Series—Mobile Advertising*

Challenge #2: Limited screen real estate and usability.

Many advertisements and content that appear on mobile devices today do not take into account the screen size they're viewed on. When the consumer sees and interacts with content not optimized for mobile, the experience is negatively received. Common frustrations include advertisements that take over the screen with no clear method of minimizing or deleting them or those where it's too easy to accidentally click through to an unwanted Web site. Mobile advertisements are likely to be considered more intrusive than valuable, and thus drive lower engagement and revenue, until the content is optimized to the screen real estate. (*See figure 6: "Advertising format preferences"*).

Recommendations for advertisers and publishers:

- **Adopt a "mobile first" strategy.** Consolidate and integrate development methodologies to reduce the number of disconnected experiences and product types that customers encounter. Optimize websites and advertisements for the mobile form factor and make content appropriate for delivery on a mobile device.

Consumers in different countries have diverging preferences for advertising formats.

- **Employ responsive design.** Use responsive design development techniques with mobile applications to help ensure the advertisement displays properly on the screen and promotes a pleasant consumer experience. Advertisers would also benefit from a "save for later" feature so interested consumers can view the advertisement at a later time. Tracking this feature can also enable technology companies to build enhanced user advertising preferences (including preferred times to see mobile advertisements).

Challenge #3: Platform and ecosystem obstacles.

There are multiple technology and buying platforms within the mobile advertising space, across mobile and other digital advertising types, and between digital and traditional advertising buying. This is one of the many examples across the changing technology landscape of a clear need to manage cost and complexity. Advertisers buying across these platforms must deliver multiple versions of creative content and usually deploy disconnected and duplicative buying activities. The lack

of interoperability within the mobile advertising ecosystem exemplifies the fragmented and complex mobile advertising landscape. In addition, not every advertising product works across the multitude of different mobile operating systems.

For advertisers, building campaigns to create compelling cross-channel experiences is challenging. For publishers, it is cost prohibitive and requires manual effort to aggregate results across mobile and non-mobile advertising formats. As a result, neither party has an easy path to success and must deploy creative efforts to overcome these challenges.

In addition, the fragmented ecosystem drives numerous, incomplete user personas for the same individual, limiting an advertiser's ability to pull data across different platforms and effectively target advertisements. Despite this being another example of the vast amounts of data being generated via online interactions, advertisers may struggle to correlate and gauge efficiency of their campaigns because of skewed data points between traditional media

Figure 6: Advertising format preferences

Mobile advertising format: % ranked list	Brazil	China	United Kingdom	United States
Mobile coupon	11	**33**	13	**27**
Banner	12	9	**28**	**25**
Video	**55**	**36**	20	12
Search	5	7	12	10
Text	6	4	11	10
Advertisement displayed after in-app activity	5	8	9	8
Audio	2	2	1	1
Other	3	1	7	7

▮ Most preferred within country

Source: *PwC Consumer Intelligence Series—Mobile Advertising*

buys and mobile media buys. For an industry that frequently relies on testing messages to determine efficacy, this is a significant drawback. Ultimately, fragmentation and lack of interoperability are making it difficult for advertisers to effectively measure results,limiting their willingness to spend significant dollars on mobile.

Recommendations for advertisers and publishers:

- **Leverage big data and analytics to drive the way advertisements are organized and customers targeted.** Advertisers and publishers need to unlock the most valuable aspect of mobile advertising: consumer data. Along with technology providers, advertisers must devise creative ways to capture, integrate, analyze and leverage the wealth of data across platforms, while still respecting consumer privacy.

- **Aggregate data for better targeting.** Aggregating data enables advertisers and publishers to target specific consumers with messages appropriate to their current situation. By linking applications and locations on mobile phones, it is possible to determine an individual's daily routines and preferences. Behavioral tendencies, like daily schedules and social media preferences, provide advertisers with specific targeting techniques that can increase successful engagement with the brand or offer.

Develop advertisements based on context. Leverage available information across virtual (e.g., calendars), physical (e.g., location, who and what is nearby), and social (e.g., friends, status updates) formats through data integration to target advertisements based on a complete user context profile. Advertisers who can contextually target consumers will likely see results through increased sales, increased revenue, and — with luck—an engaged customer willing to use mobile technology to influence others.

Contextual considerations include:

- **Virtual.** The science of understanding at what times consumers are most amenable to advertising is still developing, but advertisers should develop an understanding of the best time to target users, based on the calendars and clocks in their mobile devices. For example, if someone with a time constraint is looking for directions to a particular location on their phone, a mobile advertisement can be off-putting and of low value to show that user a coupon to a different nearby location; the consumer's focus is not in proximate shopping opportunities, but on being punctual. On the other hand, beaming an advertisement for a nearby restaurant when the consumer is waiting in a bank line at 5 p.m. has a higher likelihood in capturing a user with potential purchase intent.

When it comes to coupons and other alerts, consumers are most likely to prefer malls and coffee shops.

Figure 7: Appealing locations for targeting

Location-based coupon-alert scenario (Top 2 box appeal)	Brazil	China	United Kingdom	United States
Coffee shop	80	72	59	58
Mall/Fashion clothing	67	54	21	22
Milk reminder	65	58	30	24
Passing tracking alarm	64	51	19	21
Grocery store soup aisle	63	55	34	37
Competitor coffee shop	61	46	20	14

■ **Most appealing within country**   ⬭ **Least appealing within country**

Source: *PwC Consumer Intelligence Series—Mobile Advertising*

- **Physical.** Advertisers can transmit advertisements based on proximity through a variety of capabilities (*See Figure 7, "Appealing locations for targeting"*). Geo-fencing allows the transmission of advertisements within a certain geographical area, such as a store, a mall, or a city block. Advertisers are already using this technology in imaginative ways. In one store in Guatemala, when customers with a smartphone enter, they receive a coupon for a discount—at a competitor's store nearby. The coupon expires after a specific (sometimes very short) length of time, in hopes that impulse will guide the consumer to retrieve the discount.

- **Social.** Using friend circles within social media can allow advertisers to beam an advertisement for a restaurant nearby the stadium that friends had recently recommended or commented on. During a concert, advertisers might want to send teenagers the location of the closest memorabilia store, while they send chaperoning parents reminders that one of their children's birthdays is approaching. That's understanding context to a highly granular degree.

- **Integrate strategic planning and consolidation of buying platforms.** Publishers should drive towards a customer-centric view of advertisements (e.g., micro-targeted audiences, and flexible ways of buying advertisements across formats and devices) and position their products less around in-house organization methods (e.g., legacy allocations of resources based on traditional and mobile formats). Publishers should rethink the arenas where consumers encounter advertisements. Consumers are increasingly online using multiple devices simultaneously, whether smart phones, PCs, or television. As a result, when developing an advertising product, publishers should focus on capturing the micro demographics of users instead of sweepingly broad demographic groups. Advertisers want to buy audience attention at a highly granular level, and the ability to target users down to a precise location and behavior will entice participation from large, small and midsized business advertisers.

Closing thoughts

Due to the existing value of the market and significant future growth anticipated, companies of any size cannot ignore the mobile format. From mass-market advertisers to small and midsize businesses targeting specific geographical areas or consumer categories, opportunity abounds.

PwC sees the challenges highlighted above as the fundamental restricting factors limiting the value and, in turn, the growth of mobile advertising. For companies to tap into this potential, several facets of the equation need to adapt and evolve.

PwC recommends three key tactics for moving forward in the short term.

1. **Develop a mobile-first strategy, one that accommodates device size and screen real estate.** Advertisers should create mobile advertising campaigns in conjunction with other campaigns, rather than devising a separate campaign. This provides a common foundation for comparing the impact of a single message. Publishers, content providers, and technology providers should seek to integrate mobile and non-mobile product offerings, and develop content with a mobile-first frame of mind.

2. **Understand the changing user behaviors and context with mobile devices.** Advertisers should change the concept of when and where to advertise with traditional advertising – for instance, during the sporting events or awards shows – to accommodate not only the proper message, but the proper time and place to deliver the message. As we mentioned earlier, now that advertisers have a device that understands both location and context, advertisers can take advantage of advertising during specific activities. The use of mobile devices across multiple experiences should not be ignored, and thus the role of data and advanced analytics to develop a holistic perspective of how and when to engage customers is critical. Content and technology providers should help understand and track user behaviors and context, to better support improved mobile advertising experiences.

3. **Offer consumers value for sharing their data and creating the opportunity for better targeting.** Advertisers should think of ways to intuitively engage targeted prospects by offering value beyond the commercial message alone. Consumers will share important information about themselves *when they identify value for doing so.* Publishers should demonstrate that they value consumers' rights to privacy, while still motivating them to share data. They should be clear about how information will be protected and the value of using information to provide targeted content, make recommendations, and provide relevant advertisements.

There is a big potential payoff to advertisers, content providers, carriers, and technology providers who use better design, targeting, and analytics to understand mobile advertising issues. There is great opportunity in this space, and companies need to evaluate organizational models, processes, and technology to effectively benefit from the value mobile advertising offers. Organizations that understand what it takes to be successful in mobile advertising not only have the ability to reach an interested consumer base at scale, they also have the opportunity for unprecedented marketing results and new channels of revenue.

About PwC's Technology Institute

The Technology Institute is PwC's global research network that studies the business of technology and the technology of business with the purpose of creating thought leadership that offers both fact-based analysis and experience-based perspectives. Technology Institute insights and viewpoints originate from active collaboration between our professionals across the globe and their first-hand experiences working in and with the technology industry. For more information please contact Tom Archer, US Technology Industry Leader.

PwC can help

These trends in mobile advertising can be challenging, but by looking at how these trends affect companies, executives can better understand how to prepare to meet these challenges and increase their chances for success. For more information on the statistics presented here, visit pwc.com/us/mobile advertising. For a deeper discussion on mobile advertising trends, and how PwC can help you anticipate and respond to these trends effectively please contact one of our leaders:

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Let's talk

Please reach out to any of our technology leaders to discuss this or other challenges. We're here to help.

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