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LOCATION INTELLIGENCE 2018

Consumer Behavior, Data Quality and Targeting Tips

Consumers have become more comfortable sharing location details, but in the past year in particular they have also become choosier about what they're willing to share. This report analyzes consumer attitudes toward location data, its quality and how marketers can effectively integrate that information into their marketing campaigns.

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Dear eMarketer Reader,

eMarketer is pleased to make this report, **Location Intelligence 2018: Consumer Behavior, Data Quality and Targeting Tips,** available to our readers.

This report is a great example of eMarketer data and insights that analyzes consumer attitudes toward location data, its quality and how marketers can effectively integrate that information into their marketing campaigns.

We invite you to learn more about **eMarketer's approach to research** and why we are considered the industry standard by the world's leading brands, media companies and agencies.

We thank you for your interest in our report and **Thinknear** for making it possible to offer it to you today.

Best Regards,

Ezra Palmer

Ezra Palmer
Editor and Publisher, eMarketer Media Properties

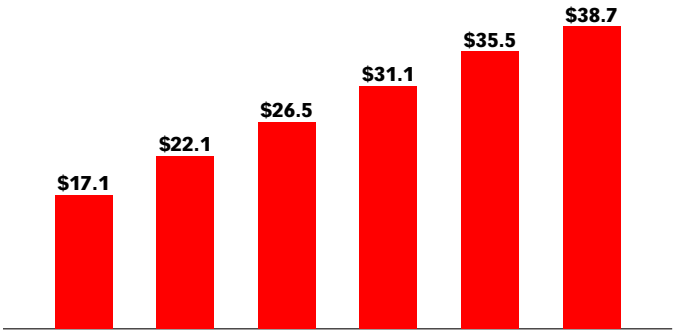
LOCATION INTELLIGENCE 2018: CONSUMER BEHAVIOR, DATA QUALITY AND TARGETING TIPS

Consumers have become more comfortable sharing location details, but in the past year in particular they have also become choosier about what they're willing to share. At the same time, marketers have a better understanding of how to use location data and which data to avoid.

- A clear majority of mobile users allow their devices to track their location—many of their favorite apps depend on it. But consumers shy away from sharing location information with apps that don't give them some value in return. Younger consumers still opt in to consumer tracking at high rates.
- Data quality remains a problem, and the percentage of high-quality location data on exchanges has actually fallen. That said, marketers have much better tools to vet and verify data, and there are high-quality sources of data, including GPS directly from publishers and data service providers that filter out much of the poor-quality data.
- Place data has been a cornerstone of location targeting, but moves by Google and Facebook to enhance their local advertising products make place data even more important.
- To really benefit from the use of location data, marketers must first define their advertising goals before deciding which type of location data to use.

WHAT'S IN THIS REPORT? This report analyzes consumer attitudes toward location data, its quality and how marketers can effectively integrate that information into their marketing campaigns.

US Mobile Location-Targeted Ad Spending, 2017-2022
billions



Note: includes mobile ads sold by traditional media players (e.g., newspaper/magazine publishers and TV/radio broadcasters)
Source: BIA/Kelsey, "U.S. Local Advertising Forecast 2018: Mobile and Social" as cited in press release, Feb 1, 2018

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KEY STAT: According to BIA/Kelsey, US mobile location-targeted ad spending will more than double between 2017 and 2022.

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CONSUMER ATTITUDES AND BEHAVIOR

Consumers have become comfortable sharing location data, but they are also more choosey about when they share data.

Many consumers rely on location-based services to run their favorite apps, including those for weather, navigation, car-sharing and dating. At the same time, other prominent apps have generated high levels of engagement with location-based options, including geofilters and tagged photos in social networks, locally relevant responses in search, and augmented reality games overlaid on the real world. For instance, Snapchat users now share 3 billion geofilters a day, up from 1 billion in August 2016, according to the company. "If you do not turn your location services on, you don't have the full utility of your device," said Gil Larsen, vice president of the Americas for location platform Blis.

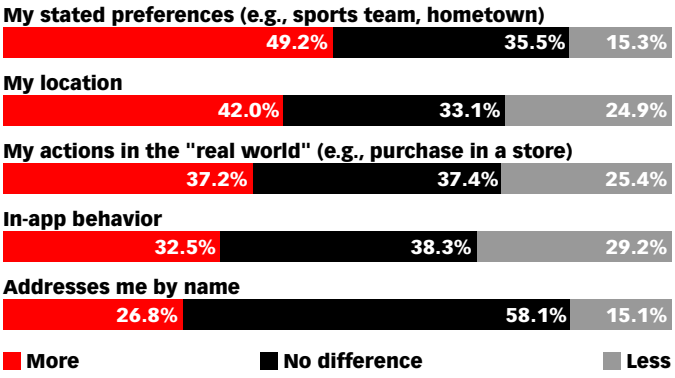
Consumers have several points at which they can decide not to share data. The first potential chokepoint is on the device level, when users need to opt in to location tracking. On the app level, they can decide whether to share data while the app is on, known as foreground data, and even when it's off, known as background data. They also can turn on location sharing for app services but opt out of letting advertisers use this data.

Even with these opt-ins and opt-outs, the vast majority of smartphone users share location data at least some of the time. But over the past two years, consumers have become more confident in demanding value in exchange for opting in to location tracking, prompting many marketers to better explain how that data will be used. "Although apps used to collect data just for the sake of collecting data, that's very much gone away over the past 18 months," said Thomas Walle, co-founder and CEO of location data provider Unacast. "Consumers are more aware that data is being collected, and they want something in return."

A November 2017 survey of US smartphone users by Qualtrics for Localytics found that 42.0% of respondents would use an app more often if it factored in location data to give content better context. But 24.9% said that would make them use an app less often. That's largely due to apps that do not use location in a meaningful way for consumers. "The most important thing to consider as a marketer is whether or not you are providing value for the right to know the consumer's location," said Neal Sharma, co-founder and CEO of DEG, a digital agency.

Types of In-App Personalization* that Prompt US Smartphone Users to Use an App More vs. Less, Nov 2017

% of respondents



*Note: *on content displayed or push messages sent*
Source: Localytics survey conducted by Qualtrics, Jan 10, 2018

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Opt-in rates to location tracking vary widely. According to Walle, these rates go from near 100% for a weather or car-sharing app, where tracking is fundamental to the services of the app, to between 30% and 40% for a gaming app, where sharing location information often does little to enhance the user experience. For the premium publishers interviewed by eMarketer, opt-in rates have not changed significantly in recent years and remain on the high end.

Younger people seem more agreeable to sharing their location data. According to a June 2017 survey of US smartphone users by Bank of America, 44% of millennials said they were comfortable with their mobile device tracking their location, while 37% of respondents overall said the same. "People weren't comfortable with cookies in the beginning, but now everyone accepts that that is the way the whole internet runs," said Walle. "Especially with the new generation born into location-first [services], they also understand that this is just the same as sharing data online."

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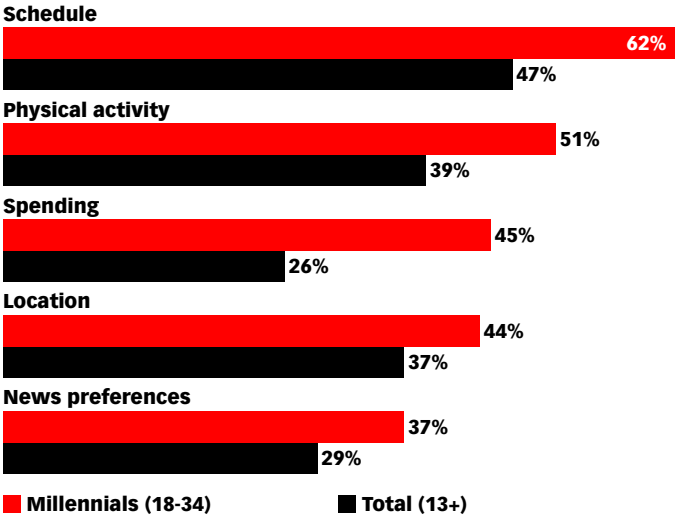
Personal Information that US Millennial vs. Total Smartphone Users Are Comfortable Tracking on Their Mobile Device, June 2017
% of respondents in each group



Source: Bank of America, "Trends in Consumer Mobility Report 2017," Aug 17, 2017

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With the arrival of the EU's General Data Protection Regulation (GDPR) in May, opt-in and data sharing requirements for consumers who are EU citizens will become more stringent, which will have an effect on the type of data marketers can collect. Although some location data will be harder to use, GDPR will still allow marketers to use it, but they will need to provide clearer opt-in and opt-out language and give extra protection to that consumer's data.

For more on how GDPR will change how marketers do their job, see eMarketer's February 2018 report, **"General Data Protection Regulation (GDPR): What Companies Need to Know Now."**

Data Quality

Compared with two years ago, marketers better understand the magnitude of the data-quality problem, have better tools to mitigate them and, most important, have more sources for verified, high-quality location data. "The advertising industry is getting smarter about data quality and there's going to be increased scrutiny around the quality," said Mark Risis, head of global data partnerships at IBM's Watson Advertising.

Overall, location data quality remains a major sticking point. A March 2017 survey of digital marketers in North America by Forrester Consulting found that inaccurate location data was the leading challenge for using the data in mobile ads.

Leading Challenges of Using Location Data in Mobile Ads According to Digital Marketers in North America, March 2017
% of respondents

Note: n=203; for their company
Source: Forrester Consulting, "Pursuing the Mobile Moment" commissioned by Verve, June 27, 2017

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"I don't think we've really noticed [location data] improve," said Frost Prioleau, co-founder and CEO of local ad platform Simpli.fi, who added that de facto data quality is better because of better vetting and screening.

Foursquare estimates 80% or more of location data on exchanges is inaccurate, while Simpli.fi pegs that percentage at between 60% and 70%. Location verification service Placecast, which uses highly accurate (although less precise) cell tower data, found that 59% of the data is inaccurate, according to Jake Moskowitz, vice president of measurement solutions at the company. David Shim, founder and CEO of Placed, which measures store visits, estimated that 99% of bid stream data coming from exchanges lacks either the accuracy or the precision to identify a store visit.

Although technical issues still account for some inaccuracies, a good portion of the problem comes from fraud. "There's quite a lot of spoofing that goes into lat-long [latitude-longitude] coordinates," said Cree Lawson, CEO of Arrivalist, a location measurement service. "If I'm an app publisher, I have a lot of incentives to say that that

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app is in an area like San Francisco, where CPM rates are much higher."

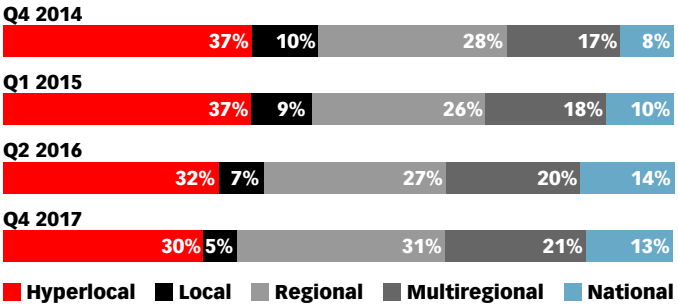
Marketers also need to distinguish between inaccuracy and imprecision. The former is wrong data, but the latter can be used under some circumstances. "Precision has to do with specificity," said Moskowitz. "When companies talk about how many decimal places are in their data points, that has to do with precision. Accuracy is about the correctness of the data point."

A lat-long coordinate that is resolved to 3 decimal points may be completely accurate to 100 meters, but that wouldn't be precise enough to attach it to a specific place. "You want to beat 5 decimal points," said Walle. "But that itself isn't enough. Because in order to understand accuracy, you need to understand the context around that lat-long." Walle noted that 5 decimal points in a high-rise environment may have much lower levels of accuracy due to signals bouncing off buildings.

At the same time, depending on what you want to do with the data, 100-meter or even 10-kilometer accuracy may be all you need. If you're trying to determine if someone is in a city or if you're targeting a geofenced area with a large area, perhaps a neighborhood, precision isn't all that important. "Accuracy always has to be tied to the context of what are you trying to tell," said Walle.

Location technology company Thinknear (part of Telenav) has been tracking location data on the top 10 exchanges carrying app inventory for the past four years. It found that the percentage of mobile location-based ads in North America that was precise within 100 meters, which it calls hyperlocal, declined slightly between Q4 2014 and Q4 2017. As alarming as this sounds, the volume of location data is doubling every 12 to 18 months, according to Thinknear, so the absolute amount of high-quality, highly precise data is increasing—even as the level of hyperlocal accuracy slides.

Mobile Location-Based Ads in North America, by Accuracy of Location, Q4 2014-Q4 2017
% of total



Note: represents ads tracked by Thinknear, broader industry metrics may vary; represents programmatic bid stream data from in-app ads; hyperlocal ads accurate within 100 meters, local within 100-1K meters, regional within 1K-10K meters, multiregional within 10K-100K meters and national is not accurate within 100K meters
Source: Thinknear/Telenav, "Location Score Index: The Mobile Advertising Guide to Location Accuracy," Feb 2, 2018

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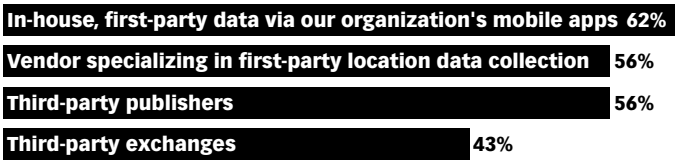
The Thinknear data also shows another trend: the emergence of a hierarchy of location data. Thinknear found that 86% of location data in the top-ranked exchange was accurate to 100 meters. Accuracy declined steeply from there. The fourth exchange to be ranked had only a 23% accuracy to that level, and the lowest-ranked exchange had just 7% of location data accurate to 100 meters.

Location Data

As the shortcomings of exchange data become more apparent to marketers, they are turning to reliable publishers—and their company-owned properties—for more accurate GPS data. According to the Forrester survey cited earlier, 62% of digital marketers in North America considered in-house or first-party data gleaned from their own mobile apps as a leading source of location data. An additional 56% cited third-party publishers as leading sources.

Leading Sources of Location Data Used for Their Company's Mobile Advertising According to Digital Marketers in North America, March 2017
% of respondents



Note: n=203
Source: Forrester Consulting, "Pursuing the Mobile Moment" commissioned by Verve, June 27, 2017

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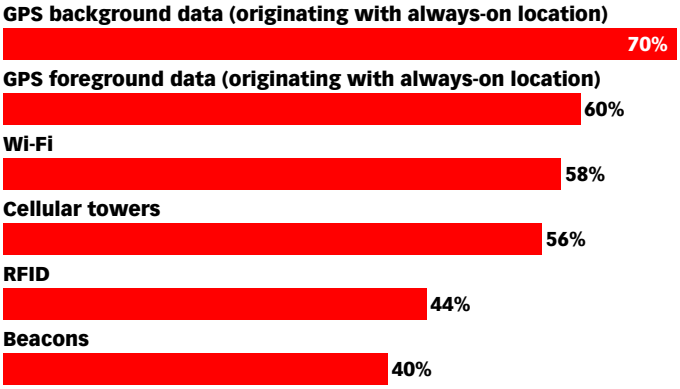
Location data comes in several different flavors:

- **Background GPS data.** This data comes from publishers with always-on location. The Forrester survey found that 70% of digital marketers in North America listed background data as the leading location technology used by their company.

Leading Technologies Used by Their Company to Collect Location Data According to Digital Marketers in North America, March 2017
% of respondents



Note: n=203
Source: Forrester Consulting, "Pursuing the Mobile Moment" commissioned by Verve, June 27, 2017

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Experts interviewed by eMarketer rated background data from premium publishers as the highest quality. "When you are engaging in true, sophisticated data analytics, you can't have gaps," said Nadya Kohl, executive vice president for business development and marketing at location data platform PlaceIQ, which receives background data from premium publishers and may use 98% of the background location data. The errors generally result from technical issues rather than fraud, according to Kohl.

- **Foreground GPS data.** This data comes from apps that only send location information when they are in use. Although the stream is intermittent, this data will still be highly accurate if originating from a high-quality publisher. These apps usually have clear opt-in policies, low levels of fraud and provide direct GPS data, sometimes verified with Wi-Fi or beacon signals.

But even with these data providers, as much as 10% to 20% of location data must be sifted out by location verification services, according to Ocean Fine, vice president of agencies and strategic partners at Factual, a provider of verified location data. "If we're working with one of our premium publisher partners that has a very loyal user base, that's been very careful about the way they put in their app, that's worked with us to look at the quality of their lat-long and make sure they're capturing highly accurate lat-long, we might be processing and using anywhere between 80% and 90% or more of that lat-long coming in," Fine said.

GPS data coming from apps overall has lower levels of accuracy. "Even among GPS data, we find on any given day, 50% to 75% of that GPS data is inaccurate," said Blis' Larsen. Walle of Unacast estimated 60% to 70% was unusable, while PlaceIQ's Kohl noted that more than 40% of GPS data is often inaccurate.

- **IP addresses.** GPS data comes almost exclusively from apps, but the mobile web can also provide location with IP addresses. IP addresses tend to be less precise than GPS and can be spoofed rather easily. They are also dynamic on mobile phones, meaning they constantly change when connecting to the internet via cellular. But there are ways for this data to be very accurate if an IP address is deterministically linked to a specific place, such as a business or a household, which can happen, for instance, anytime a smartphone connects via Wi-Fi to a static address. "We've mapped devices to households, and we've also mapped their IP addresses," said Tim Jenkins, CEO of ad tech platform 4Info. "And we see people come into mobile web through an IP address that matches one that we have for the household, then we know that it's a person that belongs to that household."

In fact, among C-level executives in the US polled by Carto and Hanover Research in September 2017, this IP-based location data remains the primary source for location data. Much of this data comes from desktop, but it's coming increasingly from other devices, such as TVs or smart speakers, which also connect to routers. IP addresses will continue to play a role in location, with a vibrant ecosystem of location data based on them. "We have about 400 million locations identified for those devices mapped to their offline delivery points," said Ray Kingman, founder and CEO of Semcasting, a company that tracks location with IP addresses.

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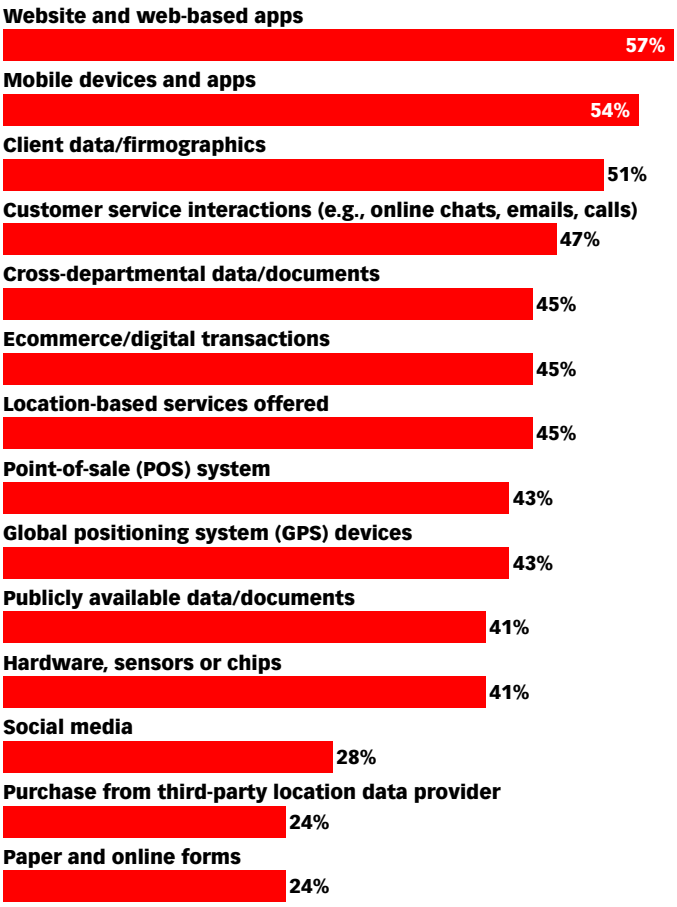
Channels Used to Collect Location Data According to US C-Level Executives, Sep 2017
% of respondents



Source: Carto and Hanover Research, "State of Location Intelligence," Oct 4, 2017

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The best location platforms will take data from multiple sources; for instance, they'll start with GPS and then confirm it with cellular data, Wi-Fi triangulation, beacon or other data sources. "It's really in the combination of those signals and the sophistication of interpreting them that you are able to get more and more accurate," said Gabriel Francis, team lead and product marketing manager of offline sales at Facebook.

Many marketers are concentrating on buying vetted, high-quality data, which is pushing up prices for this data. "We are generally seeing that marketers are willing to pay more for quality," said Tom Richards, product director at Media iQ Digital.

This emphasis on higher quality data corresponds with the release of the Media Rating Council (MRC) guidelines on location-based advertising measurement, which came out in March 2017. The MRC worked together with the Mobile Marketing Association to delineate terms and identify proper practices for collecting and assigning data to locations and places, interpreting its accuracy and precision, and setting standards for proper reporting.

The MRC guidelines did not directly cause the increased volume of high-quality data, nor did they have much direct impact on publishers or data services without the resources to fully adopt recommendations—the MRC doesn't have direct enforcement mechanisms.

What the guidelines have done is improve the ecosystem as a whole by making location data gathering and use clearer. "We've done a lot in terms of working with our partners to make sure that we access only clean data, and I think the MRC guidelines are just going to enforce more with that," said Antoine Barbier, director of product management for Adobe Advertising Cloud. "I expect scale [of location-based ad inventory] will be impacted, but obviously that's only for the best."

Proximity Data

In addition to geolocation, marketers also have access to proximity data coming from beacons, Wi-Fi and visible light communication based on LED lights, which record position by proximity and angle to special lightbulbs. These media provide very precise indoor location signals, which can be used as marketing notifications as well as for audience segmentation and retargeting. For example, a beacon could identify a part of a store where a shopper lingers, such as a shoe department, and then use that information for online shoe advertisements.

Two big concerns surround beacons, which according to Fine have a specific use case: "It's more about that customized experience of the consumer once you have them in your store," she said.

One concern is lack of scale. Not enough companies have installed them in their retail outlets. But this barrier may be weakening to some extent, according to Rebecca Schuette, director of marketing at Swirl, a proximity marketing platform. She noted that point-of-sale terminals are beginning to include built-in beacons.

The second barrier is lack of audience reach, since beacons generally work through apps with opt-in location services—and relatively few consumers install retailer apps, though some are popular. Google has made an effort to address this with Nearby, which creates an industry standard for beacons and allows marketers to send notifications via beacons directly through the Android operating system. "That's opened up a huge portion of the addressable market," said Schuette.

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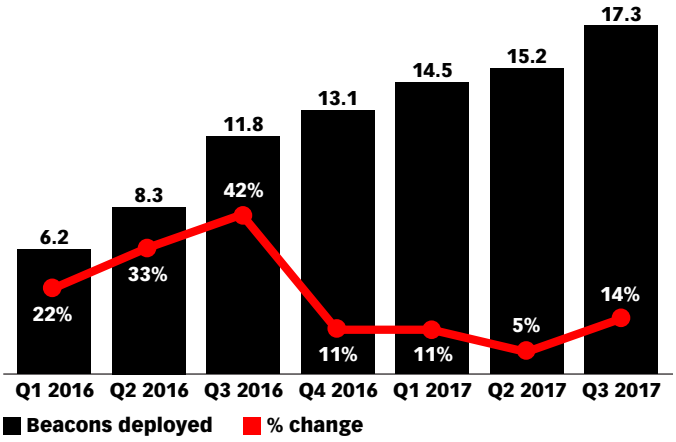
Growth in beacon deployments worldwide has slowed since Q4 2016, though there was an uptick in Q3 2017, according to a Unacast study of activity on its platform.

Number of Beacons Deployed by Proximity Solution Providers Worldwide, Q1 2016-Q3 2017
millions and % change



Note: represents activity on the Unacast platform, broader industry metrics may vary
Source: Unacast, "Location Intelligence in the Financial Industry," Nov 17, 2017

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Even so, this proximity data—whether from beacons, Wi-Fi or another source—is likely to play a bigger role in the future. "What's next is microtargeting by location in venue, in store, which helps you add to the broader experience that you had in that store," said Sharma.

Place Data

For location data to be useful, it needs to be attached to a specific place. "A latitude and longitude by itself is a point on a map," said Larsen. "When you geofence or geotarget from an advertising standpoint, you need to be able to connect that point on the map to a specific point of interest, for example, a store, a stadium, an airport."

This place data is difficult to compile and can change rapidly. "Places are literally opening and closing every day, every moment, in any given corner," said Fine. "Across our data set, we'll have millions of updates in the US alone."

Companies often use a variety of sources for place data. Data can come from GPS, but IP addresses via Wi-Fi, or beacon signals, can verify an address or a specific place, such as households, businesses, public arenas or other places of interest. Users of place data often get data from several location providers using a variety of sources. "By the efforts we do for a typical brand, we are able to arrive at coverage, an accurate coverage of their stores of around 80%, but it requires a lot of effort on our side," said Antonio Tomarchio, founder and CEO of location analytics company Cuebiq.

In the past, place data would come in the form of a lat-long based on a street address, and the geofence around it would always be a circle. More sophisticated data platforms, and many large advertising platforms, now give marketers the tools to create polygons that match the shape of the store or the area of interest. Geofencing, as a result, is much more precise. "We have a Google Maps overlay where they can type in the name of their business, they can sketch out the exact parameters, you know, a 12-point shape, irregular shape around parking lots and street corners," said Prioleau.

The same approach, combined with analytics on historic shopper behavior, can also build a better view of the effective trade area of a store. "You have a totally different view of where you're drawing your customer from and who your customer truly is, instead of just mapping demographic data into a concentric circle 25 miles wide around your location," said David Staas, president of location provider NinthDecimal.

Providers of place data validate all types information, from store hours to the exact lat-long coordinates of the store entrance to the shape of the store. "It's a very, very manual process," said Tom Kuhr, senior vice president of marketing at MomentFeed, a location management platform.

Households can also be an important point of interest. "We can have campaigns with tens of thousands of geofences in them which would mimic a mailing list or address," said Prioleau. Even more importantly, identifying a household can open up linkages to other channels via IP addresses and mailing addresses that join up with other devices and credit cards. "We use that home address as the linkage to the offline data," said Jenkins.

PLACE DATA PIVOTAL FOR LOCAL ADVERTISING

This place data has become more crucial as local advertising has taken off. BIA/Kelsey estimates US mobile location-targeted ad spending will reach $22.1 billion in 2018, up 29.2% over 2017, and climb to $38.7 billion by 2022.

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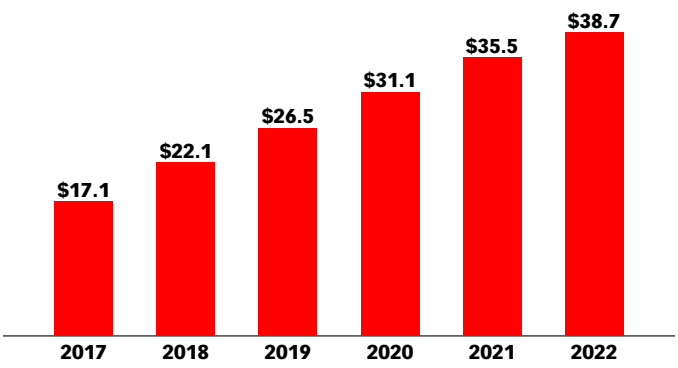
US Mobile Location-Targeted Ad Spending, 2017-2022

billions



Note: includes mobile ads sold by traditional media players (e.g., newspaper/magazine publishers and TV/radio broadcasters)
Source: BIA/Kelsey, "U.S. Local Advertising Forecast 2018: Mobile and Social" as cited in press release, Feb 1, 2018

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Google and Facebook have enhanced their localized products over the past few years, with Google introducing local inventory ads, bid by distance and map ads, while Facebook also has location targeting and local awareness ads, which direct users to nearby businesses. Both dynamically localize the advertising with local inventory and directions to stores.

Google's "get location details" button, for instance, has grown over the past two years. In September 2017, 5.9% of branded search and 3.1% of nonbranded search in North America generated a "get location details" click, according to activity on Merkle's platform. Both are up from essentially a zero share at the beginning of 2016.

Google Mobile Text Ad Benchmarks in North America: 'Get Location Details' Click Share, Branded vs. Nonbranded, Jan 2016-Sep 2017

among campaigns analyzed by Merkle

	Brand	Nonbrand
Jan 2016	0.0%	0.1%
Feb 2016	0.0%	0.1%
March 2016	0.0%	0.1%
April 2016	0.1%	0.1%
May 2016	0.2%	0.2%
June 2016	1.1%	0.4%
July 2016	2.4%	0.5%
Aug 2016	3.2%	0.6%
Sep 2016	3.3%	0.6%
Oct 2016	3.5%	0.5%
Nov 2016	3.4%	0.4%
Dec 2016	4.2%	1.1%
Jan 2017	5.0%	0.7%
Feb 2017	5.2%	1.3%
March 2017	5.1%	0.9%
April 2017	5.4%	1.5%
May 2017	6.4%	1.6%
June 2017	6.7%	1.8%
July 2017	6.7%	2.1%
Aug 2017	5.6%	2.6%
Sep 2017	5.9%	3.1%

Note: represents activity on the Merkle platform, broader industry metrics may vary; among brick-and-mortar advertisers; read as "Get Location Details" clicks accounted for 3.1% of all Google nonbranded text ad clicks in Sep 2017
Source: Merkle, "Q3 2017 Digital Marketing Report," Oct 24, 2017

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Accurate place data for a company's own locations is crucial for location bidding on Google and for earning high placement in results. Google prioritizes local search results for sites that are accurate, complete, widely distributed and consistent across sites. This encompasses not only lat-long coordinates, but also information like store hours and physical address.

Google assumes that when customers search for products, they are looking for a source near them. "Locations are being displayed for consumers on mobile much more heavily than any brand information is now," said Kuhr. "If [you have] very specific product research questions, even looking for Nike, you'll bring up Nike stores or Macy's that carries Nike or Foot Locker that carries Nike in the top of the search results." This has had the counterintuitive effect of reducing queries explicitly including "near me," since users understand that it is now implied.

Google claims significant lift from these local strategies. "Using things like keywords such as 'near me,' bid by distance, local inventory ads, advertisers are driving 80% higher rate of incremental store visits," said Kishore

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Kanakamedala, director of product management for offline and online measurement at Google. "That is, they are truly causal store visits compared to the people that are not using those things. And we have again done a study where we have shown that consumers that clicked on a mobile search ad before visiting a store are 25% more likely to make a purchase in-store and then spend 10% more on average."

There are many products that can measure and retarget customers based on their offline store visits or store sales. Online-to-offline (O2O) measurement is a huge growth area for location data, but this data will also play a role in targeting. Google, Facebook and Pinterest, among others, all have targeting options based on store visits, which rely on accurate place data.

In September 2017, Facebook introduced a tool for retargeting based on offline store visits. Larger Facebook advertisers can now upload custom audiences based on who visited their stores. "Local ads are one of those types of advertisements that we see people receiving a lot of value from," said Francis. "They are able to discover new products and services that are near them in a way through their mobile phone that just wasn't possible before."

SEVEN WAYS TO TAME LOCATION DATA

As marketers become more savvy about the sources and quality of data, their location targeting will become better. Below are several steps to ask as you set up a location-based campaign:

- **Investigate the data quality.** When advertisers go through exchanges, there are usually several layers between the publisher and the advertiser. Some exchanges will have verified location data, but others will be more hit and miss. Stick with verified sources of data, or go directly to publishers with known quality. "As a buyer, make sure you're asking the right questions about a vendor's product and offering—not all location is created equal," said Serge Matta, president of GroundTruth.
- **Use location data only when it adds relevance to the message.** Not all messages need to have location targeting, and collecting data and creating localized messaging that doesn't provide any additional relevance can only serve to unnerve consumers. "When we are going through a product strategy and considering what types of data we should use, or not use, we always try to boil it down to how relevant the advertisements are to the end-user," said Francis. "You often see that people are more willing to provide more information about themselves when they are getting commensurate value back."
- **Know what you want to achieve with the data.** It may not be necessary to get extremely precise location data. Very imprecise but accurate data—of a region, for example—can be helpful in building a campaign. For instance, ad creative might vary depending on a user's location. "We work really hard to make sure that we're not tone deaf in our ads," said Elyse Burack, marketing director of bulk grocery delivery service Boxed. "There are times where we really want to push out something, we'll say, quote-unquote, 'edgier,' and we hold back because what might be acceptable to all of us in New York headquarters just wouldn't be acceptable in that particular part of the country."

Conversely, you may need verified GPS data accurate to 5 decimal points. That may not be necessary all of the time when targeting someone on a city block, but there will be tradeoffs. "If you are solely reliant on very accurate hypertargeted data, your campaigns are going to be very accurate hypertargeted, but may not scale," said Richards.

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"It's important to consider all geotargeting options available and the client's goals as part of any campaign."

- **Use polygons for geofencing and trade areas.** Do some research into behavior habits to see where customers or visitors to a store or point of interest originate. A true trade area rarely resembles a circle. Moreover, different types of businesses generally draw from different distances. "Restaurants have much less tolerance for further distances," said Kuhr. "Whereas if you're getting into a specialty retailer, people are willing to travel 10, 12, 15 miles because a store carries a specific type of item or a specific brand."

Same is true with parts of the country. "The trade area in Houston is different from the trade area in Omaha, which is different than the trade area in Chicago," said Kohl. "That then is going to have an impact on customer conquesting." A metropolitan area that relies on cars will have a larger drawing area than a densely populated urban area, such as Manhattan or Washington, DC.

- **Think about the best moment to send a message.** Traditional geofencing was usually used simply: It would trigger an advertisement when someone entered a circumscribed area. It may make more sense to send a message at another time; for instance, sending it to someone a few days later in the evening when they're home, broadband at the ready. "Think about when is the right moment and what's the right connection," said Larsen. "A consumer may be a little bit more receptive at home than when they are distracted, running around out and about during the day."

Both Larsen and Staas noted that even when geofencing in real time, the optimal zone for triggering an email is not immediately next to the store. "We've found that for both retail and QSRs [quick-service restaurants], connecting with the consumer when they're already in-store accounts for really low engagement rates—much lower effectiveness than connecting with somebody within 2 to 3 miles of that location," said Staas.

- **Think about movement.** Lat-long data identifies a moment in time, but a series of lat-longs shows movement. When combined with other data, such as time, traffic information and household, this movement data can reveal origin points, speed and likely destination, which in turn opens up new opportunities for targeting. For instance, someone driving home every day at 5pm might be receptive to an advertisement at 4pm for a grocery store along the route. "I don't want to know about that one point in time; I want to know that your journey to and from work takes you past my retail establishment," said Kohl.

Sequential location data can also signify the opposite of movement: dwell time. Someone who spends a long time in a place is likely to be engaged there. For instance, a consumer's dwell time or visitation information in a grocery store could then be compared with time spent in a competitor's store. "It's not just a matter to understand if a user is in a place, but it's also key to understand the engagement in that place and to see if she is a real customer or not," said Tomarchio.

- **Look beyond the current context.** Think about using data for audience segmentation and consumer journey mapping. Location data reveals "an entirely new view into the consumer journey," said Staas. "Even if all the consumer shopping behaviors have stayed exactly the same, there was so much of that journey that was invisible to brands, and we're now able to eliminate that."

This wider look at the data can help in segmentation. For instance, a person going to a baseball game is likely a fan, and someone actually visiting a competitor's store is likely a good acquisition target. "The location signal, understanding truly who someone is based off of the places that they go in the real world, is probably one of the strongest, if not the strongest, indicators of a real person, and should always be being used to build, in one way or another, your audience data," Fine said. Moskowitz added, "You can use historic location data to segment users on any platform. So it's not just about mobile in-app impressions; it's about any kind of stream or ad platform using historic location data."

Companies such as The Weather Channel and Snap have done a good job of turning their rich location and weather data into audience segmentations for a broad range of advertisers. "Our focus again is to have a better understanding of who the consumer is, what their persona is, what their interests and needs may be and help marketers align their messaging," Risis said.

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Location, No Longer Your Average Targeting Tool

This post was contributed and sponsored by ***Thinknear.***

Brett Kohn, general manager and president of Thinknear, reveals to eMarketer in this exclusive interview their take on location-based mobile ads, and how they've evolved into a more advanced analytics tool.

What's changed most in the location space over the last five years? Is the industry evolving?

Brett Kohn: Brands previously thought of location as a subset of mobile. Now, it's become more of a core component, or, more foundational to any mobile-buy. It's also being used differently. In the past, location was a standalone tactic. Now, successful brands are combining location with other data sets to build a complete picture of the target audience.

What do you see as the primary use cases for location? Where is the main value for brands?

Kohn: Marketers generally think of location as a targeting tool–a way to reach consumers based on proximity to a location. But it's become much more. Targeting is still important, but proximity is just a piece of the puzzle. Location-based demographics, brand affinity and other location signals can be used to build custom audiences based on real-world behavior, not just proximity. Location is also a good measurement tool to understand campaign foot-traffic lift.

How can agencies, brands, and the ad tech community work together more effectively to improve the use of location data?

Kohn: "Together" is the key word. Great campaigns start with great insights and analytics to better understand the audience. Location data can really help improve strategy, but it takes time and effort for all parties to understand the data. Then targeting and optimization come into play. Today there's often a gap between the performance data seen by the brand and the data seen by ad-tech vendors, and even the agency. Brands are hesitant to share data, but if they don't, it's incredibly difficult to optimize real performance. Where brands invest in sharing real, meaningful data with trusted vendors, the performance is usually much better.

Not all brands have physical locations, how should CPG and other product-focused brands leverage location data?

Kohn: Location is a great analytics tool. Brands spend millions of dollars on small scale studies to understand their customers. But location offers the ability to leverage observed behavior at scale. Real-world observations add a richness to a CPG brand's understanding of their customers that can't be obtained through surveys and ethnographies. That understanding can be used to drive better products, messaging, and targeting.

What do you see as the biggest opportunities for location moving forward?

Kohn: One of the things were most excited about over the coming years is the advent of the connected car. We're shifting from a world of near-zero connectivity to full-connectivity for cars on the road, which will create many new opportunities for marketers. However, the car as a "4th screen" is a complicated environment with specific needs to manage driver safety and experience. Our work with our parent company, Telenav, is creating new opportunities with automotive OEMs and the level of interest to move quickly in this area is really exciting.

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